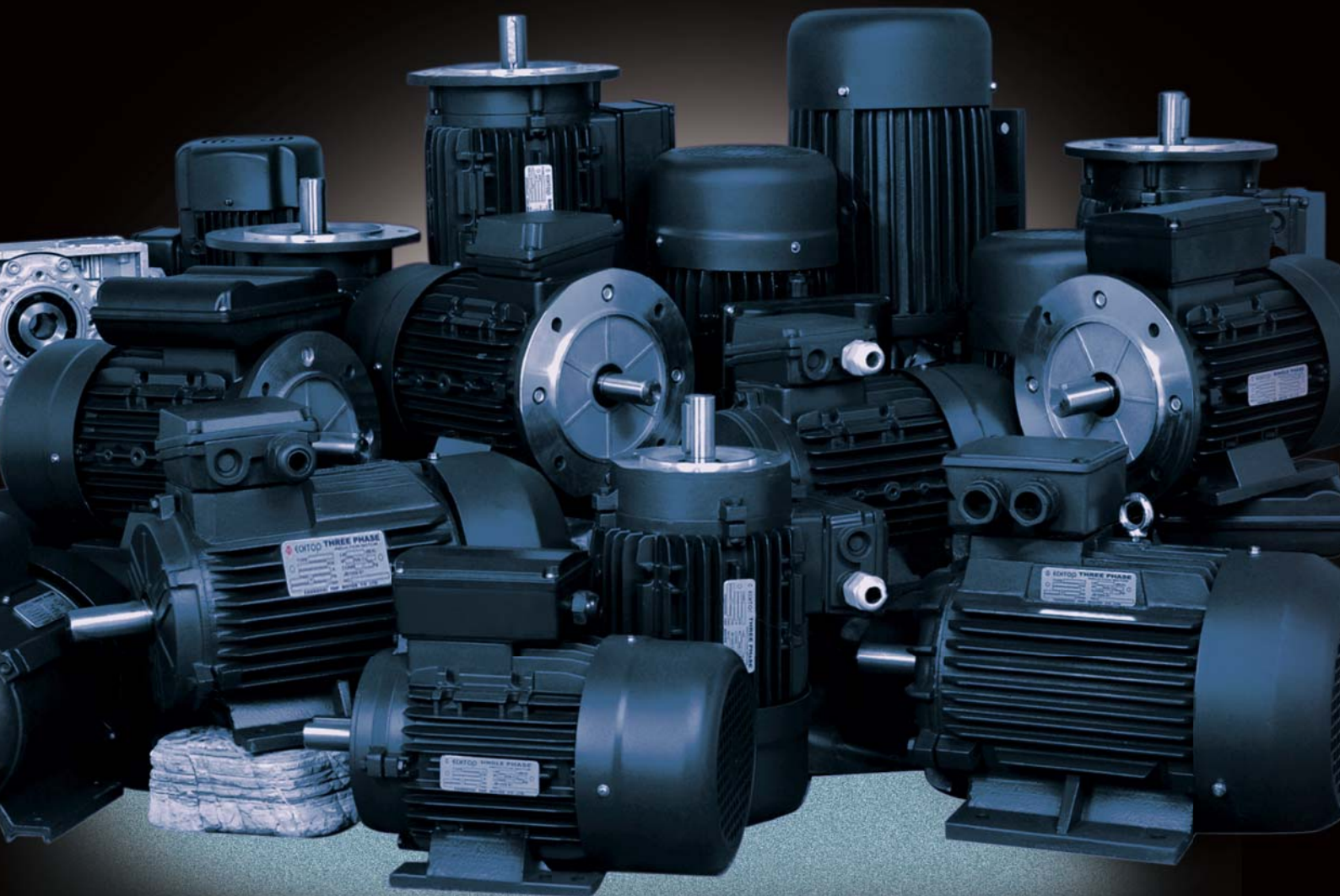




ECHTOP[®]

MOTOR

SHANGHAI TOP MOTOR CO.,LTD.







NATURE OF MECHANICAL



COMPANY BRIEF INTRODUCTION

Shanghai Top Motor Co., Ltd., one of leading motor manufacturers in China with a famous brand, TECHTOP, specializes in production and sale of electrical produces, which are electric motors conformed to IEC, NEMA, GOST standard, permanent magnet motor, water pumps, generators, generating sets and the likes. The company has obtained ISO9001 Certificate and its products have Certificates of CSA, UL, CE, CCC etc..

Composing a group, there are Shanghai Himak Motor Co., Ltd., Fujian Ningde Top Motor Co., Ltd., Shanghai The-one Co., Ltd., The production capacity is 3,000,000 units with a volume of USD200,000,000

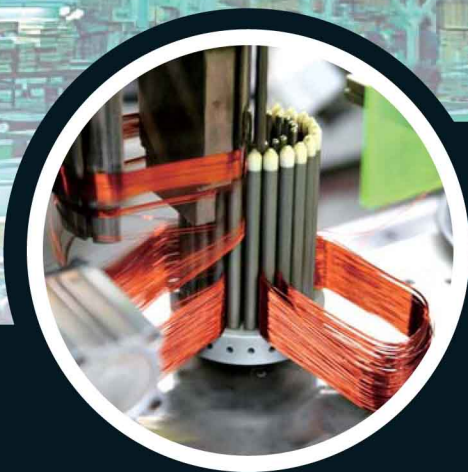
TECHTOP warmly welcomes cooperation with the customers all over the world and provides the best-quality products and most sincere service to the friends.





WORKSHOP & TECHNOLOGY

TECHTOP adopts computerized machine tools for metal parts; four cylinder oil hydraulic presses for stator stacking; vacuum high-pressure vanishing units for stator vanishing; clean-dry and auto-phosphorescing machines for motor housing, end shield, fan cover and other parts; electrostatic spraying-water screen-suspending line complexes for product surface painting.





ISO9001

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Various Certificates



RICH PRODUCTS



SWIMMING POOL & BATHTUB PUMPS
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SUBMERSIBLE PUMPS
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GENERATORS
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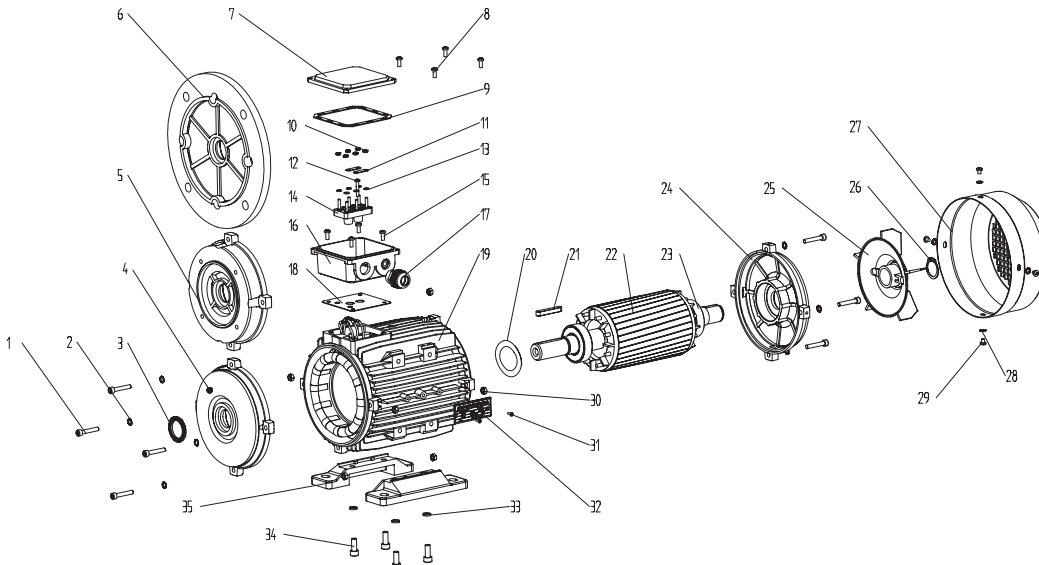
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IEC STANDARD MOTORS



Motor Spare Part List "Exploded Drawing"



1. Screw
2. Gasket
3. Oil seal
4. Front endshield
5. B14 flange
6. B5 flange
7. TB cover
8. TB fixing screws
9. TB upper gasket
10. Terminal board fixing nut
11. Terminal bridge
12. Terminal pin
13. Terminal shim
14. Terminal board
15. TB fixing screws
16. TB base
17. Cable gland
18. TB bottomgasket
19. Frame
20. Preload washer
21. Key
22. Rotor
23. Bearing
24. NDE endshield
25. Cooling fan
26. Fan clipring
27. Fan cover
28. Fan cover fixing shim
29. Fan cover fixing screws
30. Endshield fixing nut
31. Rivet
32. Nameplate
33. Foot fixing nut
34. Foot fixing screws
35. Foot

This catalogue is only a reference for users.
The concrete data be changed please contact with us before ordering.

Mountings and Positions

Mountings and positions for standard motors, according to IEC 60034-7, are defined by the codes mentioned in the following table.

	Standards			Frame Sizes
	CEI 2-14	IEC 60034-7		56-200
		Code I	Code II	
	B3	IM B3	IM 1001	Standard
	B3/B5	IM B35	IM 2001	Standard
	B5	IM B5	IM 3001	Standard
	B14	IM B14	IM 4001	Standard
	B8	IM B8	IM 1071	Upon request
	B6	IM B6	IM 1051	Upon request
	B7	IM B7	IM 1061	Upon request

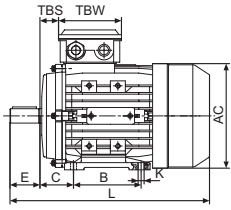
	Standards			Frame Sizes
	CEI 2-14	IEC 60034-7		56-200
		Code I	Code II	
	V1	IM V1	IM 3011	Standard
	V3	IM V3	IM 3031	Upon request
	V5	IM V5	IM 1011	Upon request
	V6	IM V6	IM 1031	Upon request
	V1/V5	IM V15	IM 2011	Upon request

Aluminum Housing Electric Motors Bearings & Oil Seals

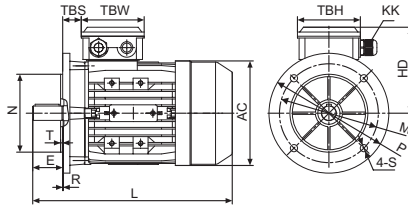
Frame	Bearings		Oil Seals	
	Drive End	Non-drive End	Drive End	Non-drive End
56	6201	6201	12×22×5	12×22×5
63	6201	6201	12×24×5	12×24×5
71	6202	6202	15×25×7	15×25×7
80	6204	6204	20×34×7	20×34×7
90S	6205	6205(6204)※※	25×37×7	25×37×7(20×34×7)※※
90L	6205	6205(6204)※※	25×37×7	25×37×7(20×34×7)※※
100L	6206	6206	30×44×7	30×44×7
112M	6306	6206(6306)	30×44×7	30×44×7
132S	6308	6208(6308)	40×58×7	40×58×7
132M/L	6308	6208(6308)	40×58×7	40×58×7
160M	6309	6309	45×65×8	45×65×8
160L	6309	6309	45×65×8	45×65×8
180M	6311	6211	55×72×8	55×72×8
180L	6311	6211	55×72×8	55×72×8
200L	6312	6212	60×80×8	60×80×8

※ Other standards are also available on request, the figures in brackets() are for the MC/ML single phase motors

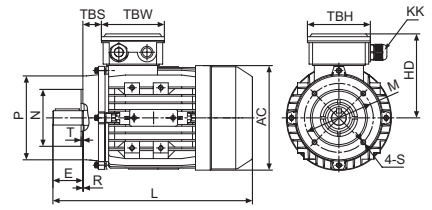
MS/MSD/MSBCCL Series Dimensional Drawings



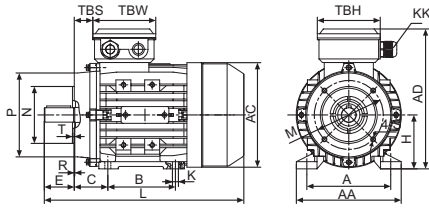
IM B3



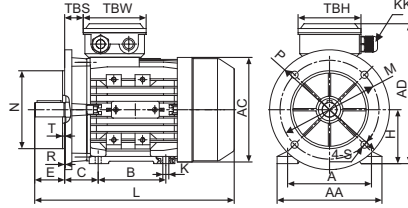
IM B5



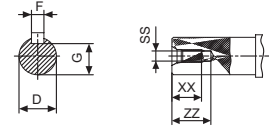
IM B14



IM B34



IM B35



Overall & Installation Dimension

Frame	Foot Mounting					Shaft							General									
	H	A	B	C	K	D	E	F	G	SS	XX	ZZ	AA	AD	HD	AC	L	LCCL [*]	KK	TBS	TBW	TBH
56	56	90	71	36	5.8X8.8	Ø9	20	3	7.2	M3	9	12	110	156	100	Ø117	196	232	1-M16X1.5	14	88	88
63	63	100	80	40	7X10	Ø11	23	4	8.5	M4	10	14	120	171	108	Ø130	220	258	1-M16X1.5	14	94	94
71 ^{**}	71	112	90	45	7X10	Ø14	30	5	11	M5	12	17	132	186	115	Ø147	241(255)	282(296)	1-M20X1.5	20	94	94
80	80	125	100	50	10X13	Ø19	40	6	15.5	M6	16	21	160	213	133	Ø163	290	339	1-M20X1.5	27	105	105
90S	90	140	100	56	10X13	Ø24	50	8	20	M8	19	25	175	229	139	Ø183	312	361	1-M20X1.5	30	105	105
90L1/L2	90	140	125	56	10X13	Ø24	50	8	20	M8	19	25	175	229	139	Ø183	337/367	386/416	1-M20X1.5	30	105	105
100 ^{**}	100	160	140	63	12X15	Ø28	60	8	24	M10	22	30	198	252	152	Ø205	369(387)	425(443)	2-M20X1.5	26	105	105
112	112	190	140	70	12X15	Ø28	60	8	24	M10	22	30	220	279	167	Ø229	395	463	2-M25X1.5	32	112	112
132S	132	216	140	89	12X15	Ø38	80	10	33	M12	28	37	252	318	186	Ø265	437	497	2-M25X1.5	38	112	112
132M/L	132	216	178	89	12X15	Ø38	80	10	33	M12	28	37	252	318	186	Ø265	475/501	535/561	2-M25X1.5	38	112	112
160M/L	160	254	210/254	108	15X19	Ø42	110	12	37	M16	36	45	290	384	224	Ø325	640	697	2-M32X1.5	64	143	143
180M/L	180	279	241/279	121	15X25	Ø48	110	14	42.5	M16	36	45	340	440	260	Ø368	730		2-M32X1.5	73	190	190
200L	200	318	305	133	19X29	Ø55	110	16	49	M20	42	53	390	460	260	Ø368	745		2-M40X1.5	85	190	190

Frame	B5						B5R						B14						B14B						
	M	N	P	T	S	R	M	N	P	T	S	R	N	M	P	T	S	R	N	M	P	T	S	R	
56	Ø100	Ø80	Ø120	3.0	Ø7	0							Ø50	Ø65	Ø80	2.5	M5	0							
63	Ø115	Ø95	Ø140	3.0	Ø10	0							Ø60	Ø75	Ø90	2.5	M5	0	Ø80	Ø100	Ø120	3.0	M6	0	
71 ^{**}	Ø130	Ø110	Ø160	3.5	Ø10	0	Ø115	Ø95	Ø140	3.5	Ø10	0	Ø70	Ø85	Ø105	2.5	M6	0	Ø95	Ø115	Ø140	3.0	M8	0	
80	Ø165	Ø130	Ø200	3.5	Ø12	0	Ø130	Ø110	Ø160	3.5	Ø10	0	Ø80	Ø100	Ø120	3.0	M6	0	Ø110	Ø130	Ø160	3.5	M8	0	
90S	Ø165	Ø130	Ø200	3.5	Ø12	0	Ø130	Ø110	Ø160	3.5	Ø10	0	Ø95	Ø115	Ø140	3.0	M8	0	Ø110	Ø130	Ø160	3.5	M8	0	
90L1/L2	Ø165	Ø130	Ø200	3.5	Ø12	0	Ø130	Ø110	Ø160	3.5	Ø10	0	Ø95	Ø115	Ø140	3.0	M8	0	Ø110	Ø130	Ø160	3.5	M8	0	
100 ^{**}	Ø215	Ø180	Ø250	4.0	Ø15	0	Ø165	Ø130	Ø200	4.0	Ø12	0	Ø110	Ø130	Ø160	3.5	M8	0	Ø130	Ø165	Ø200	3.5	M10	0	
112	Ø215	Ø180	Ø250	4.0	Ø15	0	Ø165	Ø130	Ø200	4.0	Ø12	0	Ø110	Ø130	Ø160	3.5	M8	0	Ø130	Ø165	Ø200	3.5	M10	0	
132S	Ø265	Ø230	Ø300	4.0	Ø15	0	Ø215	Ø180	Ø250	4.0	Ø15	0	Ø130	Ø165	Ø200	4.0	M10	0	Ø180	Ø215	Ø250	4.0	M12	0	
132M/L	Ø265	Ø230	Ø300	4.0	Ø15	0	Ø215	Ø180	Ø250	4.0	Ø15	0	Ø130	Ø165	Ø200	4.0	M10	0	Ø180	Ø215	Ø250	4.0	M12	0	
160M/L	Ø300	Ø250	Ø350	5.0	Ø19	0							Ø180	Ø215	Ø250	4.0	M12	0							
180M/L	Ø300	Ø250	Ø350	5.0	Ø19	0																			
200L	Ø350	Ø300	Ø400	5.0	Ø19	0																			

* This data is provided for MSBCCL series Brake motors both with and without hand release lever.

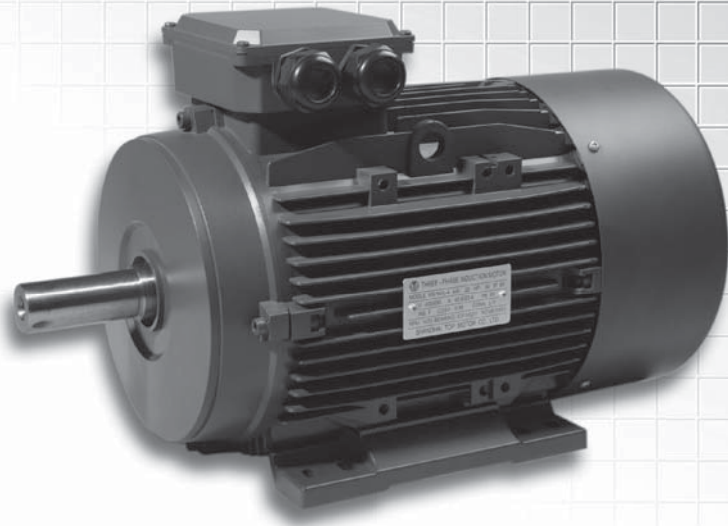
** This frame size has two housing sizes, the rated output is for normal "L" size, and increased output is for the bigger "L" size (refer to the figures in the bracket "()")

MS Series

Three-Phase Asynchronous Motors Aluminum Housing

MS series aluminum housing three-phase asynchronous motors, with latest design in entirety, are made of selected quality materials and conform to the IEC standard.

MS motors have good performance, safety and reliable operation, nice appearance, and can be maintained very conveniently, while with low noises, little vibration and at the same time light weight and simple construction. These series motors can be used for general drive.



IEC MOTOR

GOST MOTOR

NEMA MOTOR

PUMP

GENERATOR

D.C. MOTOR

MS Series **IE1** Efficiency Motors Technical Data (at 50Hz)

Model	Power (KW)	Current (A)			Current (A)			Current (A)			Speed (r/min)	Eff. (%)	Power Factor (CosΦ)	T _{st} /T _n (Times)	T _{max} /T _n (Times)	T _{min} /T _n (Times)	I _{st} /I _n (Times)	Noise dB(A)	W.T (Kg)
		220V	380V	660V	230V	400V	690V	240V	415V	720V									
MS561-2	0.09	0.66	0.38	0.22	0.62	0.36	0.21	0.60	0.35	0.20	2710	53	0.72	2.2	2.3	2	4	58	2.60
MS562-2	0.12	0.73	0.42	0.24	0.69	0.40	0.23	0.67	0.39	0.22	2700	61	0.72	2.2	2.3	2	4	58	3.00
MS563-2	0.18	1.00	0.58	0.33	0.95	0.55	0.32	0.92	0.53	0.31	2710	63	0.75	2.2	2.4	1.6	6	61	4.00
MS631-2	0.18	1.00	0.58	0.33	0.95	0.55	0.32	0.92	0.53	0.31	2710	63	0.75	2.2	2.4	1.6	6	61	4.00
MS632-2	0.25	1.29	0.75	0.43	1.23	0.71	0.41	1.19	0.69	0.40	2710	65	0.78	2.2	2.4	1.6	6	61	4.20
MS633-2	0.37	1.92	1.11	0.64	1.82	1.05	0.61	1.76	1.02	0.59	2710	65	0.78	2.2	2.4	1.6	6	62	4.70
MS711-2	0.37	1.76	1.02	0.59	1.67	0.97	0.56	1.61	0.93	0.54	2730	70	0.79	2.2	2.4	1.6	6	64	5.20
MS712-2	0.55	2.57	1.49	0.86	2.45	1.42	0.82	2.36	1.36	0.79	2760	71	0.79	2.2	2.4	1.6	6	64	6.00
MS713-2	0.75	3.33	1.93	1.11	3.18	1.83	1.06	3.06	1.77	1.02	2730	72	0.82	2.2	2.4	1.5	6	65	7.00
MS801-2	0.75	3.21	1.86	1.07	3.06	1.77	1.02	2.94	1.70	0.98	2770	73	0.84	2.2	2.4	1.5	6	67	8.70
MS802-2	1.1	4.56	2.64	1.52	4.35	2.51	1.45	4.18	2.42	1.39	2770	76.2	0.83	2.2	2.4	1.5	6	67	10.00
MS803-2	1.5	6.04	3.50	2.01	5.87	3.32	1.92	5.54	3.20	1.85	2800	78.5	0.83	2.2	2.4	1.5	6	70	11.20
MS90S-2	1.5	5.97	3.46	1.99	5.76	3.28	1.90	5.47	3.16	1.82	2840	78.5	0.84	2.2	2.4	1.5	6	72	12.00
MS90L1-2	2.2	8.39	4.85	2.80	8.0	4.61	2.66	7.69	4.45	2.56	2840	81	0.85	2.2	2.4	1.4	6	72	14.50
MS90L2-2	3	11.1	6.42	3.69	10.6	6.10	3.52	10.2	5.88	3.39	2840	82.6	0.86	2.2	2.4	1.4	6	74	15.00
MS100L1-2	3	11.0	6.34	3.65	10.4	6.03	3.48	10.0	5.81	3.35	2840	82.6	0.87	2.2	2.3	1.4	7	76	20.00
MS100L2-2	4	14.3	8.30	4.78	13.7	7.88	4.55	13.1	7.60	4.38	2850	84.2	0.87	2.2	2.3	1.4	7.5	77	24.00
MS112M-2	4	14.3	8.30	4.78	13.7	7.88	4.55	13.1	7.60	4.38	2880	84.2	0.87	2.2	2.3	1.4	7.5	77	26.00
MS112L-2	5.5	19.1	11.1	6.38	18.2	10.5	6.08	17.5	10.1	5.85	2880	85.7	0.88	2.2	2.3	1.2	7.5	78	29.30
MS132S1-2	5.5	19.1	11.1	6.38	18.2	10.5	6.08	17.5	10.1	5.85	2900	85.7	0.88	2	2.2	1.2	7.5	80	38.40
MS132S2-2	7.5	25.7	14.9	8.57	24.5	14.1	8.16	23.6	13.6	7.86	2920	87	0.88	2	2.2	1.2	7.5	80	41.30
MS132M1-2	9.2	30.8	17.8	10.3	29.9	17.3	9.96	28.3	16.3	9.42	2930	88	0.89	2	2.2	1.2	7.5	81	48.20
MS132M2-2	11	36.3	21.0	12.1	34.6	20.0	11.5	33.3	19.2	11.1	2930	88.4	0.9	2	2.2	1.2	7.5	83	52.50
MS160M1-2	11	36.3	21.0	12.1	34.6	20.0	11.5	33.3	19.2	11.1	2940	88.4	0.9	2	2.2	1.2	7.5	86	76.00
MS160M2-2	15	48.4	28.0	16.1	46.1	26.6	15.4	44.4	25.7	14.8	2940	89.4	0.91	2	2.2	1.2	7.5	86	77.50
MS160L-2	18.5	59.3	34.3	19.8	56.5	32.6	18.8	54.3	31.4	18.1	2940	90	0.91	2	2.2	1.1	7.5	86	92.00
MS180M-2	22	71.3	41.3	23.8	68.2	39.2	22.6	65.3	37.8	21.8	2950	90	0.9	2	2.2	1.2	7.5	91	121.0
MS200L1-2	30	96.0	55.6	32.1	91.8	52.8	30.5	88.0	50.9	29.4	2950	91.2	0.9	2	2.2	1.2	7.5	94	144.0
MS200L2-2	37	117	67.9	39.2	112	64.5	37.2	108	62.2	35.9	2940	92	0.9	2	2.2	1.2	7.5	94	151.0
MS561-4	0.06	0.64	0.37	0.21	0.61	0.35	0.20	0.58	0.34	0.19	1360	50	0.56	2.3	2.4	2	4	50	2.90
MS562-4	0.09	0.82	0.47	0.27	0.78	0.45	0.26	0.75	0.43	0.25	1360	52	0.59	2.3	2.4	2	4	50	3.20

MS Series IE1 Efficiency Motors Technical Data (at 50Hz)

Model	Power (KW)	Current (A)			Current (A)			Current (A)			Speed (r/min)	Eff. (%)	Power Factor (CosΦ)	T _{st} /T _n (Times)	T _{max} /T _n (Times)	T _{min} /T _n (Times)	I _{st} /I _n (Times)	Noise dB(A)	W.T (Kg)
		220V	380V	660V	230V	400V	690V	240V	415V	720V									
MS631-4	0.12	1.00	0.58	0.33	0.95	0.55	0.32	0.92	0.53	0.31	1360	52	0.64	2.2	2.4	2	4	52	3.70
MS632-4	0.18	1.28	0.74	0.43	1.21	0.70	0.40	1.17	0.67	0.39	1310	57	0.65	2.2	2.4	2	4	52	4.20
MS633-4	0.25	1.66	0.96	0.55	1.58	0.91	0.53	1.52	0.88	0.51	1340	60	0.66	2.2	2.2	2	4	54	5.00
MS711-4	0.25	1.52	0.88	0.51	1.45	0.84	0.48	1.39	0.81	0.46	1350	60	0.72	2.2	2.4	1.7	6	55	5.00
MS712-4	0.37	2.02	1.17	0.67	1.92	1.11	0.64	1.85	1.07	0.62	1370	65	0.74	2.2	2.4	1.7	6	55	5.80
MS713-4	0.55	2.92	1.69	0.97	2.78	1.60	0.93	2.67	1.55	0.89	1380	66	0.75	2.2	2.4	1.7	6	57	6.50
MS801-4	0.55	2.87	1.66	0.96	2.74	1.58	0.91	2.63	1.52	0.88	1370	67	0.75	2.2	2.4	1.7	6	58	8.10
MS802-4	0.75	3.50	2.03	1.17	3.34	1.93	1.11	3.21	1.86	1.07	1380	72	0.78	2.2	2.4	1.6	6	58	9.10
MS803-4	1.1	4.86	2.81	1.62	4.63	2.67	1.54	4.45	2.57	1.47	1390	76.2	0.78	2.2	2.4	1.6	6	60	11.00
MS90S-4	1.1	4.80	2.78	1.60	4.57	2.64	1.52	4.40	2.54	1.47	1400	76.2	0.79	2.2	2.4	1.6	6	61	11.70
MS90L1-4	1.5	6.27	3.63	2.09	5.97	3.45	1.99	5.75	3.32	1.92	1400	78.5	0.8	2.2	2.4	1.6	6	61	14.40
MS90L2-4	2.2	8.91	5.16	2.97	8.45	4.90	2.83	8.17	4.72	2.72	1400	81	0.8	2.2	2.4	1.5	7	63	17.60
MS100L1-4	2.2	8.80	5.09	2.93	8.38	4.84	2.79	8.07	4.66	2.69	1420	81	0.81	2.2	2.3	1.5	7	64	19.20
MS100L2-4	3	11.8	6.81	3.92	11.2	6.47	3.74	10.8	6.24	3.60	1420	82.6	0.81	2.2	2.3	1.5	7	64	22.50
MS100L3-4	4	15.2	8.80	5.07	14.2	8.36	4.83	13.9	8.06	4.65	1430	84.2	0.82	2.2	2.3	1.5	7	65	27.30
MS112M-4	4	15.0	8.70	5.01	14.3	8.26	4.77	13.8	7.96	4.59	1430	84.2	0.83	2.2	2.2	1.5	7	65	29.00
MS112L-4	5.5	20.3	11.7	6.76	19.3	11.2	6.44	18.6	10.8	6.20	1440	85.7	0.83	2.2	2.2	1.4	7	68	35.70
MS132S-4	5.5	20.1	11.6	6.68	19.1	11.0	6.37	18.4	10.6	6.13	1450	85.7	0.84	2.2	2.2	1.4	7	71	39.00
MS132M-4	7.5	26.6	15.4	8.87	25.4	14.6	8.45	24.4	14.1	8.13	1450	87	0.85	2.2	2.2	1.4	7	71	48.60
MS132L1-4	9.2	32.5	18.8	10.8	30.9	17.9	10.3	29.8	17.2	9.9	1460	87.5	0.85	2.2	2.2	1.4	7.5	74	56.50
MS132L2-4	11	38.0	22.0	12.7	36.2	20.9	12.1	34.8	20.1	11.6	1460	88.4	0.86	2.2	2.2	1.4	7.5	74	64.00
MS160M-4	11	37.5	21.7	12.5	35.8	20.6	11.9	34.4	19.9	11.5	1460	88.4	0.87	2.2	2.2	1.4	7	75	73.00
MS160L1-4	15	51.2	29.6	17.1	48.8	28.2	16.3	46.9	27.1	15.6	1460	88.4	0.87	2.2	2.2	1.4	7.5	75	88.50
MS160L2-4	18.5	63.1	36.5	21.0	60.1	34.7	20.0	57.9	33.5	19.3	1460	90.5	0.85	2.2	2.2	1.4	7.5	78	97.50
MS180M-4	18.5	62.4	36.1	20.8	59.7	34.3	19.8	57.2	33.1	19.1	1460	90.5	0.86	2.2	2.2	1.4	7.5	80	118.0
MS180L-4	22	73.8	42.7	24.7	70.6	40.6	23.4	67.7	39.1	22.6	1460	91	0.86	2.2	2.2	1.4	7.5	80	128.0
MS200L-4	30	99.5	57.6	33.2	95.1	54.7	31.6	91.2	52.7	30.4	1470	92	0.86	2.2	2.2	1.4	7.5	83	158.0
MS631-6	0.09	0.92	0.53	0.31	0.88	0.51	0.29	0.85	0.49	0.28	840	42	0.61	2	2	1.5	3.5	50	4.20
MS632-6	0.12	1.13	0.65	0.38	1.08	0.62	0.36	1.03	0.60	0.34	850	45	0.62	2	2	1.5	3.5	50	4.50
MS711-6	0.18	1.28	0.74	0.43	1.22	0.70	0.41	1.17	0.68	0.39	880	56	0.66	1.6	1.7	1.5	4	52	5.60
MS712-6	0.25	1.59	0.92	0.53	1.51	0.87	0.50	1.46	0.84	0.49	900	59	0.7	2.1	2.2	1.5	4	52	6.00
MS713-6	0.37	2.31	1.34	0.77	2.2	1.27	0.73	2.11	1.22	0.70	890	61	0.69	2	2.1	1.5	4	54	6.80
MS801-6	0.37	2.24	1.30	0.75	2.13	1.23	0.71	2.05	1.19	0.68	900	62	0.7	1.9	1.9	1.5	4	56	8.10
MS802-6	0.55	2.99	1.73	1.00	2.85	1.65	0.95	2.74	1.59	0.91	900	67	0.72	2	2.3	1.5	4	56	9.60
MS803-6	0.75	4.02	2.33	1.34	3.83	2.21	1.28	3.69	2.13	1.23	900	68	0.72	2	2.3	1.5	4	58	10.00
MS90S-6	0.75	3.96	2.29	1.32	3.77	2.18	1.26	3.63	2.10	1.21	920	69	0.72	2.2	2.2	1.5	5.5	59	11.30
MS90L1-6	1.1	5.49	3.18	1.83	5.23	3.02	1.74	5.03	2.91	1.68	925	72	0.73	2.2	2.2	1.3	5.5	59	14.40
MS90L2-6	1.5	7.09	4.11	2.36	6.76	3.90	2.25	6.50	3.76	2.17	925	74	0.75	2.2	2.2	1.3	5.5	60	15.50
MS100L1-6	1.5	7.00	4.05	2.33	6.67	3.85	2.22	6.42	3.71	2.14	945	74	0.76	2.2	2.2	1.3	6	61	18.80
MS100L2-6	2.2	9.87	5.71	3.29	9.40	5.43	3.13	9.04	5.23	3.01	950	77	0.76	2.2	2.2	1.3	6	63	19.80
MS112M-6	2.2	9.7	5.64	3.25	9.28	5.36	3.09	8.93	5.16	2.98	955	78	0.76	2.2	2.2	1.3	6	64	25.00
MS112L-6	3	12.9	7.49	4.31	12.3	7.12	4.11	11.9	6.86	3.95	950	79	0.77	2.2	2.2	1.3	6	64	30.00
MS132S-6	3	13.1	7.59	4.37	12.5	7.21	4.16	12.0	6.95	4.01	960	79	0.76	2	2	1.3	6.5	64	35.00
MS132M1-6	4	17.2	9.93	5.72	16.4	9.44	5.45	15.7	9.10	5.24	960	80.5	0.76	2	2	1.3	6.5	68	47.60
MS132M2-6	5.5	22.6	13.1	7.53	21.5	12.4	7.17	20.7	12.0	6.9	960	83	0.77	2	2	1.3	6.5	68	50.70
MS132L-6	7.5	30.1	17.4	10.0	28.7	16.5	9.55	27.6	15.9	9.2	960	85	0.77	2	2	1.3	6.5	68	47.60
MS160M-6	7.5	28.6	16.6	9.5	27.3	15.7	9.08	26.2	15.2	8.7	960	86	0.8	2	2.2	1.3	6.5	68	70.0
MS160L-6	11	41.8	24.2	13.9	39.8	23.0	13.3	38.3	22.1	12.8	960	87.5	0.79	2	2.2	1.2	6.5	73	87.0
MS180L-6	15	54.6	31.6	18.2	52.2	30.0	17.3	50.1	28.9	16.7	970	89	0.81	2	2.2	1.3	6.5	79	122.0
MS200L1-6	18.5	66.6	38.6	22.2	63.7	36.6	21.1	61.0	35.3	20.3	975	90	0.81	2	2.2	1.3	6.5	82	136.0
MS200L2-6	22	77.3	44.7	25.8	73.9	42.5	24.5	70.8	41.0	23.6	975	90	0.83	2	2.2	1.3	6.5	82	152.0
MS711-8	0.09	0.88	0.51	0.29	0.84	0.48	0.28	0.81	0.47	0.27	680	48	0.56	1.5	1.7	1.3	3	50	5.60
MS712-8	0.12	1.05	0.61	0.35	1.00	0.58	0.33	0.96	0.55	0.32	690	51	0.59	1.6	1.7	1.3	2.7	50	6.00
MS801-8	0.18	1.52	0.88	0.51	1.45	0.84	0.48	1.39	0.80	0.46	680	51	0.61	1.5	1.7	1.3	2.8	52	9.40
MS802-8	0.25	1.92	1.11	0.64	1.83	1.06	0.61	1.76	1.02	0.59	680	56	0.61	1.6	2	1.3	2.7	52	10.10
MS90S-8	0.37	2.45	1.42	0.82	2.33	1.35	0.78	2.24	1.30	0.75	680	63	0.63	1.6	1.8	1.3	2.8	56	12.50
MS90L-8	0.55	3.36	1.95	1.12	3.21	1.85	1.07	3.08	1.78	1.03	680	66	0.65	1.6	1.8	1.3	3	56	15.30
MS100L1-8	0.75	4.45	2.58	1.48	4.24	2.45	1.41	4.08	2.36	1.36	710	66	0.67	1.7	2.1	1.3	3.5	59	17.20
MS100L2-8	1.1	5.81	3.36	1.94	5.54	3.20	1.85	5.33	3.08	1.78	710	72	0.69	1.7	2.1	1.2	3.5	59	19.50
MS112M-8	1.5	7.82	4.53	2.61	7.45	4.30	2.48	7.17	4.15	2.39	710	74	0.68	1.8	2.1	1.2	4.2	61	25.50
MS132S-8	2.2	10.8	6.28	3.61	10.3	5.96	3.44	9.94	5.75	3.31	720	75	0.71	2	2	1.2	5.5	64	34.20
MS132M-8	3	14.0	8.11	4.67	13.3	7.70	4.45	12.8	7.43	4.28	720	77	0.73	2	2	1.2	5.5	64	40.00
MS160M1-8	4	18.0	10.4	5.99	17.1	9.89	5.71	16.5	9.53	5.49	730	80	0.73	1.9	2.1	1.2	6	68	59.00
MS160M2-8	5.5	23.4	13.5	7.79	22.3	12.9	7.42	21.4	12.4	7.14	720	83.5	0.74	2	2.2	1.2	6	68	69.00
MS160L-8	7.5	30.9	17.9	10.3	29.4	17.0	9.8	28.3	16.4	9.43	720	85	0.75	1.9	2.2	1.2	6	68	87.00
MS180L-8	11	45.2	26.2	15.1	43.6	25.1	14.5	41.5	24.0	13.8	715	87.4	0.73	1.9	2.2	1.2	6	78	125.0
MS200L-8	15	58.9	34.1	19.6	56.3	32.4	18.7	54.0	31.2	18.0	725	88.0	0.76	1.9	2.2	1.2	6	80	151.0

MS2 Series **IE2** Efficiency Motors Technical Data (at 400V/50Hz)

Model	Power (KW)	Eff. (%)	Current (A)	Power Factor (CosΦ)	Speed (r/min)	T _{max} /T _n (Times)	T _{st} /T _n (Times)	I _{st} /I _n (Times)
MS2 801-2	0.75	77.4	1.75	0.80	2840	3.3	2.9	5.8
MS2 802-2	1.1	80	2.42	0.82	2850	3.6	3.5	6.8
MS2 90S-2	1.5	81.4	3.20	0.83	2850	3.6	3.5	6.9
MS2 90L-2	2.2	83.2	4.54	0.84	2860	4.1	4.1	7.9
MS2 100L-2	3	84.6	5.88	0.87	2880	3.4	3.4	7.8
MS2 112M-2	4	86	7.54	0.89	2890	3.3	2.7	7.5
MS2 132S1-2	5.5	87.2	10.2	0.89	2900	3	2.4	7.7
MS2 132S2-2	7.5	88.1	13.8	0.89	2910	3.2	2.6	8.4
MS2 160M1-2	11	89.4	19.9	0.89	2930	3.1	2.4	7.6
MS2 160M2-2	15	90.3	26.9	0.89	2930	3.2	2.6	8
MS2 160L-2	18.5	90.9	32.6	0.90	2940	3.5	3	9
MS2 180M-2	22	91.3	38.6	0.90	2950	3.5	2.6	8.5
MS2 200L1-2	30	92	52.3	0.90	2950	3.4	2.4	8
MS2 200L2-2	37	92.5	64.1	0.90	2950	3.5	2.5	8.5
MS2 802-4	0.75	79.6	1.79	0.76	1410	3	2.8	5.3
MS2 90S-4	1.1	81.4	2.50	0.78	1420	2.6	3.8	6.7
MS2 90L-4	1.5	82.8	3.31	0.79	1420	2.7	4	7.2
MS2 100L1-4	2.2	84.3	4.83	0.78	1440	3.6	3.6	7.4
MS2 100L2-4	3	85.5	6.33	0.80	1440	3.5	3.8	7.8
MS2 112M-4	4	86.6	8.23	0.81	1440	2.9	3.1	7.1
MS2 132S-4	5.5	87.9	10.9	0.83	1450	2.7	2.6	7.4
MS2 132M-4	7.5	88.7	14.5	0.84	1450	2.7	2.8	7.7
MS2 160M-4	11	89.8	21.6	0.82	1450	3.1	2.7	7.7
MS2 160L-4	15	90.6	28.4	0.84	1450	2.6	2.4	7.3
MS2 180M-4	18.5	91.4	34.4	0.85	1460	3.2	2.2	7.4
MS2 180L-4	22	91.7	40.3	0.86	1460	3.2	2.3	7.5
MS2 200L-4	30	92.3	55.2	0.86	1470	3.1	2.8	7.6
MS2 90S-6	0.75	76.0	2.01	0.71	925	3.1	3.1	4.7
MS2 90L-6	1.1	78.1	2.82	0.72	930	3.2	3.2	5
MS2 100L-6	1.5	80.0	3.71	0.73	940	2.9	3.1	5.9
MS2 112M-6	2.2	81.8	5.17	0.75	945	2.8	2.6	5.5
MS2 132S-6	3	83.3	6.84	0.76	960	2.7	2.2	5.7
MS2 132M1-6	4	84.6	8.86	0.77	960	2.7	2.4	6.2
MS2 132M2-6	5.5	86	12.0	0.77	960	2.7	2.6	6.7
MS2 160M-6	7.5	87.5	16.1	0.77	970	2.8	2	5.6
MS2 160L-6	11	89.0	22.9	0.78	970	2.8	2	5.8
MS2 180L-6	15	90.1	28.9	0.83	975	2.9	1.9	7.5
MS2 200L1-6	18.5	90.4	35.6	0.83	975	2.7	2.2	6.3
MS2 200L2-6	22	90.9	41.6	0.84	975	2.6	2.3	6.2

IEC MOTOR

GOST MOTOR

NEMA MOTOR

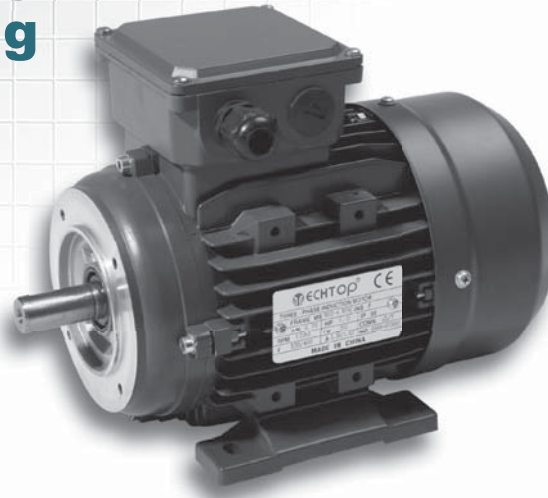
PUMP

GENERATOR

D.C. MOTOR

MSD Series

Three-Phase Asynchronous Double-Polarity Motors Aluminum Housing



Technical Data (at 400V/50Hz)

Model	Power (KW)		Speed (r/min)		Eff. (%)		Power Factor (CosΦ)		Current (A)		Rated Torque (N.M)		T _{st} /T _n (Times)		I _{st} /I _n (Times)		T _{max} /T _n (Times)	
	2P	4P	2P	4P	2P	4P	2P	4P	2P	4P	2P	4P	2P	4P	2P	4P	2P	4P
MSD711-2/4	0.3	0.22	2750	1350	60	55	0.8	0.73	0.90	0.79	1.04	1.56	1.7	1.7	3.5	3.5	1.9	1.9
MSD712-2/4	0.45	0.3	2790	1380	63	58	0.8	0.73	1.29	1.02	1.54	2.08	2	2	4	4	2	2
MSD801-2/4	0.55	0.45	2800	1380	65	64	0.84	0.75	1.45	1.35	1.88	3.11	2	2	4.5	4.5	2.1	2.1
MSD802-2/4	0.75	0.6	2800	1400	67	68	0.86	0.77	1.88	1.65	2.56	4.09	1.8	1.8	4.5	4.5	2	2
MSD90S-2/4	1.25	0.95	2820	1400	72	68	0.86	0.82	2.91	2.46	4.23	6.48	2	2	5	5	2	2
MSD90L-2/4	1.7	1.32	2830	1400	73	70	0.86	0.83	3.91	3.28	5.74	9.00	2	2	5	5	2	2
MSD100L1-2/4	2.4	1.84	2830	1410	73	76	0.86	0.83	5.52	4.21	8.10	12.46	2	2	5.5	5	2	2
MSD100L2-2/4	3.3	2.6	2840	1420	74	78	0.86	0.85	7.48	5.66	11.10	17.19	2	1.9	5.5	5	2	1.9
MSD112M-2/4	4.5	4	2860	1430	77	79	0.85	0.86	9.92	8.50	15.03	26.71	2	1.8	5.5	5	2.2	2
MSD132S-2/4	6	5	2860	1440	79	82	0.84	0.86	13.05	10.23	20.03	33.16	2	1.5	5.5	5.5	2.2	1.9
MSD132M-2/4	8	6.6	2870	1440	82	84	0.84	0.86	16.76	13.09	26.62	43.77	2	2	6	6	2.2	2.2
MSD160M-2/4	11	9	2920	1450	84	84	0.85	0.82	22.23	18.86	35.98	59.28	1.8	1.8	7	6	2	2
MSD160L-2/4	15	12	2920	1450	86	84	0.87	0.83	28.94	24.84	49.06	79.03	2	2	7	7	2.2	2.2

Technical Data (at 400V/50Hz)

Model	Power (KW)		Speed (r/min)		Eff. (%)		Power Factor (CosΦ)		Current (A)		Rated Torque (N.M)		T _{st} /T _n (Times)		I _{st} /I _n (Times)		T _{max} /T _n (Times)	
	4P	8P	4P	8P	4P	8P	4P	8P	4P	8P	4P	8P	4P	8P	4P	8P	4P	8P
MSD801-4/8	0.25	0.15	1380	680	58	40	0.77	0.60	0.81	0.90	1.73	2.11	2	2	4.5	3	2	2
MSD802-4/8	0.45	0.25	1390	685	68	48	0.80	0.60	1.19	1.25	3.09	3.49	1.8	2	4.5	3	2	2
MSD90S-4/8	0.55	0.3	1400	690	68	50	0.83	0.61	1.41	1.42	3.75	4.15	1.8	2	4.5	3.5	2	2
MSD90L-4/8	0.8	0.45	1400	690	68	53	0.83	0.63	2.05	1.95	5.46	6.23	1.8	1.6	4	3	1.9	1.8
MSD100L1-4/8	1.25	0.6	1400	700	69	54	0.82	0.56	3.19	2.86	8.53	8.16	1.8	2	5	3.5	2	2
MSD100L2-4/8	1.76	0.88	1400	700	71	58	0.84	0.56	4.26	3.91	12.00	12.00	1.8	2	5.5	4	2	2
MSD112M-4/8	2.2	1.5	1420	700	75	64	0.82	0.61	5.16	5.54	14.80	20.46	2	2	6	4	2	2
MSD132S-4/8	3.3	2.2	1430	705	78	70	0.84	0.64	7.27	7.09	22.04	29.8	2	2	6	5	2	2
MSD132M-4/8	4.5	3	1430	705	82	77	0.85	0.65	9.32	8.65	30.05	40.64	2	2	6	5	2	2
MSD160M1-4/8	5.5	4	1440	710	82	77	0.81	0.69	11.95	10.87	36.48	53.80	2.1	1.7	7.6	4.6	2.3	2.2
MSD160M2-4/8	7.5	5	1440	710	82	79	0.89	0.78	14.83	11.71	49.74	67.25	1.7	1.6	6.6	4.5	2.3	2.1
MSD160L-4/8	10	7	1450	715	84	82	0.90	0.78	19.09	15.80	65.86	93.50	1.8	1.9	5.5	5	2.3	2.1

Technical Data (at 400V/50Hz)

Model	Power (KW)		Speed (r/min)		Eff. (%)		Power Factor (CosΦ)		Current (A)		Rated Torque (N.M)		T _{st} /T _n (Times)		I _{st} /I _n (Times)		T _{max} /T _n (Times)	
	4P	6P	4P	6P	4P	6P	4P	6P	4P	6P	4P	6P	4P	6P	4P	6P	4P	6P
MSD801-4/6	0.3	0.22	1400	910	60	55	0.74	0.69	0.98	0.84	2.05	2.31	2	1.8	4.5	4	2	2
MSD802-4/6	0.45	0.3	1410	920	63	58	0.75	0.7	1.37	1.07	3.05	3.11	2	1.8	4.5	4	2	2
MSD90S-4/6	0.66	0.45	1410	920	66	61	0.76	0.65	1.9	1.64	4.47	4.67	1.7	1.7	5	4.5	2	2
MSD90L-4/6	0.88	0.6	1420	930	70	64	0.77	0.67	2.36	2.02	5.92	6.16	1.7	1.7	5	4.5	2	2
MSD100L1-4/6	1.32	0.88	1420	940	72	67	0.85	0.75	3.11	2.3	8.88	8.94	1.8	1.8	6	5	2	2
MSD100L2-4/6	1.76	1.2	1430	950	74	70	0.85	0.75	4.04	3.3	11.75	12.06	1.8	1.8	6	5	2	2
MSD112M-4/6	2.2	1.5	1430	950	76	70	0.8	0.70	5.22	4.42	14.69	15	2	1.8	6	5	2.2	2.2
MSD132S-4/6	3.3	2.2	1440	960	82	78	0.81	0.72	7.17	5.65	21.9	21.9	2	2	7	6	2.2	2.2
MSD132M-4/6	4.5	3	1450	970	83	80	0.82	0.74	9.54	7.31	29.6	29.5	2	2	7	6	2.3	2.3
MSD160M-4/6	6.6	4.5	1460	970	84	81	0.84	0.78	13.5	10.3	43.2	44.3	1.8	1.8	7	6	2.3	2.3
MSD160L-4/6	8.8	6	1460	970	84	81	0.85	0.79	17.8	13.5	57.6	59.1	1.8	1.8	7	6	2.3	2.3

Technical Data (at 400V/50Hz)

Model	Power (KW)		Speed (r/min)		Eff. (%)		Power Factor (CosΦ)		Current (A)		Rated Torque (N.M)		T _{st} /T _n (Times)		I _{st} /I _n (Times)		T _{max} /T _n (Times)	
	6P	8P	6P	8P	6P	8P	6P	8P	6P	8P	6P	8P	6P	8P	6P	8P	6P	8P
MSD801-6/8	0.18	0.11	900	680	50	42	0.69	0.65	0.75	0.58	1.91	1.54	1.5	1.5	3.5	3	1.5	1.5
MSD802-6/8	0.25	0.18	920	700	54	46	0.7	0.66	0.95	0.86	2.60	2.46	1.7	1.5	3.5	3	1.5	1.7
MSD90S-6/8	0.37	0.25	930	680	58	50	0.72	0.68	1.28	1.06	3.80	3.51	1.5	1.4	4	3	1.8	1.7
MSD90L-6/8	0.55	0.37	940	685	63	54	0.73	0.69	1.73	1.43	5.59	5.16	1.5	1.4	4	3	1.8	1.7
MSD100L1-6/8	0.75	0.55	950	700	69	63	0.74	0.74	2.12	1.70	7.54	7.50	1.5	1.4	5	4	2	1.8
MSD100L2-6/8	1.03	0.75	955	705	71	65	0.76	0.76	2.76	2.19	10.30	10.16	1.5	1.4	5	4	2	1.8
MSD112M-6/8	1.25	0.95	960	710	72	64	0.71	0.71	3.53	3.02	12.43	12.78	1.5	1.5	5	4	2	1.8
MSD132S-6/8	2.2	1.5	970	720	76	70	0.71	0.7	5.88	4.42	21.66	19.90	1.6	1.4	6	5.5	2.3	2
MSD132M-6/8	3	1.85	970	720	78	74	0.71	0.7	7.82	5.01	29.54	24.37	1.6	1.4	6	5.5	2.3	2
MSD160M1-6/8	3.7	2.6	970	720	78	75	0.74	0.71	9.25	7.05	36.43	34.49	1.8	1.5	6	5.5	2.5	1.9
MSD160M2-6/8	4.5	3.3	970	720	79	76	0.78	0.72	10.54	8.70	44.30	43.77	1.8	1.7	6	5.5	2.5	2
MSD160L-4/6	6	4.5	973	720	80	77	0.79	0.73	13.70	11.55	59.89	59.69	1.8	1.7	6	5.5	2.5	2

Technical Data (at 400V/50Hz)

Model	Power (KW)		Speed (r/min)		Eff. (%)		Power Factor (CosΦ)		Current (A)		Rated Torque (N.M)		T _{st} /T _n (Times)		I _{st} /I _n (Times)		T _{max} /T _n (Times)	
	2P	8P	2P	8P	2P	8P	2P	8P	2P	8P	2P	8P	2P	8P	2P	8P	2P	8P
MSD801-2/8	0.37	0.08	2760	660	65	33	0.76	0.48	1.08	0.73	1.28	1.16	1.7	2	3.5	2.5	1.9	2.1
MSD802-2/8	0.55	0.11	2780	670	67	35	0.78	0.50	1.52	0.91	1.89	1.57	1.7	2	4	3	1.9	2.2
MSD90S-2/8	0.75	0.18	2800	670	67	43	0.79	0.52	2.05	1.16	2.56	2.57	1.8	2	4	3	2	2.3
MSD90L-2/8	1.1	0.3	2810	680	67	45	0.8	0.54	2.96	1.78	3.74	4.21	1.8	2	4	3.5	2	2.3
MSD100L1-2/8	1.5	0.37	2820	700	67	50	0.84	0.56	3.85	1.91	5.08	5.05	1.7	2.1	5	3.5	2	2.6
MSD100L2-2/8	2.2	0.55	2820	710	68	51	0.85	0.58	5.49	2.68	7.45	7.40	1.8	2.2	5	3.5	2	2.6
MSD112M1-2/8	2.6	0.75	2840	710	71	58	0.86	0.6	6.15	3.11	8.74	10.09	1.8	1.8	5.5	4	1.9	1.9
MSD112M2-2/8	3	0.9	2850	710	75	63	0.86	0.58	6.71	3.56	10.05	12.1	1.7	2	6.5	4.5	1.9	2.2
MSD132S-2/8	3.7	1.1	2890	710	81	65	0.83	0.57	7.94	4.29	12.22	14.80	1.7	1.7	7	5	1.9	1.9
MSD132M-2/8	5.5	1.5	2900	720	82	66	0.85	0.57	11.39	5.75	18.11	19.90	1.8	1.8	7	5	1.9	1.9
MSD160M-2/8	7.5	2.2	2900	720	80	73	0.87	0.58	15.55	7.50	24.70	29.18	2.3	2.5	7	5	2.3	2.5
MSD160L-2/8	9.5	3	2920	720	82	73	0.87	0.58	19.22	10.23	31.07	39.79	2.3	2.5	7	5	2.3	2.5

Technical Data (at 400V/50Hz)

Model	Power (KW)		Speed (r/min)		Eff. (%)		Power Factor (CosΦ)		Current (A)		Rated Torque (N.M)		T _{st} /T _n (Times)		I _{st} /I _n (Times)		T _{max} /T _n (Times)	
	2P	4P	2P	4P	2P	4P	2P	4P	2P	4P	2P	4P	2P	4P	2P	4P	2P	4P
MSD712-2/4	0.55	0.12	2850	1410	75	57	0.78	0.55	1.5	0.7	1.8	0.8	2.7	3.3	6	4	2.7	3.2
MSD802-2/4	0.75	0.19	2860	1430	75	59	0.82	0.6	2	1	2.4	1.2	3.3	2.8	7	4	2.6	2.8
MSD802-2/4	1.1	0.28	2870	1430	79	64	0.82	0.59	2.8	1.5	3.6	1.8	3.4	2.5	7.5	4.6	2.8	2.8
MSD90S-2/4	1.5	0.38	2880	1440	82	71	0.84	0.6	3.5	1.5	4.9	2.5	2.6	3.2	7.5	5.5	3.3	3.5
MSD90L-2/4	2.2	0.55	2880	1440	83	73	0.86	0.62	4.5	2	7.2	3.5	3.6	3.6	8	5.8	3.3	3.2
MSD100L1-2/4	3	0.8	2850	1430	81	77	0.9	0.72	6	2.2	10	5.2	2.1	1.9	8	5.5	2.8	2.5
MSD112M-2/4	4	1	2910	1450	85	80	0.86	0.67	8	3	13	6	3.2	3.2	10.5	8	3.4	3.7
MSD112M-2/4	4.5	1.3	2900	1440	84	81	0.93	0.81	8.5	3	14	8	2.3	1.9	9.5	6.5	2.9	2.6
MSD132S-2/4	5.5	1.4	2900	1450	85	82	0.9	0.73	10.5	3.5	18	9	2.7	2.1	9.5	6.5	3	3
MSD132S-2/4	6	1.6	2890	1440	83	80	0.92	0.79	11.5	3.9	19	10	2.5	1.8	9	6	2.9	2.7
MSD132M-2/4	9	2.5	2920	1450	86	82	0.91	0.79	17	6	29	16	2.5	1.8	10.3	6.8	2.5	2.7
MSD160M-2/4	15	3.7	3930	1460	86	86	0.91	0.76	28	8.5	48	24	2.5	2.3	8	6.4	2.9	2.6
MSD160L-2/4	18.5	4.4	2940	1470	88	87	0.91	0.74	34	10.5	59	58	3	2.7	9.5	7	3.2	3

Technical Data (at 400V/50Hz)

Model	Power (KW)		Speed (r/min)		Eff. (%)		Power Factor (CosΦ)		Current (A)		Rated Torque (N.M)		T _{st} /T _n (Times)		I _{st} /I _n (Times)		T _{max} /T _n (Times)	
	4P	8P	4P	8P	4P	8P	4P	8P	4P	8P	4P	8P	4P	8P	4P	8P	4P	8P
MSD711-4/8	0.25	0.03	1370	710	53	30	0.67	0.44	1.2	0.5	1.7	0.4	2.4	2.5	3.5	2.8	2.5	4.8
MSD712-4/8	0.33	0.04	1360	710	58	34	0.71	0.45	1.5	0.5	2.3	0.5	2.2	4.1	4	3	2.5	4.6
MSD712-4/8	0.37	0.09	1360	650	58	45	0.69	0.61	1.5	0.5	2.5	1.3	2.4	2	3.5	2.5	2.5	2
MSD801-4/8	0.55	0.09	1410	710	64	43	0.7	0.49	2	1	3.7	1.1	2	2.6	4.5	3.5	2.5	3.6
MSD802-4/8	0.75	0.19	1430	710	76	59	0.82	0.6	1.8	0.8	2.4	1.2	3.3	2.8	7	4	2.6	2.8
MSD90S-4/8	1.1	0.18	1400	710	75	53	0.79	0.47	3	1.5	7.4	2.4	2.3	3	5.8	3.6	2.5	3.5
MSD90L-4/8	1.5	0.25	1380	700	75	57	0.83	0.49	4	1.5	10	3	2.2	2.8	5.8	3.6	2.4	3.3
MSD100L1-4/8	2.2	0.37	1430	720	79	62	0.8	0.46	4	2	14	4.5	2.1	2.5	7	4.5	2.7	3.5
MSD100L2-4/8	3	0.55	1420	710	80	67	0.82	0.5	6.6	2.5	20	7.3	2	2.3	6.9	4	2.5	3
MSD112M-4/8	4	0.75	1440	720	82	72	0.84	0.53	8.5	3	26.5	9.9	1.9	1.9	7.5	4.5	2.5	2.8
MSD132S-4/8	5.5	1.1	1450	720	84	74	0.85	0.54	11	4	36	14	2.1	1.5	8.5	5	2.5	2.8
MSD132M-4/8	7.5	1.5	1450	720	85	75	0.83	0.51	15	5.8	49	19	2.2	2	9.2	5	3	3
MSD160M-4/8	8.9	2	1460	730	87	79	0.83	0.53	18	7	58	26	2.4	1.7	8.7	4.5	3	2.6
MSD160L-4/8	11	2.8	1460	720	88	81	0.83	0.58	22	8.5	71	36	2.3	1.4	8	4	2.7	1.8
MSD160L-4/8	15	3.5	1460	720	89	82	0.83	0.56	12.5	11.5	97	45	2.2	1.6	7.5	4	2.9	2
MSD180M-4/8	18.5	4.6	1470	730	90	84	0.84	0.55	35	14	119	59	2.5	2.3	9	5.5	3	2.8
MSD180L-4/8	22	5.5	1470	730	90	83	0.85	0.6	40	16	142	71	2.4	2.1	9.5	5.5	3	2.8

Technical Data (at 400V/50Hz)

Model	Power (KW)		Speed (r/min)		Eff. (%)		Power Factor (CosΦ)		Current (A)		Rated Torque (N.M)		T _{st} /T _n (Times)		I _{st} /I _n (Times)		T _{max} /T _n (Times)	
	4P	6P	4P	6P	4P	6P	4P	6P	4P	6P	4P	6P	4P	6P	4P	6P	4P	6P
MSD71S-4/6	0.25	0.09	1380	950	48	41	0.68	0.64	1.3	0.5	1.7	0.9	2.4	2	3	2.5	2.2	2.1
MSD801-4/6	0.37	0.12	1420	960	59	47	0.68	0.58	1.5	0.7	2.4	1.1	2	2.2	4.5	4	2.3	2.9
MSD802-4/6	0.55	0.16	1420	960	64	53	0.72	0.56	1.8	0.8	3.6	1.5	1.7	2.4	4.5	4.2	2.2	3.2
MSD90S-4/6	0.75	0.25	1410	950	65	59	0.74	0.65	2.5	0.9	5	2.4	1.8	1.6	4.5	4.2	2.1	2.3
MSD90L1-4/6	1.1	0.37	1410	950	68	64	0.74	0.68	3.2	1.5	7.4	3.7	1.9	2	4.5	4.2	2.1	2.2
MSD90L2-4/6	1.5	0.5	1420	950	73	68	0.77	0.7	4	1.6	10	4.8	1.9	1.9	5.5	5	2.1	2.3
MSD100L1-4/6	1.7	0.6	1430	960	75	68	0.77	0.73	4.5	2	11	5.5	1.9	1.6	5.5	5	2.2	2.1
MSD100L2-4/6	2.2	0.75	1430	950	80	69	0.83	0.69	5	2.4	14.5	7.5	2.4	1.7	6.5	4.3	2.5	2.2
MSD100L2-4/6	3	0.9	1430	950	77	68	0.77	0.7	7.5	3	19	8	2.7	1.7	6	4.6	2.5	2.2
MSD112M-4/6	3	1	1440	950	82	72	0.84	0.72	6.5	3	19.5	9.5	2.2	1.3	7.5	4.5	2.5	2.1
MSD132S-4/6	4	1.3	1440	960	80	73	0.81	0.73	9	4	26	12.5	2.3	1.3	3.8	5.5	2.4	2.1
MSD132M1-4/6	5.5	1.6	1450	970	83	75	0.81	0.71	12	4.5	36	15	2.4	1.4	7.8	6	2.4	2.2
MSD132M1-4/6	6	2	1450	970	84	77	0.8	0.74	13	5.5	39	19	2.5	1.5	7.8	6	2.8	2.2
MSD132M1-4/6	7.5	2.2	1450	970	85	72	0.86	0.74	15	6.2	49	21	2.2	1.4	8	5.5	2.7	2.2
MSD160M-4/6	11	3.3	1460	970	86	77	0.85	0.75	22	8.5	71	32	2.5	1.3	8	4.8	3	1.9
MSD160L-4/6	15	5	1450	970	88	80	0.86	0.73	29	12.5	98	48	2.2	1.9	9	6	2.3	2.3

Technical Data (at 400V/50Hz)

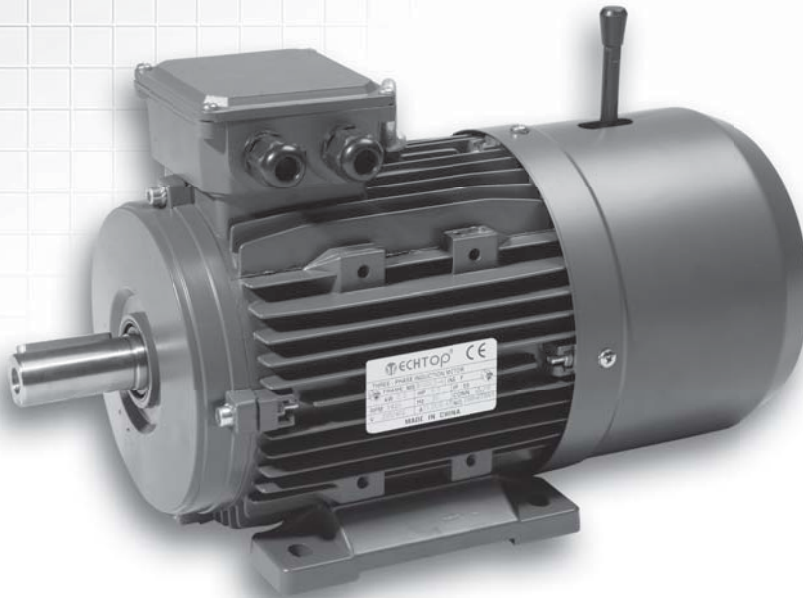
Model	Power (KW)		Speed (r/min)		Eff. (%)		Power Factor (CosΦ)		Current (A)		Rated Torque (N.M)		T _{st} /T _n (Times)		I _{st} /I _n (Times)		T _{max} /T _n (Times)	
	6P	8P	6P	8P	6P	8P	6P	8P	6P	8P	6P	8P	6P	8P	6P	8P	6P	8P
MSD802-6/8	0.37	0.18	940	710	64	53	0.67	0.57	1.3	0.9	3.7	2.4	2.3	2.4	4.5	3.5	2.5	2.7
MSD90S-6/8	0.75	0.32	940	710	70	57	0.73	0.61	2.1	1.4	7.5	4.2	1.9	1.6	4.6	3.3	2.5	2.2
MSD90L-6/8	1.1	0.46	940	710	67	52	0.67	0.63	4	2.4	11	6	1.8	1.6	4	3.5	2.2	1.9
MSD100L-6/8	1.5	0.63	950	710	75	62	0.72	0.66	4.3	2.5	14.5	8	2.1	1.7	5.2	4	2.3	2
MSD112M-6/8	2.2	0.93	950	720	79	68	0.75	0.62	5.5	3.5	21	12	2.6	1.7	6	4.2	2.5	2.3
MSD132S-6/8	3	1.3	970	730	83	72	0.76	0.6	7	4.5	29	16	2.4	1.8	7	4.6	2.6	2.4
MSD132M-6/8	4	1.7	970	730	83	74	0.77	0.6	9.3	5.8	39	22	2.4	1.9	7	5	2.5	2.5

Technical Data (at 400V/50Hz)

Model	Power (KW)		Speed (r/min)		Eff. (%)		Power Factor (CosΦ)		Current (A)		Rated Torque (N.M)		T _{st} /T _n (Times)		I _{st} /I _n (Times)		T _{max} /T _n (Times)	
	6P	12P	6P	12P	6P	12P	6P	12P	6P	12P	6P	12P	6P	12P	6P	12P	6P	12P
MSD802-6/12	0.37	0.06	930	450	59	30	0.71	0.57	1.3	0.5	3.7	1.2	1.6	1.9	3.5	2	1.9	2
MSD802-6/12	0.55	0.08	930	450	64	38	0.74	0.57	1.7	0.53	5.6	1.7	1.6	1.8	4	2	2	2
MSD90S-6/12	0.75	0.1	930	460	66	41	0.75	0.47	2.2	0.8	7	2	1.4	1.8	3.6	2	1.9	2.2
MSD90L-6/12	1.1	0.15	930	460	67	42	0.73	0.46	3.2	1.2	11	3	1.7	2.1	3.8	2	2	2.3
MSD100L-6/12	1.5	0.2	940	470	73	48	0.75	0.44	4	1.5	15	4	2.1	3.2	4.8	1.5	2.4	3.1
MSD112M-6/12	2.2	0.3	950	470	77	54	0.74	0.41	5.5	2	22	6	2.2	3	5.3	2.7	2.5	3.2
MSD132S-6/12	3	0.4	960	480	77	51	0.7	0.39	8	2.9	29	7	2.6	3.4	6	3.5	3	3.9
MSD132M1-6/12	4	0.55	970	480	80	57	0.72	0.39	10	3.6	39	10	2.7	3.4	6.5	3.6	3.2	4.2
MSD132M2-6/12	5.5	0.75	970	480	81	59	0.73	0.39	13.5	4.7	54	14	2.9	3.5	7	3.5	2.7	3.9
MSD112M-4/6	3	1	1440	950	82	72	0.84	0.72	6.5	3	19.5	9.5	2.2	1.3	7.5	4.5	2.5	2.1
MSD132S-4/6	4	1.3	1440	960	80	73	0.81	0.73	9	4	26	12.5	2.3	1.3	3.8	5.5	2.4	2.1
MSD132M1-4/6	5.5	1.6	1450	970	83	75	0.81	0.71	12	4.5	36	15	2.4	1.4	7.8	6	2.4	2.2
MSD132M1-4/6	6	2	1450	970	84	77	0.8	0.74	13	5.5	39	19	2.5	1.5	7.8	6	2.8	2.2
MSD132M1-4/6	7.5	2.2	1450	970	85	72	0.86	0.74	15	6.2	49	21	2.2	1.4	8	5.5	2.7	2.2

MSBCCL Series

Asynchronous Three-Phase Brake Motors With Squirrel Cage Rotor - Direct Current Brake



▪ MSBCCL series-enclosed construction externally ventilated-sizes 63~160

The brake-motors of the MSBCCL series result from coupling an asynchronous three-phase motor and an electromagnetic D.C. brake unit. Due to their reliability and operating safety, as well as their quick braking time (connection & disconnection time = 5~80 milliseconds) they are suitable for a great variety of applications, such as:

- Braking of loads or torques on the driving shaft.
- Braking of rotating masses to reduce any lost-time.
- Braking operations to increase the set-up precision.
- Braking of machine parts, according to safety rules.

Technical Features

2 poles-3000rpm-50Hz Brake motors have a $\pm 6\%$ tolerance on the supply voltage

Model	Power (KW)	Speed (r/min)	Eff. (%)	Power Factor (CosΦ)	Current (A)			T _{st} /T _n (Times)	T _{max} /T _n (Times)	T _{min} /T _n (Times)	I _{st} /I _n (Times)	Noise dB(A)
					230V	400V	690V					
MSBCCL631-2	0.18	2710	63	0.75	0.95	0.55	0.32	2.2	2.4	1.6	6	61
MSBCCL632-2	0.25	2710	65	0.78	1.23	0.71	0.41	2.2	2.4	1.6	6	61
MSBCCL633-2	0.37	2710	65	0.78	1.82	1.05	0.61	2.2	2.4	1.6	6	62
MSBCCL711-2	0.37	2730	70	0.79	1.67	0.97	0.56	2.2	2.4	1.6	6	64
MSBCCL712-2	0.55	2760	71	0.79	2.45	1.42	0.82	2.2	2.4	1.6	6	64
MSBCCL713-2	0.75	2730	72	0.82	3.18	1.83	1.06	2.2	2.4	1.5	6	65
MSBCCL801-2	0.75	2770	73	0.84	3.06	1.77	1.02	2.2	2.4	1.5	6	67
MSBCCL802-2	1.1	2770	76.2	0.83	4.35	2.51	1.45	2.2	2.4	1.5	6	67
MSBCCL803-2	1.5	2800	78.5	0.83	5.87	3.32	1.92	2.2	2.4	1.5	6	70
MSBCCL90S-2	1.5	2840	78.5	0.84	5.76	3.28	1.90	2.2	2.4	1.5	6	72
MSBCCL90L1-2	2.2	2840	81	0.85	8.0	4.61	2.66	2.2	2.4	1.4	6	72
MSBCCL90L2-2	3	2840	82.6	0.86	10.56	6.10	3.52	2.2	2.4	1.4	6	74
MSBCCL100L1-2	3	2840	82.6	0.87	10.44	6.03	3.48	2.2	2.3	1.4	7	76
MSBCCL100L2-2	4	2850	84.2	0.87	13.65	7.88	4.55	2.2	2.3	1.4	7.5	77
MSBCCL112M-2	4	2880	84.2	0.87	13.65	7.88	4.55	2.2	2.3	1.4	7.5	77
MSBCCL112L-2	5.5	2880	85.7	0.88	18.23	10.53	6.08	2.2	2.3	1.2	7.5	78
MSBCCL132S1-2	5.5	2900	85.7	0.88	18.23	10.53	6.08	2	2.2	1.2	7.5	80
MSBCCL132S2-2	7.5	2920	87	0.88	24.49	14.14	8.16	2	2.2	1.2	7.5	80
MSBCCL132M1-2	9.2	2930	88	0.89	29.87	17.25	9.96	2	2.2	1.2	7.5	81
MSBCCL132M2-2	11	2930	88.4	0.9	34.57	19.96	11.52	2	2.2	1.2	7.5	83
MSBCCL160M1-2	11	2940	88.4	0.9	34.57	19.96	11.52	2	2.2	1.2	7.5	86
MSBCCL160M2-2	15	2940	89.4	0.91	46.09	26.61	15.36	2	2.2	1.2	7.5	86
MSBCCL160L-2	18.5	2940	90	0.91	56.47	32.6	18.82	2	2.2	1.1	7.5	86

Type	Brake Type K	Brake Torque Nm	Brake Rated Power W	J Brake Pd ² Kg m ²	No. of Starts/hr. Under No Load	Delayed Cut-in Time ★ Msec.	Quick Cut-in Time Msec.	Cut Out Time Msec.	Noise dB(A)
MSBCCL63	K 1	5	15	0.00005	3000	45	20	10	62
MSBCCL 71	K 2	12	20	0.00014	3000	50	30	15	64
MSBCCL 80	K 3	16	25	0.00021	1300	55	30	15	67
MSBCCL 90S	K 4	20	30	0.00039	1100	65	40	15	72
●MSBCCL 90S	K 4 D	40	30	0.00078	1100	65	40	15	72
MSBCCL 90 L	K 4	20	30	0.00039	1100	65	40	15	72
●MSBCCL 90 L	K 4 D	40	30	0.00078	1100	65	40	15	72
MSBCCL 100 L	K 5	40	45	0.00104	900	75	45	20	76
●MSBCCL 100 L	K 6	60	50	0.00135	900	180	85	25	76
MSBCCL 112 MT	K 5	40	45	0.00104	880	75	45	20	77
MSBCCL 112 M	K 6	60	50	0.00135	880	180	85	25	78
MSBCCL 132 S	K 7	90	55	0.00219	480	200	95	50	80
●MSBCCL 132 S	K 7 D	180	55	0.00438	480	200	95	50	80
MSBCCL 132 M	K 7	90	55	0.00219	450	200	95	50	80
●MSBCCL 132 M	K 7 D	180	55	0.00438	480	200	95	50	80
MSBCCL 160 MT	K 7 D	180	55	0.00438	350	200	95	50	86
MSBCCL 160 L	K 8	200	60	0.00408	350	210	100	60	86
●MSBCCL 160 L	K 8 D	400	60	0.00816	350	210	100	60	86

● Motor with increased braking torque on request

★ On request, delayed brake cut in time for lifting equipments. We suggest double disk brake D for lifting equipments.

Technical Features

4 poles-1500rpm-50Hz

Brake motors have a $\pm 6\%$ tolerance on the supply voltage

Model	Power (KW)	Speed (r/min)	Eff. (%)	Power Factor (CosΦ)	Current (A)			T _{st} /T _n (Times)	T _{max} /T _n (Times)	T _{min} /T _n (Times)	I _{st} /I _n (Times)	Noise dB(A)
					230V	400V	690V					
MSBCCL631-4	0.12	1350	57	0.64	0.82	0.47	0.27	2.2	2.4	1.7	6	52
MSBCCL632-4	0.18	1350	59	0.65	1.17	0.68	0.39	2.2	2.4	1.7	6	52
MSBCCL633-4	0.25	1350	60	0.66	1.58	0.91	0.53	2.2	2.4	1.7	6	54
MSBCCL711-4	0.25	1350	60	0.72	1.45	0.84	0.48	2.2	2.4	1.7	6	55
MSBCCL712-4	0.37	1370	65	0.74	1.92	1.11	0.64	2.2	2.4	1.7	6	55
MSBCCL713-4	0.55	1380	66	0.75	2.78	1.60	0.93	2.2	2.4	1.7	6	57
MSBCCL801-4	0.55	1370	67	0.75	2.74	1.58	0.91	2.2	2.4	1.7	6	58
MSBCCL802-4	0.75	1380	72	0.78	3.34	1.93	1.11	2.2	2.4	1.6	6	58
MSBCCL803-4	1.1	1390	76.2	0.78	4.63	2.67	1.54	2.2	2.4	1.6	6	60
MSBCCL90S-4	1.1	1400	76.2	0.79	4.57	2.64	1.52	2.2	2.4	1.6	6	61
MSBCCL90L-4	1.5	1400	78.5	0.8	5.97	3.45	1.99	2.2	2.4	1.6	6	61
MSBCCL90L2-4	2.2	1400	81	0.8	8.45	4.90	2.83	2.2	2.4	1.5	7	63
MSBCCL100L1-4	2.2	1420	81	0.81	8.38	4.84	2.79	2.2	2.3	1.5	7	64
MSBCCL100L2-4	3	1420	82.6	0.81	11.21	6.47	3.74	2.2	2.3	1.5	7	64
MSBCCL100L3-4	4	1430	84.2	0.82	14.18	8.36	4.83	2.2	2.3	1.5	7	65
MSBCCL112M-4	4	1430	84.2	0.83	14.31	8.26	4.77	2.2	2.2	1.5	7	65
MSBCCL112L-4	5.5	1440	85.7	0.83	19.33	11.16	6.44	2.2	2.2	1.4	7	68
MSBCCL132S-4	5.5	1450	85.7	0.84	19.1	11.03	6.37	2.2	2.2	1.4	7	71
MSBCCL132M-4	7.5	1450	87	0.85	25.35	14.64	8.45	2.2	2.2	1.4	7	71
MSBCCL132L1-4	9.2	1460	87.5	0.85	30.92	17.85	10.31	2.2	2.2	1.4	7.5	74
MSBCCL132L2-4	10	1460	88	0.85	33.42	19.3	11.14	2.2	2.2	1.4	7.5	74
MSBCCL132L2-4	11	1460	88.4	0.86	36.17	20.88	12.06	2.2	2.2	1.4	7.5	74
MSBCCL160M-4	11	1460	88.4	0.87	35.76	20.64	11.92	2.2	2.2	1.4	7	75
MSBCCL160L-4	15	1460	88.4	0.87	48.76	28.15	16.25	2.2	2.2	1.4	7.5	75

Type	Brake Type K	Brake Torque Nm	Brake Rated Power W	J Brake Pd ² Kg ^m ²	No. of Starts/hr. Under No Load	Delayed Cut-in Time ★ Msec.	Quick Cut-in Time Msec.	Cut Out Time Msec.	Noise dB(A)
MSBCCL63	K 1	5	15	0.00005	3000	45	20	10	52
MSBCCL 71	K 2	12	20	0.00014	3000	50	30	15	55
MSBCCL 80	K 3	16	25	0.00021	1300	55	30	15	58
MSBCCL 90S	K 4	20	30	0.00039	1100	65	40	15	61
●MSBCCL 90S	K 4 D	40	30	0.00078	1100	65	40	15	61
MSBCCL 90 L	K 4	20	30	0.00039	1100	65	40	15	63
●MSBCCL 90 L	K 4 D	40	30	0.00078	1100	65	40	15	63
MSBCCL 100 L	K 5	40	45	0.00104	900	75	45	20	64
●MSBCCL 100 L	K 6	60	50	0.00135	900	180	85	25	65
MSBCCL 112 MT	K 5	40	45	0.00104	880	75	45	20	65
MSBCCL 112 M	K 6	60	50	0.00135	880	180	85	25	65
MSBCCL 132 S	K 7	90	55	0.00219	480	200	95	50	71
●MSBCCL 132 S	K 7 D	180	55	0.00438	480	200	95	50	71
MSBCCL 132 M	K 7	90	55	0.00219	450	200	95	50	71
●MSBCCL 132 M	K 7 D	180	55	0.00438	480	200	95	50	71
MSBCCL 160 MT	K 7 D	180	55	0.00438	350	200	95	50	75
MSBCCL 160 L	K 8	200	60	0.00408	350	210	100	60	75
●MSBCCL 160 L	K 8 D	400	60	0.00816	350	210	100	60	75

● Motor with increased braking torque on request

★ On request, delayed brake cut in time for lifting equipments. We suggest double disk brake D for lifting equipments.

Technical Features

6 poles-1000rpm-50Hz

Brake motors have a $\pm 6\%$ tolerance on the supply voltage

Model	Power (KW)	Speed (r/min)	Eff. (%)	Power Factor (CosΦ)	Current (A)			T _{st} /T _n (Times)	T _{max} /T _n (Times)	T _{min} /T _n (Times)	I _{st} /I _n (Times)	Noise dB(A)
					230V	400V	690V					
MSBCCL631-6	0.09	840	42	0.61	0.88	0.51	0.29	2	2	1.5	3.5	50
MSBCCL632-6	0.12	850	45	0.62	1.08	0.62	0.36	2	2	1.5	3.5	50
MSBCCL711-6	0.18	880	56	0.66	1.22	0.70	0.41	1.6	1.7	1.5	4	52
MSBCCL712-6	0.25	900	59	0.7	1.51	0.87	0.50	2.1	2.2	1.5	4	52
MSBCCL713-6	0.37	890	61	0.69	2.2	1.27	0.73	2	2.1	1.5	4	54
MSBCCL801-6	0.37	900	62	0.7	2.13	1.23	0.71	1.9	1.9	1.5	4	56
MSBCCL802-6	0.55	900	67	0.72	2.85	1.65	0.95	2	2.3	1.5	4	56
MSBCCL803-6	0.75	900	68	0.72	3.83	2.21	1.28	2	2.3	1.5	4	58
MSBCCL90S-6	0.75	920	69	0.72	3.77	2.18	1.26	2.2	2.2	1.5	5.5	59
MSBCCL90L-6	1.1	925	72	0.73	5.23	3.02	1.74	2.2	2.2	1.3	5.5	59
MSBCCL100L-6	1.5	945	74	0.76	6.67	3.85	2.22	2.2	2.2	1.3	6	61
MSBCCL112M-6	2.2	955	78	0.76	9.28	5.36	3.09	2.2	2.2	1.3	6	64
MSBCCL132S-6	3	960	79	0.76	12.49	7.21	4.16	2	2	1.3	6.5	64
MSBCCL132M1-6	4	960	80.5	0.76	16.35	9.44	5.45	2	2	1.3	6.5	68
MSBCCL132M2-6	5.5	960	83	0.77	21.51	12.42	7.17	2	2	1.3	6.5	68
MSBCCL132L-6	7.5	960	85	0.77	28.65	16.54	9.55	2	2	1.3	6.5	68
MSBCCL160M-6	7.5	960	86	0.8	27.25	15.73	9.08	2	2.2	1.3	6.5	68
MSBCCL160L-6	11	960	87.5	0.79	39.78	22.97	13.26	2	2.2	1.2	6.5	73

Type	Brake Type K	Brake Torque Nm	Brake Rated Power W	J Brake Pd ² Kgm ²	No. of Starts/hr. Under No Load	Delayed Cut-in Time ★ Msec.	Quick Cut-in Time Msec.	Cut Out Time Msec.	Noise dB(A)
MSBCCL63	K 1	5	15	0.00005	3000	45	20	10	50
MSBCCL 71	K 2	12	20	0.00014	3000	50	30	15	52
MSBCCL 80	K 3	16	25	0.00021	1300	55	30	15	56
MSBCCL 90S	K 4	20	30	0.00039	1100	65	40	15	59
●MSBCCL 90S	K 4 D	40	30	0.00078	1100	65	40	15	59
MSBCCL 90 L	K 4	20	30	0.00039	1100	65	40	15	59
●MSBCCL 90 L	K 4 D	40	30	0.00078	1100	65	40	15	59
MSBCCL 100 L	K 5	40	45	0.00104	900	75	45	20	61
●MSBCCL 100 L	K 6	60	50	0.00135	900	180	85	25	61
MSBCCL 112 MT	K 5	40	45	0.00104	880	75	45	20	64
MSBCCL 112 M	K 6	60	50	0.00135	880	180	85	25	64
MSBCCL 132 S	K 7	90	55	0.00219	480	200	95	50	64
●MSBCCL 132 S	K 7 D	180	55	0.00438	480	200	95	50	64
MSBCCL 132 M	K 7	90	55	0.00219	450	200	95	50	68
●MSBCCL 132 M	K 7 D	180	55	0.00438	480	200	95	50	68
MSBCCL 160 MT	K 7 D	180	55	0.00438	350	200	95	50	68
MSBCCL 160 L	K 8	200	60	0.00408	350	210	100	60	73
●MSBCCL 160 L	K 8 D	400	60	0.00816	350	210	100	60	73

● Motor with increased braking torque on request

★ On request, delayed brake cut in time for lifting equipments. We suggest double disk brake D for lifting equipments.

Technical Features

8 poles-750rpm-50Hz

Brake motors have a $\pm 6\%$ tolerance on the supply voltage

Model	Power (KW)	Speed (r/min)	Eff. (%)	Power Factor (CosΦ)	Current (A)			T _{st} /T _n (Times)	T _{max} /T _n (Times)	T _{min} /T _n (Times)	I _{st} /I _n (Times)	Noise dB(A)
					230V	400V	690V					
MSBCCL711-8	0.09	680	48	0.56	0.84	0.48	0.28	1.5	1.7	1.3	3	50
MSBCCL712-8	0.12	690	51	0.59	1.00	0.58	0.33	1.6	1.7	1.3	2.7	50
MSBCCL801-8	0.18	680	51	0.61	1.45	0.84	0.48	1.5	1.7	1.3	2.8	52
MSBCCL802-8	0.25	680	56	0.61	1.83	1.06	0.61	1.6	2	1.3	2.7	52
MSBCCL90S-8	0.37	680	63	0.63	2.33	1.35	0.78	1.6	1.8	1.3	2.8	56
MSBCCL90L-8	0.55	680	66	0.65	3.21	1.85	1.07	1.6	1.8	1.3	3	56
MSBCCL100L1-8	0.75	710	66	0.67	4.24	2.45	1.41	1.7	2.1	1.3	3.5	59
MSBCCL100L2-8	1.1	710	72	0.69	5.54	3.20	1.85	1.7	2.1	1.2	3.5	59
MSBCCL112M-8	1.5	710	74	0.68	7.45	4.30	2.48	1.8	2.1	1.2	4.2	61
MSBCCL132S-8	2.2	720	75	0.71	10.33	5.96	3.44	2	2	1.2	5.5	64
MSBCCL132M-8	3	720	77	0.73	13.34	7.70	4.45	2	2	1.2	5.5	64
MSBCCL160M1-8	4	730	80	0.73	17.12	9.89	5.71	1.9	2.1	1.2	6	68
MSBCCL160M2-8	5.5	720	83.5	0.74	22.25	12.85	7.42	2	2.2	1.2	6	68
MSBCCL160L-8	7.5	720	85	0.75	29.41	17.0	9.8	1.9	2.2	1.2	6	68

Type	Brake Type K	Brake Torque Nm	Brake Rated Power W	J Brake Pd ² Kgm ²	No. of Starts/hr. Under No Load	Delayed Cut-in Time ★ Msec.	Quick Cut-in Time Msec.	Cut Out Time Msec.	Noise dB(A)
63 MSBCCL	K 1	5	15	0.00005	3000	45	20	10	50
71 MSBCCL	K 2	12	20	0.00014	3000	50	30	15	50
80 MSBCCL	K 3	16	25	0.00021	1300	55	30	15	52
90 S MSBCCL	K 4	20	30	0.00039	1100	65	40	15	56
●90 S MSBCCL	K 4 D	40	30	0.00078	1100	65	40	15	56
90 L MSBCCL	K 4	20	30	0.00039	1100	65	40	15	56
●90 L MSBCCL	K 4 D	40	30	0.00078	1100	65	40	15	56
100 L MSBCCL	K 5	40	45	0.00104	900	75	45	20	59
●100 L MSBCCL	K 6	60	50	0.00135	900	180	85	25	59
112 MT MSBCCL	K 5	40	45	0.00104	880	75	45	20	61
112 M MSBCCL	K 6	60	50	0.00135	880	180	85	25	61
132 S MSBCCL	K 7	90	55	0.00219	480	200	95	50	64
●132 S MSBCCL	K 7 D	180	55	0.00438	480	200	95	50	64
132 M MSBCCL	K 7	90	55	0.00219	450	200	95	50	64
●132 M MSBCCL	K 7 D	180	55	0.00438	480	200	95	50	64
160 MT MSBCCL	K 7 D	180	55	0.00438	350	200	95	50	68
160 L MSBCCL	K 8	200	60	0.00408	350	210	100	60	68
●160 L MSBCCL	K 8 D	400	60	0.00816	350	210	100	60	68

● Motor with increased braking torque on request

★ On request, delayed brake cut in time for lifting equipments. We suggest double disk brake D for lifting equipments.

MSBCCL Series Brake Motors

Operating Principle

The direct current brake is fed by means of an electronic circuit with diode bridge (rectifier) situated inside the terminal-box. When feeding the electromagnet (5), the movable anchor (4) is attracted towards the same, thus loading the braking torque springs (9) and allowing the disk (2), equipped with friction packing and fitted on the groove hub (6) to turn solitary the motor shaft (1) by means of a key (7). By interrupting the feeding, the movable anchor (4), pushed by the braking torque springs (9), exerts a pressure upon the friction surface of the disk (2), thus causing its stopping.

Adjustment Of The Air Gap

The air gap (11) is the distance between the electromagnet (5) and the movable anchor (9).

The air gap has to be regularly checked, since due to the wear of the friction packing (2) it tends to increase.

Act on the brake adjusters (3) after having unloosen the screws (8) to bring the air gap to the required value.

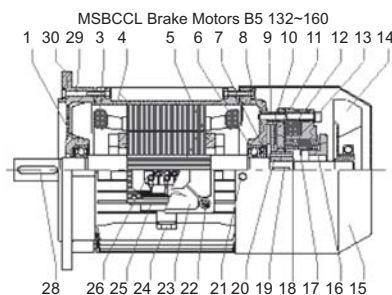
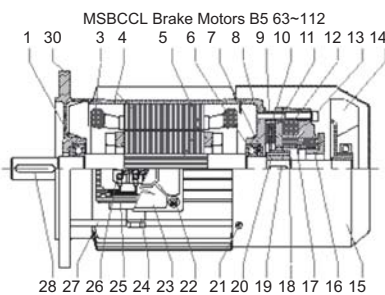
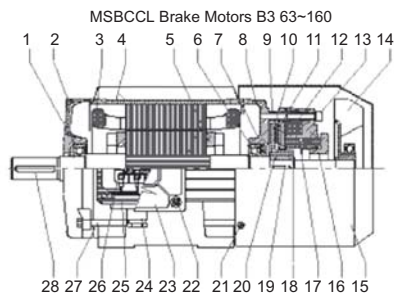
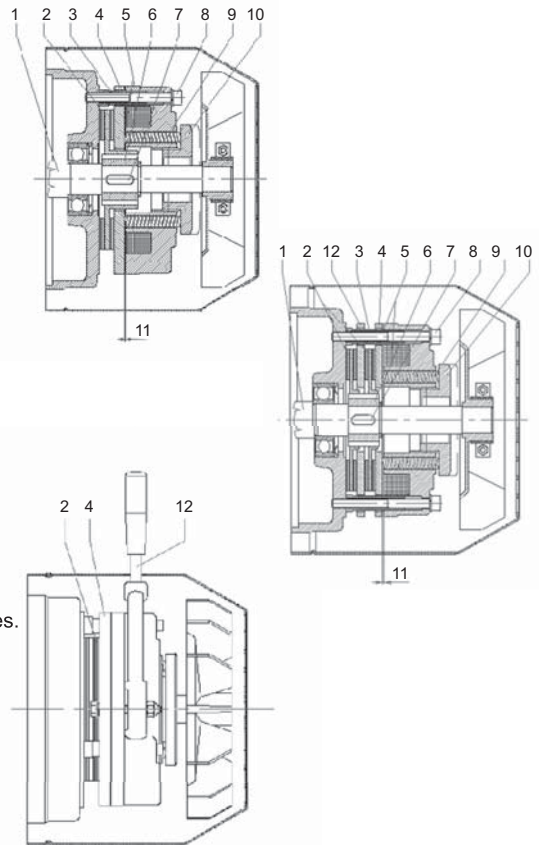
Act on the ring nut (10) which acts on the braking torque springs (9) to adjust the braking torque.

Pls. contact our technical department for information on the air gap adjustment values.

Hand Release With Lever

Upon request a hand release with lever can be supplied.

In case of a current cutoff, acting on the lever (12), the release, connected to the movable anchor (4) overcomes the springs pressure, thus detaching the movable anchor from the disc friction packing (2) allowing the shaft to turn.



Spare Parts

1. Front bearing
2. Front shield
3. Winding
4. Frame with stator package
5. Shaft with rotor
6. Rear bearing
7. Spring
8. Rear shield
9. Adjusting bush
10. Brake disc
11. Moving anchor
12. Electromagnet coil with diode
13. Fixing screws for brake
14. Cooling fan
15. Fan hood
16. Ring nut
17. Spring
18. See gearing
19. Key brake side
20. Toothed pinion
21. Fixing screw for fan hood
22. Fixing crew for terminal-box
23. Terminal-box
24. Able-holder
25. Packing
26. Terminal-block
27. Tie-bolt
28. Coupling side key
29. Fixing screw for shield
30. Flange shield

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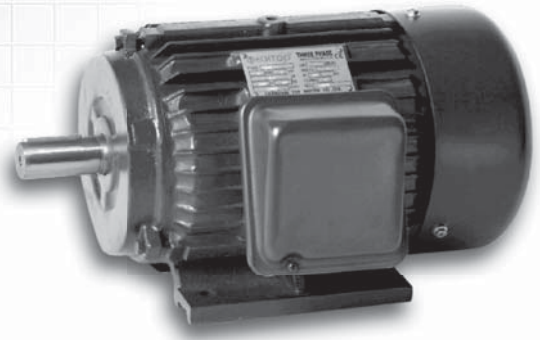
D.C. MOTOR

Y Series

Three-Phase Induction Motors

• Frame size	H80~355
• Power	0.55~315KW
• Synchronous speed	3000; 1500; 1000; 750RPM
• Voltage	220/380V; 380/660V
• Frequency	50Hz、60Hz
• Protection class	IP44; IP54; IP55
• Insulation class	B、F
• Ambi.temperature	-15~+40°C
• Altitude above sea level	≤1000m

- See Table 1 for the mounting arrangements and respective frame numbers
- See Table 2 for the bearings
- See Table 3-4 for the technical data
- See Table 7-10 for the types and mounting dimensions

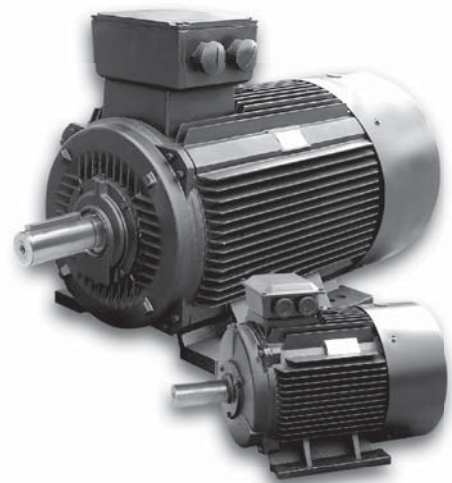


Y2 Series

Three-Phase Induction Motors

• Frame size	H80~355
• Power	0.18~315KW
• Synchronous speed	3000; 1500; 1000; 750; 600RPM
• Voltage	230/400V; 400/690V
• Frequency	50Hz、60Hz
• Protection class	IP54; IP55
• Insulation class	F
• Ambi.temperature	-15~+40°C
• Altitude above sea level	≤1000m

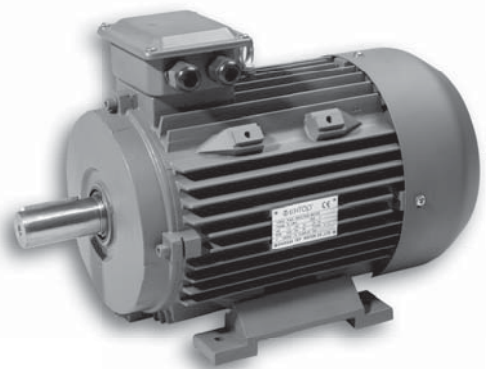
- See Table 1 for the mounting arrangements and respective frame numbers
- See Table 2 for the bearings
- See Table 5-6 for the technical data
- See Table 11-14 for the types and mounting dimensions



TE Series

Three-Phase Induction Motors













• Frame size	H80~200
• Power	0.18~37KW
• Synchronous speed	3000; 1500; 1000; 750RPM
• Voltage	230/400V; 400/690V
• Frequency	50Hz、60Hz
• Protection class	IP54; IP55
• Insulation class	F
• Ambi.temperature	-15~+40°C
• Altitude above sea level	≤1000m
• Removable feet	



Mounting Arrangements

The Commonly used mounting arrangements and the corresponding frame numbers are shown in table 1

Table 1

Frame No.	Basic			Variations								
	B3	B5	B35	Based On B5			Based On B3			Based On B35		
				V1	V3	V5	V6	B6	B7	B8	V15	V36
												
H80~160	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
H180~225	✓	✓	✓	✓	—	—	—	—	—	—	—	—
H250~355	✓	—	✓	✓	—	—	—	—	—	—	—	—

Bearings

Table 2

Frame No.	Driving End				Non-driving End			
	2P		4,6,8P		2P	4,6,8P	2P	4,6,8P
	Y	Y ₂ /TE	Y	Y ₂ /TE	Y	Y	Y ₂ /TE	Y ₂ /TE
80	6204				6204			
90	6205				6205			
100	6206				6206			
112	6206				6206			
132	6208				6208			
160	6309	6209	6309		6309			
180	6311	6211	6311		6311			
200	6312	6212	6312		6312			
225	6313	6312	6313		6313		6312	
250	6314	6313	6314		6314		6313	
280	6314		6317		6314	6317	6314	
315	6317		N319		6317	6319	6317	6319
355	6319		N322		6319	6322	6319	6322

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Y Series Technical Data (at 380V)

Table 3

Model	Rated Output (KW)	At Full Load				Locked Current	Locked Torque	Max Torque	Net Weight (Kg)	Noise Level dB(A)			
		Speed (r/min)	Current (A)	Eff. (%)	Power Factor (CosΦ)	Rated Current	Rated Torque	Rated Torque		I	II		
Synchronous Speed 3000r/min 50Hz													
80 1	0.75	2825	1.8	75.5	0.845	6.5	2.2	2.3	16	66	71		
80 2	1.1		2.5	77.2	0.867				18				
90S	1.5		2840	3.4	78.6				0.849	21	70	75	
90L	2.2	4.8		80.7	0.86				24				
100L	3	2880		6.4	82.2				0.872	34	74	79	
112M	4			8.2	85.8				0.86	43			
132S1	5.5	2900	11.1	85.7	0.89		7	2	63	78	83		
132S2	7.5		14.9	86.4	0.886				69				
160M1	11	2930	21.6	87.4	0.885				114	82	87		
160M2	15		28.9	88.3	0.893				120				
160L	18.5		35.7	89.2	0.883	136							
180M	22		2940	42.2	89.9	0.881		172	87	92			
200L1	30	2950		56.9	90.2	0.888		222			90	95	
200L2	37		69.8	90.6	0.889	246							
225M	45	2970	83.9	91.3	0.893	292		92	97				
250M	55		103	91.6	0.884	392							
280S	75	2960	139.7	91.8	0.889	6.8	1.8	508	94	99			
280M	90		166	92.6	0.89			590					
315S	110		202	92.7	0.883			862	99	104			
315M	132		238	93.1	0.905			996					
315L1	160		287	93.6	0.905			1055					
315L2	200		365	93.7	0.905			1080					
355M1	220		2980	397	94.2			0.89	6.9	1.2	1750	109	
355M2	250			444	94.5			0.9	7		1770	111	
355L1	280			497	94.7				7.1		1830		
355L2	315			557	95				1900				
Synchronous Speed 1500r/min 50Hz													
80 1	0.55	1390	1.5	73.2	0.766	6	2.4		16	56	67		
80 2	0.75		2	74.7	0.764		17						
90S	1.1	1400	2.8	77.9	0.782	6.5	2.3	21	61	62			
90L	1.5		3.7	79.2	0.792			25					
100L1	2.2	1420	5	81.1	0.824	7	2.2	33	65	70			
100L2	3		6.8	82.7	0.811			38					
112M	4	1440	8.7	84.6	0.83			49	68	74			
132S	5.5		11.6	85.6	0.843			64			70	78	
132M	7.5	15.4	86.7	0.852	77		71						
160M	11	1460	22.7	88.1	0.84		2.2	2.3	122	75	82		
160L	15		30.5	88.4	0.845				140				
180M	18.5	1470	35.9	91.2	0.859		7	2	166	77	84		
180L	22		42.9	91.3	0.861				181				
200L	30		56.8	92.1	0.871				242				
225S	37		70.4	91.9	0.869	278			79	84			
225M	45	1480	84.2	92.2	0.88	312							
250M	55		103	92.7	0.875	395	81	86					
280S	75	1470	137.6	92.8	0.892	6.8			1.9	562	85	90	
280M	90		163.7	93.4	0.894		630						
315S	110		199	94.1	0.893		905	93		98			
315M	132		235	94.6	0.902		1016						
315L1	160		285	94.5	0.903		1108	96		101			
315L2	200		361	94.6	0.89		1210						
355M1	220		1490	407	94.4		0.87	7		1.8	1660	106	
355M2	250			461	94.7						1700	108	
355L1	280			515	94.9						1790		
355L2	315			578	95.2						1890		

IEC MOTOR

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Y Series Technical Data (at 380V)

Table 4

Model	Rated Output (KW)	At Full Load				Locked Current	Locked Torque	Max Torque	Net Weight (Kg)	Noise Level dB(A)	
		Speed (r/min)	Current (A)	Eff. (%)	Power Factor (CosΦ)					I	II
Synchronous Speed 1000r/min 50Hz											
90S	0.75	910	2.3	72.5	0.7	5.5			22	56	65
90L	1.1		3.2	73.5	0.72				25		
100L	1.5	940	4	77.5	0.74	6		2.2	33	62	67
112M	2.2		5.6	80.5	0.74				43		
132S	3	960	7.2	83	0.76		2		60	66	71
132M1	4		9.4	84	0.77				71		
132M2	5.5		13	85.3	0.78				82		
160M	7.5	970	17.1	86.2	0.773				108	69	75
160L	11		25	87.1	0.768				128		
180L	15		31.4	89.4	0.812				178	70	
200L1	18.5		37.7	89.9	0.829						220
200L2	22	44.6	90.4	0.829	230	76	81				
225M	30	980	59.5	90.2	0.849				1.8	2	296
250M	37		72	90.9	0.859	386					
280S	45		84.2	92.1	0.882	498	79				84
280M	55		102	92.4	0.887	556					
315S	75	990	139.6	92.9	0.879		1.6		858	87	92
315M	90		167	93.3	0.878				962		
315L1	110		203.3	93.7	0.877				1020		
315L2	132		241.8	93.9	0.886				1126		
355M1	160	990	300	94.1	0.86	6.7	1.3	2	1590	102	
355M2	185		346	94.3					1680		
355M3	200		374	94.3					1750		
355L1	220		409	94.5					1880		
355L2	250		465	94.7					1990		
Synchronous Speed 750r/min 50Hz											
132S	2.2	710	5.8	80.5	0.71	5.5			60	61	66
132M	3		7.6	82.3	0.729				71		
160M1	4	720	10.5	84.1	0.73	6		2	102	64	69
160M2	5.5		13.4	85.2	0.732				108		
160L	7.5	730	17.7	86.1	0.748	5.5		2	133	67	72
180L	11		25.1	87.7	0.758	1.7			176		
200L	15		34.1	88.3	0.757					1.8	230
225S	18.5		41.3	89.7	0.759	1.7			258		
225M	22		47.6	90.3	0.778					296	70
250M	30		63	90.5	0.8	378			73		
280S	37		76.1	91.2	0.81					494	562
280M	45		90.8	91.9	0.819	6.5			1.6		
315S	55		110.2	92.3	0.822					1010	82
315M	75		148.9	92.7	0.826	1110					
315L1	90	175.9	93.3	0.833	6		1195				
315L2	110	214.8	93.4	0.833		1660					
355M1	132	740	260	93.8	0.81	6.3	1.3	2	1740	99	
355M2	160		315	94					1870		
355L1	185		363	94.2					1980		
355L2	200		392	94.3							

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Table 5

Model	Rated Output (KW)	At Full Load				Locked Current	Locked Torque	Max Torque	Net Weight (Kg)	Noise Level dB(A)				
		Speed (r/min)	Current (A)	Eff. (%)	Power Factor (CosΦ)	Rated Current	Rated Torque	Rated Torque		I	II			
Synchronous Speed 3000r/min 50Hz														
80 1	0.75	2830	1.8	75	0.83	6.1	2.2	2.3	16	67	69			
80 2	1.1		2.5	77	0.84	7			17					
90S	1.5		2840	3.3					79	22	72	74		
90L	2.2	4.6		81	25									
100L	3	2860	6.0	83	0.87	33			76	78				
112M	4	2880	7.7	85	0.88	45			77	79				
132S1	5.5	2900	10.5	86		64			80	82				
132S2	7.5		14.1	87	70									
160M1	11	2930	20.3	88	0.89	7.5			2	117	86	88		
160M2	15		27.3	89						125				
160L	18.5		33	90			147							
180M	22	2940	39.2	90	0.90		2	180		89	91			
200L1	30	2950	52.8	91.2				240		92	94			
200L2	37		64.5	92	255									
225M	45	2970	78.2	92.3	0.91			7.1		1.8	309	93	95	
250M	55		95.4	92.5							403			
280S	75		129.3	93							544			94
280M	90	152.2	93.8	620										
315S	110	2980	185.6	94	0.92	1.6			2.2		980	96	98	
315M	132		221.6	94.5							1080			
315L1	160		265.4	94.6							1160	99	101	
315L2	200	331.0	94.8	1190										
355M	250	411.6	95.3	1760	103		105							
355L	315	517.0	95.6	1850										
Synchronous Speed 1500r/min 50Hz														
80 1	0.55	1390	1.5	71	0.75		5.2	2.3		2.3	17	58	63	
80 2	0.75		2.0	73	0.76		6				18			
90S	1.1		1390	2.8	75						0.77	22	61	66
90L	1.5	3.5		78	0.79	27								
100L1	2.2	1410	4.9	80	0.81	7	2.3		34		64	69		
100L2	3		6.5	82	38									
112M	4	1440	8.4	84	0.82				43		65	70		
132S	5.5	1440	11.3	85					0.83		68	71	76	
132M	7.5		14.8	87	81									
160M	11	1460	21.5	88	0.84				7.5		2.3	123	75	80
160L	15		30.1	89				0.85		144				
180M	18.5	1470	34.3	90.5	0.86			7.2		2.2		182	76	80
180L	22		40.6	91								190		
200L	30		54.7	92								270	79	83
225S	37	1480	66.4	92.5	0.87	6.9	2.1					284	81	85
225M	45		80.5	92.8								320		
250M	55		98.1	93								427		
280S	75	132.7	93.8	562	86							89		
280M	90	158.5	94.2	667										
315S	110	1490	191.0	94.5	0.88				2.2		2.2	1000	93	96
315M	132		228.4	94.8								1100		
315L1	160		273.4	94.9				1160		97		100		
315L2	200	334.4	95	1270										
355M	250	420.7	95.3	1700	101			104						
355L	315	528.4	95.6	1850										

Table 6

Model	Rated Output (KW)	At Full Load				Locked Current	Locked Torque	Max Torque	Net Weight (Kg)	Noise Level dB(A)	
		Speed (r/min)	Current (A)	Eff. (%)	Power Factor (CosΦ)					I	II
Synchronous Speed 1000r/min 50Hz											
80 1	0.37	890	1.3	62	0.70	4.70	1.90	2.00	17	54	61
80 2	0.55		1.7	65	0.72				19		
90S	0.75	910	2.2	69	0.73	5.50	2.00	2.00	23	57	64
90L	1.1		3.0	72					25		
100L	1.5	920	3.8	76	0.75	6.50	2.10	2.10	33	61	68
112M	2.2	940	5.3	79	0.76				45	65	72
132S	3	960	7.0	81	0.77	6.50	2.10	2.10	63	69	76
132M1	4		9.3	82					73		
132M2	5.5	970	12.3	84	0.78	6.50	2.10	2.10	84	73	80
160M	7.5		16.4	86					119		
160L	11	970	23.3	87.5	0.81	6.50	2.00	2.00	147	76	82
180L	15		30.0	89.0					195		
200L1	18.5	980	36.6	90.0	0.83	6.50	2.10	2.10	220	78	84
200L2	22		42.5	90.0					250		
225M	30	980	56.3	91.5	0.84	6.50	2.00	2.00	292	85	90
250M	37		67.5	92					408		
280S	45	980	81.7	92.5	0.86	6.50	2.10	2.10	536	80	85
280M	55		99.5	92.8					595		
315S	75	990	134.6	93.5	0.87	6.50	2.00	2.00	990	85	90
315M	90		161.1	93.8					1080		
315L1	110	990	196.1	94.0	0.88	6.70	1.90	1.90	1150	92	96
315L2	132		232.5	94.2					1210		
355M1	160	990	227.7	94.5	0.88	6.70	1.90	1.90	1600	92	96
355M2	200		346.4	94.7					1700		
355L	250	990	432.1	94.9	0.88	6.70	1.90	1.90	1800	92	96
Synchronous Speed 750r/min 50Hz											
80 1	0.18	630	0.9	51.0	0.61	3.30	1.80	1.90	17	52	60
80 2	0.25	640	1.1	54.0					19		
90S	0.37	660	1.4	62.0	0.67	4.00	1.80	1.90	23	56	64
90L	0.55		2.1	63.0					25		
100L1	0.75	690	2.3	71.0	0.69	5.00	1.80	1.90	33	59	67
100L2	1.1		3.2	73.0					38		
112M	1.5	680	4.2	75.0	0.71	6.00	1.90	1.90	50	61	69
132S	2.2	710	5.8	78.0	0.73				63	64	72
132M	3		7.5	79.0	79	6.00	1.90	1.90	118	68	76
160M1	4	9.8	81.0	0.74	145						
160M2	5.5	720	12.9	83.0	0.75	6.00	2.00	2.00	184	70	78
160L	7.5		16.9	85.5	0.76				250		
180L	11	730	23.9	87.5	0.78	6.00	2.00	2.00	266	73	80
200L	15		32.4	88.0					292		
225S	18.5	730	39.1	90.0	0.79	6.60	1.90	1.90	405	75	82
225M	22		45.0	90.5					520		
250M	30	740	63.4	91.0	0.81	6.60	1.90	1.90	592	76	82
280S	37		73.9	91.5					1000		
280M	45	740	89.4	92.0	0.82	6.60	1.80	1.80	1100	82	88
315S	55		105.6	92.8					1160		
315M	75	740	143.7	93.0	0.82	6.40	1.80	1.80	1230	90	95
315L1	90		168.9	93.8					1600		
315L2	110	740	206.0	94.0	0.83	6.40	1.80	1.80	1700	90	95
355M1	132		248.0	93.7					1800		
355M2	160	740	299.0	94.2	0.83	6.40	1.80	1.80	1700	90	95
355L	200		368.1	94.5					1800		

IEC MOTOR

GOST MOTOR

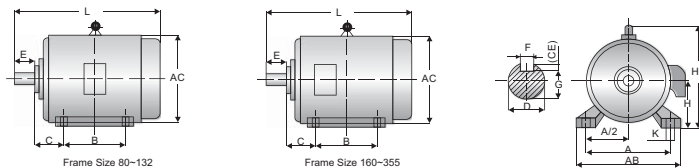
NEMA MOTOR

PUMP

GENERATOR

D.C. MOTOR

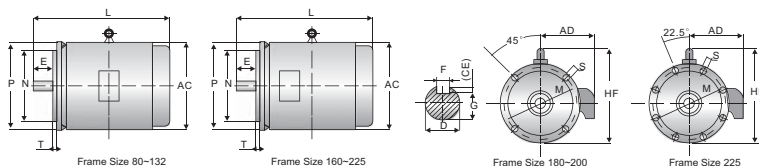
Y Series Mounting Dimensions



IM B3

Table 7

Frame No.	Poles	Mounting Dimensions & Tolerance													Frame Dimensions				
		A	A/2	B	C	D	E	F	G ¹⁾	H	K ²⁾	AB	AC	AD	HD	L			
80	2,4	125	62.5	100	50	19	40	6	15.5	80	10	165	175	150	175	290			
90S	2,4,6	140	70	100	56	±1.5	24	±0.009	50	±0.310	8	20	90	10	180	195	160	195	315
90L				125	56	±1.5	24	+0.009	50	±0.310	8	20	10	180	195	160	195	340	
100L	2,4,6	160	80	140	63	±0.50	28	-0.004	60	±0.370	8	24	100	12	205	215	180	245	380
112M				140	70	±2.0	28	-0.004	60	±0.370	8	24	12	245	240	190	265	400	
132S	2,4,6,8	216	108	140	89	±2.0	38	0	80	±0.370	10	33	132	12	280	275	210	315	475
132M				178	89	±2.0	38	0	80	±0.370	10	33	12	280	275	210	315	515	
160M	2,4,6,8	254	127	210	108	±3.0	42	+0.018	110	±0.430	12	37	160	15	330	335	265	385	605
160L				254	108	±3.0	42	+0.018	110	±0.430	12	37	15	330	335	265	385	650	
180M	2,4,6,8	279	139.5	241	121	±3.0	48	+0.002	110	±0.430	14	42.5	180	15	355	380	285	430	670
180L				279	121	±3.0	48	+0.002	110	±0.430	14	42.5	15	355	380	285	430	710	
200L	4,8	318	159	305	133	±0.75	55	0	140	±0.500	16	49	200	19	395	420	315	475	775
225S				286	149	±0.75	60	0	140	±0.500	18	53	19	435	475	345	530	820	
225M	2	356	178	311	149	±0.75	55	0	110	±0.430	16	49	225	19	435	475	345	530	815
225M	4,6,8			311	149	±0.75	55	0	110	±0.430	16	49	19	435	475	345	530	845	
250M	2	406	203	349	168	±0.75	60	0	140	±0.500	18	53	250	24	490	515	385	575	930
250M	4,6,8			349	168	±0.75	60	0	140	±0.500	18	53	24	490	515	385	575	930	
280S	2	457	228.5	368	190	±0.75	65	0	140	±0.500	20	58	280	24	550	580	410	640	1000
280S	4,6,8			368	190	±0.75	65	0	140	±0.500	20	58	24	550	580	410	640	1000	
280M	2	457	228.5	419	190	±0.75	75	+0.030	140	±0.500	18	58	280	24	550	580	410	640	1050
280M	4,6,8			419	190	±0.75	75	+0.030	140	±0.500	18	58	24	550	580	410	640	1050	
315S	2	508	254	406	216	±1.00	65	0	170	±0.500	18	58	315	28	744	645	576	865	1240
315S	4,6,8,10			406	216	±1.00	65	0	170	±0.500	18	58	28	744	645	576	865	1270	
315M	2	508	254	457	216	±1.00	65	0	140	±0.500	18	58	315	28	744	645	576	865	1310
315M	4,6,8,10			457	216	±1.00	65	0	140	±0.500	18	58	28	744	645	576	865	1340	
315L	2	508	254	508	216	±1.00	65	0	170	±0.500	18	58	315	28	744	645	576	865	1310
315L	4,6,8,10			508	216	±1.00	65	0	170	±0.500	18	58	28	744	645	576	865	1340	
355M	2	610	305	560	254	±1.05	75	+0.030	140	±0.500	20	67.5	355	28	740	750	680	1035	1540
355M	4,6,8,10			560	254	±1.05	75	+0.030	140	±0.500	20	67.5	28	740	750	680	1035	1570	
355L	2	610	305	630	254	±1.05	75	+0.035	170	±0.57	25	86	355	28	740	750	680	1035	1540
355L	4,6,8,10			630	254	±1.05	75	+0.035	170	±0.57	25	86	28	740	750	680	1035	1570	

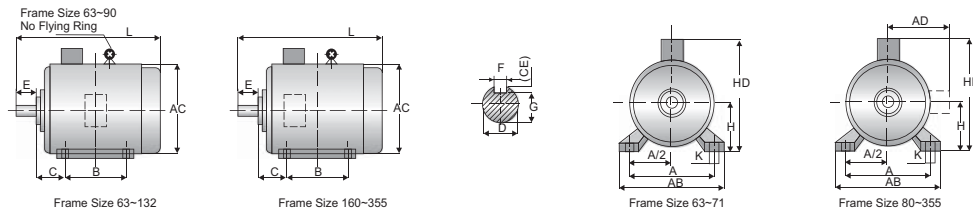


IM B5

Table 8

Frame No.	Poles	Mounting Dimensions & Tolerance											Frame Dimensions								
		D	E	F	G ¹⁾	M	N	P ³⁾	R ⁴⁾	S	T	Holes No.	AC	AD	HF	L					
80	2,4	19	+0.009	40	±0.310	6	0	15.5	0	165	130	±0.014	200	±1.5	12	3.5	4	175	150	185	290
90S	2,4,6	24	50	8	±0.310	0	20	165	130	±0.014	200	±1.5	12	+0.430	3.5	4	4	195	160	195	315
90L																					
100L	2,4,6	28	60	10	±0.370	0	24	215	180	±0.016	300	±2.0	15	4	4	4	4	215	180	245	380
112M																					
132S	2,4,6,8	38	80	12	±0.370	0	33	265	230	+0.016	350	±3.0	19	+0.520	5	5	5	275	210	315	475
132M																					
160M	2,4,6,8	42	110	14	±0.430	0	42.5	300	250	±0.013	350	±3.0	19	+0.520	5	5	5	335	265	385	605
160L																					
180M	2,4,6,8	48	110	16	±0.430	0	49	350	300	±0.016	400	±3.0	19	+0.520	5	5	5	380	285	430	670
180L																					
200L	4,8	55	140	18	±0.500	0	53	350	300	±0.018	450	±4.0	19	5	5	5	420	315	480	775	
225S	2	55	110	16	±0.430	0	49	400	350	±0.018	450	±4.0	19	5	5	5	420	315	480	775	
225M	4,6,8	60	140	18	±0.500	0	53	400	350	±0.018	450	±4.0	19	5	5	5	475	345	535	815	
225M	4,6,8	60	140	18	±0.500	0	53	400	350	±0.018	450	±4.0	19	5	5	5	475	345	535	845	

Y₂ / TE Series Mounting Dimensions

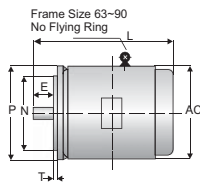


IM B3

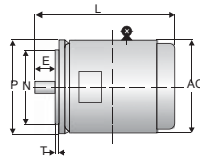
Table 11

Frame No.	Poles	Mounting Dimensions & Tolerance											Frame Dimensions															
		A	A/2	B	C	D	E	F	G ¹⁾	H	K ²⁾	AB	AC	AD	HD	L												
80	2,4,6,8	125	62.5	100	50	±1.5	19	+0.009 -0.004	40	±0.31	6	15.5 ⁰ -0.10	80	10	+0.036 0	165	175	145	220	295								
90S		140	70	100	56		24		50		8		90			8	20	100	12	205	215	180	270	385				
90L			125	70	125		56		24		50		8												90	112	230	240
100L		160	80	140	63	±2.0	28	±0.37	60	0 ⁰ -0.036	24	100	12	270	275	210	345	470										
112M		190	95	140	70		38		80										10	33	132	160	15	320	330	255	420	670
132S		216	108	140	89		38		80										10	33								
132M		216	108	178	89	±3.0	42	+0.018 +0.002	110	±0.43	14	42.5	180	15	355	380	280	455	700									
160M		254	127	210	108		42		110		14									42.5	180	200	19	395	420	305	505	770
160L		254	127	254	108		42		110		14									42.5								
180M		279	139.5	241	121	±4.0	48	+0.030 +0.011	140	±0.50	18	0 ⁰ -0.043	225	19	435	470	335	560	820									
180L		279	139.5	279	121		48		140		18									49	225	250	24	490	510	370	615	910
200L		318	159	305	133		55		140		18									49								
225S	4,8	356	178	286	149	60	60	140	±0.50	18	0 ⁰ -0.043	225	19	435	470	335	560	820										
225M	2			311		60		110	±0.43	16									49	225	250	24	490	510	370	615	910	
225M	4,6,8			311		60		110	±0.43	16									49									225
250M	2	406	203	349	168	65	65	180	±0.43	18	0 ⁰ -0.20	250	24	490	510	370	615	910										
250M	4,6,8					65		140		18									58	280	24	550	580	410	680	1035		
280S	2					457		228.5		368									190								75	140
280M	2	457	228.5	368	190	75	140	20	0 ⁰ -0.043	58	280	24	550	580	410	680	1035											
280M	4,6,8	457	228.5	419	190	75	140	20	0 ⁰ -0.052	67.5								280	24	550	580	410	680	1035				
315S	2	508	254	457	216	65	+0.030 +0.011	170	±0.50	18	0 ⁰ -0.043	315	28	635	645	530	845								1295			
315S	4,6,8,10					80		170		±0.50								22	0 ⁰ -0.052	71	315	28	635	645		530	845	1295
315M	2					65		140		18								0 ⁰ -0.043	58	315								
315M	4,6,8,10	80	170	22	0 ⁰ -0.052	71	315	28	635	645	530	845	1295															
315L	2	508	65	140	18	0 ⁰ -0.043								58	315	28	635	645	530	845	1295							
315L	4,6,8,10	508	80	170	22	71	315	28	635	645	530	845	1295															
355M	2	610	305	560	254	75								+0.035 +0.013	170	±0.50	20	67.5	355	28	730	710	655	1010	1500			
355M	4,6,8,10					95	170	25	0 ⁰ -0.052	86	355	28	730		710		655									1010	1500	
355L	2					75	140	20	67.5	355																		28
355L	4,6,8,10	95	170	25	86	355	28	730	710		655	1010	1500															

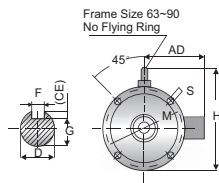
Y₂ / TE Series Mounting Dimensions



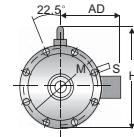
Frame Size 63-132



Frame Size 160-280



Frame Size 63-200



Frame Size 225-280

IM B5

Table 12

Frame No.	Poles	Mounting Dimensions & Tolerance												Frame Dimensions					
		D	E	F	G ¹⁾	M	N	P ³⁾	R ⁴⁾	S	T	Holes No.	AC	AD	HF	L			
80	2,4,6,8	19	40	±0.31	6	0 -0.030	15.5	0 -0.10	165	130	200	±1.5	12	3.5	4	175	145	185	295
90S		24			+0.009 -0.004	8										0 -0.036	20	±0.014 -0.011	215
90L			28	60			±0.37	24	215	180	250	±2.0	15	4					
100L		38			80	10										33	265	230	300
112M			42	+0.018 +0.002			110	±0.43	12	37	300	250	±3.0	19					
132S		48			110	±0.43										14	42.5	0 -0.20	350
132M			55	140			±0.50	18	0 -0.043	53	400	350	±0.018 0	450					
160M		60			110	±0.43										16	49	0 -0.20	350
160L			65	140			±0.50	20	0 -0.052	67.5	500	450	±0.020 0	550					
180M		75			140	±0.50										18	0 -0.043	58	500
180L			75	140			±0.50	20	0 -0.052	67.5	500	450	±0.020 0	550					
200L		75			140	±0.50										18	0 -0.043	58	500
225S			75	140			±0.50	20	0 -0.052	67.5	500	450	±0.020 0	550					
225M		75			140	±0.50										20	0 -0.052	67.5	500
250M	75		140	±0.50			20	0 -0.052	67.5	500	450	±0.020 0	550	±4.0	8				
280S		75			140	±0.50										20	0 -0.052	67.5	500
280M	75		140	±0.50			20	0 -0.052	67.5	500	450	±0.020 0	550	±4.0	8				

IEC MOTOR

GOST MOTOR

NEMA MOTOR

PUMP

GENERATOR

D.C. MOTOR

Y₂ / TE Series Mounting Dimensions

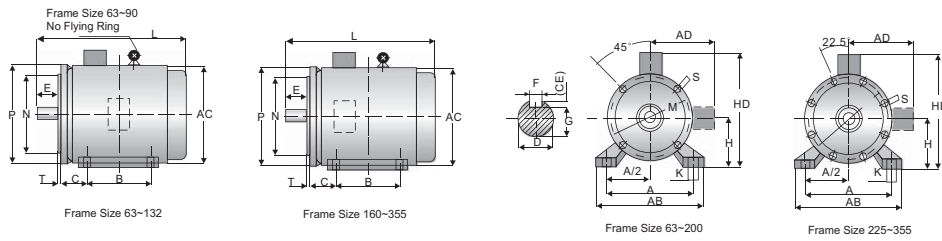
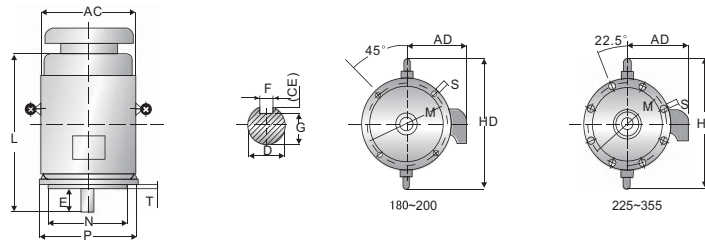


Table 13

IM B35

Frame No.	Poles	Mounting Dimensions & Tolerance																	Frame Dimensions							
		A	A/2	B	C	D	E	F	G ¹⁾	H	K ²⁾	M	N	P ³⁾	R ⁴⁾	S	T	Holes No.	AB	AC	AD	HD	L			
80	2,4,6,8	125	63	100	50	19	40	6	0	16	0	80	10	M	N	P ³⁾	R ⁴⁾	S	T	4	165	175	145	220	295	
90S		140	70	100	56			±1.5	24	±0.310	0	-0.03 0									20	0	90	12	165	130
90L					125				8																	345
100L					140	63			0	-0.03 6	24		100													385
112M					140	70	±2.0		60				112	0	±0.430	180		250								400
132S					140	89			±0.370										±2.0	15	4					470
132M					178				80	10	33		132		265	230		300								510
160M					210	108				12	37		160													615
160L					254																					670
180M					241	121	±3.0		110	±0.430	14	43	180	15	300	250		350	±3.0			0				700
180L					279																	0				740
200L					318	159	305	133	55		16	49	200				±0.016	400								770
225S	4,8			286				60	140	±0.500	18	0	19												815	
225M	2	356	178		149			55	110	±0.430	16			400	350	±0.018	450								820	
	4,6,8			311				60										19		5					845	
250M	2	406	203	349	168			65																	910	
	4,6,8							65										0								
280S	2			368				75																	985	
	4,6,8	457	229		190			140	20	0	-0.052	68	0	500	450	±0.020	550									
280M	2							65	18	0	-0.043	58													1035	
	4,6,8,10			419				75	20	0	-0.052	68														
315S	2			406		±4.0		65	18	0	-0.043	58													1185	
	4,6,8,10							80	22	0	-0.052	71													1215	
315M	2	508	254	457	216			65	18	0	-0.043	58		600	550	±0.022	660								1295	
	4,6,8,10							80	22	0	-0.052	71													1325	
315L	2							65	18	0	-0.043	58													1295	
	4,6,8,10			508				80	22	0	-0.052	71													1325	
355M	2			560				75	20		68														1500	
	4,6,8,10							95	25	0	-0.052	86													1530	
355L	2	610	305	254				75	20		68														1500	
	4,6,8,10			630				95	25	0	-0.052	86		740	680	±0.025	800								1530	

Y₂ / TE Series Mounting Dimensions



IM V1

Table 14

Frame No.	Poles	Mounting Dimensions & Tolerance											Frame Dimensions														
		D	E	F	G ¹⁾	M	N	P ³⁾	R ⁴⁾	S	T	Holes No.	AC	AD	HF	L											
180M	2,4,6,8	48	110	14	42.5	300	250	350	±3.0	19	5	4	380	280	500	760											
180L		+0.018 +0.022														±0.430	0	0	-0.120	800							
200L		55														16	49	350	300	±0.016	400	420	305	550	840		
225S	4,8	60	140	±0.500	18	0	53	400	350	±0.018	450	470	335	610	905	910											
225M	2	55	110	±0.430	16	-0.043	49									935											
250M	4,6,8	60	140	±0.500	18	0	53									500	450	±0.020	550	510	370	650	1015	1110			
280S	2	65						20	0 -0.052	67.5	0	58	0	0	0									580	410	720	1150
280M	4,6,8	75						18	0 -0.043	58	0	58	±4.0	+0.520 0	-0.150									8	645	530	900
315S	2	65	170	±0.500	22	0 -0.052	71	600	550	±0.022	660	645	530	900	1430	1280											
315M	4,6,8,10	80														18	0 -0.043	58	0	58	24	6	1310				
315L	2	65														140	18	0 -0.043	58	0	58	24	6	1430			
355M	4,6,8,10	95	170	25	0 -0.052	86	740	680	±0.025	800	710	655	1010	1640	1670												
355L	2	75	140	20	0	67.5	740	680	±0.025	800	710	655	1010	1640	1670												
	4,6,8,10	95	170	25	0	86	740	680	±0.025	800	710	655	1010	1640	1670												

The note for: 1)G=D-GE.The limit of deciation in GE is (+0.10 / 0) for frame No.up to 80,the rest is (+0.20 / 0).

2)The position tolerance for hole K is based on the axis of shaft extension.

3)Dimension P is the maximun limit value.

4)R is the distance from the matching surface of flange to the shoulder of shaft extension.

ML Series

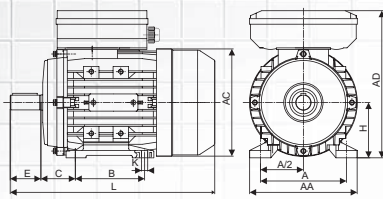
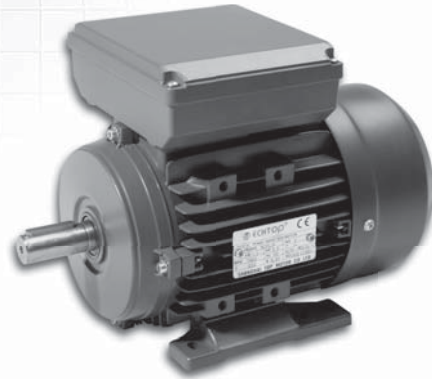
Single-Phase Capacitor Start and Capacitor Run Asynchronous Motors

Aluminum Housing

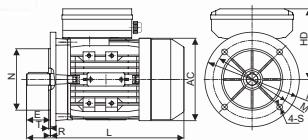
ML series aluminum housing single-phase dual-capacitor asynchronous motors, with latest design in entirety, are made of selected quality materials and conform to the IEC standard.

ML motors have good performance, safety and reliable operation, the multiple of starting torque is up to 2.5.

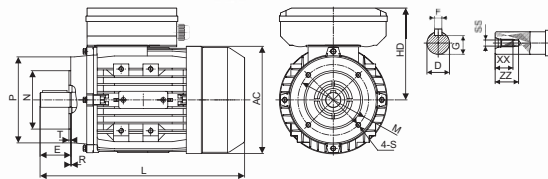
These series motors are suitable for the occasion where the requirements of big starting torque and high over load, such as air-compressors, pumps, and many other small machines.



IM B3



IM B5



IM B14

Overall & Installation Dimensions

Frame Size	Mounting Dimensions															Overall Dimensions					Shaft End Screw Dimensions								
	A	B	C	D	E	F	G	H	K	IM B14					IM B5					AA	AC	AD	HD	L	SS	XX	ZZ		
										M	N	P	R	S	T	M	N	P	R									S	T
63	100	80	40	11	23	4	8.5	63	7X10	75	60	90	0	M5	2.5	115	95	140	0	φ 10	3.0	120	130	179	116	212	M4	10	15
71	112	90	45	14	30	5	11	71	7X10	85	70	105	0	M6	2.5	130	110	160	0	φ 10	3.5	132	145	194	123	255	M5	12	18
80	125	100	50	19	40	6	15.5	80	10X13	100	80	120	0	M6	3.0	165	130	200	0	φ 12	3.5	157	165	223	143	290	M6	16	22
90S	140	100	56	24	50	8	20	90	10X13	115	95	140	0	M8	3.0	165	130	200	0	φ 12	3.5	172	185	240	150	335	M8	20	25
90L	140	125	56	24	50	8	20	90	10X13	115	95	140	0	M8	3.0	165	130	200	0	φ 12	3.5	172	185	240	150	365	M8	20	25
100L	160	140	63	28	60	8	24	100	12X15	130	110	160	0	M8	3.5	215	180	250	0	φ 15	4.0	196	205	260	160	398/416	M10	22	28
112M	190	140	70	28	60	8	24	112	12X15	130	110	160	0	M8	3.5	215	180	250	0	φ 15	4.0	222	230	295	183	416	M10	22	28

Technical Data (at 230V/50Hz)

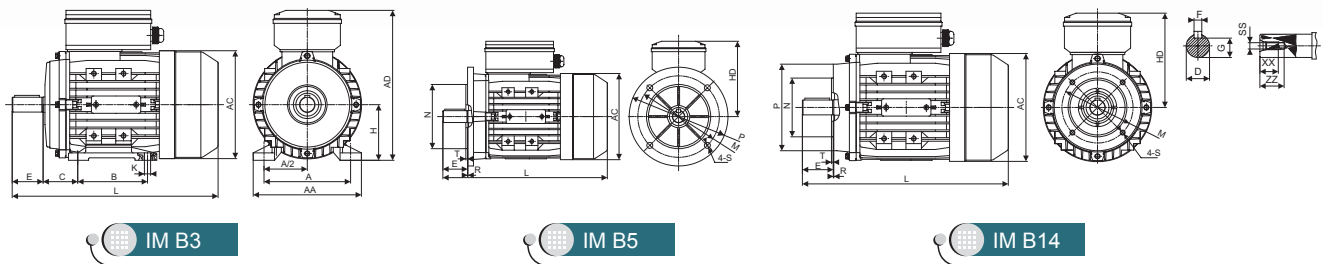
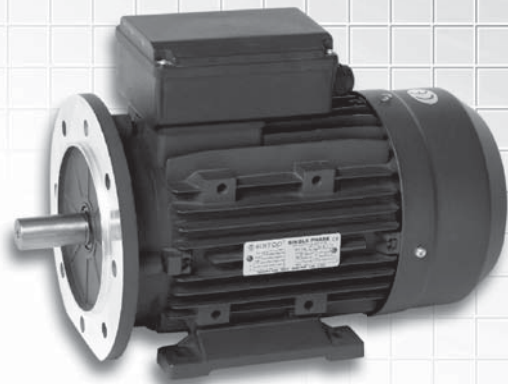
Model	Power (KW)	Current (A)	Speed (r/min)	Eff. (%)	Power Factor (CosΦ)	Rate Torque (N.M)	T _{st} /T _n (Times)	T _{max} /T _n (Times)	Starting Current (A)	Run Capacitor (μF/V)	Start Capacitor (μF/V)	Noise dB (A)	W.T (Kg)
ML631-2	0.18	1.38	2710	63	0.9	0.63	2.5	1.6	8	10μF/450V	30μF/250V	70	3.9
ML632-2	0.25	1.89	2710	64	0.9	0.88	2.5	1.6	10	12μF/450V	40μF/250V	73	4.4
ML711-2	0.37	2.66	2780	65	0.93	1.27	2.5	1.8	15	12μF/450V	75μF/250V	75	6.1
ML712-2	0.55	3.78	2790	68	0.93	1.88	2.5	1.8	20	16μF/450V	100μF/250V	76	7
ML801-2	0.75	4.87	2800	72	0.93	2.56	2.5	1.8	30	20μF/450V	100μF/250V	76	9
ML802-2	1.1	7.04	2810	73	0.93	3.74	2.5	1.8	40	30μF/450V	150μF/250V	79	10.3
ML90S-2	1.5	9.48	2810	74	0.93	5.10	2.5	1.8	55	40μF/450V	200μF/300V	84	16.3
ML90L-2	2.2	13.57	2810	75	0.94	7.48	2.5	1.8	75	50μF/450V	250μF/300V	84	16.7
ML100L-2	3.0	17.83	2830	77	0.95	10.13	2.5	1.7	110	60μF/450V	400μF/300V	88	25
ML112M1-2	3.7	21.48	2850	78	0.96	12.40	2.5	1.7	140	60μF/450V	600μF/300V	90	33
ML112M2-2	4.0	22.18	2850	80	0.98	13.41	2.5	1.7	150	60μF/450V	600μF/300V	90	34.2
ML631-4	0.12	1.05	1350	55	0.9	0.85	2.5	1.6	6	10μF/450V	30μF/250V	64	4.1
ML632-4	0.18	1.55	1350	56	0.9	1.27	2.5	1.6	8.5	12μF/450V	40μF/250V	64	4.5
ML711-4	0.25	2.01	1380	60	0.9	1.73	2.5	1.7	10	12μF/450V	50μF/250V	66	5.9
ML712-4	0.37	2.84	1380	63	0.9	2.56	2.5	1.7	15	16μF/450V	75μF/250V	68	6.9
ML801-4	0.55	4.03	1400	66	0.9	3.75	2.5	1.8	20	20μF/450V	100μF/250V	71	9.6
ML802-4	0.75	5.25	1410	69	0.9	5.08	2.5	1.8	30	25μF/450V	100μF/250V	71	10.9
ML90S-4	1.1	7.24	1410	71	0.93	7.45	2.5	1.8	40	35μF/450V	150μF/250V	74	13.8
ML90L-4	1.5	9.61	1400	73	0.93	10.24	2.5	1.8	55	40μF/450V	200μF/300V	79	16.7
ML100L1-4	2.2	13.90	1430	74	0.93	14.70	2.5	1.8	75	50μF/450V	300μF/300V	79	22.8
ML100L2-4	3	18.70	1440	75	0.93	19.91	2.5	1.8	110	60μF/450V	500μF/300V	83	28.7
ML112M1-4	3.7	21.99	1440	77	0.95	24.55	2.5	1.7	140	60μF/450V	600μF/300V	86	31
ML112M2-4	4.0	22.41	1440	80	0.97	26.54	2.5	1.7	150	60μF/450V	600μF/300V	86	32.8

MY/MYT Series

Single-Phase Capacitor Run Asynchronous Motors

Aluminum Housing

MY/MYT series aluminum housing single-phase capacitor-run asynchronous motors, with latest design in entirety, are made of selected quality materials and conform to the IEC standard. **MY** motors have good performance, safety and reliable operation, nice appearance, and can be maintained very conveniently, while with low noises, little vibration and at the same time of light weight and simple construction. The multiple of starting torque is 0.3~0.7(MY), 0.45~0.75(MYT). These series motors are suitable for the occasion where their requirements of starting torque is low and long-term continuous working, such as home electric appliances, pumps, fans, and recording meters, etc.



Overall & Installation Dimensions

Frame Size	Mounting Dimensions																			Overall Dimensions					Shaft End Screw Dimensions				
	A	B	C	D	E	F	G	H	K	IM B14					IM B5														
										M	N	P	T	R	S	M	N	P	T	R	S	AA	AC	AD	HD	L	SS	XX	ZZ
56	90	71	36	φ9	20	3	7.2	56	5.8x8.8	φ65	φ50	φ80	2.5	0	M5	φ100	φ80	φ120	3.0	0	φ7	110	φ117	144	88	196	M3	9	12
63	100	80	40	φ11	23	4	8.5	63	7x10	φ75	φ60	φ90	2.5	0	M5	φ115	φ95	φ140	3.0	0	φ10	120	φ130	181	118	220	M4	10	14
71*	112	90	45	φ14	30	5	11	71	7x10	φ85	φ70	φ105	2.5	0	M6	φ130	φ110	φ160	3.5	0	φ10	132	φ147	196	125	241/255	M5	12	17
80	125	100	50	φ19	40	6	15.5	80	10x13	φ100	φ80	φ120	3.0	0	M6	φ165	φ130	φ200	3.5	0	φ12	160	φ163	226	146	290	M6	16	21
90S	140	100	56	φ24	50	8	20	90	10x13	φ115	φ95	φ140	3.0	0	M8	φ165	φ130	φ200	3.5	0	φ12	175	φ183	243	153	312	M8	19	25
90L	140	125	56	φ24	50	8	20	90	10x13	φ115	φ95	φ140	3.0	0	M8	φ165	φ130	φ200	3.5	0	φ12	175	φ183	243	153	337/367	M8	19	25
100L**	160	140	63	φ28	60	8	24	100	12x15	φ130	φ110	φ160	3.5	0	M8	φ215	φ180	φ250	4.0	0	φ15	198	φ205	265	165	369/387	M10	22	30

Technical Data (at 230V/50Hz)

Model	Power (KW)	Current (A)	Speed (r/min)	Eff. (%)	Power Factor (CosΦ)	T _{st} /T _n (Times)	T _{max} /T _n (Times)	Starting Current (A)	Run Capacitor (μF/V)	Noise dB(A)	W.T (Kg)
MY561-2	0.09	0.80	2740	54	0.91	0.69	1.8	2.5	4μF/450V	67	2.8
MY562-2	0.12	0.90	2760	60	0.93	0.69	1.8	3.5	6μF/450V	67	3.05
MY631-2	0.18	1.40	2760	62	0.93	0.55	1.8	4.5	8μF/450V	70	4.1
MY632-2	0.25	1.70	2780	66	0.93	0.55	1.8	6	10μF/450V	70	4.5
MY633-2	0.37	2.50	2780	67	0.93	0.45	1.65	8	12μF/450V	75	5.25
MY711-2	0.37	2.60	2780	67	0.93	0.5	1.65	10	12μF/450V	75	5.6
MY712-2	0.55	3.50	2790	73	0.95	0.5	1.8	15	16μF/450V	75	6.95
MY713-2	0.75	4.50	2810	74	0.97	0.48	1.8	20	25μF/450V	75	8.15
MY801-2	0.75	4.40	2810	74	0.98	0.4	1.8	19	25μF/450V	75	8.5
MY802-2	1.1	6.30	2810	75	0.98	0.4	1.8	30	35μF/450V	78	11
MY803-2	1.5	8.50	2810	77	0.98	0.33	1.8	40	40μF/450V	80	12.75
MY90S-2	1.5	8.40	2820	77	0.98	0.33	1.72	35	45μF/450V	80	13.7
MY90L-2	2.2	12.10	2850	78	0.98	0.29	1.8	61	60μF/450V	80	16.7
MY100L-2	3	16.50	2860	79	0.99	0.28	1.8	73	80μF/450V	83	23.1
MY561-4	0.06	0.60	1370	48	0.92	0.73	1.75	2	4μF/450V	63	3.3
MY562-4	0.09	0.80	1370	50	0.92	0.6	1.75	3	6μF/450V	63	3.6
MY631-4	0.12	1.30	1370	52	0.92	0.6	1.75	3	8μF/450V	65	4.45
MY632-4	0.18	1.50	1370	54	0.94	0.6	1.6	4	12μF/450V	65	5.05
MY633-4	0.25	2.00	1370	58	0.95	0.6	1.6	5	14μF/450V	65	5.4
MY711-4	0.25	1.80	1390	61	0.96	0.5	1.6	5	14μF/450V	65	5.8
MY712-4	0.37	2.70	1390	62	0.96	0.5	1.6	8	16μF/450V	68	6.9
MY713-4	0.55	3.70	1390	64	0.97	0.48	1.7	12	20μF/450V	70	8.25
MY801-4	0.55	3.50	1410	64	0.98	0.37	1.8	13	25μF/450V	70	9.55
MY802-4	0.75	4.70	1410	68	0.98	0.37	1.65	17	30μF/450V	70	10.45
MY90S-4	1.1	6.30	1410	71	0.98	0.35	1.75	24	40μF/450V	73	13.1
MY90L-4	1.5	8.50	1420	73	0.96	0.33	1.8	36	45μF/450V	75	16.45
MY100L1-4	2.2	12.90	1440	77	0.96	0.32	1.8	57	80μF/450V	78	22.8
MY100L2-4	3	16.20	1440	78	0.99	0.3	1.7	75	100μF/450V	78	29.2
MY711-6	0.18	1.49	920	57	0.92	0.45	1.5	4	16μF/450V	68	6.3
MY712-6	0.25	2.00	920	59	0.92	0.45	1.5	5	20μF/450V	68	7.6
MY801-6	0.37	2.78	920	63	0.92	0.35	1.6	8	20μF/450V	68	9
MY802-6	0.55	3.90	920	66	0.93	0.35	1.6	14	25μF/450V	70	11.6
MY90S-6	0.75	5.05	920	68	0.95	0.35	1.6	16	35μF/450V	70	13.5
MY90L-6	1.1	7.30	920	69	0.95	0.35	1.6	25	50μF/450V	70	16.2

Technical Data (at 230V/50Hz)

Model	Power (KW)	Current (A)	Speed (r/min)	Eff. (%)	Power Factor (CosΦ)	T _{st} /T _n (Times)	T _{max} /T _n (Times)	Starting Current (A)	Run Capacitor (μF/V)	Noise dB(A)	W.T (Kg)
MYT631-2	0.18	1.40	2750	62	0.93	0.7	1.8	4.5	10μF/450V	70	4
MYT632-2	0.25	1.80	2750	65	0.93	0.65	1.75	6	12μF/450V	70	4.7
MYT711-2	0.37	2.60	2640	66	0.94	0.72	1.65	8	14μF/450V	75	6.1
MYT712-2	0.55	3.60	2760	71	0.95	0.7	1.8	14	20μF/450V	75	7.7
MYT801-2	0.75	4.50	2735	73	0.98	0.68	1.75	16	25μF/450V	75	10.25
MYT802-2	1.1	6.60	2720	74	0.98	0.65	1.8	23	35μF/450V	78	11.6
MYT90S-2	1.5	8.50	2755	76	0.98	0.65	1.8	31	50μF/450V	80	14.55
MYT90L-2	2.2	12.30	2765	77	0.98	0.65	1.8	51	70μF/450V	80	17.8
MYT100L-2	3	16.90	2765	77	0.99	0.55	1.75	64	90μF/450V	83	23.7
MYT711-4	0.25	2.00	1320	56	0.94	0.75	1.6	5	16μF/450V	65	6.2
MYT712-4	0.37	2.90	1325	58	0.94	0.7	1.55	7	20μF/450V	68	7.3
MYT801-4	0.55	10.60	1340	64	0.94	0.7	1.7	11	25μF/450V	73	10.05
MYT802-4	0.75	5.30	1340	64	0.94	0.7	1.75	15	35μF/450V	73	11.4
MYT90S-4	1.1	7.00	1355	72	0.95	0.68	1.8	22	40μF/450V	75	14.4
MYT90L-4	1.5	9.30	1360	74	0.95	0.68	1.8	32	50μF/450V	78	17.5
MYT100L1-4	2.2	12.60	1390	78	0.97	0.48	1.75	49	70μF/450V	80	24.5
MYT100L2-4	3	16.50	1380	79	0.99	0.45	1.6	61	90μF/450V	80	32
MYT631-6	0.09	0.92	900	46	0.92	0.8	1.45	2	8μF/450V	63	5.1
MYT632-6	0.12	1.05	900	54	0.92	0.75	1.45	3	11μF/450V	63	6
MYT711-6	0.18	1.55	900	55	0.92	0.7	1.5	4	16μF/450V	68	6.3
MYT712-6	0.25	2.07	900	57	0.92	0.68	1.5	5	20μF/450V	68	7.6
MYT801-6	0.37	2.82	900	62	0.92	0.68	1.6	8	25μF/450V	68	9
MYT802-6	0.55	4.08	900	63	0.93	0.68	1.6	14	30μF/450V	70	11.6
MYT90S-6	0.75	5.20	900	66	0.95	0.65	1.6	16	40μF/450V	70	13.5
MYT90L-6	1.1	7.51	900	67	0.95	0.62	1.6	25	50μF/450V	70	16.2

* Note: MYT is high starting torque series single phase capacitor-run motors

IEC MOTOR

GOST MOTOR

NEMA MOTOR

PUMP

GENERATOR

D.C. MOTOR

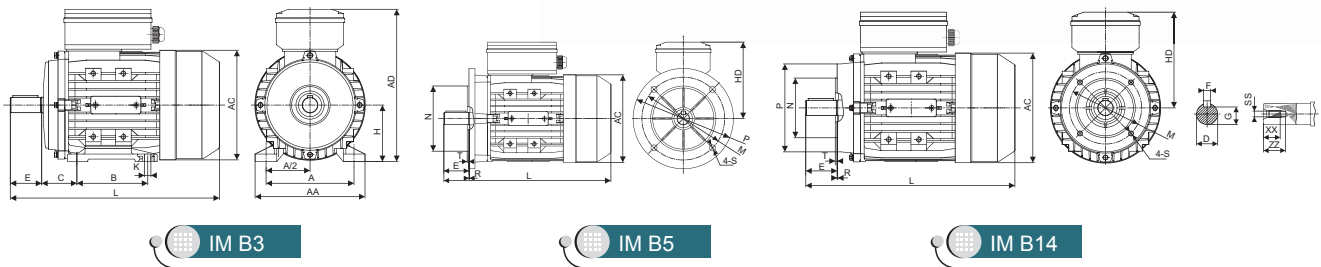
MC Series

Single-Phase Capacitor Start Asynchronous Motors

Aluminum Housing

MC Series aluminum housing single-phase capacitor-start asynchronous motors, with latest design in entirety, are made of selected quality materials and conform to the IEC standard.

MC motors have good performance, safely and reliable operation, nice appearance, and can be maintained very conveniently, while with low noises, little vibration and at the same time of light weight and simple construction. High starting torque, perfect starting performance, generally the multiple of the starting torque can up to 3.0 times. These series motors are suitable for the occasion where big starting torque and small starting current, such as air-compressors, pumps, refrigerators, medical apparatus, and many other machines needing full-load start.



IM B3

IM B5

IM B14

Overall & Installation Dimensions

Frame Size	Mounting Dimensions																			Overall Dimensions					Shaft End Screw Dimensions				
	A	B	C	D	E	F	G	H	K	IM B14						IM B5						AA	AC	AD	HD	L	SS	XX	ZZ
										M	N	P	R	S	T	M	N	P	R	S	T								
63	100	80	40	11	23	4	8.5	63	7X10	75	60	90	0	M5	2.5	115	95	140	0	Φ10	3.0	120	130	179	116	212	M4	10	15
71	112	90	45	14	30	5	11	71	7X10	85	70	105	0	M6	2.5	130	110	160	0	Φ10	3.5	132	145	194	123	255	M5	12	18
80	125	100	50	19	40	6	15.5	80	10X13	100	80	120	0	M6	3.0	165	130	200	0	Φ12	3.5	157	165	223	143	290	M6	16	22
90S	140	100	56	24	50	8	20	90	10X13	115	95	140	0	M8	3.0	165	130	200	0	Φ12	3.5	172	185	240	150	335	M8	20	25
90L	140	125	56	24	50	8	20	90	10X13	115	95	140	0	M8	3.0	165	130	200	0	Φ12	3.5	172	185	240	150	365	M8	20	25
100L	160	140	63	28	60	8	24	100	12X15	130	110	160	0	M8	3.5	215	180	250	0	Φ15	4.0	196	205	260	160	398/416	M10	22	28
112M	190	140	70	28	60	8	24	112	12X15	130	110	160	0	M8	3.5	215	180	250	0	Φ15	4.0	222	230	295	183	416	M10	22	28

T echnical Data (at 230V/50Hz)

Model	Power (KW)	Current (A)	Speed (r/min)	Eff. (%)	Power Factor (CosΦ)	Rate Torque (N.M)	T _{st} /T _n (Times)	T _{max} /T _n (Times)	Starting Current (A)	Start Capacitor (μF/V)	Noise dB(A)	W.T (Kg)
MC711-2	0.18	1.86	2750	60	0.70	0.63	3.0	2.2	12	75μF/250V	70	5
MC712-2	0.25	2.43	2780	62	0.72	0.86	3.0	2.2	15	75μF/250V	70	6.8
MC801-2	0.37	3.46	2800	62	0.75	1.26	2.8	2.2	21	100μF/250V	75	9.2
MC802-2	0.55	4.78	2800	65	0.77	1.88	2.8	2.2	29	150μF/250V	75	11
MC90S-2	0.75	6.15	2810	68	0.78	2.55	2.5	2.2	37	200μF/300V	75	13
MC90L-2	1.1	8.76	2820	70	0.78	3.73	2.5	2.2	60	250μF/300V	78	16
MC100L1-2	1.5	11.47	2830	72	0.79	5.06	2.5	2.0	80	300μF/300V	83	22
MC100L2-2	2.2	16.59	2840	73	0.79	7.40	2.2	2.0	120	400μF/300V	83	24
MC112M-2	3.0	22.03	2850	74	0.8	10.05	2.2	1.9	150	600μF/300V	87	28
MC711-4	0.12	1.86	1360	50	0.56	0.84	3.0	2.2	9	50μF/250V	65	5.4
MC712-4	0.18	2.46	1380	53	0.6	1.25	2.8	2.2	12	75μF/250V	65	6.4
MC801-4	0.25	3.07	1390	58	0.61	1.72	2.8	2.2	15	100μF/250V	65	9
MC802-4	0.37	4.18	1400	62	0.62	2.52	2.5	2.2	21	100μF/250V	70	10.2
MC90S-4	0.55	5.49	1400	66	0.66	3.75	2.5	2.0	29	150μF/250V	70	12.8
MC90L-4	0.75	6.85	1410	68	0.7	5.08	2.5	2.0	37	150μF/250V	70	15.7
MC100L1-4	1.1	9.49	1420	71	0.71	7.40	2.5	2.0	60	250μF/300V	73	23
MC100L2-4	1.5	12.41	1430	73	0.72	10.01	2.5	2.0	80	400μF/300V	78	28
MC112M-4	2.2	17.71	1440	74	0.73	14.59	2.2	1.9	120	600μF/300V	78	34.5

IEC MOTOR

GOST MOTOR

NEMA MOTOR

PUMP

GENERATOR

D.C. MOTOR

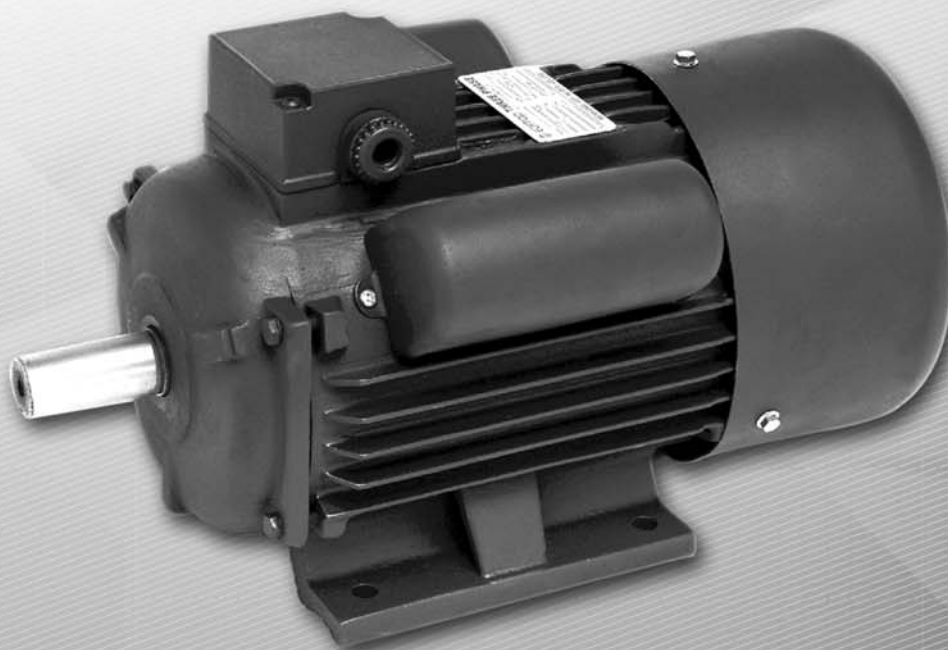
YC Series

Single-Phase Capacitor Start Asynchronous Motors

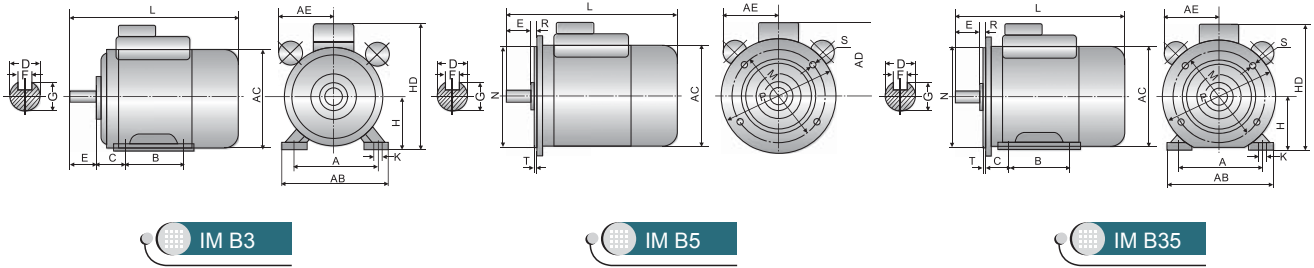
Cast Iron Housing

YC series heavy-duty single-phase motors are suitable for driving small machines and water pumps, especially for families or workshops where only single-phase electric supply are available conforming to "IEC" design with advanced techniques and made from best materials, the motors have pleasant appearance and good performance.

YC series a motors are of IP44, totally enclosed and fan-cooling type. rated output is 3HP or below are capacitor-start, when operating under rated voltage, under 50HZ(60HZ), has a starting torque as high as 3 times the rated tone and under 60HZ,the torque can be 2.75 times the rated one. Motors of 4HP and above are of capacitor start and run. They have the advantages of high torque, steady running, low the mal rise, lower noise and greater overload performance.



YC Series Single-Phase Capacitor Start Asynchronous Motors



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Overall & Installation Dimensions (at 230V/50Hz)

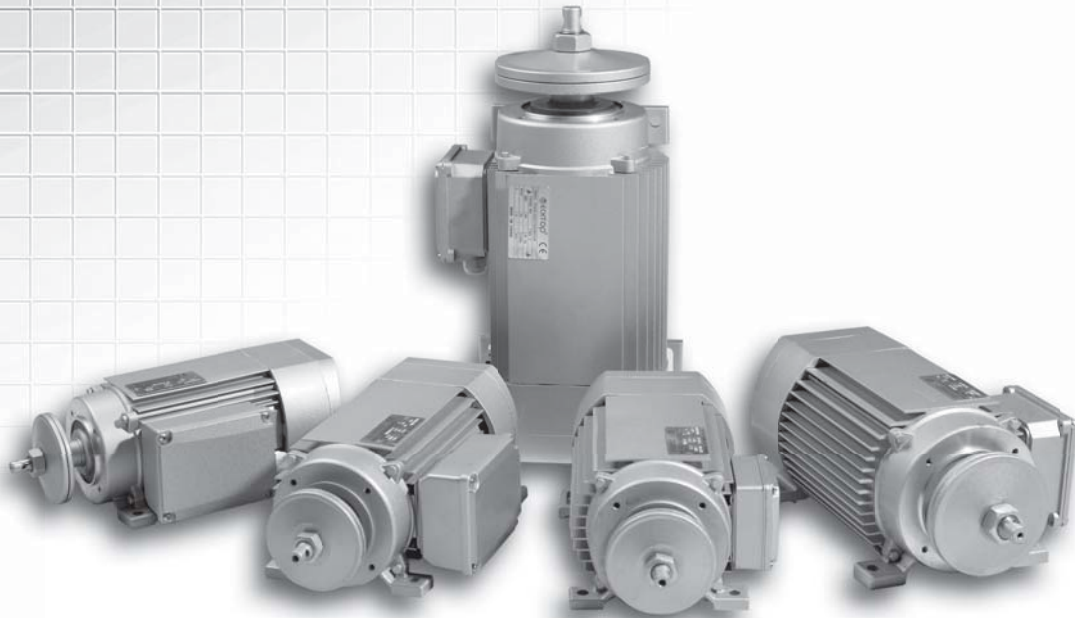
Frame Size	Mounting Dimensions(mm)															Overall & Installation Dimension					
	A	B	C	D	E	F	G	H	K	M	N	P	R	S	T	AB	AC	AD	AE	HD	L
80	125	100	50	19	40	6	15.5	80	10	165	130	200	0	12	3.5	160	165	120	110	200	310
90S	140	100	56	24	50	8	20	90	10	165	130	200	0	12	3.5	180	185	140	120	240	355
90L	140	125	56	24	50	8	20	90	10	165	130	200	0	12	4.5	180	185	140	120	240	385
100L	160	140	63	28	60	8	24	100	12	215	180	250	0	15	4.0	205	220	145	130	260	415
112M	190	140	70	28	60	8	24	112	12	215	180	250	0	15	4.0	245	250	160	140	300	440
132S	216	140	89	38	80	10	33	132	12	215	230	300	0	15	4.0	280	262	210	150	350	470

Technical Data

Model	Output		Current (A)	Speed (r/min)	Eff. (%)	Power Factor (CosΦ)	Locked Rotor Torque	Locked Rotor Current	Pull-Out Torque
	(HP)	(KW)					Rated Torque	Rated Current	Rated Torque
YC80A-2	1/2	0.37	3.7	2880	62	0.73	2.8	6.5	1.8
YC80B-2	3/4	0.55	5.3	2880	65	0.73	2.8	6.5	1.8
YC80C-2	1	0.75	6.7	2880	68	0.75	2.4	6.5	1.8
YC90S-2	1.5	1.1	9.1	2880	71	0.77	2.4	7.0	1.8
YC90L-2	2	1.5	12.1	2900	72	0.78	2.4	7.0	1.8
YC100L-2	3	2.2	17.1	2900	74	0.79	2.1	7.0	1.8
YC80A-4	1/3	0.25	3.4	1450	56	0.60	2.8	6	1.8
YC80B-4	1/2	0.37	4.5	1450	60	0.62	2.8	6	1.8
YC80C-4	3/4	0.55	6	1450	64	0.65	2.8	6	1.8
YC90S-4	1	0.75	7.7	1450	67	0.66	2.4	6.5	1.8
YC90L-4	1.5	1.1	10.5	1450	70	0.68	2.4	6.5	1.8
YC100L-4	2	1.5	13.5	1450	72	0.70	2.4	6.5	1.8
YC112M-4	3	2.2	19.3	1450	72	0.72	2.2	6.5	1.8
YC132A-4	4	3	25.2	1450	74	0.73	2.1	6.5	1.8
YC132B-4	5	3.7	30	1450	75	0.74	2.1	6.5	1.8

MSC/MYC Series

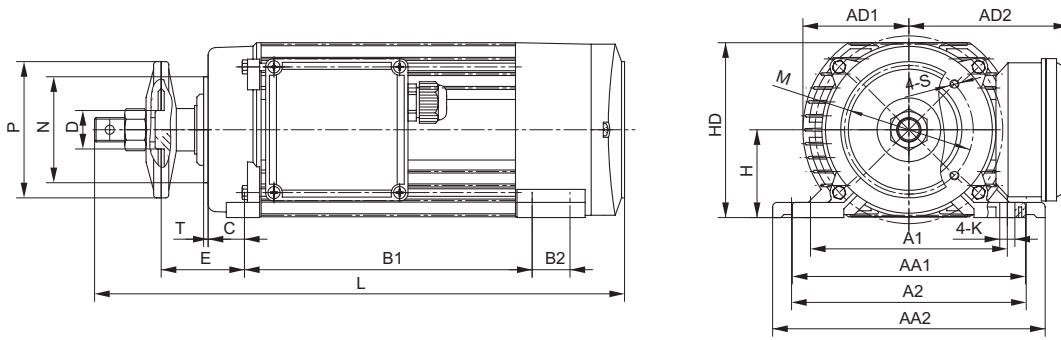
Three/Single-Phase Aluminum Housing Saw Motors



MSC/MYC Series Motors Technical Data

Type	Power (KW)	Phase	V/Hz	Current (A)	Eff. (%)	Power Factor (CosΦ)	Speed (r/min)	T _{st} /T _n (Times)	T _{max} /T _n (Times)	I _{st} /I _n (Times)	Duty	Capacitor
MYC58A2	1.1	1	230/50	7.18	68	0.98	2770	0.35	1.7	5	S6-40%	25uF/450V
MYC58B2	1.5	1	230/50	9.51	70	0.98	2790	0.35	1.7	5	S6-40%	30uF/450V
MYC58C2	1.8	1	230/50	11.1	72	0.98	2790	0.32	1.7	5	S6-40%	30uF/450V
MYC63B2	2.2	1	230/50	13.2	74	0.98	2800	0.32	1.7	5	S6-40%	40uF/450V
MSC58A2	1.5	3	400/50	3.41	77.5	0.82	2750	3	3	6	S6-40%	
MSC58B2	2.2	3	400/50	4.76	78.5	0.85	2750	3	3	6	S6-40%	
MSC63A2	2.2	3	400/50	4.73	79	0.85	2800	2.4	2.2	6	S6-40%	
MSC63B2	3	3	400/50	6.37	80	0.85	2820	2.8	2.4	6.5	S6-40%	
MSC74A2	4	3	400/50	8.19	82	0.86	2850	3	3	7	S6-40%	
MSC81A2	5.5	3	400/50	10.5	85	0.89	2880	3	3	9	S1	
MSC81B2	7.5	3	400/50	14.1	86	0.89	2880	3	3	9	S1	
MSC93A2	5.5	3	400/50	10.1	87	0.90	2890	3	3	9	S1	
MSC93B2	7.5	3	400/50	13.6	87.5	0.91	2890	3	3	9	S1	

MSC/MYC Series Three/Single-Phase Aluminum Housing Saw Motors



MSC/MYC Series Motors Overall & Installation Dimensions

Model	H	D	P	N	M	S	A1	A2	B1	B2	C	E	T	K	AA1	AA2	HD	AD1	AD2	L*
MYC58A2	58	25.4	90	70	85	M6	130	155	165	25	24	55	3	10	154	180	116	70	113	325
MYC58B2	58	25.4	90	70	85	M6	130	155	190	25	24	55	3	10	154	180	116	70	113	350
MYC58C2	58	25.4	90	70	85	M6	130	155	190	25	24	55	3	10	154	180	116	70	113	350
MYC63B2	63	25.4	90	80	100	M6	130	155	190	28	24	55	3	10	154	180	126	77	108	355
MSC58A2	58	25.4	90	70	85	M6	130	155	165	25	24	55	3	10	154	180	116	70	103	325
MSC58B2	58	25.4	90	70	85	M6	130	155	190	25	24	55	3	10	154	180	116	70	103	350
MSC63A2	63	25.4	90	80	100	M6	130	155	165	28	24	55	3	10	154	180	126	77	108	330
MSC63B2	63	25.4	90	80	100	M6	130	155	190	28	24	55	3	10	154	180	126	77	108	355
MSC74A2	74	30	110	95	115	M6	155	155	190	25	24	55	3	12	180	180	147	87	126	370
MSC81A2	81	40	158	110	130	M8	160	190	254	20	25	64	3.5	12	190	225	162	99	133	462
MSC81B2	81	40	158	110	130	M8	160	190	318	20	25	64	3.5	12	190	225	162	99	133	526
MSC93A2	93	40	158	110	130	M8	190	190	229	25	25	64	3.5	14	225	225	184	108	145	442
MSC93B2	93	40	158	110	130	M8	190	190	254	25	25	64	3.5	14	225	225	184	108	145	467

* Note: The size "L" With brake type is 30mm more

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MSV/MYV Series

Three/Single-Phase Aluminum Housing Pad Mount Motors



MYV Series Technical Data (at 230V/50Hz)

Model	Power (KW)	Current (A)	Speed (r/min)	Eff. (%)	Power Factor (CosΦ)	T _{st} /T _n (Times)	T _{max} /T _n (Times)	Starting Current (A)	Run Capacitor (μF/V)	Noise dB(A)	W.T (Kg)
MYV711-2	0.37	2.60	2780	67	0.93	0.5	1.65	10	12μF/450V	75	5.6
MYV712-2	0.55	3.50	2790	73	0.95	0.5	1.8	15	16μF/450V	75	6.95
MYV713-2	0.75	4.50	2810	74	0.97	0.48	1.8	20	25μF/450V	75	8.15
MYV801-2	0.75	4.40	2810	74	0.98	0.4	1.8	19	25μF/450V	75	8.5
MYV802-2	1.1	6.30	2810	75	0.98	0.4	1.8	30	35μF/450V	78	11
MYV803-2	1.5	8.50	2810	77	0.98	0.33	1.8	40	40μF/450V	80	12.75
MYV90S-2	1.5	8.40	2820	77	0.98	0.33	1.72	35	45μF/450V	80	13.7
MYV90L-2	2.2	12.10	2850	78	0.98	0.29	1.8	61	60μF/450V	80	16.7
MYV100L-2	3	16.50	2860	79	0.99	0.28	1.8	73	80μF/450V	83	23.1
MYV711-4	0.25	1.80	1390	61	0.96	0.5	1.6	5	14μF/450V	65	5.8
MYV712-4	0.37	2.70	1390	62	0.96	0.5	1.6	8	16μF/450V	68	6.9
MYV713-4	0.55	3.70	1390	64	0.97	0.48	1.7	12	20μF/450V	70	8.25
MYV801-4	0.55	3.50	1410	64	0.98	0.37	1.8	13	25μF/450V	70	9.55
MYV802-4	0.75	4.70	1410	68	0.98	0.37	1.65	17	30μF/450V	70	10.45
MYV90S-4	1.1	6.30	1410	71	0.98	0.35	1.75	24	40μF/450V	73	13.1
MYV90L-4	1.5	8.50	1420	73	0.96	0.33	1.8	36	45μF/450V	75	16.45
MYV100L1-4	2.2	12.90	1440	77	0.96	0.32	1.8	57	80μF/450V	78	22.8
MYV711-6	0.18	1.49	920	57	0.92	0.45	1.5	4	16μF/450V	68	6.3
MYV712-6	0.25	2.00	920	59	0.92	0.45	1.5	5	20μF/450V	68	7.6
MYV801-6	0.37	2.78	920	63	0.92	0.35	1.6	8	20μF/450V	68	9
MYV802-6	0.55	3.90	920	66	0.93	0.35	1.6	14	25μF/450V	70	11.6
MYV90S-6	0.75	5.05	920	68	0.95	0.35	1.6	16	35μF/450V	70	13.5
MYV90L-6	1.1	7.30	920	69	0.95	0.35	1.6	25	50μF/450V	70	16.2

MSV Series Technical Data at 50Hz

Model	Power (KW)	Current (A)			Current (A)			Current (A)			Speed (r/min)	Eff. (%)	Power Factor (CosΦ)	T _a /T _n (Times)	T _{max} /T _n (Times)	I _a /I _n (Times)	Noise dB(A)	W.T (Kg)	Moment Of Inertia (Kg·M ²)	Rated Torque (N.M)
		220V	380V	660V	230V	400V	690V	240V	415V	720V										
MSV711-2	0.37	1.76	1.02	0.59	1.67	0.97	0.56	1.61	0.93	0.54	2730	70	0.79	2.2	2.4	6	64	5.6	0.00034	1.30
MSV712-2	0.55	2.57	1.49	0.86	2.45	1.42	0.82	2.36	1.36	0.79	2760	71	0.79	2.2	2.4	6	64	6.1	0.00042	1.90
MSV713-2	0.75	3.33	1.93	1.11	3.18	1.83	1.06	3.06	1.77	1.02	2730	72	0.82	2.2	2.4	6	65	7	0.00054	2.63
MSV801-2	0.75	3.21	1.86	1.07	3.06	1.77	1.02	2.94	1.70	0.98	2770	73	0.84	2.2	2.4	6	67	9.1	0.00083	2.59
MSV802-2	1.1	4.56	2.64	1.52	4.35	2.51	1.45	4.18	2.42	1.39	2770	76.2	0.83	2.2	2.4	6	67	10.2	0.00097	3.79
MSV803-2	1.5	6.04	3.50	2.01	5.87	3.32	1.92	5.54	3.20	1.85	2800	78.5	0.83	2.2	2.4	6	70	11.7	0.00125	5.12
MSV90S-2	1.5	5.97	3.46	1.99	5.76	3.28	1.90	5.47	3.16	1.82	2840	78.5	0.84	2.2	2.4	6	72	12	0.00136	5.05
MSV90L1-2	2.2	8.39	4.85	2.80	8.0	4.61	2.66	7.69	4.45	2.56	2840	81	0.85	2.2	2.4	6	72	15	0.0017	7.40
MSV90L2-2	3	11.08	6.42	3.69	10.56	6.10	3.52	10.16	5.88	3.39	2840	82.6	0.86	2.2	2.4	6	74	18.5	0.0021	10.09
MSV100L1-2	3	10.96	6.34	3.65	10.44	6.03	3.48	10.04	5.81	3.35	2840	82.6	0.87	2.2	2.3	7	76	22.3	0.0036	10.09
MSV100L2-2	4	14.33	8.30	4.78	13.65	7.88	4.55	13.14	7.60	4.38	2850	84.2	0.87	2.2	2.3	7.5	77	25.2	0.0044	13.41
MSV112M-2	4	14.33	8.30	4.78	13.65	7.88	4.55	13.14	7.60	4.38	2880	84.2	0.87	2.2	2.3	7.5	77	26.7	0.0054	13.27
MSV112L-2	5.5	19.14	11.08	6.38	18.23	10.53	6.08	17.54	10.15	5.85	2880	85.7	0.88	2.2	2.3	7.5	78	30.2	0.0068	18.25
MSV711-4	0.25	1.52	0.88	0.51	1.45	0.84	0.48	1.39	0.81	0.46	1350	60	0.72	2.2	2.4	6	55	5.4	0.00051	1.77
MSV712-4	0.37	2.02	1.17	0.67	1.92	1.11	0.64	1.85	1.07	0.62	1370	65	0.74	2.2	2.4	6	55	6.2	0.00081	2.58
MSV713-4	0.55	2.92	1.69	0.97	2.78	1.60	0.93	2.67	1.55	0.89	1380	66	0.75	2.2	2.4	6	57	7.3	0.00092	3.81
MSV801-4	0.55	2.87	1.66	0.96	2.74	1.58	0.91	2.63	1.52	0.88	1370	67	0.75	2.2	2.4	6	58	9	0.00128	3.84
MSV802-4	0.75	3.50	2.03	1.17	3.34	1.93	1.11	3.21	1.86	1.07	1380	72	0.78	2.2	2.4	6	58	10	0.0015	5.19
MSV803-4	1.1	4.86	2.81	1.62	4.63	2.67	1.54	4.45	2.57	1.48	1390	76.2	0.78	2.2	2.4	6	60	12.3	0.00184	7.56
MSV90S-4	1.1	4.80	2.78	1.60	4.57	2.64	1.52	4.40	2.54	1.47	1400	76.2	0.79	2.2	2.4	6	61	12.1	0.00221	7.51
MSV90L1-4	1.5	6.27	3.63	2.09	5.97	3.45	1.99	5.75	3.32	1.92	1400	78.5	0.8	2.2	2.4	6	61	14.6	0.00284	10.24
MSV90L2-4	2.2	8.91	5.16	2.97	8.45	4.90	2.83	8.17	4.72	2.72	1400	81	0.8	2.2	2.4	7	63	18.3	0.0037	15.02
MSV100L1-4	2.2	8.80	5.09	2.93	8.38	4.84	2.79	8.07	4.66	2.69	1420	81	0.81	2.2	2.3	7	64	21	0.0058	14.80
MSV100L2-4	3	11.77	6.81	3.92	11.21	6.47	3.74	10.79	6.24	3.60	1420	82.6	0.81	2.2	2.3	7	64	24.7	0.0073	20.19
MSV100L3-4	4	15.20	8.80	5.07	14.18	8.36	4.83	13.94	8.06	4.65	1430	84.2	0.82	2.2	2.3	7	65	29	0.0092	26.73
MSV112M-4	4	15.02	8.70	5.01	14.31	8.26	4.77	13.77	7.96	4.59	1430	84.2	0.83	2.2	2.2	7	65	30.5	0.0107	26.73
MSV112L-4	5.5	20.29	11.75	6.76	19.33	11.16	6.44	18.60	10.76	6.20	1440	85.7	0.83	2.2	2.2	7	68	34.8	0.013	36.49
MSV711-6	0.18	1.28	0.74	0.43	1.22	0.70	0.41	1.17	0.68	0.39	880	56	0.66	1.6	1.7	4	52	6	0.00083	1.95
MSV712-6	0.25	1.59	0.92	0.53	1.51	0.87	0.50	1.46	0.84	0.49	900	59	0.7	2.1	2.2	4	52	6.5	0.00095	2.65
MSV713-6	0.37	2.31	1.34	0.77	2.2	1.27	0.73	2.11	1.22	0.70	890	61	0.69	2	2.1	4	54	7.2	0.00114	3.97
MSV801-6	0.37	2.24	1.30	0.75	2.13	1.23	0.71	2.05	1.19	0.68	900	62	0.7	1.9	1.9	4	56	8.2	0.00153	3.93
MSV802-6	0.55	2.99	1.73	1.00	2.85	1.65	0.95	2.74	1.59	0.91	900	67	0.72	2	2.3	4	56	9.9	0.00232	5.84
MSV803-6	0.75	4.02	2.33	1.34	3.83	2.21	1.28	3.69	2.13	1.23	900	68	0.72	2	2.3	4	58	11.3	0.00286	7.96
MSV90S-6	0.75	3.96	2.29	1.32	3.77	2.18	1.26	3.63	2.10	1.21	920	69	0.72	2.2	2.2	5.5	59	11.7	0.00376	7.79
MSV90L1-6	1.1	5.49	3.18	1.83	5.23	3.02	1.74	5.03	2.91	1.68	925	72	0.73	2.2	2.2	5.5	59	15.1	0.00467	11.36
MSV90L2-6	1.5	7.19	4.16	2.40	6.88	3.97	2.29	6.59	3.81	2.20	930	73	0.75	2.2	2.2	6	61	18	0.00567	15.41
MSV100L1-6	1.5	7.00	4.05	2.33	6.67	3.85	2.22	6.42	3.71	2.14	945	74	0.76	2.2	2.2	6	61	19.1	0.0073	15.17
MSV100L2-6	2.2	9.87	5.71	3.29	9.40	5.44	3.13	9.04	5.23	3.01	950	77	0.76	2.2	2.2	6	63	23.4	0.0084	22.13
MSV112M-6	2.2	9.74	5.64	3.25	9.28	5.36	3.09	8.93	5.16	2.98	955	78	0.76	2.2	2.2	6	64	25.4	0.013	22.01
MSV112L-6	3	13.28	7.69	4.43	12.7	7.31	4.24	12.17	7.04	4.06	955	78	0.76	2.2	2.2	6	69	30	0.019	30.02

IEC MOTOR

GOST MOTOR

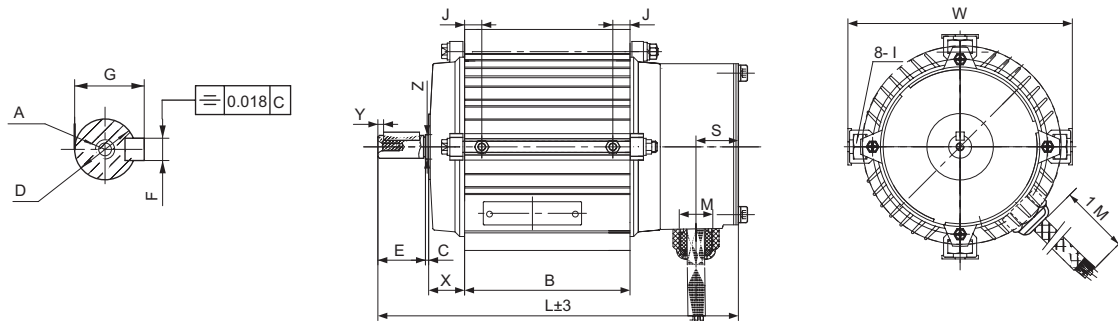
NEMA MOTOR

PUMP

GENERATOR

D.C. MOTOR

MSV/MYV Series Motors Overall & Installation Dimensions



MYV Series Motors Overall & Installation Dimensions

Model	Power (KW)	A	B	C	D	E	F	G	Y	Z	W	I	J	L	X	M	S														
MYV711-2	0.37	M5X10	115	2	Φ14	30	5	16	4.5	Φ14.85	147	M10	11	235	26	M16	22														
MYV712-2	0.55		135											255																	
MYV713-2	0.75		155											275																	
MYV711-4	0.25		120											240																	
MYV712-4	0.37		140											260																	
MYV713-4	0.55		160											280																	
MYV711-6	0.18		135											255																	
MYV712-6	0.25		150											270																	
MYV801-2	0.75	M6X12	125	2	Φ19	40	6	21.5	7	Φ19.85	173	M12	13	267	30	M16	26														
MYV802-2	1.1		145											287																	
MYV803-2	1.5		165											307																	
MYV801-4	0.55		130											272																	
MYV802-4	0.75		145											287																	
MYV801-6	0.37		140											282																	
MYV802-6	0.55		165											307																	
MYV90S-2	1.5		M6X12											150				8	Φ24	50	8	27	4	Φ24.85	191	M12	13	320	35	M16	28
MYV90L-2	2.2	180		350																											
MYV90S-4	1.1	155		325																											
MYV90L-4	1.5	185		355																											
MYV90S-6	0.75	155		325																											
MYV90L-6	1.1	195		365																											
MYV100L-2	3	M8X16		175	8	Φ28	60	8	31	4	Φ29.7	211	M12	13	356	27	M20											28			
MYV100L1-4	2.2			175											356																

MSV Series Motors Overall & Installation Dimensions

Model	Power (KW)	A	B	C	D	E	F	G	Y	Z	W	I	J	L	X	M	S
MSV711-2	0.37	M5X10	110	2	Φ14	30	5	16	4.5	Φ14.85	147	M10	11	230	26	M16	22
MSV712-2	0.55		125											245			
MSV713-2	0.75		140											260			
MSV711-4	0.25		110											230			
MSV712-4	0.37		125											245			
MSV713-4	0.55		145											265			
MSV711-6	0.18		125											245			
MSV712-6	0.25		135											255			
MSV713-6	0.37		155											275			
MSV801-2	0.75	M6X12	120	2	Φ19	40	6	21.5	7	Φ19.85	173	M12	13	257	30	M16	26
MSV802-2	1.1		135											272			
MSV803-2	1.5		155											292			
MSV801-4	0.55		115											252			
MSV802-4	0.75		135											272			
MSV803-4	1.1		155											292			
MSV801-6	0.37		115											252			
MSV802-6	0.55		135											272			
MSV803-6	0.75		155											292			
MSV90S-2	1.5	M6X12	140	8	Φ24	50	8	27	4	Φ24.85	191	M12	13	310	35	M16	28
MSV90L1-2	2.2		170											340			
MSV90L2-2	3		200											370			
MSV90S-4	1.1		135											305			
MSV90L1-4	1.5		160											330			
MSV90L2-4	2.2		195											365			
MSV90S-6	0.75		135											305			
MSV90L1-6	1.1		170											340			
MSV90L2-6	1.5		200											370			
MSV100L1-2	3	M8X16	150	8	Φ28	60	8	31	4	Φ29.7	211	M12	13	331	27	M20	25
MSV100L2-2	4		175											356			
MSV100L1-4	2.2		150											331			
MSV100L2-4	3		175											356			
MSV100L3-4	4		210											391			
MSV100L1-6	1.5		150											331			
MSV100L2-6	2.2		185											366			
MSV112M-2	4		M8X16											165			
MSV112L-2	5.5	190		362													
MSV112M-4	4	190		362													
MSV112L-4	5.5	220		392													
MSV112M-6	2.2	165		337													
MSV112L-6	3	200		372													

IEC MOTOR

GOST MOTOR

NEMA MOTOR

PUMP

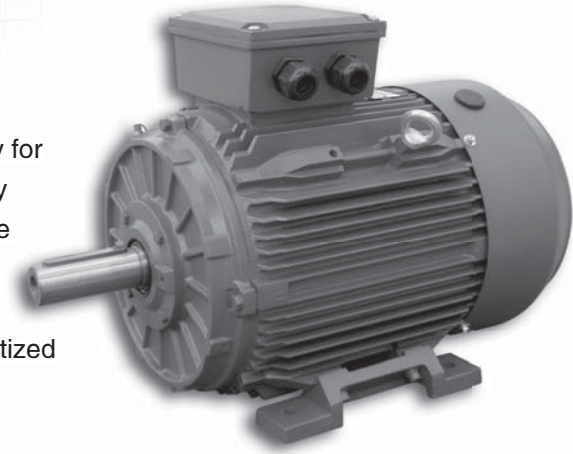
GENERATOR

D.C. MOTOR

“ECOL” Motors

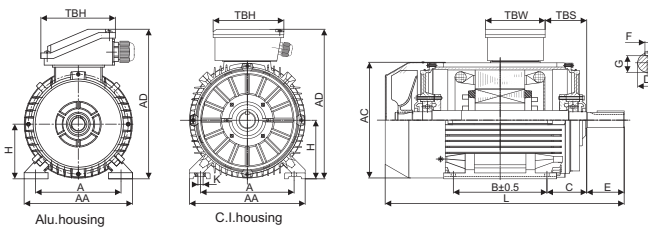
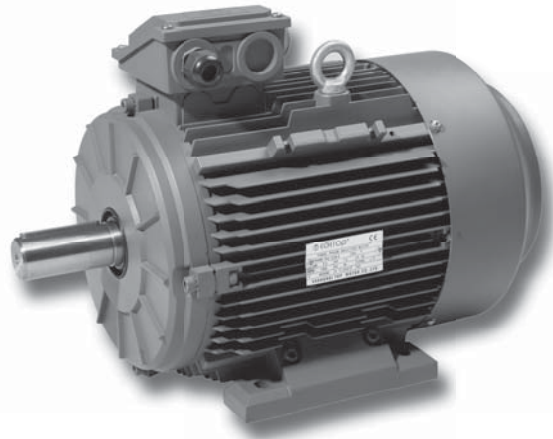
FEATURES

- Energy savings, high efficiency
- High starting torque, lower starting current
- Versatile and easy to modify design adapts to a variety of applications
- Option of integrated or removable feet
- Option of aluminum housing up to frame size 200
- Option of terminal box location (top, left or right)
- Option of IE2, IE3, MEPS High and Premium Efficiency for IEC standards + NEMA EPACT and Premium Efficiency
- Contained total length is the same as or shorter than the current market standard
- Full use of the magnetization properties of cold rolled silicone steel in which the stator laminations are magnetized evenly to reduce temperature rise of the winding

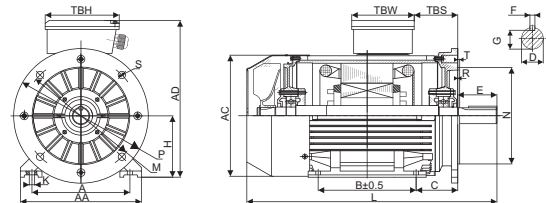


APPLICATIONS

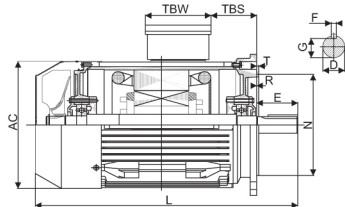
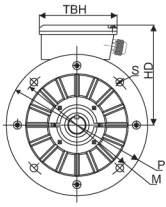
- Pumps
- Waste water treatment plants
- Air compressors, fans
- Gear reducers and power transmission
- Pulp and paper mills
- Steel mill
- Conveyors, elevators
- Should be "Material handling equipment"
- Agricultural application
- Mining equipment
- Hydraulic equipment



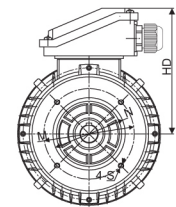
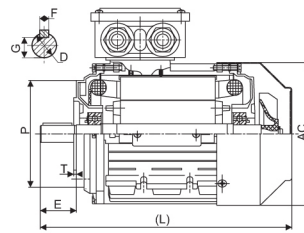
IM B3 Figure 1



IM B35 Figure 2



IM B5 Figure 3



IM B14 Figure 4

Overall & Installation Dimensions

Frame	Foot Mounting				Shaft						General							
	H	A	B	C	D	E	F	G	K	AA	AD	HD	AC	L	TBS	TBW	TBH	
80	80	125	100	50	Φ19	40	6	15.5	Φ9	160	220	140	Φ158	280	16	97	97	
90S/L	90	140	100/125	56	Φ24	50	8	20	Φ10	175	240	150	Φ176	325/350	16	97	97	
100	100	160	140	63	Φ28	60	8	24	Φ12	200	265	165	Φ199	388	20	118	118	
112	112	190	140	70	Φ28	60	8	24	Φ12	230	291	179	Φ220	405	29	118	118	
132S/M	132	216	140/178	89	Φ38	80	10	33	Φ12	255	332	200	Φ259	467/505	29	118	118	
160M/L	160	254	210/254	108	Φ42	110	12	37	Φ15	314	402	242	Φ313	605/650	91	162	187	
180M/L	180	279	241/279	121	Φ48	110	14	42.5	Φ15	348	439	259	Φ360	687/725	160/180	162	187	
200L	200	318	305	133	Φ55	110	16	49	Φ19	388	497	297	Φ399	768	192	186	233	
225S	4,8	225	356	286	Φ60	140	18	53	Φ19	436	553	328	Φ465	814	190	186	233	
225M	2	225	356	311	Φ55	110	16	49	Φ19	436	553	328	Φ465	809	202	186	233	
	4,6,8	225	356	311	Φ60	140	18	53	Φ19	436	553	328	Φ465	839	202	186	233	
250M	2	250	406	349	Φ60	140	18	53	Φ24	484	616	366	Φ506	918	233	218	260	
	4,6,8	250	406	349	Φ65	140	18	58	Φ24	484	616	366	Φ506	918	233	218	260	
280S/M	2	280	457	368/419	Φ65	140	18	58	Φ24	557	668	388	Φ559	984/1035	265	218	260	
	4,6,8	280	457	368/419	Φ75	140	20	67.5	Φ24	557	668	388	Φ559	984/1035	265	218	260	
315S	2	315	508	406	Φ65	140	18	58	Φ28	630	845	530	Φ680	1205	130	280	320	
	4,6,8	315	508	406	Φ80	170	22	71	Φ28	630	845	530	Φ680	1235	130	280	320	
315M/L	2	315	508	457/508	Φ65	140	18	58	Φ28	630	845	530	Φ680	1355	130	280	320	
	4,6,8	315	508	457/508	Φ80	170	22	71	Φ28	630	845	530	Φ680	1385	130	280	320	
355M/L	2	355	610	560/630	Φ75	140	20	67.5	Φ28	740	1010	655	Φ820	1500	140	330	380	
	4,6,8	355	610	560/630	Φ100	210	28	90	Φ28	740	1010	655	Φ820	1570	140	330	380	

Frame	Bearings		Cable Gland	B5						B14						
	Drive End	Non-Drive End		N	M	P	S	T	R	N	M	P	S	T	R	
80	6204ZZ		1-M20×1.5	Φ130	Φ165	Φ198	4-Φ12	3.5	0	Φ80	Φ100	Φ118	M6	3	0	
90S/L	6205ZZ		1-M20×1.5	Φ130	Φ165	Φ198	4-Φ12	3.5	0	Φ95	Φ115	Φ138	M8	3	0	
100	6206ZZ		1-M20×1.5	Φ180	Φ215	Φ250	4-Φ15	4	0	Φ110	Φ130	Φ158	M8	3.5	0	
112	6306ZZ		2-M25×1.5	Φ180	Φ215	Φ250	4-Φ15	4	0	Φ110	Φ130	Φ158	M8	3.5	0	
132S/M	6308ZZ		2-M25×1.5	Φ230	Φ265	Φ300	4-Φ15	4	0	Φ130	Φ165	Φ198	M10	3.5	0	
160M/L	6309C3		2-M32×1.5	Φ250	Φ300	Φ350	4-Φ19	5	0						0	
180M/L	6311C3		2-M32×1.5	Φ250	Φ300	Φ350	4-Φ19	5	0						0	
200L	6312C3		2-M40×1.5	Φ300	Φ350	Φ400	4-Φ19	5	0						0	
225S	4,8	6313C3	2-M50×1.5	Φ350	Φ400	Φ450	8-Φ19	5	0						0	
225M	2			Φ350	Φ400	Φ450	8-Φ19	5	0							0
	4,6,8			Φ350	Φ400	Φ450	8-Φ19	5	0							0
250M	2	6314C3	2-M50×1.5	Φ400	Φ500	Φ550	8-Φ19	5	0						0	
	4,6,8			Φ400	Φ500	Φ550	8-Φ19	5	0						0	
280S/M	2	6316C3	2-M50×1.5	Φ400	Φ500	Φ550	8-Φ19	5	0						0	
	4,6,8			Φ400	Φ500	Φ550	8-Φ19	5	0						0	
315S/M/L	2	6317C3		2-M63×1.5	Φ550	Φ600	Φ660	8-Φ24	6	0					0	
	4,6,8	NU319	6319C3		Φ550	Φ600	Φ660	8-Φ24	6	0					0	
355M/L	2	6319C3		2-M63×1.5	Φ680	Φ740	Φ800	8-Φ24	6	0					0	
	4,6,8	NU322	6322C3		Φ680	Φ740	Φ800	8-Φ24	6	0					0	

IEC MOTOR
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GENERATOR
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IE1 Efficiency Motors Technical Data

Model	Power (KW)	Full Load Speed (r/min)	I _n 400V (A)	I _n 400V (A)	I _{st} /I _n (Times)	Eff. 100%FL (%)	Power Factor (CosΦ)	Full Load Torque (N.M)	T _{st} /T _n (Times)	T _{min} /T _n (Times)	T _{max} /T _n (Times)
2 Pole - 3000 rpm Synchronous Speed 50Hz											
T1C 801-2	0.75	2838	1.09	2.06	5	72.1	0.73	2.52	2.2	1.9	2.6
T1C 802-2	1.1	2836	1.54	2.90	5	75	0.73	3.70	2.2	1.8	2.6
T1C 90S-2	1.5	2842	1.98	3.79	5	77.2	0.74	5.04	2.2	1.8	2.5
T1C 90L-2	2.2	2835	2.39	5.04	5.5	79.7	0.79	7.41	2.2	1.8	2.5
T1C 100L-2	3	2841	2.97	6.56	5.5	81.5	0.81	10.08	2.3	1.9	2.6
T1C 112M-2	4	2900	3.88	8.58	6	83.1	0.81	13.17	2.4	1.9	2.6
T1C 132S1-2	5.5	2895	4.65	11.16	6	84.7	0.84	18.14	2.3	2	2.6
T1C 132S2-2	7.5	2900	5.98	14.81	6.4	86	0.85	24.70	2.3	2	2.7
T1C 160M1-2	11	2910	7.85	20.83	6.3	87.6	0.87	36.10	2.3	2	2.7
T1C 160M2-2	15	2908	10.57	28.06	6.8	88.7	0.87	49.26	2.3	2	2.7
T1C 160L-2	18.5	2912	11.69	33.60	7	89.3	0.89	60.67	2.3	2	2.7
T1C 180M-2	22	2920	13.81	39.69	7.2	89.9	0.89	71.95	2.3	2	2.6
T1C 200L1-2	30	2915	18.67	53.64	7	90.7	0.89	98.28	2.3	2	2.6
T1C 200L2-2	37	2920	22.90	65.80	7.2	91.2	0.89	121.00	2.3	2	2.7
T1C 225M-2	45	2920	26.21	78.70	7	91.7	0.90	147.16	2.3	2	2.7
T1C 250M-2	55	2930	35.47	97.85	7.8	92.2	0.88	179.25	2.2	1.9	2.5
T1C 280S-2	75	2930	45.66	131.22	7.8	92.7	0.89	244.44	2.1	1.9	2.5
T1C 280M-2	90	2930	51.68	155.21	7.7	93	0.90	293.32	2.1	1.9	2.5
T1C 315S-2	110	2940	62.97	189.09	7.7	93.3	0.90	357.29	2	1.8	2.3
T1C 315M-2	132	2940	71.12	223.93	7.6	93.5	0.91	428.74	2	1.8	2.3
T1C 315L1-2	160	2945	91.10	273.57	7.8	93.8	0.90	518.81	2	1.8	2.3
T1C 315L2-2	200	2945	120.08	345.07	7.9	94	0.89	648.51	2	1.8	2.3
T1C 355M-2	250	2945	142.04	426.54	7.8	94	0.90	810.64	2	1.8	2.3
T1C 355L-2	315	2945	189.13	543.48	7.8	94	0.89	1021.40	2	1.8	2.3
4 Pole - 1500 rpm Synchronous Speed 50Hz											
T1C 802-4	0.75	1410	1.03	2.00	5.4	72.1	0.75	5.08	2.2	1.9	2.6
T1C 90S-4	1.1	1415	1.32	2.71	5.3	75	0.78	7.42	2.2	1.8	2.6
T1C 90L-4	1.5	1410	1.74	3.60	5.5	77.2	0.78	10.16	2.2	1.8	2.5
T1C 100L1-4	2.2	1420	2.31	4.98	6	79.7	0.80	14.79	2.2	1.8	2.5
T1C 100L2-4	3	1420	3.08	6.64	6	81.5	0.80	20.17	2.3	1.9	2.6
T1C 112M-4	4	1425	3.74	8.47	6.3	83.1	0.82	26.81	2.4	1.9	2.6
T1C 132S-4	5.5	1420	4.85	11.29	6.5	84.7	0.83	36.99	2.3	2	2.6
T1C 132M-4	7.5	1420	5.98	14.81	6.4	86	0.85	50.44	2.3	2	2.7
T1C 160M-4	11	1430	8.61	21.32	6.8	87.6	0.85	73.46	2.3	2	2.7
T1C 160L-4	15	1435	10.06	27.74	6.7	88.7	0.88	99.82	2.3	2	2.7
T1C 180M-4	18.5	1435	12.32	33.98	7.2	89.3	0.88	123.11	2.3	2	2.7
T1C 180L-4	22	1450	15.29	40.60	7.3	89.9	0.87	144.89	2.3	2	2.6
T1C 200L-4	30	1450	18.67	53.64	7.6	90.7	0.89	197.57	2.3	2	2.6
T1C 225S-4	37	1460	22.90	65.80	7.5	91.2	0.89	242.00	2.3	2	2.7
T1C 225M-4	45	1470	29.18	80.49	7.3	91.7	0.88	292.33	2.3	2	2.7
T1C 250M-4	55	1470	33.70	96.85	7.4	92.1	0.89	357.29	2.2	1.9	2.5
T1C 280S-4	75	1470	48.11	132.71	7.5	92.7	0.88	487.21	2.1	1.9	2.5
T1C 280M-4	90	1470	51.68	155.21	7.7	93	0.90	584.65	2.1	1.9	2.5
T1C 315S-4	110	1475	62.97	189.09	7.8	93.3	0.90	712.15	2	1.8	2.3
T1C 315M-4	132	1475	71.12	223.93	7.8	93.5	0.91	854.58	2	1.8	2.3
T1C 315L1-4	160	1475	85.93	270.56	7.9	93.8	0.91	1035.86	2	1.8	2.3
T1C 315L2-4	200	1475	113.63	341.23	7.7	94	0.90	1294.82	2	1.8	2.3
T1C 355M-4	250	1475	150.10	431.33	7.9	94	0.89	1618.52	2	1.8	2.3
T1C 355L-4	315	1475	178.97	537.44	7.8	94	0.90	2039.34	2	1.8	2.3
6 Pole - 1000 rpm Synchronous Speed 50Hz											
T1C 90S-6	0.75	930	1.16	2.15	5.3	70	0.72	7.70	2.2	1.9	2.6
T1C 90L-6	1.1	930	1.63	3.02	5	72.9	0.72	11.29	2.2	1.8	2.6
T1C 100L-6	1.5	935	2.09	3.94	4.9	75.2	0.73	15.32	2.2	1.8	2.5
T1C 112M-6	2.2	935	2.97	5.60	5.7	77.7	0.73	22.47	2.2	1.8	2.5
T1C 132S-6	3	935	3.95	7.44	6.3	79.7	0.73	30.64	2.3	1.9	2.6
T1C 132M1-6	4	940	5.01	9.59	6.2	81.4	0.74	40.64	2.4	1.9	2.6
T1C 132M2-6	5.5	940	6.34	12.57	6.8	83.1	0.76	55.87	2.3	2	2.6
T1C 160M-6	7.5	950	8.49	16.82	7	84.7	0.76	75.39	2.3	2	2.7
T1C 160L-6	11	955	11.43	23.56	7.3	86.4	0.78	109.99	2.3	2	2.7
T1C 180L-6	15	955	14.84	31.25	7.2	87.7	0.79	149.99	2.3	2	2.7
T1C 200L1-6	18.5	960	15.58	36.31	6.9	88.6	0.83	184.02	2.3	2	2.7
T1C 200L2-6	22	960	18.41	42.89	7.3	89.2	0.83	218.84	2.3	2	2.6
T1C 225M-6	30	970	24.82	57.84	7.4	90.2	0.83	295.34	2.3	2	2.6
T1C 250M-6	37	970	27.94	69.20	7.5	90.8	0.85	364.25	2.3	2	2.7
T1C 280S-6	45	975	32.26	82.63	7.7	91.4	0.86	440.74	2.3	2	2.7
T1C 280M1-6	55	975	37.40	99.29	7.7	91.9	0.87	538.68	2.2	1.9	2.5
T1C 315S-6	75	975	45.71	131.36	7.9	92.6	0.89	734.56	2.1	1.9	2.5
T1C 315M-6	90	975	51.74	155.37	8	92.9	0.90	881.47	2	1.8	2.3
T1C 315L1-6	110	975	62.97	189.09	7.7	93.3	0.90	1077.36	2	1.8	2.3
T1C 315L2-6	132	975	79.68	228.96	8	93.5	0.89	1292.83	2	1.8	2.3
T1C 355M1-6	160	975	85.93	270.56	7.6	93.8	0.91	1567.06	2	1.8	2.3
T1C 355M2-6	200	975	113.63	341.23	7.8	94	0.90	1958.83	2	1.8	2.3
T1C 355L-6	250	975	150.10	431.33	7.8	94	0.89	2448.54	2	1.8	2.3

IE2 Efficiency Motors Technical Data

Model	Power (KW)	Full Load Speed (r/min)	I _n 400V (A)	I _n 400V (A)	I _{st} /I _n (Times)	Eff. 100%FL (%)	Power Factor (CosΦ)	Full Load Torque (N.M)	T _{st} /T _n (Times)	T _{min} /T _n (Times)	T _{max} /T _n (Times)
2 Pole - 3000 rpm Synchronous Speed 50Hz											
T2C 801-2	0.75	2848	0.96	1.86	6	77.4	0.75	2.51	2.7	2.1	2.8
T2C 802-2	1.1	2846	1.20	2.52	6.7	79.6	0.79	3.69	2.7	2.1	2.9
T2C 90S-2	1.5	2852	1.32	3.17	6.1	81.3	0.84	5.02	2.3	2	2.7
T2C 90L-2	2.2	2845	1.89	4.54	7	83.2	0.84	7.38	2.6	2.1	2.7
T2C 100L-2	3	2851	2.00	5.75	7.6	84.6	0.89	10.05	2.5	2	2.8
T2C 112M-2	4	2910	2.63	7.56	7.8	85.8	0.89	13.13	2.5	2	2.7
T2C 132S1-2	5.5	2905	3.57	10.25	7.8	87	0.89	18.08	2.4	2	2.9
T2C 132S2-2	7.5	2910	5.06	13.96	7.9	88.1	0.88	24.61	2.7	2	2.8
T2C 160M1-2	11	2920	6.57	19.73	7.9	89.4	0.90	35.97	2.2	2.1	3
T2C 160M2-2	15	2918	8.37	26.35	7.9	90.3	0.91	49.09	2.3	2.1	3
T2C 160L-2	18.5	2922	9.64	31.93	8	90.9	0.92	60.46	2.4	2.1	2.9
T2C 180M-2	22	2930	13.60	39.08	7.5	91.3	0.89	71.70	2.3	2	2.8
T2C 200L1-2	30	2925	19.39	53.49	6.7	92	0.88	97.94	2.4	2	2.7
T2C 200L2-2	37	2930	21.36	64.15	6.3	92.5	0.90	120.59	2.3	2	2.7
T2C 225M-2	45	2930	28.81	79.45	6.9	92.9	0.88	146.66	2.3	2	2.8
T2C 250M-2	55	2940	35.09	96.80	8	93.2	0.88	178.64	2.3	1.9	2.7
T2C 280S-2	75	2940	37.86	125.45	8	93.8	0.92	243.60	2.2	1.9	2.7
T2C 280M-2	90	2940	45.28	150.06	7.7	94.1	0.92	292.33	2.2	1.9	2.6
T2C 315S-2	110	2940	62.30	187.08	7.7	94.3	0.90	357.29	2	1.8	2.3
T2C 315M-2	132	2940	70.29	221.33	7.6	94.6	0.91	428.74	2	1.8	2.3
T2C 315L1-2	160	2945	90.14	270.68	7.8	94.8	0.90	518.81	2	1.8	2.3
T2C 315L2-2	200	2945	118.82	341.44	7.9	95	0.89	648.51	2	1.8	2.3
T2C 355M-2	250	2945	140.54	422.05	7.8	95	0.90	810.64	2	1.8	2.3
T2C 355L-2	315	2945	187.14	537.76	7.8	95	0.89	1021.40	2	1.8	2.3
4 Pole - 1500 rpm Synchronous Speed 50Hz											
T2C 802-4	0.75	1420	0.90	1.79	5.4	79.6	0.76	5.04	2.3	2.1	2.9
T2C 90S-4	1.1	1425	1.21	2.50	5.9	81.4	0.78	7.37	2.3	2.1	2.7
T2C 90L-4	1.5	1420	1.57	3.31	6.4	82.8	0.79	10.09	2.4	2	2.7
T2C 100L1-4	2.2	1430	2.03	4.59	6.6	84.3	0.82	14.69	2.4	2.1	2.9
T2C 100L2-4	3	1430	2.94	6.33	6.9	85.5	0.80	20.03	2.4	2	2.8
T2C 112M-4	4	1435	4.01	8.44	7.9	86.6	0.79	26.62	2.5	2	3
T2C 132S-4	5.5	1430	4.87	11.04	7.1	87.7	0.82	36.73	2.3	2	2.8
T2C 132M-4	7.5	1430	6.31	14.70	7.8	88.7	0.83	50.08	2.3	2	2.7
T2C 160M-4	11	1440	6.17	19.43	7.9	89.8	0.91	72.95	2.5	2.1	2.8
T2C 160L-4	15	1445	7.82	25.92	7.8	90.8	0.92	99.13	2.4	2.1	2.9
T2C 180M-4	18.5	1445	12.68	33.66	7.8	91.2	0.87	122.26	2.4	2.1	3
T2C 180L-4	22	1460	13.55	38.95	7.5	91.6	0.89	143.89	2.3	2	3
T2C 200L-4	30	1460	19.33	53.31	7.9	92.3	0.88	196.22	2.4	2	2.7
T2C 225S-4	37	1470	33.42	72.02	6.7	92.7	0.80	240.36	2.4	2	2.7
T2C 225M-4	45	1480	40.47	87.21	7	93.1	0.80	290.35	2.3	2	2.8
T2C 250M-4	55	1480	34.98	96.49	7.4	93.5	0.88	354.87	2.4	1.9	2.7
T2C 280S-4	75	1480	40.19	126.56	7.5	94	0.91	483.92	2.2	1.9	2.6
T2C 280M-4	90	1480	45.23	149.90	7.7	94.2	0.92	580.70	2.2	1.9	2.6
T2C 315S-4	110	1480	62.17	186.69	7.8	94.5	0.90	709.75	2	1.8	2.3
T2C 315M-4	132	1480	70.22	221.09	7.8	94.7	0.91	851.69	2	1.8	2.3
T2C 315L1-4	160	1480	84.93	267.43	7.9	94.9	0.91	1032.36	2	1.8	2.3
T2C 315L2-4	200	1480	112.32	337.29	7.7	95.1	0.90	1290.45	2	1.8	2.3
T2C 355M-4	250	1480	148.36	426.35	7.9	95.1	0.89	1613.06	2	1.8	2.3
T2C 355L-4	315	1480	176.90	531.23	7.8	95.1	0.90	2032.45	2	1.8	2.3
6 Pole - 1000 rpm Synchronous Speed 50Hz											
T2C 90S-6	0.75	935	0.95	1.88	6.2	75.9	0.76	7.66	2.2	2	2.7
T2C 90L-6	1.1	935	1.18	2.54	6	78.1	0.80	11.23	2.3	2.1	2.6
T2C 100L-6	1.5	940	1.46	3.31	5.8	79.8	0.82	15.24	2.3	2.1	2.7
T2C 112M-6	2.2	940	2.25	4.85	6.4	81.8	0.80	22.35	2.3	2.1	2.9
T2C 132S-6	3	940	2.69	6.26	6.3	83.3	0.83	30.48	2.4	2.2	2.8
T2C 132M1-6	4	945	3.39	8.12	6.2	84.6	0.84	40.42	2.5	2	2.8
T2C 132M2-6	5.5	945	4.97	11.26	6.8	86	0.82	55.58	2.3	1.9	2.8
T2C 160M-6	7.5	955	6.16	14.78	7	87.2	0.84	74.99	2.4	1.9	2.7
T2C 160L-6	11	960	8.50	21.06	7.3	88.7	0.85	109.42	2.5	2	2.8
T2C 180L-6	15	960	12.48	29.08	7.8	89.7	0.83	149.21	2.3	2.1	2.9
T2C 200L1-6	18.5	965	14.03	34.75	7.8	90.4	0.85	183.07	2.4	2.1	3.2
T2C 200L2-6	22	965	15.86	40.62	7.9	90.9	0.86	217.70	2.3	1.9	3.1
T2C 225M-6	30	975	22.43	55.56	7.9	91.7	0.85	293.82	2.2	1.9	2.7
T2C 250M-6	37	975	29.95	69.79	7.5	92.2	0.83	362.38	2.3	2.1	2.7
T2C 280S-6	45	980	31.81	81.48	7.2	92.7	0.86	438.49	2.3	2	2.8
T2C 280M1-6	55	980	38.71	99.15	7.7	93.1	0.86	535.93	2.2	1.9	2.7
T2C 315S-6	75	980	45.17	129.81	7.9	93.7	0.89	730.81	2.1	1.9	2.5
T2C 315M-6	90	980	51.13	153.56	8	94	0.90	876.98	2	1.8	2.3
T2C 315L1-6	110	980	62.30	187.08	7.7	94.3	0.90	1071.86	2	1.8	2.3
T2C 315L2-6	132	980	78.75	226.30	8	94.6	0.89	1286.23	2	1.8	2.3
T2C 355M1-6	160	980	85.02	267.71	7.6	94.8	0.91	1559.07	2	1.8	2.3
T2C 355M2-6	200	980	112.43	337.64	7.8	95	0.90	1948.84	2	1.8	2.3
T2C 355L-6	250	980	148.52	426.79	7.8	95	0.89	2436.05	2	1.8	2.3

IEC MOTOR

GOST MOTOR

NEMA MOTOR

PUMP

GENERATOR

D.C. MOTOR

IE3 Efficiency Motors Technical Data

Model	Power (KW)	Full Load Speed (r/min)	I _n 400V (A)	I _n 400V (A)	I _{st} /I _n (Times)	Eff. 100%FL (%)	Power Factor (CosΦ)	Full Load Torque (N.M)	T _{st} /T _n (Times)	T _{min} /T _n (Times)	T _{max} /T _n (Times)
2 Pole - 3000 rpm Synchronous Speed 50Hz											
T3C 801-2	0.75	2848	0.92	1.79	6	80.7	0.75	2.51	2.7	2.1	2.8
T3C 802-2	1.1	2846	1.15	2.43	6.7	82.7	0.79	3.69	2.7	2.1	2.9
T3C 90S-2	1.5	2852	1.28	3.06	6.1	84.2	0.84	5.02	2.3	2	2.7
T3C 90L-2	2.2	2845	1.83	4.40	7	85.9	0.84	7.38	2.6	2.1	2.7
T3C 100L-2	3	2851	1.94	5.59	7.6	87.1	0.89	10.05	2.5	2	2.8
T3C 112M-2	4	2910	2.56	7.36	7.8	88.1	0.89	13.13	2.5	2	2.7
T3C 132S1-2	5.5	2905	3.48	10.00	7.8	89.2	0.89	18.08	2.4	2	2.9
T3C 132S2-2	7.5	2910	4.95	13.65	7.9	90.1	0.88	24.61	2.7	2	2.8
T3C 160M1-2	11	2920	6.44	19.34	7.9	91.2	0.90	35.97	2.2	2.1	3
T3C 160M2-2	15	2918	8.22	25.89	7.9	91.9	0.91	49.09	2.3	2.1	3
T3C 160L-2	18.5	2922	9.48	31.41	8	92.4	0.92	60.46	2.4	2.1	2.9
T3C 180M-2	22	2930	13.39	38.49	7.5	92.7	0.89	71.70	2.3	2	2.8
T3C 200L1-2	30	2925	19.12	52.74	6.7	93.3	0.88	97.94	2.4	2	2.7
T3C 200L2-2	37	2930	21.09	63.33	6.3	93.7	0.90	120.59	2.3	2	2.7
T3C 225M-2	45	2930	28.47	78.52	6.9	94	0.88	146.66	2.3	2	2.8
T3C 250M-2	55	2940	34.68	95.67	8	94.3	0.88	178.64	2.3	1.9	2.7
T3C 280S-2	75	2940	37.50	124.26	8	94.7	0.92	243.60	2.2	1.9	2.7
T3C 280M-2	90	2940	44.85	148.64	7.7	95	0.92	292.33	2.2	1.9	2.6
T3C 315S-2	110	2940	61.71	185.31	7.7	95.2	0.90	357.29	2	1.8	2.3
T3C 315M-2	132	2940	69.70	219.47	7.6	95.4	0.91	428.74	2	1.8	2.3
T3C 315L1-2	160	2945	89.20	267.86	7.8	95.8	0.90	518.81	2	1.8	2.3
T3C 315L2-2	200	2945	117.82	338.58	7.9	95.8	0.89	648.51	2	1.8	2.3
T3C 355M-2	250	2945	139.37	418.53	7.8	95.8	0.90	810.64	2	1.8	2.3
T3C 355L-2	315	2945	185.57	533.27	7.8	95.8	0.89	1021.40	2	1.8	2.3
4 Pole - 1500 rpm Synchronous Speed 50Hz											
T3C 802-4	0.75	1420	0.87	1.73	5.4	82.5	0.76	5.04	2.3	2.1	2.9
T3C 90S-4	1.1	1425	1.17	2.42	5.9	84.1	0.78	7.37	2.3	2.1	2.7
T3C 90L-4	1.5	1420	1.53	3.21	6.4	85.3	0.79	10.09	2.4	2	2.7
T3C 100L1-4	2.2	1430	1.97	4.47	6.6	86.7	0.82	14.69	2.4	2.1	2.9
T3C 100L2-4	3	1430	2.86	6.17	6.9	87.7	0.80	20.03	2.4	2	2.8
T3C 112M-4	4	1435	3.92	8.25	7.9	88.6	0.79	26.62	2.5	2	3
T3C 132S-4	5.5	1430	4.77	10.81	7.1	89.6	0.82	36.73	2.3	2	2.8
T3C 132M-4	7.5	1430	6.19	14.43	7.8	90.4	0.83	50.08	2.3	2	2.7
T3C 160M-4	11	1440	6.06	19.09	7.9	91.4	0.91	72.95	2.5	2.1	2.8
T3C 160L-4	15	1445	7.71	25.55	7.8	92.1	0.92	99.13	2.4	2.1	2.9
T3C 180M-4	18.5	1445	12.49	33.15	7.8	92.6	0.87	122.26	2.4	2.1	3
T3C 180L-4	22	1460	13.35	38.37	7.5	93	0.89	143.89	2.3	2	3
T3C 200L-4	30	1460	19.06	52.57	7.9	93.6	0.88	196.22	2.4	2	2.7
T3C 225S-4	37	1470	32.99	71.09	6.7	93.9	0.80	240.36	2.4	2	2.7
T3C 225M-4	45	1480	39.99	86.19	7	94.2	0.80	290.35	2.3	2	2.8
T3C 250M-4	55	1480	34.57	95.36	7.4	94.6	0.88	354.87	2.4	1.9	2.7
T3C 280S-4	75	1480	39.77	125.22	7.5	95	0.91	483.92	2.2	1.9	2.6
T3C 280M-4	90	1480	44.76	148.32	7.7	95.2	0.92	580.70	2.2	1.9	2.6
T3C 315S-4	110	1480	61.58	184.92	7.8	95.4	0.90	709.75	2	1.8	2.3
T3C 315M-4	132	1480	69.56	219.01	7.8	95.6	0.91	851.69	2	1.8	2.3
T3C 315L1-4	160	1480	84.13	264.91	7.9	95.8	0.91	1032.36	2	1.8	2.3
T3C 315L2-4	200	1480	111.26	334.12	7.7	96	0.90	1290.45	2	1.8	2.3
T3C 355M-4	250	1480	146.97	422.35	7.9	96	0.89	1613.06	2	1.8	2.3
T3C 355L-4	315	1480	175.24	526.25	7.8	96	0.90	2032.45	2	1.8	2.3
6 Pole - 1000 rpm Synchronous Speed 50Hz											
T3C 90S-6	0.75	935	0.91	1.81	6.2	78.9	0.76	7.66	2.2	2	2.7
T3C 90L-6	1.1	935	1.14	2.45	6	81	0.80	11.23	2.3	2.1	2.6
T3C 100L-6	1.5	940	1.41	3.20	5.8	82.5	0.82	15.24	2.3	2.1	2.7
T3C 112M-6	2.2	940	2.18	4.71	6.4	84.3	0.80	22.35	2.3	2.1	2.9
T3C 132S-6	3	940	2.62	6.09	6.3	85.6	0.83	30.48	2.4	2.2	2.8
T3C 132M1-6	4	945	3.30	7.92	6.2	86.8	0.84	40.42	2.5	2	2.8
T3C 132M2-6	5.5	945	4.85	11.00	6.8	88	0.82	55.58	2.3	1.9	2.8
T3C 160M-6	7.5	955	6.03	14.46	7	89.1	0.84	74.99	2.4	1.9	2.7
T3C 160L-6	11	960	8.35	20.69	7.3	90.3	0.85	109.42	2.5	2	2.8
T3C 180L-6	15	960	12.27	28.60	7.8	91.2	0.83	149.21	2.3	2.1	2.9
T3C 200L1-6	18.5	965	13.83	34.26	7.8	91.7	0.85	183.07	2.4	2.1	3.2
T3C 200L2-6	22	965	15.64	40.05	7.9	92.2	0.86	217.70	2.3	1.9	3.1
T3C 225M-6	30	975	22.14	54.84	7.9	92.9	0.85	293.82	2.2	1.9	2.7
T3C 250M-6	37	975	29.59	68.97	7.5	93.3	0.83	362.38	2.3	2.1	2.7
T3C 280S-6	45	980	31.47	80.61	7.2	93.7	0.86	438.49	2.3	2	2.8
T3C 280M1-6	55	980	38.30	98.10	7.7	94.1	0.86	535.93	2.2	1.9	2.7
T3C 315S-6	75	980	44.74	128.58	7.9	94.6	0.89	730.81	2.1	1.9	2.5
T3C 315M-6	90	980	50.65	152.10	8	94.9	0.90	876.98	2	1.8	2.3
T3C 315L1-6	110	980	61.77	185.51	7.7	95.1	0.90	1071.86	2	1.8	2.3
T3C 315L2-6	132	980	78.09	224.40	8	95.4	0.89	1286.23	2	1.8	2.3
T3C 355M1-6	160	980	84.31	265.47	7.6	95.6	0.91	1559.07	2	1.8	2.3
T3C 355M2-6	200	980	111.50	334.82	7.8	95.8	0.90	1948.84	2	1.8	2.3
T3C 355L-6	250	980	147.28	423.23	7.8	95.8	0.89	2436.05	2	1.8	2.3

MEPS2 (Aus) Efficiency Motors Technical Data

Model	Power (KW)	Full Load Speed (r/min)	I _n 400V (A)	I _s 400V (A)	I _s /I _n (Times)	Eff. 100%FL (%)	Power Factor (CosΦ)	Full Load Torque (N.M)	T _{st} /T _n (Times)	T _{min} /T _n (Times)	T _{max} /T _n (Times)
2 Pole - 3000 rpm Synchronous Speed 50Hz											
TCI 801-2	0.75	2860	0.86	1.77	6.8	80.5	0.76	2.51	2.4	2.1	2.8
TCI 802-2	1.1	2860	1.19	2.43	7.2	82.8	0.79	3.69	2.4	2.1	2.9
TCI 90S-2	1.5	2860	1.55	3.16	7.5	84.1	0.81	5.02	2.4	2	2.7
TCI 90L-2	2.2	2860	2.15	4.45	7.6	85.6	0.83	7.38	2.4	2.1	2.7
TCI 100L-2	3	2880	2.79	6.04	8.1	86.7	0.83	10.05	2.3	2	2.8
TCI 112M-2	4	2900	3.68	7.42	8.3	87.6	0.89	13.13	2.4	2	2.7
TCI 132S1-2	5.5	2900	4.44	10.4	8.3	88.6	0.86	18.08	2.3	2	2.9
TCI 132S2-2	7.5	2900	5.75	14.1	7.7	89.5	0.86	24.61	2.3	2	2.8
TCI 160M1-2	11	2945	7.59	18.90	7.5	90.6	0.92	35.97	2.4	2.1	3
TCI 160M2-2	15	2945	10.27	25.53	7.5	91.3	0.93	49.09	2.4	2.1	3
TCI 160L-2	18.5	2945	11.37	31.30	7.5	91.8	0.93	60.46	2.4	2.1	2.9
TCI 180M-2	22	2945	13.47	38.70	7.5	92.2	0.89	71.70	2.3	2	2.8
TCI 200L1-2	30	2960	17.25	51.80	7.5	92.9	0.90	97.94	2.4	2	2.7
TCI 200L2-2	37	2960	21.18	63.60	7.5	93.3	0.90	120.59	2.3	2	2.7
TCI 225M-2	45	2975	24.19	77.00	7.5	93.7	0.90	146.66	2.3	2	2.8
TCI 250M-2	55	2975	29.47	93.80	7.5	94	0.90	178.64	2.3	1.9	2.7
TCI 280S-2	75	2980	37.53	125.80	7.5	94.6	0.91	243.60	2.2	1.9	2.7
TCI 280M-2	90	2980	42.07	150.30	7.5	94.8	0.91	292.33	2.2	1.9	2.6
TCI 315S-2	110	2980	61.77	185.51	7.7	95.1	0.90	357.29	2	1.8	2.3
TCI 315M-2	132	2980	69.70	219.47	7.6	95.4	0.91	428.74	2	1.8	2.3
TCI 315L1-2	160	2980	89.48	268.70	7.8	95.5	0.90	518.81	2	1.8	2.3
TCI 315L2-2	200	2980	118.19	339.65	7.9	95.5	0.89	648.51	2	1.8	2.3
TCI 355M-2	250	2980	139.81	419.84	7.8	95.5	0.90	810.64	2	1.8	2.3
TCI 355L-2	315	2980	186.16	534.95	7.8	95.5	0.89	1021.40	2	1.8	2.3
4 Pole - 1500 rpm Synchronous Speed 50Hz											
TCI 802-4	0.75	1420	0.82	1.85	6.6	82.2	0.71	5.04	2.3	2.1	2.9
TCI 90S-4	1.1	1420	1.18	2.77	6.8	83.8	0.70	7.37	2.3	2.1	2.7
TCI 90L-4	1.5	1420	1.48	3.78	7	85	0.68	10.09	2.4	2	2.7
TCI 100L1-4	2.2	1430	2.13	4.50	7.4	86.4	0.81	14.69	2.4	2.1	2.9
TCI 100L2-4	3	1435	2.87	6.50	7.4	87.4	0.78	20.03	2.4	2	2.8
TCI 112M-4	4	1450	3.52	8.0	7.5	88.3	0.82	26.62	2.5	2	3
TCI 132S-4	5.5	1450	4.60	10.8	7.8	89.2	0.82	36.73	2.3	2	2.8
TCI 132M-4	7.5	1460	5.20	14.7	7.4	90.1	0.82	50.08	2.3	2	2.7
TCI 160M-4	11	1460	7.55	19.51	7	91	0.89	72.95	2.5	2.1	2.8
TCI 160L-4	15	1460	9.72	26.28	7.5	91.8	0.90	99.13	2.4	2.1	2.9
TCI 180M-4	18.5	1470	11.93	32.20	7.5	92.2	0.89	122.26	2.4	2.1	3
TCI 180L-4	22	1470	12.69	38.50	7.5	92.6	0.89	143.89	2.3	2	3
TCI 200L-4	30	1475	18.17	54.00	7.2	93.2	0.86	196.22	2.4	2	2.7
TCI 225S-4	37	1480	22.31	66.50	7.2	93.6	0.86	240.36	2.4	2	2.7
TCI 225M-4	45	1480	27.05	79.50	7.2	93.9	0.87	290.35	2.3	2	2.8
TCI 250M-4	55	1480	29.41	96.90	7.2	94.2	0.87	354.87	2.4	1.9	2.7
TCI 280S-4	75	1485	39.90	131.40	7.2	94.7	0.87	483.92	2.2	1.9	2.6
TCI 280M-4	90	1485	44.85	157.20	7.2	95	0.87	580.70	2.2	1.9	2.6
TCI 315S-4	110	1485	61.64	185.12	7.8	95.3	0.90	709.75	2	1.8	2.3
TCI 315M-4	132	1485	69.63	219.24	7.8	95.5	0.91	851.69	2	1.8	2.3
TCI 315L1-4	160	1485	84.22	265.19	7.9	95.7	0.91	1032.36	2	1.8	2.3
TCI 315L2-4	200	1485	111.61	335.17	7.7	95.7	0.90	1290.45	2	1.8	2.3
TCI 355M-4	250	1485	147.43	423.67	7.9	95.7	0.89	1613.06	2	1.8	2.3
TCI 355L-4	315	1485	175.79	527.90	7.8	95.7	0.90	2032.45	2	1.8	2.3

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MEPS2 (Aus) Efficiency Motors Technical Data

Model	Power (KW)	Full Load Speed (r/min)	I _n 400V (A)	I _n 400V (A)	I _s /I _n (Times)	Eff. 100%FL (%)	Power Factor (CosΦ)	Full Load Torque (N.M)	T _{st} /T _n (Times)	T _{min} /T _n (Times)	T _{max} /T _n (Times)
6 Pole - 1000 rpm Synchronous Speed 50Hz											
TCI 90S-6	0.75	940	1.04	1.95	5.5	77.7	0.71	7.66	2.2	2	2.7
TCI 90L-6	1.1	940	1.49	2.69	5.5	79.9	0.74	11.23	2.3	2.1	2.6
TCI 100L-6	1.5	950	1.93	3.58	6	81.5	0.74	15.24	2.3	2.1	2.7
TCI 112M-6	2.2	960	2.77	4.98	6	83.4	0.76	22.35	2.3	2.1	2.9
TCI 132S-6	3	960	3.71	6.45	6.5	84.9	0.79	30.48	2.4	2.2	2.8
TCI 132M1-6	4	960	4.73	8.24	6.5	86.1	0.81	40.42	2.5	2	2.8
TCI 132M2-6	5.5	960	6.03	11.2	6.5	87.4	0.81	55.58	2.3	1.9	2.8
TCI 160M-6	7.5	960	8.12	16.10	6.5	88.5	0.76	74.99	2.4	1.9	2.7
TCI 160L-6	11	970	11.00	22.90	6.5	89.8	0.77	109.42	2.5	2	2.8
TCI 180L-6	15	970	14.35	28.10	7	90.7	0.85	149.21	2.3	2.1	2.9
TCI 200L1-6	18.5	970	15.12	33.20	7	91.3	0.88	183.07	2.4	2.1	3.2
TCI 200L2-6	22	970	17.88	39.22	7	91.8	0.88	217.70	2.3	1.9	3.1
TCI 225M-6	30	980	24.20	54.54	7	92.5	0.86	293.82	2.2	1.9	2.7
TCI 250M-6	37	980	27.28	66.75	7	93	0.86	362.38	2.3	2.1	2.7
TCI 280S-6	45	980	31.54	85.50	7	93.5	0.81	438.49	2.3	2	2.8
TCI 280M1-6	55	980	36.61	104.60	7	93.9	0.81	535.93	2.2	1.9	2.7
TCI 315S-6	75	980	44.84	128.85	7.9	94.4	0.89	730.81	2.1	1.9	2.5
TCI 315M-6	90	980	50.70	152.26	8	94.8	0.90	876.98	2	1.8	2.3
TCI 315L1-6	110	980	61.77	185.51	7.7	95.1	0.90	1071.86	2	1.8	2.3
TCI 315L2-6	132	980	78.09	224.40	.8	95.4	0.89	1286.23	2	1.8	2.3
TCI 355M1-6	160	980	84.31	265.47	7.6	95.6	0.91	1559.07	2	1.8	2.3
TCI 355M2-6	200	980	111.73	335.52	7.8	95.6	0.90	1948.84	2	1.8	2.3
TCI 355L-6	250	980	147.59	424.12	7.8	95.6	0.89	2436.05	2	1.8	2.3
8 Pole - 750 rpm Synchronous Speed 50Hz											
TCI 100L1-8	0.75	690	1.19	0.02	4.5	73.5	69.00	10.38	2.2	2	2.5
TCI 100L2-8	1.1	690	1.69	0.03	4.5	76.3	69.00	15.22	2.3	2.1	2.6
TCI 112M1-8	1.5	695	2.18	0.04	4.8	78.4	70.00	20.61	2.3	2.1	2.6
TCI 132S-8	2.2	700	3.10	0.06	5	80.9	70.00	30.01	2.3	2.1	2.7
TCI 132M-8	3	700	4.03	0.07	5.1	82.7	71.00	40.93	2.4	2.2	2.7
TCI 160M1-8	4	720	5.27	10.80	6	84.2	0.63	53.80	2.5	2	2.8
TCI 160M2-8	5.5	720	6.92	14.86	6	85.8	0.63	73.97	2.3	1.9	2.6
TCI 160L-8	7.5	720	9.29	18.60	6	87.2	0.67	100.17	2.4	1.9	2.7
TCI 180L-8	11	730	13.00	23.80	6.6	88.8	0.75	145.89	2.3	2	2.8
TCI 200L-8	15	730	17.49	30.60	6.6	90	0.78	198.94	2.2	2	2.9
TCI 222S-8	18.5	730	20.79	38.65	6.6	90.7	0.76	243.67	2.2	2	3.2
TCI 222M-8	22	740	23.85	43.50	6.6	91.2	0.80	289.77	2.1	1.9	3.1
TCI 250M-8	30	740	32.21	61.50	6.6	92.1	0.76	392.44	2.1	1.9	2.7
TCI 280S-8	37	740	37.04	73.50	6.6	92.7	0.78	484.01	2.1	1.8	2.5
TCI 280M1-8	45	740	44.81	88.88	6.6	93.2	0.78	584.65	2	1.8	2.5
TCI 315S-8	55	740	50.92	107.25	7.5	93.7	0.79	709.75	2	1.8	2.4
TCI 315M-8	75	740	68.92	145.16	7.7	94.4	0.79	967.83	2	1.8	2.3
TCI 315L1-8	90	740	79.56	171.47	7.8	94.7	0.80	1161.40	2	1.8	2.2
TCI 315L2-8	110	745	96.83	208.70	7.8	95.1	0.80	1409.96	2	1.8	2.3
TCI 355M1-8	132	745	99.06	237.76	7.9	95.4	0.84	1691.96	2	1.8	2.3
TCI 355M2-8	160	745	119.70	287.29	7.8	95.7	0.84	2050.86	2	1.8	2.3
TCI 355L-8	200	745	136.95	350.76	7.7	95.7	0.86	2563.57	2	1.8	2.3

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Model	Power (kW)	Full Load Speed (r/min)	I _n 400V (A)	I _n 400V (A)	I _a /I _n (Times)	Eff. 100%FL (%)	Power Factor (CosΦ)	Full Load Torque (N.M)	T _a /T _n (Times)	T _{min} /T _n (Times)	T _{max} /T _n (Times)
2 Pole - 3000 rpm Synchronous Speed 50Hz											
TCP 801-2	0.75	2848	0.84	1.70	5	82.9	0.77	2.51	2.4	2.1	2.8
TCP 802-2	1.1	2846	1.17	2.41	5	84.5	0.78	3.69	2.4	2.1	2.9
TCP 90S-2	1.5	2852	1.51	3.18	5	86.2	0.79	5.02	2.4	2	2.7
TCP 90L-2	2.2	2845	2.10	4.54	5.5	87.5	0.80	7.38	2.4	2.1	2.7
TCP 100L-2	3	2851	2.74	6.04	5.5	88.5	0.81	10.05	2.3	2	2.8
TCP 112M-2	4	2910	3.61	7.98	6	89.3	0.81	13.13	2.4	2	2.7
TCP 132S1-2	5.5	2905	4.37	10.49	6	90.1	0.84	18.08	2.3	2	2.9
TCP 132S2-2	7.5	2910	5.66	14.01	6.4	90.9	0.85	24.61	2.3	2	2.8
TCP 160M1-2	11	2920	7.48	19.86	6.3	91.9	0.87	35.97	2.4	2.1	3
TCP 160M2-2	15	2918	10.14	26.90	6.8	92.5	0.87	49.09	2.4	2.1	3
TCP 160L-2	18.5	2922	11.24	32.30	7	92.9	0.89	60.46	2.4	2.1	2.9
TCP 180M-2	22	2930	13.31	38.24	7.2	93.3	0.89	71.70	2.3	2	2.8
TCP 200L1-2	30	2925	17.06	51.24	7	93.9	0.90	97.94	2.4	2	2.7
TCP 200L2-2	37	2930	20.98	62.99	7.2	94.2	0.90	120.59	2.3	2	2.7
TCP 225M-2	45	2930	23.96	75.45	7	94.6	0.91	146.66	2.3	2	2.8
TCP 250M-2	55	2940	29.20	91.93	7.8	94.9	0.91	178.64	2.3	1.9	2.7
TCP 280S-2	75	2940	37.22	123.34	7.8	95.4	0.92	243.60	2.2	1.9	2.7
TCP 280M-2	90	2940	41.76	146.27	7.7	95.5	0.93	292.33	2.2	1.9	2.6
TCP 315S-2	110	2940	61.32	184.15	7.7	95.8	0.90	357.29	2	1.8	2.3
TCP 315M-2	132	2940	69.19	217.87	7.6	96.1	0.91	428.74	2	1.8	2.3
TCP 315L1-2	160	2945	88.92	267.02	7.8	96.1	0.90	518.81	2	1.8	2.3
TCP 315L2-2	200	2945	117.46	337.53	7.9	96.1	0.89	648.51	2	1.8	2.3
TCP 355M-2	250	2945	138.93	417.22	7.8	96.1	0.90	810.64	2	1.8	2.3
TCP 355L-2	315	2945	184.99	531.61	7.8	96.1	0.89	1021.40	2	1.8	2.3
4 Pole - 1500 rpm Synchronous Speed 50Hz											
TCP 802-4	0.75	1420	0.80	1.64	5.4	84.5	0.78	5.04	2.3	2.1	2.9
TCP 90S-4	1.1	1425	1.15	2.37	5.3	85.9	0.78	7.37	2.3	2.1	2.7
TCP 90L-4	1.5	1420	1.44	3.11	5.5	87	0.80	10.09	2.4	2	2.7
TCP 100L1-4	2.2	1430	2.09	4.50	6	88.2	0.80	14.69	2.4	2.1	2.9
TCP 100L2-4	3	1430	2.82	6.07	6	89.1	0.80	20.03	2.4	2	2.8
TCP 112M-4	4	1435	3.46	7.83	6.3	89.9	0.82	26.62	2.5	2	3
TCP 132S-4	5.5	1430	4.53	10.55	6.5	90.7	0.83	36.73	2.3	2	2.8
TCP 132M-4	7.5	1430	5.12	13.60	6.4	91.5	0.87	50.08	2.3	2	2.7
TCP 160M-4	11	1440	7.46	19.79	6.8	92.2	0.87	72.95	2.5	2.1	2.8
TCP 160L-4	15	1445	9.60	26.48	6.7	92.9	0.88	99.13	2.4	2.1	2.9
TCP 180M-4	18.5	1445	11.79	32.52	7.2	93.3	0.88	122.26	2.4	2.1	3
TCP 180L-4	22	1460	12.55	37.70	7.3	93.6	0.90	143.89	2.3	2	3
TCP 200L-4	30	1460	17.97	51.65	7.6	94.2	0.89	196.22	2.4	2	2.7
TCP 225S-4	37	1470	22.10	63.50	7.5	94.5	0.89	240.36	2.4	2	2.7
TCP 225M-4	45	1480	26.79	76.99	7.3	94.8	0.89	290.35	2.3	2	2.8
TCP 250M-4	55	1480	29.16	91.83	7.4	95	0.91	354.87	2.4	1.9	2.7
TCP 280S-4	75	1480	39.90	125.62	7.5	94.7	0.91	483.92	2.2	1.9	2.6
TCP 280M-4	90	1480	44.85	148.64	7.7	95	0.92	580.70	2.2	1.9	2.6
TCP 315S-4	110	1480	61.52	184.73	7.8	95.5	0.90	709.75	2	1.8	2.3
TCP 315M-4	132	1480	69.48	218.78	7.8	95.7	0.91	851.69	2	1.8	2.3
TCP 315L1-4	160	1480	83.96	264.36	7.9	96	0.91	1032.36	2	1.8	2.3
TCP 315L2-4	200	1480	111.15	333.78	7.7	96.1	0.90	1290.45	2	1.8	2.3
TCP 355M-4	250	1480	146.52	421.03	7.9	96.3	0.89	1613.06	2	1.8	2.3
TCP 355L-4	315	1480	174.69	524.61	7.8	96.3	0.90	2032.45	2	1.8	2.3

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Model	Power (KW)	Full Load Speed (r/min)	I _n 400V (A)	I _n 400V (A)	I _a /I _n (Times)	Eff. 100%FL (%)	Power Factor (CosΦ)	Full Load Torque (N.M)	T _a /T _n (Times)	T _{min} /T _n (Times)	T _{max} /T _n (Times)
6 Pole - 1000 rpm Synchronous Speed 50Hz											
TCP 90S-6	0.75	935	1.01	1.87	5.3	80.4	0.72	7.66	2.2	2	2.7
TCP 90L-6	1.1	935	1.44	2.68	5	82.4	0.72	11.23	2.3	2.1	2.6
TCP 100L-6	1.5	940	1.88	3.54	4.9	83.8	0.73	15.24	2.3	2.1	2.7
TCP 112M-6	2.2	940	2.70	5.09	5.7	85.5	0.73	22.35	2.3	2.1	2.9
TCP 132S-6	3	940	3.62	6.83	6.3	86.9	0.73	30.48	2.4	2.2	2.8
TCP 132M1-6	4	945	4.64	8.88	6.2	87.9	0.74	40.42	2.5	2	2.8
TCP 132M2-6	5.5	945	5.92	11.72	6.8	89.1	0.76	55.58	2.3	1.9	2.8
TCP 160M-6	7.5	955	7.98	15.81	7	90.1	0.76	74.99	2.4	1.9	2.7
TCP 160L-6	11	960	10.83	22.32	7.3	91.2	0.78	109.42	2.5	2	2.8
TCP 180L-6	15	960	14.14	29.79	7.2	92	0.79	149.21	2.3	2.1	2.9
TCP 200L1-6	18.5	965	14.92	34.78	6.9	92.5	0.83	183.07	2.4	2.1	3.2
TCP 200L2-6	22	965	17.67	41.18	7.3	92.9	0.83	217.70	2.3	1.9	3.1
TCP 225M-6	30	975	23.92	55.74	7.4	93.6	0.83	293.82	2.2	1.9	2.7
TCP 250M-6	37	975	26.99	66.84	7.5	94	0.85	362.38	2.3	2.1	2.7
TCP 280S-6	45	980	31.24	80.01	7.7	94.4	0.86	438.49	2.3	2	2.8
TCP 280M1-6	55	980	36.26	96.26	7.7	94.8	0.87	535.93	2.2	1.9	2.7
TCP 315S-6	75	980	44.46	127.77	7.9	95.2	0.89	730.81	2.1	1.9	2.5
TCP 315M-6	90	980	50.33	151.14	8	95.5	0.90	876.98	2	1.8	2.3
TCP 315L1-6	110	980	61.32	184.15	7.7	95.8	0.90	1071.86	2	1.8	2.3
TCP 315L2-6	132	980	77.52	222.77	.8	96.1	0.89	1286.23	2	1.8	2.3
TCP 355M1-6	160	980	83.78	263.81	7.6	96.2	0.91	1559.07	2	1.8	2.3
TCP 355M2-6	200	980	111.03	333.43	7.8	96.2	0.90	1948.84	2	1.8	2.3
TCP 355L-6	250	980	146.67	421.47	7.8	96.2	0.89	2436.05	2	1.8	2.3
8 Pole - 750 rpm Synchronous Speed 50Hz											
TCP 100L1-8	0.75	690	1.15	2.05	4.5	76.5	0.69	10.38	2.2	2	2.5
TCP 100L2-8	1.1	690	1.63	2.91	4.5	79.1	0.69	15.22	2.3	2.1	2.6
TCP 112M1-8	1.5	695	2.11	3.82	4.8	81	0.70	20.61	2.3	2.1	2.6
TCP 132S-8	2.2	700	3.01	5.45	5	83.3	0.70	30.01	2.3	2.1	2.7
TCP 132M-8	3	700	3.92	7.18	5.1	84.9	0.71	40.93	2.4	2.2	2.7
TCP 160M1-8	4	710	5.15	9.43	5.3	86.2	0.71	53.80	2.5	2	2.8
TCP 160M2-8	5.5	710	6.77	12.57	5.5	87.7	0.72	73.97	2.3	1.9	2.6
TCP 160L-8	7.5	715	9.11	16.91	6	88.9	0.72	100.17	2.4	1.9	2.7
TCP 180L-8	11	720	12.78	24.09	6	90.3	0.73	145.89	2.3	2	2.8
TCP 200L-8	15	720	17.22	32.45	6.4	91.4	0.73	198.94	2.2	2	2.9
TCP 2225S-8	18.5	725	20.49	39.22	6.4	92	0.74	243.67	2.2	2	3.2
TCP 2225M-8	22	725	23.54	45.82	7	92.4	0.75	289.77	2.1	1.9	3.1
TCP 250M-8	30	730	31.83	61.95	7	93.2	0.75	392.44	2.1	1.9	2.7
TCP 280S-8	37	730	36.65	74.02	7.5	93.7	0.77	484.01	2.1	1.8	2.5
TCP 280M1-8	45	735	44.34	89.55	7.5	94.2	0.77	584.65	2	1.8	2.5
TCP 315S-8	55	740	50.44	106.23	7.5	94.6	0.79	709.75	2	1.8	2.4
TCP 315M-8	75	740	68.34	143.94	7.7	95.2	0.79	967.83	2	1.8	2.3
TCP 315L1-8	90	740	78.90	170.04	7.8	95.5	0.80	1161.40	2	1.8	2.2
TCP 315L2-8	110	745	96.13	207.17	7.8	95.8	0.80	1409.96	2	1.8	2.3
TCP 355M1-8	132	745	98.34	236.03	7.9	96.1	0.84	1691.96	2	1.8	2.3
TCP 355M2-8	160	745	118.95	285.50	7.8	96.3	0.84	2050.86	2	1.8	2.3
TCP 355L-8	200	745	136.10	348.58	7.7	96.3	0.86	2563.57	2	1.8	2.3

IEC MOTOR

GOST MOTOR

NEMA MOTOR

PUMP

GENERATOR

D.C. MOTOR

IEC Frame - NEMA EPACT Efficiency TEFC Motors Technical Data

Model	Power (KW)	60Hz						50Hz						I _{st} /I _n (Times)	T _{st} /T _n (Times)	T _{max} /T _n (Times)	T _{min} /T _n (Times)
		Full Load Speed (r/min)	I _m 460V (A)	I _n 460V (A)	Eff. 100%FL (%)	Power Factor (CosΦ)	Full Load Torque (N.M)	Full Load Speed (r/min)	I _m 400V (A)	I _n 400V (A)	Eff. 100%FL (%)	Power Factor (CosΦ)	Full Load Torque (N.M)				
801-2	0.75	3495	0.85	1.66	75.5	0.75	2.05	2848	0.96	1.86	77.4	0.75	2.51	6	2.7	2.1	2.8
802-2	1.1	3495	1.01	2.12	82.5	0.79	3.01	2846	1.20	2.52	79.6	0.79	3.69	6.7	2.7	2.1	2.9
90S-2	1.5	3510	1.11	2.67	84	0.84	4.08	2852	1.32	3.17	81.3	0.84	5.02	6.1	2.3	2	2.7
90L-2	2.2	3525	1.60	3.84	85.5	0.84	5.96	2845	1.89	4.54	83.2	0.84	7.38	7	2.6	2.1	2.7
100L-2	3	3540	1.68	4.84	87.5	0.89	8.09	2851	2.00	5.75	84.6	0.89	10.05	7.6	2.5	2	2.8
112M-2	4	3540	2.24	6.45	87.5	0.89	10.79	2910	2.63	7.56	85.8	0.89	13.13	7.8	2.5	2	2.7
132S1-2	5.5	3540	3.05	8.76	88.5	0.89	14.84	2905	3.57	10.25	87	0.89	18.08	7.8	2.4	2	2.9
132S2-2	7.5	3545	4.33	11.95	89.5	0.88	20.20	2910	5.06	13.96	88.1	0.88	24.61	7.9	2.7	2	2.8
160M1-2	11	3550	5.66	17.01	90.2	0.90	29.59	2920	6.57	19.73	89.4	0.90	35.97	7.9	2.2	2.1	3
160M2-2	15	3550	7.28	22.94	90.2	0.91	40.35	2918	8.37	26.35	90.3	0.91	49.09	7.9	2.3	2.1	3
160L-2	18.5	3550	8.37	27.74	91	0.92	49.76	2922	9.64	31.93	90.9	0.92	60.46	8	2.4	2.1	2.9
180M-2	22	3555	11.86	34.09	91	0.89	59.10	2930	13.60	39.08	91.3	0.89	71.70	7.5	2.3	2	2.8
200L1-2	30	3555	16.92	46.66	91.7	0.88	80.58	2925	19.39	53.49	92	0.88	97.94	6.7	2.4	2	2.7
200L2-2	37	3560	18.60	55.84	92.4	0.90	99.25	2930	21.36	64.15	92.5	0.90	120.59	6.3	2.3	2	2.7
225M-2	45	3560	25.02	69.01	93	0.88	120.71	2930	28.81	79.45	92.9	0.88	146.66	6.9	2.3	2	2.8
250M-2	55	3565	30.58	84.35	93	0.88	147.32	2940	35.09	96.80	93.2	0.88	178.64	8	2.3	1.9	2.7
250M2-2	75	3565	37.21	111.75	93.6	0.90	200.90	2940	42.70	128.24	93.8	0.90	243.60	8	2.3	1.9	2.7
280S-2	75	3565	32.99	109.32	93.6	0.92	200.90	2940	37.86	125.45	93.8	0.92	243.60	8	2.2	1.9	2.7
280M-2	90	3564	39.21	129.93	94.5	0.92	241.14	2940	45.28	150.06	94.1	0.92	292.33	7.7	2.2	1.9	2.6
280M2-2	110	3555	50.99	160.55	94.5	0.91	295.48	2940	58.76	185.03	94.3	0.91	357.29	7.7	2.2	1.9	2.6
315S-2	110	3555	54.06	162.34	94.5	0.90	295.48	2940	62.30	187.08	94.3	0.90	357.29	7.7	2	1.8	2.3
315M-2	132	3560	61.19	192.66	94.5	0.91	354.08	2940	70.29	221.33	94.6	0.91	428.74	7.6	2	1.8	2.3
315L1-2	160	3560	78.22	234.88	95	0.90	429.18	2945	90.14	270.68	94.8	0.90	518.81	7.8	2	1.8	2.3
315L2-2	200	3565	102.89	295.66	95.4	0.89	535.72	2945	118.82	341.44	95	0.89	648.51	7.9	2	1.8	2.3
355M-2	250	3565	121.70	365.46	95.4	0.90	669.66	2945	140.54	422.05	95	0.90	810.64	7.8	2	1.8	2.3
355L-2	315	3568	162.04	465.66	95.4	0.89	843.06	2945	187.14	537.76	95	0.89	1021.40	7.8	2	1.8	2.3
802-4	0.75	1705	0.76	1.50	82.5	0.76	4.20	1420	0.90	1.79	79.6	0.76	5.04	5.4	2.3	2.1	2.9
90S-4	1.1	1710	1.02	2.11	84	0.78	6.14	1425	1.21	2.50	81.4	0.78	7.37	5.9	2.3	2.1	2.7
90L-4	1.5	1710	1.35	2.84	84	0.79	8.38	1420	1.57	3.31	82.8	0.79	10.09	6.4	2.4	2	2.7
100L1-4	2.2	1710	1.70	3.85	87.5	0.82	12.29	1430	2.03	4.59	84.3	0.82	14.69	6.6	2.4	2.1	2.9
100L2-4	3	1715	2.50	5.38	87.5	0.80	16.70	1430	2.94	6.33	85.5	0.80	20.03	6.9	2.4	2	2.8
112M-4	4	1715	3.45	7.26	87.5	0.79	22.27	1435	4.01	8.44	86.6	0.79	26.62	7.9	2.5	2	3
132S-4	5.5	1720	4.15	9.41	89.5	0.82	30.54	1430	4.87	11.04	87.7	0.82	36.73	7.1	2.3	2	2.8
132M-4	7.5	1720	5.44	12.67	89.5	0.83	41.64	1430	6.31	14.70	88.7	0.83	50.08	7.8	2.3	2	2.7
160M-4	11	1730	5.30	16.67	91	0.91	60.72	1440	6.17	19.43	89.8	0.91	72.95	7.9	2.5	2.1	2.8
160L-4	15	1730	6.79	22.49	91	0.92	82.80	1445	7.82	25.92	90.8	0.92	99.13	7.8	2.4	2.1	2.9
180M-4	18.5	1730	10.88	28.89	92.4	0.87	102.12	1445	12.68	33.66	91.2	0.87	122.26	7.8	2.4	2.1	3
180L-4	22	1740	11.68	33.58	92.4	0.89	120.74	1460	13.55	38.95	91.6	0.89	143.89	7.5	2.3	2	3

IEC MOTOR

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IEC Frame - NEMA EPACT Efficiency TEFC Motors Technical Data

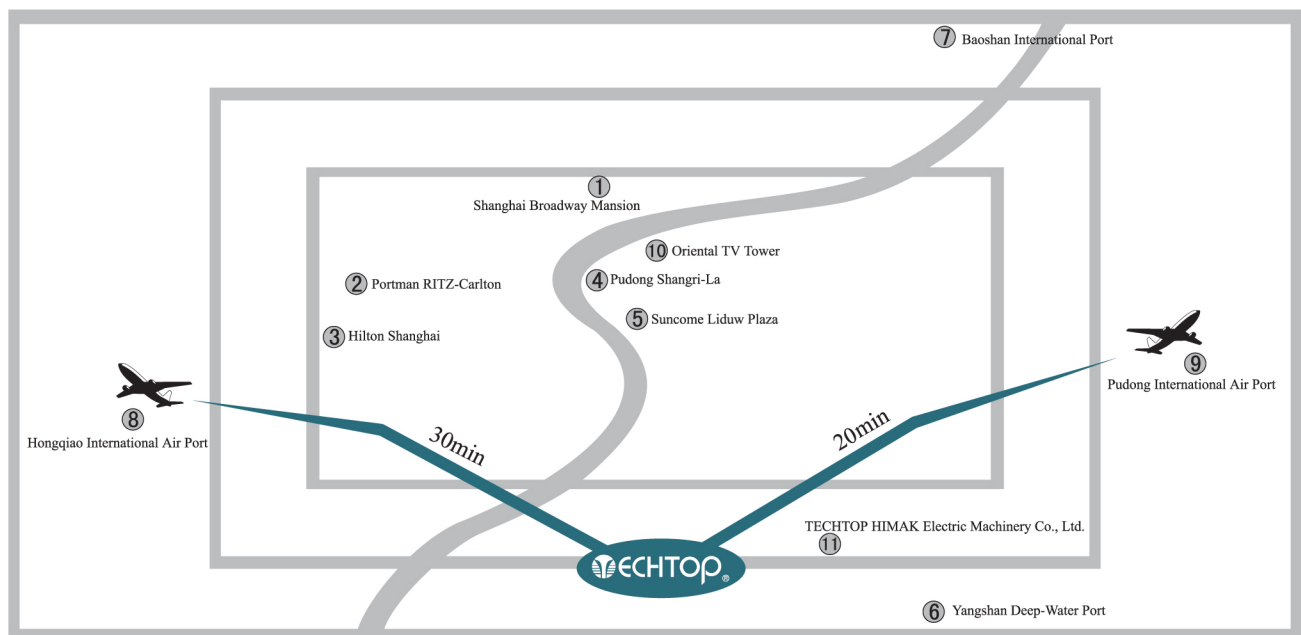
Model	Power (KW)	60Hz						50Hz						I _{st} /I _n (Times)	T _{st} /T _n (Times)	T _{min} /T _n (Times)	T _{max} /T _n (Times)
		Full Load Speed (r/min)	I _n 460V (A)	I _n 460V (A)	Eff. 100%FL (%)	Power Factor (CosΦ)	Full Load Torque (N.M)	Full Load Speed (r/min)	I _n 400V (A)	I _n 400V (A)	Eff. 100%FL (%)	Power Factor (CosΦ)	Full Load Torque (N.M)				
225S-4	37	1745	28.96	62.42	93	0.80	202.48	1470	33.42	72.02	92.7	0.80	240.36	6.7	2.4	2	2.7
225M-4	45	1745	35.00	75.43	93.6	0.80	246.26	1480	40.47	87.21	93.1	0.80	290.35	7	2.3	2	2.8
250M-4	55	1750	30.22	83.37	94.1	0.88	300.12	1480	34.98	96.49	93.5	0.88	354.87	7.4	2.4	1.9	2.7
250M2-4	75	1755	36.86	110.68	94.5	0.90	408.09	1480	42.61	127.96	94	0.90	483.92	7.4	2.4	1.9	2.7
280S-4	75	1760	34.77	109.47	94.5	0.91	406.93	1480	40.19	126.56	94	0.91	483.92	7.5	2.2	1.9	2.6
280M-4	90	1760	39.21	129.93	94.5	0.92	488.32	1480	45.23	149.90	94.2	0.92	580.70	7.7	2.2	1.9	2.6
315S-4	110	1780	53.77	161.48	95	0.90	590.13	1480	62.17	186.69	94.5	0.90	709.75	7.8	2	1.8	2.3
315M-4	132	1780	60.87	191.65	95	0.91	708.15	1480	70.22	221.09	94.7	0.91	851.69	7.8	2	1.8	2.3
315L1-4	160	1781	73.78	232.30	95	0.91	857.88	1480	84.93	267.43	94.9	0.91	1032.36	7.9	2	1.8	2.3
315L2-4	200	1781	97.77	293.60	95	0.90	1072.35	1480	112.32	337.29	95.1	0.90	1290.45	7.7	2	1.8	2.3
355M-4	250	1782	128.61	369.57	95.4	0.89	1339.69	1480	148.36	426.35	95.1	0.89	1613.06	7.9	2	1.8	2.3
355L-4	315	1782	153.34	460.48	95.4	0.90	1688.01	1480	176.90	531.23	95.1	0.90	2032.45	7.8	2	1.8	2.3
90S-6	0.75	1120	0.78	1.55	80	0.76	6.39	935	0.95	1.88	75.9	0.76	7.66	6.2	2.2	2.0	2.7
90L-6	1.1	1120	0.94	2.02	85.5	0.80	9.38	935	1.18	2.54	78.1	0.80	11.23	6	2.3	2.1	2.6
100L-6	1.5	1120	1.17	2.65	86.5	0.82	12.79	940	1.46	3.31	79.8	0.82	15.24	5.8	2.3	2.1	2.7
112M-6	2.2	1130	1.83	3.94	87.5	0.80	18.59	940	2.25	4.85	81.8	0.80	22.35	6.4	2.3	2.1	2.9
132S-6	3	1130	2.22	5.18	87.5	0.83	25.35	940	2.69	6.26	83.3	0.83	30.48	6.3	2.4	2.2	2.8
132M1-6	4	1140	2.85	6.83	87.5	0.84	33.51	945	3.39	8.12	84.6	0.84	40.42	6.2	2.5	2	2.8
132M2-6	5.5	1140	4.15	9.41	89.5	0.82	46.07	945	4.97	11.26	86	0.82	55.58	6.8	2.3	1.9	2.8
160M-6	7.5	1140	5.22	12.52	89.5	0.84	62.82	955	6.16	14.78	87.2	0.84	74.99	7	2.4	1.9	2.7
160L-6	11	1145	7.27	18.01	90.2	0.85	91.74	960	8.50	21.06	88.7	0.85	109.42	7.3	2.5	2	2.8
180L-6	15	1145	10.79	25.15	90.2	0.83	125.10	960	12.48	29.08	89.7	0.83	149.21	7.8	2.3	2.1	2.9
200L1-6	18.5	1150	12.03	29.79	91.7	0.85	153.62	965	14.03	34.75	90.4	0.85	183.07	7.8	2.4	2.1	3.2
200L2-6	22	1150	13.67	35.01	91.7	0.86	182.68	965	15.86	40.62	90.9	0.86	217.70	7.9	2.3	1.9	3.1
225M-6	30	1150	19.23	47.63	93	0.85	249.11	975	22.43	55.56	91.7	0.85	293.82	7.9	2.2	1.9	2.7
250M-6	37	1150	25.82	60.16	93	0.83	307.24	975	29.95	69.79	92.2	0.83	362.38	7.5	2.3	2.1	2.7
250M2-6	45	1155	28.66	70.99	93.6	0.85	372.05	975	33.28	82.43	92.7	0.85	440.74	7.5	2.3	2.1	2.7
280S-6	45	1160	27.40	70.17	93.6	0.86	370.45	980	31.81	81.48	92.7	0.86	438.49	7.2	2.3	2	2.8
280M1-6	55	1160	33.48	85.76	93.6	0.86	452.77	980	38.71	99.15	93.1	0.86	535.93	7.7	2.2	1.9	2.7
280M2-6	75	1165	41.22	113.68	94.1	0.88	614.76	980	47.60	131.29	93.7	0.88	730.81	7.7	2.2	1.9	2.7
315S-6	75	1174	39.11	112.40	94.1	0.89	610.05	980	45.17	129.81	93.7	0.89	730.81	7.9	2.1	1.9	2.5
315M-6	90	1172	44.42	133.38	94.1	0.90	733.31	980	51.13	153.56	94	0.90	876.98	8	2	1.8	2.3
315L1-6	110	1176	53.77	161.48	95	0.90	893.22	980	62.30	187.08	94.3	0.90	1071.86	7.7	2	1.8	2.3
315L2-6	132	1178	68.19	195.95	95	0.89	1070.04	980	78.75	226.30	94.6	0.89	1286.23	.8	2	1.8	2.3
355M1-6	160	1180	73.78	232.30	95	0.91	1294.82	980	85.02	267.71	94.8	0.91	1559.07	7.6	2	1.8	2.3
355M2-6	200	1179	97.77	293.60	95	0.90	1619.90	980	112.43	337.64	95	0.90	1948.84	7.8	2	1.8	2.3
355L-6	250	1180	129.15	371.13	95	0.89	2023.16	980	148.52	426.79	95	0.89	2436.05	7.8	2	1.8	2.3

IEC Frame - NEMA Premium Efficiency TEFC Motors Technical Data

Model	Power (KW)	60Hz						50Hz						I _{st} /I _n (Times)	T _{st} /T _n (Times)	T _{min} /T _n (Times)	T _{max} /T _n (Times)
		Full Load Speed (r/min)	I _n 460V (A)	I _b 460V (A)	Eff. 100% FL (%)	Power Factor (CosΦ)	Full Load Torque (N.M)	Full Load Speed (r/min)	I _n 400V (A)	I _b 400V (A)	Eff. 100% FL (%)	Power Factor (CosΦ)	Full Load Torque (N.M)				
801-2	0.75	3495	0.84	1.63	77	0.75	2.05	2848	0.92	1.79	80.7	0.75	2.51	6	2.7	2.1	2.8
802-2	1.1	3495	0.99	2.08	84	0.79	3.01	2846	1.15	2.43	82.7	0.79	3.69	6.7	2.7	2.1	2.9
90S-2	1.5	3510	1.09	2.62	85.5	0.84	4.08	2852	1.28	3.06	84.2	0.84	5.02	6.1	2.3	2	2.7
90L-2	2.2	3525	1.58	3.80	86.5	0.84	5.96	2845	1.83	4.40	85.9	0.84	7.38	7	2.6	2.1	2.7
100L-2	3	3540	1.66	4.78	88.5	0.89	8.09	2851	1.94	5.59	87.1	0.89	10.05	7.6	2.5	2	2.8
112M-2	4	3540	2.22	6.37	88.5	0.89	10.79	2910	2.56	7.36	88.1	0.89	13.13	7.8	2.5	2	2.7
132S1-2	5.5	3540	3.02	8.67	89.5	0.89	14.84	2905	3.48	10.00	89.2	0.89	18.08	7.8	2.4	2	2.9
132S2-2	7.5	3545	4.30	11.86	90.2	0.88	20.20	2910	4.95	13.65	90.1	0.88	24.61	7.9	2.7	2	2.8
160M1-2	11	3550	5.61	16.86	91	0.90	29.59	2920	6.44	19.34	91.2	0.90	35.97	7.9	2.2	2.1	3
160M2-2	15	3550	7.22	22.74	91	0.91	40.35	2918	8.22	25.89	91.9	0.91	49.09	7.9	2.3	2.1	3
160L-2	18.5	3550	8.31	27.52	91.7	0.92	49.76	2922	9.48	31.41	92.4	0.92	60.46	8	2.4	2.1	2.9
180M-2	22	3555	11.77	33.83	91.7	0.89	59.10	2930	13.39	38.49	92.7	0.89	71.70	7.5	2.3	2	2.8
200L1-2	30	3555	16.79	46.31	92.4	0.88	80.58	2925	19.12	52.74	93.3	0.88	97.94	6.7	2.4	2	2.7
200L2-2	37	3560	18.48	55.48	93	0.90	99.25	2930	21.09	63.33	93.7	0.90	120.59	6.3	2.3	2	2.7
225M-2	45	3560	24.86	68.57	93.6	0.88	120.71	2930	28.47	78.52	94	0.88	146.66	6.9	2.3	2	2.8
250M-2	55	3565	30.39	83.81	93.6	0.88	147.32	2940	34.68	95.67	94.3	0.88	178.64	8	2.3	1.9	2.7
250M2-2	75	3565	37.01	111.15	94.1	0.90	200.90	2940	42.30	127.02	94.7	0.90	243.60	8	2.3	1.9	2.7
280S-2	75	3565	32.81	108.74	94.1	0.92	200.90	2940	37.50	124.26	94.7	0.92	243.60	8	2.2	1.9	2.7
280M-2	90	3564	39.00	129.25	95	0.92	241.14	2940	44.85	148.64	95	0.92	292.33	7.7	2.2	1.9	2.6
280M2-2	110	3555	50.72	159.71	95	0.91	295.48	2940	58.21	183.28	95.2	0.91	357.29	7.7	2.2	1.9	2.6
315S-2	110	3555	53.77	161.48	95	0.90	295.48	2940	61.71	185.31	95.2	0.90	357.29	7.7	2	1.8	2.3
315M-2	132	3560	60.87	191.65	95	0.91	354.08	2940	69.70	219.47	95.4	0.91	428.74	7.6	2	1.8	2.3
315L1-2	160	3560	77.89	233.90	95.4	0.90	429.18	2945	89.38	268.42	95.6	0.90	518.81	7.8	2	1.8	2.3
315L2-2	200	3565	102.46	294.42	95.8	0.89	535.72	2945	117.82	338.58	95.8	0.89	648.51	7.9	2	1.8	2.3
355M-2	250	3565	121.19	363.94	95.8	0.90	669.66	2945	139.37	418.53	95.8	0.90	810.64	7.8	2	1.8	2.3
355L-2	315	3568	161.37	463.71	95.8	0.89	843.06	2945	185.57	533.27	95.8	0.89	1021.40	7.8	2	1.8	2.3
802-4	0.75	1705	0.73	1.45	85.5	0.76	4.20	1420	0.87	1.73	82.5	0.76	5.04	5.4	2.3	2.1	2.9
90S-4	1.1	1710	0.99	2.05	86.5	0.78	6.14	1425	1.17	2.42	84.1	0.78	7.37	5.9	2.3	2.1	2.7
90L-4	1.5	1710	1.31	2.76	86.5	0.79	8.38	1420	1.53	3.21	85.3	0.79	10.09	6.4	2.4	2	2.7
100L1-4	2.2	1710	1.66	3.76	89.5	0.82	12.29	1430	1.97	4.47	86.7	0.82	14.69	6.6	2.4	2.1	2.9
100L2-4	3	1715	2.44	5.26	89.5	0.80	16.70	1430	2.86	6.17	87.7	0.80	20.03	6.9	2.4	2	2.8
112M-4	4	1715	3.37	7.10	89.5	0.79	22.27	1435	3.92	8.25	88.6	0.79	26.62	7.9	2.5	2	3
132S-4	5.5	1720	4.05	9.18	91.7	0.82	30.54	1430	4.77	10.81	89.6	0.82	36.73	7.1	2.3	2	2.8
132M-4	7.5	1720	5.31	12.37	91.7	0.83	41.64	1430	6.19	14.43	90.4	0.83	50.08	7.8	2.3	2	2.7
160M-4	11	1730	5.21	16.42	92.4	0.91	60.72	1440	6.06	19.09	91.4	0.91	72.95	7.9	2.5	2.1	2.8
160L-4	15	1730	6.64	22.00	93	0.92	82.80	1445	7.71	25.55	92.1	0.92	99.13	7.8	2.4	2.1	2.9
180M-4	18.5	1730	10.74	28.51	93.6	0.87	102.12	1445	12.49	33.15	92.6	0.87	122.26	7.8	2.4	2.1	3
180L-4	22	1740	11.54	33.15	93.6	0.89	120.74	1460	13.35	38.37	93	0.89	143.89	7.5	2.3	2	3
200L-4	30	1740	16.49	45.47	94.1	0.88	164.64	1460	19.06	52.57	93.6	0.88	196.22	7.9	2.4	2	2.7
225S-4	37	1745	28.50	61.43	94.5	0.80	202.48	1470	32.99	71.09	93.9	0.80	240.36	6.7	2.4	2	2.7
225M-4	45	1745	34.48	74.32	95	0.80	246.26	1480	39.99	86.19	94.2	0.80	290.35	7	2.3	2	2.8
250M-4	55	1750	29.81	82.23	95.4	0.88	300.12	1480	34.57	95.36	94.6	0.88	354.87	7.4	2.4	1.9	2.7
250M2-4	75	1755	36.51	109.64	95.4	0.90	408.09	1480	42.16	126.62	95	0.90	483.92	7.4	2.4	1.9	2.7
280S-4	75	1760	34.44	108.43	95.4	0.91	406.93	1480	39.77	125.22	95	0.91	483.92	7.5	2.2	1.9	2.6
280M-4	90	1760	38.84	128.71	95.4	0.92	488.32	1480	44.76	148.32	95.2	0.92	580.70	7.7	2.2	1.9	2.6
315S-4	110	1780	53.32	160.13	95.8	0.90	590.13	1480	61.58	184.92	95.4	0.90	709.75	7.8	2	1.8	2.3
315M-4	132	1780	60.36	190.05	95.8	0.91	708.15	1480	69.56	219.01	95.6	0.91	851.69	7.8	2	1.8	2.3
315L1-4	160	1781	72.86	229.40	96.2	0.91	857.88	1480	84.13	264.91	95.8	0.91	1032.36	7.9	2	1.8	2.3
315L2-4	200	1781	96.55	289.94	96.2	0.90	1072.35	1480	111.26	334.12	96	0.90	1290.45	7.7	2	1.8	2.3
355M-4	250	1782	127.54	366.50	96.2	0.89	1339.69	1480	146.97	422.35	96	0.89	1613.06	7.9	2	1.8	2.3
355L-4	315	1782	152.07	456.65	96.2	0.90	1688.01	1480	175.24	526.25	96	0.90	2032.45	7.8	2	1.8	2.3

IEC Frame - NEMA Premium Efficiency TEFC Motors Technical Data

Model	Power (KW)	60Hz						50Hz						I _s /I _n (Times)	T _s /T _n (Times)	T _{min} /T _n (Times)	T _{max} /T _n (Times)
		Full Load Speed (r/min)	I _n 460V (A)	I _n 460V (A)	Eff. 100% FL (%)	Power Factor (CosΦ)	Full Load Torque (N.M)	Full Load Speed (r/min)	I _n 400V (A)	I _n 400V (A)	Eff. 100% FL (%)	Power Factor (CosΦ)	Full Load Torque (N.M)				
90S-6	0.75	1120	0.76	1.50	82.5	0.76	6.39	935	0.91	1.81	78.9	0.76	7.66	6.2	2.2	2.0	2.7
90L-6	1.1	1120	0.92	1.97	87.5	0.80	9.38	935	1.14	2.45	81	0.80	11.23	6	2.3	2.1	2.6
100L-6	1.5	1120	1.14	2.59	88.5	0.82	12.79	940	1.41	3.20	82.5	0.82	15.24	5.8	2.3	2.1	2.7
112M-6	2.2	1130	1.79	3.86	89.5	0.80	18.59	940	2.18	4.71	84.3	0.80	22.35	6.4	2.3	2.1	2.9
132S-6	3	1130	2.18	5.07	89.5	0.83	25.35	940	2.62	6.09	85.6	0.83	30.48	6.3	2.4	2.2	2.8
132M1-6	4	1140	2.78	6.68	89.5	0.84	33.51	945	3.30	7.92	86.8	0.84	40.42	6.2	2.5	2	2.8
132M2-6	5.5	1140	4.08	9.25	91	0.82	46.07	945	4.85	11.00	88	0.82	55.58	6.8	2.3	1.9	2.8
160M-6	7.5	1140	5.13	12.32	91	0.84	62.82	955	6.03	14.46	89.1	0.84	74.99	7	2.4	1.9	2.7
160L-6	11	1145	7.15	17.71	91.7	0.85	91.74	960	8.35	20.69	90.3	0.85	109.42	7.3	2.5	2	2.8
180L-6	15	1145	10.61	24.74	91.7	0.83	125.10	960	12.27	28.60	91.2	0.83	149.21	7.8	2.3	2.1	2.9
200L1-6	18.5	1150	11.86	29.37	93	0.85	153.62	965	13.83	34.26	91.7	0.85	183.07	7.8	2.4	2.1	3.2
200L2-6	22	1150	13.48	34.53	93	0.86	182.68	965	15.64	40.05	92.2	0.86	217.70	7.9	2.3	1.9	3.1
225M-6	30	1150	19.01	47.08	94.1	0.85	249.11	975	22.14	54.84	92.9	0.85	293.82	7.9	2.2	1.9	2.7
250M-6	37	1150	25.52	59.46	94.1	0.83	307.24	975	29.59	68.97	93.3	0.83	362.38	7.5	2.3	2.1	2.7
250M2-6	45	1155	28.39	70.32	94.5	0.85	372.05	975	32.93	81.55	93.7	0.85	440.74	7.5	2.3	2.1	2.7
280S-6	45	1160	27.14	69.50	94.5	0.86	370.45	980	31.47	80.61	93.7	0.86	438.49	7.2	2.3	2	2.8
280M1-6	55	1160	33.17	84.94	94.5	0.86	452.77	980	38.30	98.10	94.1	0.86	535.93	7.7	2.2	1.9	2.7
280M2-6	75	1165	40.83	112.60	95	0.88	614.76	980	47.15	130.04	94.6	0.88	730.81	7.7	2.2	1.9	2.7
315S-6	75	1174	38.74	111.34	95	0.89	610.05	980	44.74	128.58	94.6	0.89	730.81	7.9	2.1	1.9	2.5
315M-6	90	1172	44.00	132.12	95	0.90	733.31	980	50.65	152.10	94.9	0.90	876.98	8	2	1.8	2.3
315L1-6	110	1176	53.32	160.13	95.8	0.90	893.22	980	61.77	185.51	95.1	0.90	1071.86	7.7	2	1.8	2.3
315L2-6	132	1178	67.62	194.32	95.8	0.89	1070.04	980	78.09	224.40	95.4	0.89	1286.23	8	2	1.8	2.3
355M1-6	160	1180	73.16	230.36	95.8	0.91	1294.82	980	84.31	265.47	95.6	0.91	1559.07	7.6	2	1.8	2.3
355M2-6	200	1179	96.95	291.15	95.8	0.90	1619.90	980	111.50	334.82	95.8	0.90	1948.84	7.8	2	1.8	2.3
355L-6	250	1180	128.07	368.03	95.8	0.89	2023.16	980	147.28	423.23	95.8	0.89	2436.05	7.8	2	1.8	2.3



Трехфазные Асинхронные двигатели Серии TG

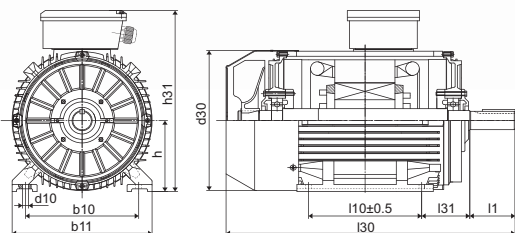
TG Series Three-Phase Motors

ОСОБЕННОСТИ

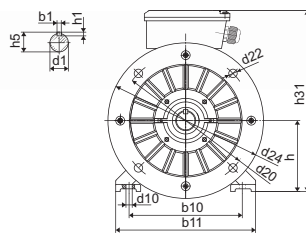
- Режим работы: продолжительный при температуре окружающей среды $\pm 40^{\circ}\text{C}$
- Материал корпуса:чугун;
- Тип подшипников : шариковый;
- Степень защиты: IP55.

FEATURES

- Continuous Duty $\pm 40^{\circ}\text{C}$ Ambient Temperature
- Cast Iron Frames
- Ball Bearings
- IP55 Protection



IM B3 Figure1



IM B35 Figure2

Габаритные, установочные и присоединительные размеры. Overall & Instalation Dimension

Тип двигателя (Frame)	Число полюсов (Poles)	Монтаж лап(Foot Mounting)					Ось(Shaft)					B5					Общие(General)				
		h	b10	l10	l31	d10	d1	l1	b1	h1	h5	d25	d20	d24	l20	l39	d22	b11	h31	d30	l30
80	2,4,6,8	80	125	100	50	Ø10	Ø22	50	6	6	24.5	Ø130	Ø165	Ø198	3.5	0	4-Ø12	160	205	Ø158	290
90L	2,4,6,8	90	140	125	56	Ø10	Ø24	50	8	7	27	Ø180	Ø215	Ø250	4.0	0	4-Ø15	175	220	Ø176	350
100S/L	2,4,6,8	100	160	112/140	63	Ø12	Ø28	60	8	7	31	Ø180	Ø215	Ø250	4.0	0	4-Ø15	200	245	Ø199	388
112M	2,4,6,8	112	190	140	70	Ø12	Ø32	80	10	8	35	Ø230	Ø265	Ø300	4.0	0	4-Ø15	230	290	Ø220	430
132S/M	2,4,6,8	132	216	140/178	89	Ø12	Ø38	80	10	8	41	Ø250	Ø300	Ø350	4.0	0	4-Ø19	255	330	Ø259	467/505
160S/M	2	160	254	178/210	108	Ø15	Ø42	110	12	8	45	Ø250	Ø300	Ø350	5.0	0	4-Ø19	314	402	Ø313	605
	4,6,8	160	254	178/210	108	Ø15	Ø48	110	14	9	51.5	Ø250	Ø300	Ø350	5.0	0	4-Ø19	314	402	Ø313	605
180S/M	2	180	279	203/241	121	Ø15	Ø48	110	14	9	52	Ø300	Ø350	Ø400	5.0	0	4-Ø19	348	439	Ø360	687
	4,6,8	180	279	203/241	121	Ø15	Ø55	110	16	10	59	Ø300	Ø350	Ø400	5.0	0	4-Ø19	348	439	Ø360	687
200M/L	2	200	318	267/305	133	Ø19	Ø55	110	16	10	59	Ø350	Ø400	Ø450	5.0	0	4-Ø19	388	497	Ø399	768
	4,6,8	200	318	267/305	133	Ø19	Ø60	140	18	11	64	Ø350	Ø400	Ø450	5.0	0	4-Ø19	388	497	Ø399	798
225M	2	225	356	311	149	Ø19	Ø55	110	16	10	59	Ø450	Ø500	Ø550	5.0	0	8-Ø19	436	553	Ø465	809
	4,6,8	225	356	311	149	Ø19	Ø65	140	18	11	69	Ø450	Ø500	Ø550	5.0	0	8-Ø19	436	553	Ø465	839
250S/M	2	250	406	311/349	168	Ø24	Ø65	140	18	11	69	Ø450	Ø500	Ø550	5.0	0	8-Ø19	484	616	Ø506	918
	4,6,8	250	406	311/349	168	Ø24	Ø75	140	20	12	80	Ø450	Ø500	Ø550	5.0	0	8-Ø19	484	616	Ø506	918
280S/M	2	280	457	368/419	190	Ø24	Ø70	140	20	12	74.5	Ø550	Ø600	Ø660	5.0	0	8-Ø24	557	668	Ø559	984/1035
	4,6,8,10	280	457	368/419	190	Ø24	Ø80	170	22	14	85.5	Ø550	Ø600	Ø660	5.0	0	8-Ø24	557	668	Ø559	1014/1065
315S/M	2	315	508	406/457	216	Ø28	Ø75	140	20	12	79.5	Ø550	Ø600	Ø660	5.0	0	8-Ø24	635	845	Ø645	1185/1295
	4,6,8,10,12	315	508	406/457	216	Ø28	Ø90	170	25	14	95	Ø550	Ø600	Ø660	5.0	0	8-Ø24	635	845	Ø645	1215/1325
355S/M	2	355	610	500/560	254	Ø28	Ø85	170	22	14	90.5	Ø680	Ø740	Ø800	5.0	0	8-Ø24	730	1010	Ø710	1530
	4,6,8,10,12	355	610	500/560	254	Ø28	Ø100	210	28	16	106	Ø680	Ø740	Ø800	5.0	0	8-Ø24	730	1010	Ø710	1570



ТЕХНИЧЕСКИЕ ХАРАКТЕРИСТИКИ Technical Data

Тип двигателя	Мощность кВт	Частота вращения об/мин	Номинальный ток при 380 В,А	КПД, %	cos φ	M _н /M _к	M _{макс} /M _к	I _н /I _к	Масса, кг
Model	Power (KW)	Speed (r/min)	Current At 380V (A)	Eff. (%)	Power Factor (Cos φ)	T _{мин} /T _н (Times)	T _{макс} /T _н (Times)	I _н /I _н (Times)	W.T (Kg)
TG 80A-2	1.50	3000	3.5	80	0.85	2.5	2.7	6.4	15.70
TG 80B-2	2.20	3000	5.4	83	0.87	3.1	3	7	18.00
TG 90L-2	3.00	3000	6.8	83.5	0.9	2.7	2.9	7	26.50
TG 100S-2	4.00	3000	8.15	85.5	0.9	2.4	2.9	7	31.50
TG 100L-2	5.50	3000	11.2	87	0.9	2.9	3.3	7.5	35.50
TG 112M-2	7.50	3000	15.1	88	0.91	3.1	3.3	7.5	46.80
TG 132M-2	11	3000	21.9	89	0.9	3.2	3.6	7.5	73.50
TG 160S-2	15	3000	29	89.5	0.9	2.3	3.2	7.5	118.50
TG 160M-2	18.5	3000	35.8	90	0.91	2.3	3.2	7.5	135.00
TG 180S-2	22	3000	42.9	90.5	0.89	2.3	3	7.5	153.00
TG 180M-2	30	3000	57	91.5	0.9	2.3	3.1	7.5	177.00
TG 200M-2	37	3000	70	91.5	0.88	2.4	2.9	7	235.00
TG 200L-2	45	3000	85	92	0.9	2.3	2.9	6.5	255.00
TG 225M-2	55	3000	104.9	92.5	0.9	2.5	2.9	7	345.00
TG 250S-2	75	3000	143	92.7	0.91	2.5	3	7.5	422.00
TG 250M-2	90	3000	171.8	93	0.91	2.7	3.2	7.5	438.00
TG 280S-2	110	3000	195.8	93.5	0.93	2.5	3.1	7.5	670.00
TG 280M-2	132	3000	234.9	94	0.93	2.4	2.9	7.5	700.00
TG 315S-2	160	3000	279	94.5	0.92	2.2	1.8	7.5	1120.00
TG 315M-2	200	3000	348	94.8	0.92	2.2	1.8	7.2	1190.00
TG 355S-2	250	3000	470	95	0.89	1.9	2.3	7.2	1690.00
TG 355M-2	315	3000	582	95.2	0.89	1.9	2.3	7	1850.00
TG 80A-4	1.10	1500	2.75	77	0.75	2.6	2.3	5.5	15.70
TG 80B-4	1.50	1500	3.52	78	0.8	2.8	2.4	5.5	19.00
TG 90L-4	2.20	1500	5.3	80.5	0.8	2.8	2.4	6	24.50
TG 100S-4	3.00	1500	6.7	81.5	0.82	2.4	2.8	6.5	33.40
TG 100L-4	4.00	1500	8	83	0.83	2.5	2.6	6.5	35.30
TG 112M-4	5.50	1500	11.3	85	0.86	2.6	2.6	7	46.80
TG 132S-4	7.5	1500	14.8	87	0.83	2.4	2.9	7.5	72.00
TG 132M-4	11	1500	21.7	88.5	0.84	3	2.9	7.5	85.00
TG 160S-4	15	1500	29	89	0.91	2.3	2.6	7.5	125.00
TG 160M-4	18.5	1500	35	90	0.9	2.8	3	7.5	150.00
TG 180S-4	22	1500	42	90.5	0.87	2.8	3	7.5	162.00
TG 180M-4	30	1500	58.2	91	0.89	2.7	3	7.5	230.00
TG 200M-4	37	1500	70.1	92	0.89	2.8	3.1	7.5	241.00
TG 200L-4	45	1500	85.3	92.2	0.88	2.8	3.2	7.5	276.00
TG 225M-4	55	1500	103.5	92.7	0.86	2.3	2.6	7	360.00
TG 250S-4	75	1500	142.4	93.3	0.88	2.5	2.6	7.5	420.00
TG 250M-4	90	1500	170	93.8	0.89	2.4	2.5	7	450.00
TG 280S-4	110	1500	203	94.2	0.9	2.5	2.6	7	630.00
TG 280M-4	132	1500	244	95	0.9	2.7	2.5	7.5	740.00
TG 315S-4	160	1500	296	95	0.88	2.3	2.1	6.5	1120.00
TG 315M-4	200	1500	360	95.5	0.89	2.3	2.4	5.5	1270.00
TG 355S-4	250	1500	444	95	0.9	2.2	2.1	6.5	1640.00
TG 355M-4	315	1500	551	95	0.91	2.2	2.1	7	1850.00



ТЕХНИЧЕСКИЕ ХАРАКТЕРИСТИКИ Technical Data

Тип двигателя	Мощность кВт	Частота вращения об/мин	Номинальный ток при 380 В, А	КПД, %	cos φ	M _n /M _n	M _{max} /M _n	I _n /I _n	Масса, кг
Model	Power (KW)	Speed (r/min)	Current At 380V (A)	Eff. (%)	Power Factor (Cos φ)	T _{min} /T _n (Times)	T _{max} /T _n (Times)	I _s /I _n (Times)	W.T (Kg)
TG 80A-6	1.10	1500	2.75	77	0.75	2.6	2.3	5.5	15.70
TG 80B-6	1.10	1000	3.9	73	0.73	2.4	2.6	4	18.00
TG 90L-6	1.50	1000	5.7	75	0.74	2.3	2.6	5	25.60
TG 100L-6	2.20	1000	8.7	78	0.79	2.3	2.4	5	33.50
TG 112MA-6	3.00	1000	10.9	81	0.74	2.6	3	6.5	42.50
TG 112MB-6	4	1000	9.1	82	0.79	2.6	2.7	6	47.50
TG 132S-6	5.5	1000	11.7	84	0.81	2.5	2.7	7	68.50
TG 132M-6	7.5	1000	16	85.5	0.82	2.8	2.7	7	73.50
TG 160S-6	11	1000	22.2	87	0.83	2.6	2.4	7	125.00
TG 160M-6	15	1000	30.3	89	0.82	2.7	2.7	7	157.00
TG 180M-6	18.5	1000	35.4	89.5	0.86	2.7	2.9	7	188.00
TG 200M-6	22	1000	42.1	90	0.87	2.4	2.7	7	218.00
TG 200L-6	30	1000	57.4	90	0.85	3	3.2	7.5	245.00
TG 225M-6	37	1000	69.8	91	0.87	2.7	2.8	7.5	323.00
TG 250S-6	45	1000	87	91.7	0.85	2.6	2.8	7.5	326.00
TG 250M-6	55	1000	106	92.2	0.85	2.7	2.6	7.5	370.00
TG 280S-6	75	1000	143.2	93	0.88	2.5	2.6	7	685.00
TG 280M-6	90	1000	171	93.5	0.88	2.8	2.6	6.5	725.00
TG 315S-6	110	1000	209	93.9	0.88	2.2	2.7	6	1110.00
TG 315M-6	132	1000	244	94	0.9	2.2	2.5	6.5	1210.00
TG 355S-6	160	1000	291	94.5	0.89	2	1.9	6.5	1540.00
TG 355M-6	200	1000	360	94.5	0.89	2	1.9	6.5	1700.00
TG 80A-8	0.37	750	1.3	62	0.61	2.3	2.2	3	15.50
TG 80B-8	0.55	750	2	64	0.6	2.1	2.6	3	17.70
TG 90LA-8	0.75	750	2.4	69	0.68	2	2.4	3	23.00
TG 90LB-8	1.10	750	3.3	71	0.68	2.2	2.4	3.5	26.00
TG 100L-8	1.50	750	4.3	74	0.68	2.5	2.7	4	34.00
TG 112MA-8	2.2	750	6.1	76.5	0.71	2.4	2.7	5	46.50
TG 112MB-8	3	750	7.6	78	0.7	2.4	2.6	5	50.00
TG 132S-8	4	750	9.9	82	0.7	2.7	2.7	6	73.00
TG 132M-8	5.5	750	13.3	83	0.74	2.3	2.4	5.5	86.00
TG 160S-8	7.5	750	17.5	85.5	0.71	2.6	2.6	6	125.00
TG 160M-8	11	750	22.2	86.7	0.73	2.4	2.5	6	174.50
TG 180M-8	15	750	28.7	88	0.78	2.7	2.9	7	195.00
TG 200M-8	18.5	750	35.4	88.4	0.79	2.5	2.8	7	240.00
TG 200L-8	22	750	42.2	89	0.78	2.5	2.9	7	255.00
TG 225M-8	30	750	56.6	90	0.8	2.4	2.5	6	335.00
TG 250S-8	37	750	71.4	90.7	0.79	2.2	2.5	6	350.00
TG 250M-8	45	750	86.9	91.3	0.8	2.4	2.5	6	413.00
TG 280S-8	55	750	106	92	0.8	2.7	2.9	7	670.00
TG 280M-8	75	750	132	92.8	0.8	2.8	2.9	7	760.00
TG 315S-8	90	750	178	93.5	0.85	2	1.8	6	1120.00
TG 315M-8	110	750	217	93.5	0.85	2	1.8	6	1230.00
TG 355S-8	132	750	255	93.5	0.85	2	1.8	6	1540.00
TG 355M-8	160	750	308	93.5	0.85	2	1.8	6	1700.00
TG 315S-10	55	600	115	92.5	0.79	2.2	1.6	6.5	925.00
TG 315M-10	75	600	155	92.5	0.8	2.2	1.9	6	1040.00
TG 355S-10	90	600	178	92.5	0.83	2.2	1.9	6	1530.00
TG 355M-10	110	600	217	93	0.83	2.2	1.9	6	1620.00

IEC MOTOR

GOST MOTOR

NEMA MOTOR

PUMP

GENERATOR

D.C. MOTOR



NEMA STANDARD MOTORS



Resilient Base Motors

- **Split Phase-Resistive start Induction Run**
- **Capacitor Start Induction Run**
- **Capacitor Start Capacitor Run**
- **Three Phase Induction Run**

S tandard Motor Specifications

- ODP-TEFC available
- 3.3" Resilient Cradle / Thru Bolt Mount (Ridgid Base available)
- Dual VOLTAGE 115/208-230V Single Phase
- Dual VOLTAGE 230/460V Three Phase
- 4 Pole 1725 RPM – Reversible
- Class F Insulation – 40°C Ambient
- Single Phase Automatic Reset Thermal Protection – UL2111
- Three Phase Automatic Reset Thermal Protection – UL1004
- Inverter Duty Available

Typical Applications

- Centrifugal Blowers
- Ventilators
- Roof vents
- Tubeaxial Fans
- Sidewall Ventilators
- Tubeaxial Blowers Evaporative Coolers



※ All dimensions are as standard and can be customized to meet your requirements

IEC MOTOR

GOST MOTOR

NEMA MOTOR

PUMP

GENERATOR

D.C. MOTOR

Resilient Base Motors

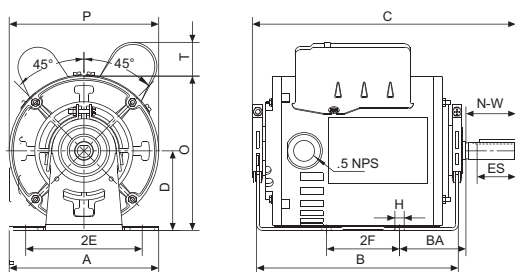


Figure1 CSCR

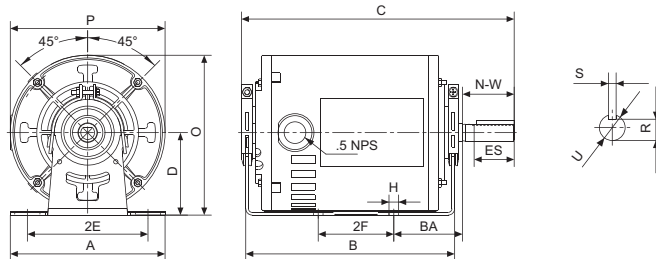


Figure2 RSIR AND TPIR

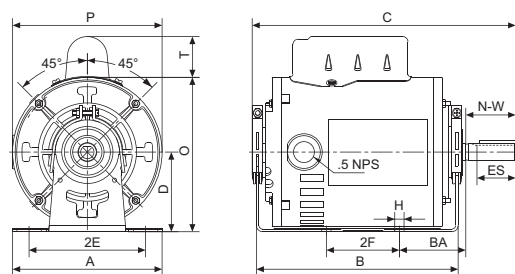


Figure3 CSIR

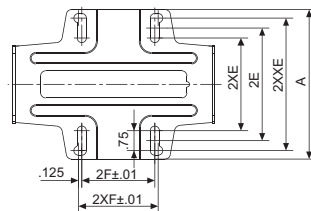


Figure4 TT140 FOOT

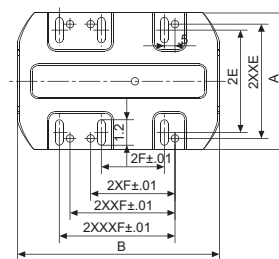


Figure5 TT160 FOOT

Overall & Installation Dimensions

RSIR Series Single-Phase Split Phase-Resistive Start Induction Run

Hp	Model	Sf	Fla (Amp)	Lra (Amp)	Bdt (Oz-Ft)	Lrt (Oz-Ft)	A	B	C	D	H	O	P	R	S	U	2E	2XE	2XXE	2F	2XF	BA	CE	ES	N-W	W.t (LBS)
1/6	48TT140-SP-125	1.35	4.06	24.16	14.81	16.28	5.63	7.60	9.92	3.0	0.35	5.82	5.63	0.453	Flat	0.5	4.24	4.24	4.99	2.75	3.00	2.50	2.56	1.62	1.88	12.76
1/4	48TT140-SP-185	1.35	4.84	30.10	24.15	24.26	5.63	7.60	9.92	3.0	0.35	5.82	5.63	0.453	Flat	0.5	4.24	4.24	4.99	2.75	3.00	2.50	2.56	1.62	1.88	14.08
1/3	48TT140-SP-245	1.35	5.48	38.36	31.83	32.47	5.63	8.11	10.43	3.0	0.35	5.82	5.63	0.453	Flat	0.5	4.24	3.49	4.99	2.75	3.00	2.50	2.56	1.62	1.88	16.50
1/2	48TT140-SP-375	1.25	7.14	46.82	48.20	49.75	5.63	8.50	10.82	3.0	0.35	5.82	5.63	0.453	Flat	0.5	4.24	3.49	4.99	2.75	3.00	2.50	2.56	1.62	1.88	19.36
1/6	56TT140-SP-125	1.35	4.06	24.16	14.81	16.28	6.40	7.60	9.92	3.5	0.35	6.32	5.63	0.515	0.1875	0.625	4.88	4.13	5.63	3.00	3.25	2.75	2.56	1.45	1.88	12.98
1/4	56TT140-SP-185	1.35	4.84	30.10	24.15	24.26	6.40	7.60	9.92	3.5	0.35	6.32	5.63	0.515	0.1875	0.625	4.88	4.13	5.63	3.00	3.25	2.75	2.56	1.45	1.88	14.30
1/3	56TT140-SP-245	1.35	5.48	38.36	31.83	32.47	6.40	8.11	10.43	3.5	0.35	6.32	5.63	0.515	0.1875	0.625	4.88	4.13	5.63	3.00	3.25	2.75	2.56	1.45	1.88	16.72
1/2	56TT140-SP-375	1.25	7.14	46.82	48.20	49.75	6.40	8.50	10.82	3.5	0.35	6.32	5.63	0.515	0.1875	0.625	4.88	4.13	5.63	3.00	3.25	2.75	2.56	1.45	1.88	19.58

CSIR Series Single-Phase Capacitor Start Induction Run

Hp	Model	Sf	Fla (Amp)	Lra (Amp)	Bdt (Oz-Ft)	Lrt (Oz-Ft)	A	B	C	D	H	O	P	R	S	T	U	2E	2XE	2XXE	2F	2XF	BA	ES	N-W	Wt (LBS)
1/4	48TT140-CSIR-185	1.35	4.84/2.42	16.68/8.34	23.46	30.33	5.63	7.60	9.92	3.0	0.35	5.82	5.63	0.453	Flat	1.54	0.5	4.24	3.49	4.99	2.75	3.00	2.50	1.62	1.88	14.52
1/3	48TT140-CSIR-245	1.35	5.48/2.74	20.7/10.35	31.55	39.47	5.63	7.60	9.92	3.0	0.35	5.82	5.63	0.453	Flat	1.54	0.5	4.24	3.49	4.99	2.75	3.00	2.50	1.62	1.88	16.94
1/2	48TT140-CSIR-375	1.25	7.14/3.57	29.3/14.65	50.80	62.21	5.63	8.11	10.43	3.0	0.35	5.82	5.63	0.453	Flat	1.54	0.5	4.24	3.49	4.99	2.75	3.00	2.50	1.62	1.88	19.80
1/4	56TT140-CSIR-185	1.35	4.84/2.42	16.68/8.34	23.46	30.33	6.40	8.50	9.92	3.0	0.35	6.32	5.63	0.453	Flat	1.54	0.625	4.88	4.13	5.63	3.00	3.25	2.75	1.45	1.88	14.74
1/3	56TT140-CSIR-245	1.35	5.48/2.74	20.7/10.35	31.55	39.47	6.40	7.60	10.43	3.5	0.35	6.32	5.63	0.453	0.1875	1.54	0.625	4.88	4.13	5.63	3.00	3.25	2.75	1.45	1.88	17.16
1/2	56TT140-CSIR-375	1.25	7.14/3.57	29.3/14.65	50.80	62.21	6.40	7.60	10.82	3.5	0.35	6.32	5.63	0.515	0.1875	1.54	0.625	4.88	4.13	5.63	3.00	3.25	2.75	1.45	1.88	20.02
3/4	56TT140-CSIR-560*	1.25	10.4/5.2	42.32/21.16	62.96	77.86	6.40	8.11	10.43	3.5	0.35	6.32	5.63	0.515	0.1875	1.54	0.625	4.88	—	5.5	3.00	4.00	2.75	1.45	1.88	23.32
1	56TT160-CSIR-745	1.15	13.16/6.58	58.44/29.22	98.24	121.07	6.40	8.50	10.82	3.5	0.35	6.32	5.63	0.515	0.1875	1.54	0.625	4.88	—	5.5	3.00	4.00	2.75	1.45	1.88	27.72

CSCR Series Single-Phase Capacitor Start Capacitor Run

Hp	Model	Sf	Fla (Amp)	Lra (Amp)	Bdt (Oz-Ft)	Lrt (Oz-Ft)	A	B	C	D	H	O	P	R	S	T	U	2E	2XE	2XXE	2F	2XF	BA	ES	N-W	Wt (LBS)
1/4	48TT140-CSCR-185	1.35	2.96/1.55	12.1/7.05	21.78	19.95	5.63	7.60	9.92	3.0	0.35	5.82	5.63	0.453	Flat	1.18	0.5	4.24	3.49	4.99	2.75	3.00	2.50	1.62	1.88	13.64
1/3	48TT140-CSCR-245	1.35	3.23/1.71	15.89/9.49	32.50	30.10	5.63	7.60	9.92	3.0	0.35	5.82	5.63	0.453	Flat	1.18	0.5	4.24	3.49	4.99	2.75	3.00	2.50	1.62	1.88	14.96
1/2	48TT140-CSCR-375	1.25	5.02/2.61	25.6/14.35	47.03	56.83	5.63	8.11	10.43	3.0	0.35	5.82	5.63	0.453	Flat	1.18	0.5	4.24	3.49	4.99	2.75	3.00	2.50	1.62	1.88	17.38
3/4	48TT140-CSCR-560	1.25	7.12/3.68	35.5/19.87	65.57	81.42	5.63	8.50	10.82	3.0	0.35	5.82	5.63	0.453	Flat	1.18	0.5	4.24	3.49	4.99	2.75	3.00	2.50	1.62	1.88	20.24
1/4	56TT140-CSCR-185	1.35	2.96/1.55	12.1/7.05	21.78	19.95	6.40	7.60	9.92	3.5	0.35	6.32	5.63	0.515	0.1875	1.18	0.625	4.88	4.13	5.63	3.00	3.25	2.75	1.45	1.88	13.86
1/3	56TT140-CSCR-245	1.35	3.23/1.71	15.89/9.49	32.50	30.10	6.40	7.60	9.92	3.5	0.35	6.32	5.63	0.515	0.1875	1.18	0.625	4.88	4.13	5.63	3.00	3.25	2.75	1.45	1.88	15.18
1/2	56TT140-CSCR-375	1.25	5.02/2.61	25.6/14.35	47.03	56.83	6.40	8.11	10.43	3.5	0.35	6.32	5.63	0.515	0.1875	1.18	0.625	4.88	4.13	5.63	3.00	3.25	2.75	1.45	1.88	17.38
3/4	56TT140-CSCR-560	1.25	7.12/3.68	35.5/19.87	65.57	81.42	6.40	8.50	10.82	3.5	0.35	6.32	5.63	0.515	0.1875	1.18	0.625	4.88	4.13	5.63	3.00	3.25	2.75	1.45	1.88	20.46
1	56TT160-CSCR-745	1.15	9.13/4.7	51.02/28.25	98.24	121.07	6.50	9.09	10.82	3.5	0.35	6.73	6.46	0.515	0.1875	1.34	0.625	4.88	—	5.5	3.00	4.00	2.75	1.45	1.88	26.18
1/2	56TT160-CSCR-1100	1.15	13.1/6.75	71.13/40.77	128.70	157.34	6.50	9.09	11.41	3.5	0.35	6.73	6.46	0.515	0.1875	1.34	0.625	4.88	—	5.5	3.00	4.00	2.75	1.45	1.88	29.48

TPIR Series Three-Phase Induction Run

Hp	Model	Sf	Fla (Amp)	Lra (Amp)	Bdt (Oz-Ft)	Lrt (Oz-Ft)	A	B	C	D	H	O	P	R	S	U	2E	2XE	2XXE	2F	2XF	2XXF	2XXXF	BA	ES	N-W	Wt (LBS)
1/3	48TT140-3SP-245	1.35	0.85/1.7	4.34/8.68	67.82	57.81	5.63	7.60	9.92	3.0	0.35	5.82	5.63	0.453	Flat	0.5	4.24	3.49	4.99	2.75	3.00	—	—	2.50	1.62	1.88	14.30
1/2	48TT140-3SP-375	1.25	0.95/1.9	4.91/9.82	86.73	79.30	5.63	8.11	10.43	3.0	0.35	5.82	5.63	0.453	Flat	0.5	4.24	3.49	4.99	2.75	3.00	—	—	2.50	1.62	1.88	16.50
3/4	48TT140-3SP-560	1.25	1.22/2.44	7/14	114.10	123.40	5.63	8.50	10.82	3.0	0.35	5.82	5.63	0.453	Flat	0.5	4.24	3.49	4.99	2.75	3.00	—	—	2.50	1.62	1.88	19.36
1/3	56TT140-3SP-245	1.35	0.85/1.7	4.34/8.68	67.82	57.81	6.40	7.60	9.92	3.5	0.35	6.32	5.63	0.515	Flat	0.5	4.88	4.13	5.63	3.00	3.25	—	—	2.75	1.45	1.88	14.52
1/2	56TT140-3SP-375	1.25	0.95/1.9	4.91/9.82	86.73	79.30	6.40	8.11	10.43	3.5	0.35	6.32	5.63	0.515	0.1875	0.625	4.88	4.13	5.63	3.00	3.25	—	—	2.75	1.45	1.88	16.72
3/4	56TT140-3SP-560	1.25	1.22/2.44	7/14	114.10	123.40	6.40	8.50	10.82	3.5	0.35	6.32	5.63	0.515	0.1875	0.625	4.88	4.13	5.63	3.00	3.25	—	—	2.75	1.45	1.88	19.58
1	56TT140-3SP-745*	1.15	1.6/3.2	8.8/17.6	134.00	162.30	6.50	9.09	11.41	3.5	0.35	6.32	5.63	0.515	0.1875	0.625	4.88	—	5.5	3.00	4.00	5.0	—	2.75	1.45	1.88	23.10
1 1/2	56TT160-3SP-1100	1.15	2.29/4.58	1/2	244.60	243.90	6.50	9.09	11.41	3.5	0.35	6.73	6.46	0.515	0.1875	0.625	4.88	—	5.5	3.00	4.00	5.0	—	2.75	1.45	1.88	27.50
2	56TT160-3SP-1500	1.15	3.03/6.06	21.9/43.8	367.30	372.20	6.50	9.61	11.90	3.5	0.35	6.73	6.46	0.515	0.1875	0.625	4.88	—	5.5	3.00	4.00	5.0	5.5	2.75	1.45	1.88	33.22
3	56TT160-3SP-2200	1.15	4.2/8.4	31.4/62.8	469.60	545.70	6.50	11.10	13.80	3.5	0.35	6.73	6.46	0.765	0.1875	0.625	4.88	—	5.5	3.00	4.00	5.0	5.5	2.75	1.45	2.25	42.02

※ Note: models marked with "*" are not standard

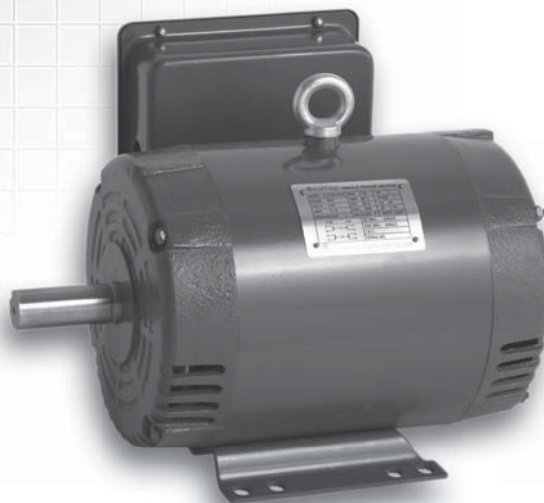
NEMA Single Phase Rolled Steel ODP Motors

1/12HP thru 10HP

- 48 thru 215T
- 48C thru 215TC

FEATURES

- Service Factor 1.15
- Continuous Duty 40°C Ambient
- ODP Class F Insulation With Class B Temp Rise
- NEMA Design L
- High Starting Torque and Low Starting Current
- Rolled Steel construction
- Ball Bearings
- Capacitor Start Induction Run (1/6 thru 3HP)
- Capacitor Start/Capacitor Run (1/4 thru 10HP)
- PSC (Permanent Split Capacitor) Motors (1/12 thru 2HP)



APPLICATIONS

- Commercial Pumps
- Swimming Pool Pumps
- Fans
- Conveyors
- Air Conditioning Equipment A.K.A HVAC
- Small Machine Tools
- Blowers
- Augers
- Household Electric Appliances
- Equipment Requiring Direct Drive and High Starting Torque

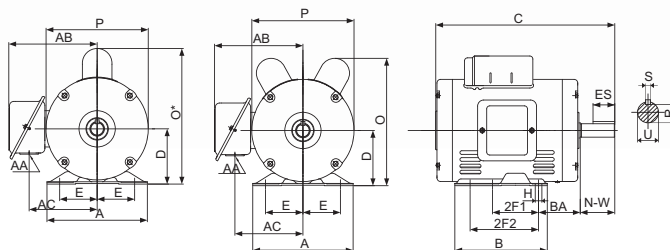


Figure 1 48 56 56H 143T 145T

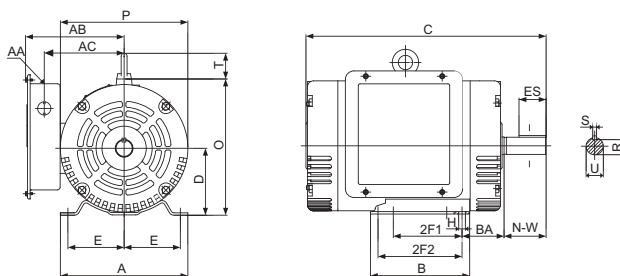


Figure 2 182T 184T 213T 215T

Overall & Installation Dimensions

Frame	A	B	D	H	BA	E	2F1	2F2	AA	AB	AC	T	O	O*	P	N-W	U	S	R	ES
48	5.75	4.00	3.00	0.34 Slot	2.50	2.12	2.75	—	0.88	5.15	4.00	—	7.45	7.8	5.67	1.50	0.500	Flat	0.453	—
56	6.50	4.15	3.50	0.34 Slot	2.75	2.44	3.00	—	0.88	5.65	4.45	—	7.75	8.7	6.45	1.88	0.625	0.188	0.517	1.41
56H		6.00																		
143T	6.50	6.00	3.50	0.34	2.25	2.75	4.00	5.00	0.88	5.65	4.45	—	7.75	8.7	6.45	2.25	0.875	0.188	0.771	1.41
145T																				
182T	8.50	6.50	4.50	0.41	2.75	3.75	4.50	5.50	1.10	6.70	5.40	1.75	9.10	—	8.35	2.75	1.125	0.250	0.986	1.78
184T																				
213T	10.45	8.50	5.25	0.41	3.50	4.25	5.50	7.00	1.10	7.50	6.25	1.75	10.65	—	10.05	3.38	1.375	0.312	1.201	2.41
215T																				

NEMA Single Phase Rolled Steel ODP Motors

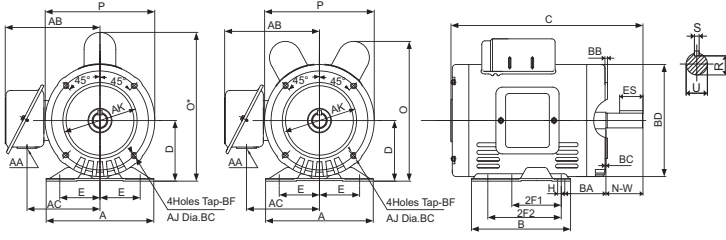


Figure 3 48C 56C 56HC 143TC 145TC

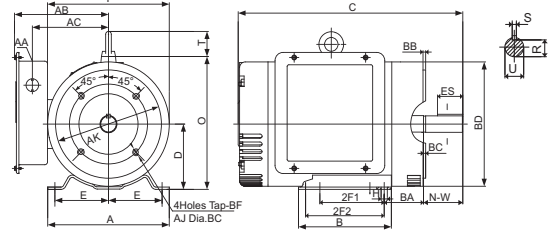


Figure 4 182TC 184TC 213TC 215TC

Overall & Installation Dimensions

Frame	A	B	D	H	BA	E	2F1	2F2	BC	BB	BD	AJ	AK	TAP-BF	AA	AB	AC	T	O	O*	P	N-W	U	S	R	ES
48C	5.75	4.00	3.00	0.34 Slot	2.50	2.12	2.75	—	-0.19	0.16	5.625	3.750	3.00	1/4-20	0.88	5.15	4.00	—	7.45	7.8	5.67	1.50	0.500	Flat	0.453	—
56C	6.50	4.15	3.50	0.34 Slot	2.75	2.44	3.00	—	-0.19	0.16	6.45	5.875	4.50	3/8-16	0.88	5.65	4.45	—	7.75	8.7	6.45	1.88	0.625	0.188	0.517	1.41
56HC		5.00																								
143TC	6.50	6.00	3.50	0.34	2.75	2.75	4.00	5.00	+0.12	0.16	6.45	5.875	4.50	3/8-16	0.88	5.65	4.45	—	7.75	8.7	6.45	2.25	0.875	0.188	0.771	1.41
145TC																										
182TC	8.50	6.50	4.50	0.41	3.50	3.75	4.50	5.50	+0.12	0.25	9.00	7.250	8.50	1/2-13	1.10	6.70	5.40	1.75	9.10	—	8.35	2.75	1.125	0.250	0.986	1.78
184TC																										
213TC	10.45	8.50	5.25	0.41	4.25	4.25	5.50	7.00	+0.12	0.25	9.00	7.250	8.50	1/2-13	1.10	7.50	6.25	1.75	10.65	—	10.05	3.38	1.375	0.312	1.201	2.41
215TC																										

Capacitor Start / Capacitor Run ODP Motors Technical Data

HP	Sync Speed (r/min)	NEMA Frame	Code	Full Load Data				Locked Rotor Current at 230V (A)	Torque		Dim "C" for Foot Mounted	Dim "C" for C Type
				Speed (r/min)	Torque LB-FT	Eff. (%)	Current at 230V (A)		Locked Rotor LB-FT	Break Down LB-FT		
1/4	3600	48	P	3450	0.36	66.0	1.3	15	1.32	0.72-1.03	9.65	9.65
	1800	48	P	1725	0.72	64.0	1.4	15	2.90	1.34-1.97	9.65	9.65
1/3	3600	48	N	3450	0.51	68.0	1.8	18	1.63	1.03-1.34	9.65	9.65
	1800	48	N	1725	1.02	67.0	1.9	18	3.60	1.97-2.53	9.65	9.65
	3600	56	N	3450	0.51	68.0	1.8	18	1.63	1.03-1.34	11.05	11.05
	1800	56	N	1725	1.02	67.0	1.9	18	3.60	1.97-2.53	11.05	11.05
1/2	3600	48	N	3450	0.75	71.0	2.5	25	2.32	1.34-1.97	9.65	9.65
	1800	48	N	1725	1.50	70.0	2.6	25	5.30	2.53-3.63	9.65	9.65
	3600	56	N	3450	0.75	71.0	2.5	25	2.32	1.34-1.97	11.05	11.05
	1800	56	N	1725	1.50	70.0	2.6	25	5.30	2.53-3.63	11.05	11.05
3/4	3600	48	M	3450	1.12	73.0	3.6	35	3.13	1.97-2.75	9.65	9.65
	1800	48	M	1725	2.24	72.0	3.7	35	7.50	3.63-5.26	9.65	9.65
	3600	56	M	3450	1.12	73.0	3.6	35	3.13	1.97-2.75	11.05	11.05
	1800	56	M	1725	2.24	72.0	3.7	35	7.50	3.63-5.26	11.05	11.05
1	3600	56H	M	3460	1.52	74.0	4.8	45	3.82	2.75-3.63	12.60	12.60
	1800	56H	M	1730	3.04	73.0	4.9	45	9.00	5.26-6.80	12.60	12.60
	3600	143T	M	3460	1.52	74.0	4.8	45	3.82	2.75-3.63	12.60	13.10
	1800	143T	M	1730	3.04	73.0	4.9	45	9.00	5.26-6.80	12.60	13.10
1 1/2	3600	56H	J	3460	2.24	76.0	6.7	50	4.50	3.63-4.60	12.60	12.60
	1800	56H	J	1730	4.48	75.0	6.9	50	12.50	6.80-10.1	12.60	12.60
	3600	143T	J	3460	2.24	76.0	6.7	50	4.50	3.63-4.60	12.60	13.10
	1800	145T	J	1730	4.48	75.0	6.9	50	12.50	6.80-10.1	12.60	13.10
2	3600	56H	J	3460	3.05	77.0	9.1	65	5.50	4.50-6.0	12.60	12.60
	1800	56H	J	1730	6.10	77.0	9.2	65	16.00	10.1-13.0	12.60	12.60
	3600	145T	J	3460	3.05	77.0	9.1	65	5.60	4.50-6.0	12.60	13.10
	1800	145T	J	1730	6.10	77.0	9.2	65	16.00	10.1-13.0	12.60	13.10
3	3600	182T	H	3460	4.48	79.0	13.0	90	7.50	6.0-6.80	15.70	16.45
	1800	182T	H	1740	8.91	80.0	12.9	90	22.00	13.0-19.0	14.50	15.25
5	3600	184T	G	3460	7.53	81.0	20.9	135	11.00	8.60-13.50	15.70	16.45
	1800	184T	G	1740	14.98	82.0	21.0	135	33.00	19.0-30.0	15.70	16.45
7 1/2	3600	213T	G	3460	11.20	81.0	30.8	200	16.00	13.50-20.0	17.75	18.50
	1800	213T	G	1740	22.26	82.0	31.0	200	45.00	30.0-45.0	18.90	19.65
10	3600	215T	G	3460	15.26	82.0	41.5	260	21.00	20.0-27.0	18.90	19.65
	1800	215T	G	1740	30.36	83.0	41.8	260	52.00	45.0-60.0	21.25	22.00

IEC MOTOR
GOST MOTOR
NEMA MOTOR
PUMP
GENERATOR
D.C. MOTOR

C Capacitor Start Induction Run ODP Motors Technical Data

HP	Sync Speed (r/min)	NEMA Frame	Code	Full Load Data				Locked Rotor Current at 230V (A)	Torque		Dim "C" for Foot Mounted	Dim "C" for C Type
				Speed (r/min)	Torque LB-FT	Eff. (%)	Current at 230V(A)		Locked Rotor LB-FT	Break Down LB-FT		
1/6	3600	48	S	3450	0.24	55.0	1.5	12	0.94	0.54-0.72	9.65	9.65
	1800	48	S	1725	0.48	54.0	1.6	12	2.10	1.03-1.34	9.65	9.65
1/4	3600	48	P	3450	0.36	57.0	2.1	15	1.32	0.72-1.03	9.65	9.65
	1800	48	P	1725	0.72	56.0	2.2	15	2.90	1.34-1.97	9.65	9.65
1/3	3600	48	N	3450	0.51	58.0	2.6	18	1.63	1.03-1.34	9.65	9.65
	1800	48	N	1725	1.02	57.0	2.8	18	3.60	1.97-2.53	9.65	9.65
	3600	56	N	3450	0.51	58.0	2.6	18	1.63	1.03-1.34	11.05	11.05
	1800	56	N	1725	1.02	57.0	2.8	18	3.60	1.97-2.53	11.05	11.05
1/2	3600	48	N	3450	0.75	60.0	3.6	25	2.32	1.34-1.97	9.65	9.65
	1800	48	N	1725	1.50	59.0	3.8	25	5.30	2.53-3.63	9.65	9.65
	3600	56	N	3450	0.75	60.0	3.6	25	2.32	1.34-1.97	11.05	11.05
	1800	56	N	1725	1.50	59.0	3.8	25	5.30	2.53-3.63	11.05	11.05
3/4	3600	56H	M	3450	1.12	63.0	5.0	35	3.13	1.97-2.75	12.60	12.60
	1800	56H	M	1725	2.24	62.0	5.3	35	7.50	3.63-5.26	12.60	12.60
1	3600	56H	M	3460	1.52	65.0	6.4	45	3.82	2.75-3.63	12.60	12.60
	1800	56H	M	1730	3.04	64.0	6.7	45	9.00	5.26-6.80	12.60	12.60
	3600	143T	M	3460	1.52	65.0	6.4	45	3.82	2.75-3.63	12.60	13.10
	1800	143T	M	1730	3.04	64.0	6.7	45	9.00	5.26-6.80	12.60	13.10
1 1/2	3600	56H	J	3460	2.24	68.0	8.8	50	4.50	3.63-4.60	12.60	12.60
	1800	56H	J	1730	4.48	67.0	9.3	50	12.50	6.80-10.1	12.60	12.60
	3600	145T	J	3460	2.24	68.0	8.8	50	4.50	3.63-4.60	12.60	13.10
	1800	145T	J	1730	4.48	67.0	9.3	50	12.50	6.80-10.1	12.60	13.10
2	3600	182T	J	3460	3.05	70.0	11.5	65	5.50	4.50-6.0	14.50	15.25
	1800	182T	J	1730	6.10	69.0	12.1	65	16.00	10.1-13.0	14.50	15.24
3	3600	184T	H	3460	4.48	75.0	15.7	90	7.50	6.0-6.80	15.70	16.45
	1800	184T	H	1740	8.91	74.0	16.3	90	22.00	13.0-19.0	15.70	16.45

P (Permanent Split Capacitor) ODP Motors Technical Data

HP	Sync Speed (r/min)	NEMA Frame	Code	Full Load Data				Locked Rotor Current at 230V (A)	Torque		Dim "C" for Foot Mounted	Dim "C" for C Type
				Speed (r/min)	Torque LB-FT	Eff. (%)	Current at 230V(A)		Locked Rotor LB-FT	Break Down LB-FT		
1/12	1800	48	K	1725	0.24	55.0	0.53	3	0.12	0.40-0.50	9.65	9.65
1/8	3600	48	L	3450	0.18	60.0	0.72	5	0.09	0.25-0.30	9.65	9.65
	1800	48	L	1725	0.36	57.0	0.76	5	0.18	0.50-0.65	9.65	9.65
1/6	3600	48	S	3450	0.24	63.0	0.92	12	0.12	0.30-0.40	9.65	9.65
	1800	48	S	1725	0.48	60.0	0.97	12	0.24	0.65-1.00	9.65	9.65
1/4	3600	48	P	3450	0.36	66.0	1.30	15	0.15	0.40-0.60	9.65	9.65
	1800	48	P	1725	0.72	64.0	1.35	15	0.30	1.00-1.31	9.65	9.65
1/3	3600	48	N	3450	0.51	68.0	1.80	18	0.21	0.60-0.90	9.65	9.65
	1800	48	N	1725	1.02	67.0	1.85	18	0.42	1.31-2.97	9.65	9.65
1/2	3600	48	N	3450	0.75	71.0	2.50	25	0.30	0.90-1.40	9.65	9.65
	1800	48	N	1725	1.50	70.0	2.60	25	0.60	1.97-2.97	9.65	9.65
3/4	3600	56	M	3450	1.12	73.0	3.60	35	0.45	1.40-1.90	11.05	11.05
	1800	56	M	1725	2.24	72.0	3.70	35	0.90	2.97-3.97	11.05	11.05
1	3600	56H	M	3460	1.52	74.0	4.80	45	0.55	1.90-2.90	12.60	12.60
	1800	56H	M	1730	3.04	73.0	4.90	45	1.10	3.97-5.94	12.60	12.60
	3600	143T	M	3460	1.52	74.0	4.80	45	0.55	1.90-2.90	12.60	13.10
	1800	143T	M	1730	3.04	73.0	4.90	45	1.10	3.97-5.94	12.60	13.10
1 1/2	3600	56H	J	3460	2.24	76.0	6.70	50	0.75	2.90-3.90	12.60	12.60
	1800	56H	J	1730	4.48	75.0	6.90	50	1.50	5.94-7.88	12.60	12.60
	3600	143T	J	3460	2.24	76.0	6.70	50	0.75	2.90-3.90	12.60	13.10
	1800	145T	J	1730	4.48	75.0	6.90	50	1.50	5.94-7.88	12.60	13.10
2	3600	56H	J	3460	3.05	77.0	9.10	65	0.93	3.90-5.00	12.60	12.60
	1800	56H	J	1730	6.10	77.0	9.20	65	1.86	7.88-9.88	12.60	12.60
	3600	145T	J	3460	3.05	77.0	9.10	65	0.93	3.90-5.00	12.60	13.10
	1800	145T	J	1730	6.10	77.0	9.20	65	1.86	7.88-9.88	12.60	13.10

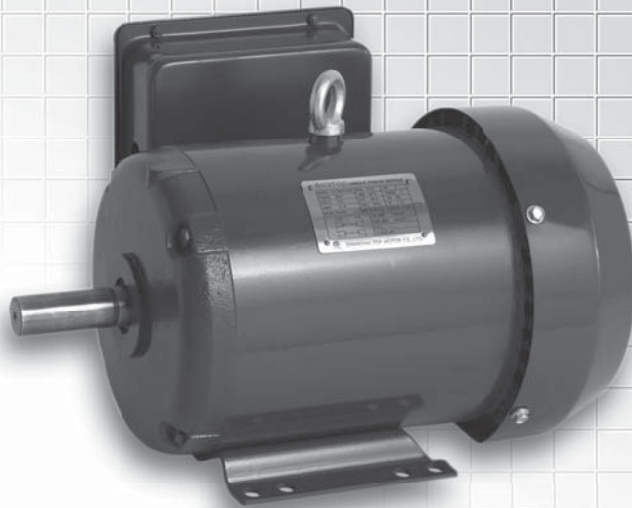
NEMA Single Phase Rolled Steel TEFC Motors

1/12HP thru 10HP

- 48 thru 215T
- 48C thru 215TC

FEATURES

- Continuous Duty 40°C Ambient
- TEFC (Totally Enclosed Fan Cooled)
- Class F Insulation With Class B Temp Rise
- NEMA Design L
- High Starting Torque and Low Starting Current
- Rolled Steel Construction
- Ball Bearings
- Capacitor Start Induction Run(1/6 thru 3HP)
- Capacitor Start/Capacitor Run (1/4 thru 10HP)
- PSC (Permanent Split Capacitor) Motors (1/12 thru 2HP)



APPLICATIONS

- Commercial Pumps
- Swimming Pool Pumps
- Fans
- Conveyors
- Air Conditioning Equipment A.K.A HVAC
- Small Machine Tools
- Blowers
- Augers
- Household Electric Appliances
- Equipment Requiring Direct Drive and High Starting Torque

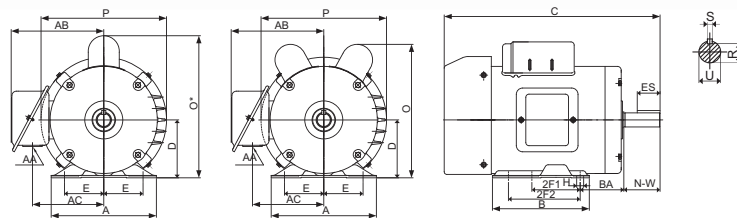
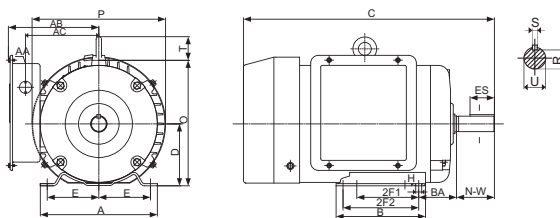


Figure 1 48 56 56H 143T 145T



182T 184T 213T 215T

Figure 2

Overall & Installation Dimensions

Frame	A	B	D	H	BA	E	2F1	2F2	AA	AB	AC	T	O	O*	P	N-W	U	S	R	ES
48	5.75	4.00	3.00	0.34 Slot	2.50	2.12	2.75	—	0.88	5.15	4.00	—	7.45	7.8	6.4	1.50	0.500	Flat	0.453	—
56	6.50	4.15	3.50	0.34 Slot	2.75	2.44	3.00	—	0.88	5.65	4.45	—	7.75	8.7	7.2	1.88	0.625	0.188	0.517	1.41
56H		5.00																		
143T	6.50	6.00	3.50	0.34	2.25	2.75	4.00	5.00	0.88	5.65	4.45	—	7.75	8.7	7.2	2.25	0.875	0.188	0.771	1.41
145T																				
182T	8.50	6.50	4.50	0.41	2.75	3.75	4.50	5.50	1.10	6.70	5.40	1.75	9.10	—	9.70	2.75	1.125	0.250	0.986	1.78
184T																				
213T	10.45	8.50	5.25	0.41	3.50	4.25	5.50	7.00	1.10	7.50	6.25	1.75	10.65	—	11.35	3.38	1.375	0.312	1.201	2.41
215T																				

NEMA Single Phase Rolled Steel TEFC Motors

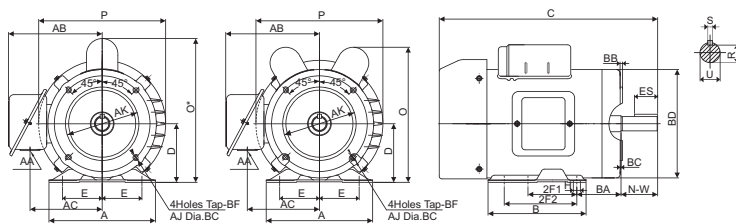


Figure 3 48C 56C 56HC 143TC 145TC

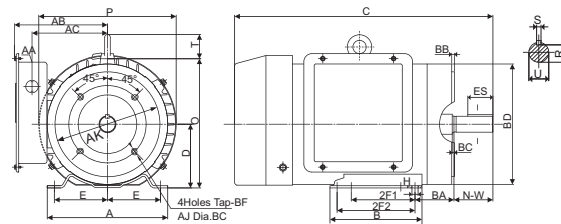


Figure 4 182TC 184TC 213TC 215TC

Overall & Installation Dimensions

Frame	A	B	D	H	BA	E	2F1	2F2	BC	BB	BD	AJ	AK	Tap-BF	AA	AB	AC	T	O	O*	P	N-W	U	S	R	ES
48C	5.75	4.00	3.00	0.34 Slot	2.50	2.12	2.75	—	-0.19	0.16	5.625	3.750	3.00	1/4-20	0.88	5.15	4.00	—	7.45	7.8	6.4	1.50	0.500	Flat	0.453	—
56C	6.50	4.15	3.50	0.34 Slot	2.75	2.44	3.00	—	-0.19	0.16	6.45	5.875	4.50	3/8-16	0.88	5.65	4.45	—	7.75	8.7	7.2	1.88	0.625	0.188	0.517	1.41
56HC		5.00																								
143TC	6.50	6.00	3.50	0.34	2.75	2.75	4.00	5.00	+0.12	0.16	6.45	5.875	4.50	3/8-16	0.88	5.65	4.45	—	7.75	8.7	7.2	2.25	0.875	0.188	0.771	1.41
145TC																										
182TC	8.50	6.50	4.50	0.41	3.50	3.75	4.50	5.50	+0.12	0.25	9.00	7.250	8.50	1/2-13	1.10	6.70	5.40	1.75	9.10	—	9.70	2.75	1.125	0.250	0.986	1.78
184TC																										
213TC	10.45	8.50	5.25	0.41	4.25	4.25	5.50	7.00	+0.25	0.25	9.00	7.250	8.50	1/2-13	1.10	7.50	6.25	1.75	10.65	—	11.35	3.38	1.375	0.312	1.201	2.41
215TC																										

Capacitor Start / Capacitor Run TEFC Motors Technical Data

HP	Sync Speed (r/min)	NEMA Frame	Code	Full Load Data				Locked Rotor Current at 230V (A)	Torque		Dim "C" for Foot Mounted	Dim "C" for C Type
				Speed (r/min)	Torque LB-FT	Eff. (%)	Current at 230V(A)		Locked Rotor LB-FT	Break Down LB-FT		
1/4	3600	48	P	3450	0.36	66.0	1.3	15	1.32	0.72-1.03	11.05	11.05
	1800	48	P	1725	0.72	64.0	1.4	15	2.90	1.34-1.97	11.05	11.05
1/3	3600	48	N	3450	0.51	68.0	1.8	18	1.63	1.03-1.34	11.05	11.05
	1800	48	N	1725	1.02	67.0	1.9	18	3.60	1.97-2.53	11.05	11.05
	3600	56	N	3450	0.51	68.0	1.8	18	1.63	1.03-1.34	12.25	12.25
	1800	56	N	1725	1.02	67.0	1.9	18	3.60	1.97-2.53	12.25	12.25
1/2	3600	48	N	3450	0.75	71.0	2.5	25	2.32	1.34-1.97	11.05	11.05
	1800	48	N	1725	1.50	70.0	2.6	25	5.30	2.53-3.63	11.05	11.05
	3600	56	N	3450	0.75	71.0	2.5	25	2.32	1.34-1.97	12.25	12.25
	1800	56	N	1725	1.50	70.0	2.6	25	5.30	2.53-3.63	12.25	12.25
3/4	3600	48	M	3450	1.12	73.0	3.6	35	3.13	1.97-2.75	11.05	11.05
	1800	48	M	1725	2.24	72.0	3.7	35	7.50	3.63-5.26	11.05	11.05
	3600	56	M	3450	1.12	73.0	3.6	35	3.13	1.97-2.75	12.25	12.25
	1800	56	M	1725	2.24	72.0	3.7	35	7.50	3.63-5.26	12.25	12.25
1	3600	56H	M	3460	1.52	74.0	4.8	45	3.82	2.75-3.63	13.75	13.75
	1800	56H	M	1730	3.04	73.0	4.9	45	9.00	5.26-6.80	13.75	13.75
	3600	143T	M	3460	1.52	74.0	4.8	45	3.82	2.75-3.63	13.75	14.25
	1800	143T	M	1730	3.04	73.0	4.9	45	9.00	5.26-6.80	13.75	14.25
1 1/2	3600	56H	J	3460	2.24	76.0	6.7	50	4.50	3.63-4.60	13.75	13.75
	1800	56H	J	1730	4.48	75.0	6.9	50	12.50	6.80-10.1	13.75	13.75
	3600	143T	J	3460	2.24	76.0	6.7	50	4.50	3.63-4.60	13.75	14.25
	1800	143T	J	1730	4.48	75.0	6.9	50	12.50	6.80-10.1	13.75	14.25
2	3600	56H	J	3460	3.05	77.0	9.1	65	5.50	4.50-6.0	13.75	13.75
	1800	56H	J	1730	6.10	77.0	9.2	65	16.00	10.1-13.0	13.75	13.75
	3600	145T	J	3460	3.05	77.0	9.1	65	5.60	4.50-6.0	13.75	14.25
	1800	145T	J	1730	6.10	77.0	9.2	65	16.00	10.1-13.0	13.75	14.25
3	3600	182T	H	3460	4.48	79.0	13.0	90	7.50	6.0-6.80	16.95	17.70
	1800	182T	H	1740	8.91	80.0	12.9	90	22.00	13.0-19.0	16.95	17.70
5	3600	184T	G	3460	7.53	81.0	20.9	135	11.00	8.60-13.50	18.35	19.10
	1800	184T	G	1740	14.98	82.0	21.0	135	33.00	19.0-30.0	18.35	19.10
7 1/2	3600	213T	G	3460	11.20	81.0	30.8	200	16.00	13.50-20.0	19.88	20.63
	1800	213T	G	1740	22.26	82.0	31.0	200	45.00	30.0-45.0	21.25	22.00
10	3600	215T	G	3460	15.26	82.0	41.5	260	21.00	20.0-27.0	21.25	22.00
	1800	215T	G	1740	30.36	83.0	41.8	260	52.00	45.0-60.0	23.65	24.40

C Capacitor Start Induction Run TEFC Motors Technical Data

HP	Sync Speed (r/min)	NEMA Frame	Code	Full Load Data				Locked Rotor Current at 230V (A)	Torque		Dim "C" for Foot Mounted	Dim "C" for C Type
				Speed (r/min)	Torque LB-FT	Eff. (%)	Current at 230V(A)		Locked Rotor LB-FT	Break Down LB-FT		
1/6	3600	48	S	3450	0.24	55.0	1.5	12	0.94	0.54-0.72	11.05	11.05
	1800	48	S	1725	0.48	54.0	1.6	12	2.10	1.03-1.34	11.05	11.05
1/4	3600	48	P	3450	0.36	57.0	2.1	15	1.32	0.72-1.03	11.05	11.05
	1800	48	P	1725	0.72	56.0	2.2	15	2.90	1.34-1.97	11.05	11.05
1/3	3600	48	N	3450	0.51	58.0	2.6	18	1.63	1.03-1.34	11.05	11.05
	1800	48	N	1725	1.02	57.0	2.8	18	3.60	1.97-2.53	11.05	11.05
	3600	56	N	3450	0.51	58.0	2.6	18	1.63	1.03-1.34	12.25	12.25
	1800	56	N	1725	1.02	57.0	2.8	18	3.60	1.97-2.53	12.25	12.25
1/2	3600	48	N	3450	0.75	60.0	3.6	25	2.32	1.34-1.97	11.05	11.05
	1800	48	N	1725	1.50	59.0	3.8	25	5.30	2.53-3.63	11.05	11.05
	3600	56	N	3450	0.75	60.0	3.6	25	2.32	1.34-1.97	12.25	12.25
	1800	56	N	1725	1.50	59.0	3.8	25	5.30	2.53-3.63	12.25	12.25
3/4	3600	56H	M	3450	1.12	63.0	5.0	35	3.13	1.97-2.75	13.75	13.75
	1800	56H	M	1725	2.24	62.0	5.3	35	7.50	3.63-5.26	13.75	13.75
1	3600	56H	M	3460	1.52	65.0	6.4	45	3.82	2.75-3.63	13.75	13.75
	1800	56H	M	1730	3.04	64.0	6.7	45	9.00	5.26-6.80	13.75	13.75
	3600	143T	M	3460	1.52	65.0	6.4	45	3.82	2.75-3.63	13.75	14.25
	1800	143T	M	1730	3.04	64.0	6.7	45	9.00	5.26-6.80	13.75	14.25
1 1/2	3600	56H	J	3460	2.24	68.0	8.8	50	4.50	3.63-4.60	13.75	13.75
	1800	56H	J	1730	4.48	67.0	9.3	50	12.50	6.80-10.1	13.75	13.75
	3600	145T	J	3460	2.24	68.0	8.8	50	4.50	3.63-4.60	13.75	14.25
	1800	145T	J	1730	4.48	67.0	9.3	50	12.50	6.80-10.1	13.75	14.25
2	3600	182T	J	3460	3.05	70.0	11.5	65	5.50	4.50-6.0	16.95	17.70
	1800	182T	J	1730	6.10	69.0	12.1	65	16.00	10.1-13.0	16.95	17.70
3	3600	184T	H	3460	4.48	75.0	15.7	90	7.50	6.0-6.80	18.35	19.10
	1800	184T	H	1740	8.91	74.0	16.3	90	22.00	13.0-19.0	18.35	19.10

P SC (Permanent Split Capacitor) TEFC Motors Technical Data

HP	Sync Speed (r/min)	NEMA Frame	Code	Full Load Data				Locked Rotor Current at 230V (A)	Torque		Dim "C" for Foot Mounted	Dim "C" for C Type
				Speed (r/min)	Torque LB-FT	Eff. (%)	Current at 230V(A)		Locked Rotor LB-FT	Break Down LB-FT		
1/12	3600	48	K	3450	0.12	58.0	0.50	3	0.06	0.20-0.25	11.05	11.05
	1800	48	K	1725	0.24	55.0	0.53	3	0.12	0.40-0.50	11.05	11.05
1/8	3600	48	L	3450	0.18	60.0	0.72	5	0.09	0.25-0.30	11.05	11.05
	1800	48	L	1725	0.36	57.0	0.76	5	0.18	0.50-0.65	11.05	11.05
1/6	3600	48	S	3450	0.24	63.0	0.92	12	0.12	0.30-0.40	11.05	11.05
	1800	48	S	1725	0.48	60.0	0.97	12	0.24	0.65-1.00	11.05	11.05
1/4	3600	48	P	3450	0.36	66.0	1.30	15	0.15	0.40-0.60	11.05	11.05
	1800	48	P	1725	0.72	64.0	1.35	15	0.30	1.00-1.31	11.05	11.05
1/3	3600	48	N	3450	0.51	68.0	1.80	18	0.21	0.60-0.90	11.05	11.05
	1800	48	N	1725	1.02	67.0	1.85	18	0.42	1.31-2.97	11.05	11.05
1/2	3600	48	N	3450	0.75	71.0	2.50	25	0.30	0.90-1.40	11.05	11.05
	1800	48	N	1725	1.50	70.0	2.60	25	0.60	1.97-2.97	11.05	11.05
3/4	3600	56	M	3450	1.12	73.0	3.60	35	0.45	1.40-1.90	12.25	12.25
	1800	56	M	1725	2.24	72.0	3.70	35	0.90	2.97-3.97	12.25	12.25
1	3600	56H	M	3460	1.52	74.0	4.80	45	0.55	1.90-2.90	13.75	13.75
	1800	56H	M	1730	3.04	73.0	4.90	45	1.10	3.97-5.94	13.75	13.75
	3600	143T	M	3460	1.52	74.0	4.80	45	0.55	1.90-2.90	13.75	14.25
	1800	143T	M	1730	3.04	73.0	4.90	45	1.10	3.97-5.94	13.75	14.25
1 1/2	3600	56H	J	3460	2.24	76.0	6.70	50	0.75	2.90-3.90	13.75	13.75
	1800	56H	J	1730	4.48	75.0	6.90	50	1.50	5.94-7.88	13.75	13.75
	3600	143T	J	3460	2.24	76.0	6.70	50	0.75	2.90-3.90	13.75	14.25
	1800	145T	J	1730	4.48	75.0	6.90	50	1.50	5.94-7.88	13.75	14.25
2	3600	56H	J	3460	3.05	77.0	9.10	65	0.93	3.90-5.00	13.75	13.75
	1800	56H	J	1730	6.10	77.0	9.20	65	1.86	7.88-9.88	13.75	13.75
	3600	145T	J	3460	3.05	77.0	9.10	65	0.93	3.90-5.00	13.75	14.25
	1800	145T	J	1730	6.10	77.0	9.20	65	1.86	7.88-9.88	13.75	14.25

NEMA EPACT & Premium Efficiency Rolled Steel 3-Phase ODP Motors

1/4HP thru 10HP

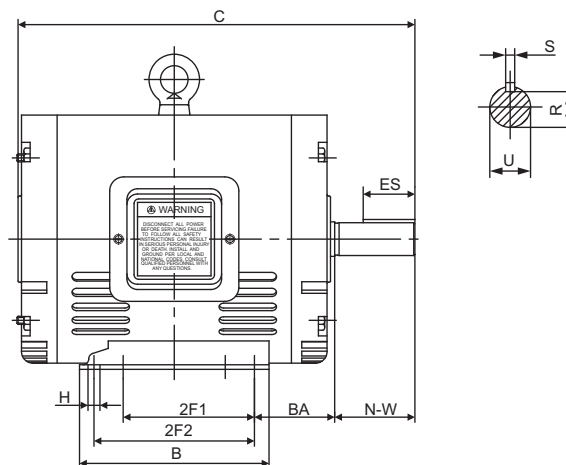
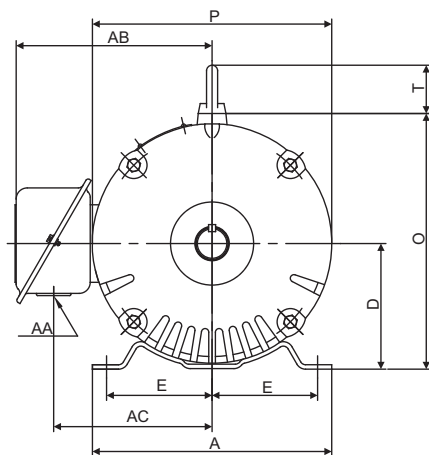
- 48 thru 215T
- 48C thru 215TC

FEATURES

- 208–230/460V/60Hz
- NEMA Service Factor 1.15
- Continuous Duty 40°C Ambient
- Class F Insulation With Class B Temp Rise
- High Efficiency
- NEMA Design B
- Ball Bearings
- Rolled Steel Construction
- Stainless Steel Nameplate

APPLICATIONS

- Pumps
- Compressors
- Fans
- Conveyors
- Machine Tools
- Three Phase or Other General Purpose Applications

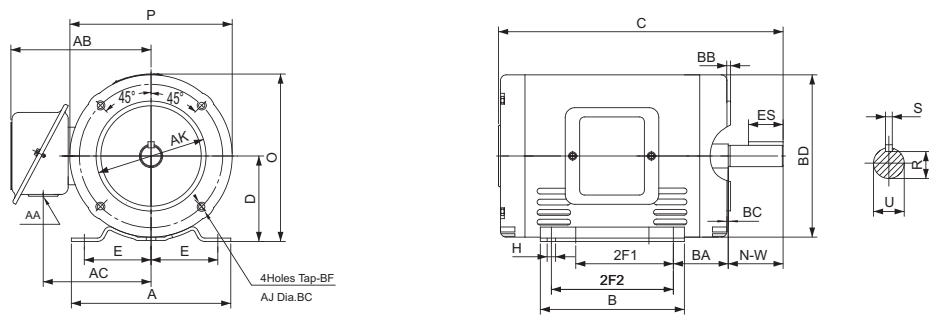


48 thru 215T Figure 1

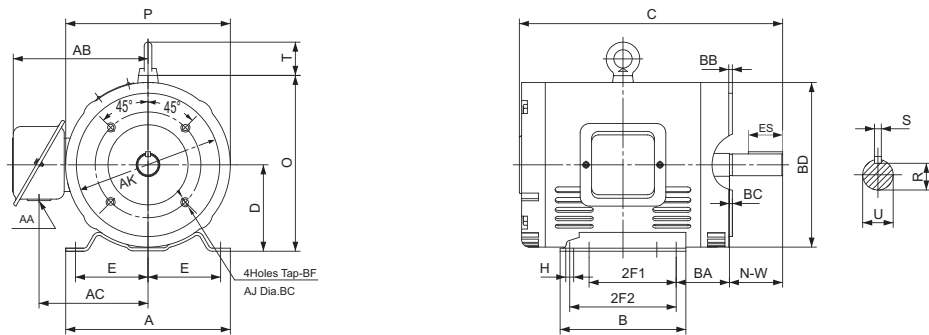
NEMA EPACT & Premium Efficiency Rolled Steel 3-Phase ODP Motors

Overall & Installation Dimensions

Frame	A	B	C	D	H	BA	E	2F1	2F2	AA	AB	AC	T	O	P	N-W	U	S	R	ES
48	5.75	4.00	9.65	3.00	0.34 Slot	2.50	2.12	2.75	—	0.88	5.15	4.00	—	6.00	5.67	1.50	0.500	Flat	0.453	—
56	6.50	4.15	11.05	3.50	0.34 Slot	2.75	2.44	3.00	—	0.88	5.65	4.45	—	6.75	6.50	1.88	0.625	0.188	0.517	1.41
56H		6.00	12.60						5.00											
143T	6.50	6.00	11.75	3.50	0.34	2.25	2.75	4.00	5.00	0.88	5.65	4.45	—	6.75	6.50	2.25	0.875	0.188	0.771	1.41
145T																				
182T	8.50	6.50	13.65	4.50	0.41	2.75	3.75	4.50	5.50	0.88	7.05	5.65	1.75	9.10	8.50	2.75	1.125	0.250	0.986	1.78
184T																				
213T	10.45	8.50	16.85	5.25	0.41	3.50	4.25	5.50	7.00	1.10	8.25	6.50	1.75	10.65	10.05	3.38	1.375	0.312	1.201	2.41
215T																				



48C 56C 56HC 143TC 145TC Figure 2



182TC 184TC 213TC 215TC Figure 3

Overall & Installation Dimensions

Frame	A	B	C	D	H	BA	E	2F1	2F2	BC	BB	BD	AJ	AK	Tap-BF	AA	AB	AC	T	O	P	N-W	U	S	R	ES
48C	5.75	4.00	9.65	3.00	0.34 Slot	2.50	2.12	2.75	—	-0.19	0.16	5.625	3.75	3.00	1/4-20	0.88	5.15	4.00	—	6.0	5.67	1.50	0.500	Flat	0.453	—
56C	6.50	4.15	11.05	3.50	0.34 Slot	2.75	2.44	3.00	—	-0.19	0.16	6.45	5.875	4.50	3/8-16	0.88	5.65	4.45	—	6.75	6.5	1.88	0.625	0.188	0.517	1.41
56HC		6.00	12.60					3.00	5.00																	
143TC	6.50	6.00	12.25	3.50	0.34	2.75	2.75	4.00	5.00	+0.12	0.16	6.45	5.875	4.50	3/8-16	0.88	5.65	4.45	—	6.75	6.5	2.25	0.875	0.188	0.771	1.41
145TC																										
182TC	8.50	6.50	14.40	4.50	0.41	3.50	3.75	4.50	5.50	+0.12	0.25	9.00	7.250	8.50	1/2-13	0.88	7.05	5.65	1.75	9.10	8.50	2.75	1.125	0.250	0.986	1.78
184TC																										
213TC	10.45	8.50	17.60	5.25	0.41	4.25	4.25	5.50	7.00	+0.25	0.25	9.00	7.250	8.50	1/2-13	1.10	8.25	6.50	1.75	10.65	10.05	3.38	1.375	0.312	1.201	2.41
215TC																										

NEMA EPACT Efficiency Rolled Steel 3-Phase ODP Motors Technical Data

HP	Sync Speed (r/min)	NEMA Frame	Conn	Code	Full Load Data				Locked Rotor Current at 460V (A)	T_{st}/T_n (%)	T_{max}/T_n (%)	Dim. "C" for Foot Mounted	Dim. "C" for C Type
					Speed (r/min)	Torque LB-FT	Eff. (%)	Current 460V (A)					
1/4	3600	48	YY/Y	T	3430	0.4	66.0	0.6	6	230	250	9.65	9.65
	1800	48	YY/Y	T	1740	0.8	64.0	0.7	6	275	300	9.65	9.65
	3600	56	YY/Y	T	3430	0.4	69.0	0.6	6	230	250	11.05	11.05
	1800	56	YY/Y	T	1740	0.8	64.0	0.7	6	275	300	11.05	11.05
	1200	56	YY/Y	T	1140	1.2	59.0	1.1	6	200	275	11.05	11.05
1/3	3600	48	YY/Y	T	3430	0.5	69.0	0.7	8	230	250	9.65	9.65
	1800	48	YY/Y	T	1740	1.0	67.0	0.8	8	275	300	9.65	9.65
	3600	56	YY/Y	T	3430	0.5	72.0	0.7	8	230	250	11.05	11.05
	1800	56	YY/Y	T	1740	1.0	67.0	0.8	8	275	300	11.05	11.05
	1200	56	YY/Y	T	1145	1.6	63.0	1.2	8	200	275	11.05	11.05
1/2	3600	48	YY/Y	R	3440	0.8	72.0	1.1	10	185	250	9.65	9.65
	1800	48	YY/Y	R	1745	1.6	70.0	1.2	10	275	300	9.65	9.65
	3600	56	YY/Y	R	3440	0.8	74.0	1.1	10	185	250	11.05	11.05
	1800	56	YY/Y	R	1745	1.6	70.0	1.2	10	275	300	11.05	11.05
	1200	56	YY/Y	R	1145	2.3	68.0	1.3	10	200	275	11.05	11.05
3/4	3600	48	YY/Y	P	3450	1.2	75.0	1.3	12.5	185	250	9.65	9.65
	1800	48	YY/Y	P	1745	2.3	74.0	1.4	12.5	275	300	9.65	9.65
	3600	56	YY/Y	P	3450	1.2	75.0	1.3	12.5	185	250	11.05	11.05
	1800	56	YY/Y	P	1745	2.3	74.0	1.4	12.5	275	300	11.05	11.05
	1200	56	YY/Y	P	1150	3.4	71.0	1.6	12.5	175	275	11.05	11.05
1	3600	56H	YY/Y	N	3500	1.5	75.5	1.5	15	180	250	12.60	12.60
	1800	56H	YY/Y	N	1745	3.0	82.5	1.6	15	275	300	12.60	12.60
	1200	56H	YY/Y	N	1150	4.6	80.0	1.9	15	170	265	12.60	12.60
	3600	143T	YY/Y	N	3500	1.5	75.5	1.5	15	180	250	11.75	12.25
	1800	143T	YY/Y	N	1745	3.0	82.5	1.6	15	275	300	11.75	12.25
1.5	1200	145T	YY/Y	N	1150	4.6	80.0	1.9	15	170	265	11.75	12.25
	3600	56H	YY/Y	M	3500	2.2	82.5	2.0	20	175	250	12.60	12.60
	1800	56H	YY/Y	M	1745	4.5	84.0	2.3	20	250	280	12.60	12.60
	3600	143T	YY/Y	M	3500	2.2	82.5	2.0	20	175	250	11.75	12.25
	1800	145T	YY/Y	M	1745	4.5	84.0	2.3	20	250	280	11.75	12.25
2	1200	182T	YY/Y	M	1150	6.9	84.0	2.5	20	165	250	13.65	14.40
	3600	56H	YY/Y	L	3500	3.0	84.0	2.7	25	170	240	12.60	12.60
	1800	56H	YY/Y	L	1745	6.0	84.0	3.0	25	235	270	12.60	12.60
	3600	145T	YY/Y	L	3500	3.0	84.0	2.7	25	170	240	11.75	12.25
	1800	145T	YY/Y	L	1745	6.0	84.0	3.0	25	235	270	11.75	12.25
3	1200	184T	YY/Y	L	1150	9.3	85.5	3.2	25	160	240	13.65	14.40
	3600	56H	YY/Y	K	3510	4.5	84.0	3.9	32	160	230	12.60	12.60
	3600	145T	YY/Y	K	3510	4.5	84.0	3.9	32	160	230	11.75	12.25
	1800	182T	YY/Y	K	1745	9.0	86.5	4.2	32	215	250	13.65	14.40
	1200	213T	YY/Y	K	1160	13.6	86.5	4.6	32	155	230	16.85	17.60
5	3600	182T	YY/Y	J	3520	7.5	85.5	6.3	46	150	215	13.65	14.40
	1800	184T	YY/Y	J	1745	15.0	87.5	6.8	46	185	225	13.65	14.40
	1200	215T	YY/Y	J	1160	22.7	87.5	8.2	46	150	215	16.85	17.60
7.5	3600	184T	YY/Y	H	3530	11.2	87.5	9.2	64	140	200	13.65	14.40
	1800	213T	YY/Y	H	1760	22.4	88.5	9.8	64	175	215	16.85	17.60
10	3600	213T	YY/Y	H	3540	14.9	88.5	11.5	81	135	200	16.85	17.60
	1800	215T	YY/Y	H	1766	29.8	89.5	12.5	81	165	200	16.85	17.60

NEMA Premium Efficiency Rolled Steel 3-Phase ODP Motors Technical Data

HP	Sync. Speed (r/min)	NEMA Frame	Conn	Code	Full Load Data				Locked Rotor Current at 460V (A)	T_{st}/T_n (%)	T_{max}/T_n (%)	Dim. "C" for Foot Mounted	Dim. "C" for C Type
					Speed (r/min)	Torque LB-FT	Eff. (%)	Current 460V (A)					
1	3600	56H	YY/Y	N	3500	1.5	77.0	1.53	15	180	250	12.60	12.60
	1800	56H	YY/Y	N	1745	3.0	85.5	1.45	15	275	300	12.60	12.60
	1200	56H	YY/Y	N	1150	4.6	82.5	1.50	15	170	265	12.60	12.60
	3600	143T	YY/Y	N	3500	1.5	77.0	1.53	15	180	250	11.75	12.25
	1800	143T	YY/Y	N	1745	3.0	85.5	1.45	15	275	300	11.75	12.25
1.5	1200	145T	YY/Y	N	1150	4.6	82.5	1.50	15	170	265	11.75	12.25
	3600	56H	YY/Y	M	3500	2.2	84.0	1.89	20	175	250	12.60	12.60
	1800	56H	YY/Y	M	1745	4.5	86.5	2.09	20	250	280	12.60	12.60
	3600	143T	YY/Y	M	3500	2.2	84.0	1.89	20	175	250	11.75	12.25
	1800	145T	YY/Y	M	1745	4.5	86.5	2.09	20	250	280	11.75	12.25
2	1200	182T	YY/Y	M	1150	6.9	87.5	2.02	20	165	250	13.65	14.40
	3600	56H	YY/Y	L	3500	3.0	85.5	2.42	25	170	240	12.60	12.60
	1800	56H	YY/Y	L	1745	6.0	86.5	2.76	25	235	270	12.60	12.60
	3600	145T	YY/Y	L	3500	3.0	85.5	2.42	25	170	240	11.75	12.25
	1800	145T	YY/Y	L	1745	6.0	86.5	2.76	25	235	270	11.75	12.25
3	1200	184T	YY/Y	L	1150	9.3	88.5	2.59	25	160	240	13.65	14.40
	3600	145T	YY/Y	K	3510	4.5	86.5	3.55	32	160	230	11.75	12.25
	1800	182T	YY/Y	K	1745	9.0	89.5	3.85	32	215	250	13.65	14.40
	1200	213T	YY/Y	K	1160	13.6	89.5	3.94	32	155	230	16.85	17.60
	3600	182T	YY/Y	J	3520	7.5	88.5	5.72	46	150	215	13.65	14.40
5	1800	184T	YY/Y	J	1745	15.0	89.5	6.57	46	185	225	13.65	14.40
	1200	215T	YY/Y	J	1160	22.7	89.5	6.34	46	150	215	16.85	17.60
	3600	184T	YY/Y	H	3530	11.2	89.5	8.48	64	140	200	13.65	14.40
7.5	1800	213T	YY/Y	H	1760	22.4	91.7	9.75	64	175	215	16.85	17.60
	3600	213T	YY/Y	H	3540	14.9	90.2	11.22	81	135	200	16.85	17.60
10	3600	215T	YY/Y	H	1766	29.8	91.7	12.52	81	165	200	16.85	17.60

NEMA EPACT & Premium Efficiency Rolled Steel 3-Phase TEFC Motors

1/4HP thru 10HP

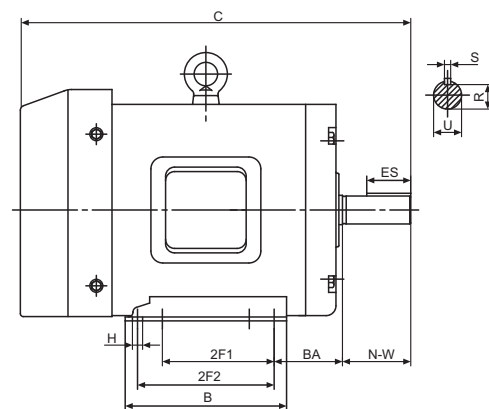
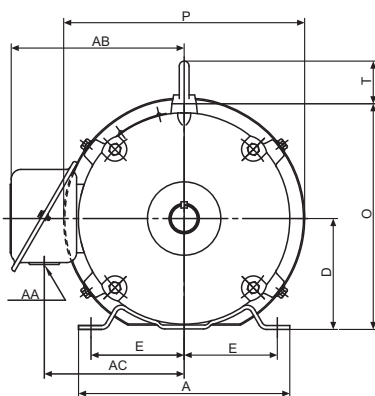
- 48 thru 215T
- 48C thru 215TC

FEATURES

- 208–230/460V/60Hz
- NEMA Service Factor 1.15
- Continuous Duty 40°C Ambient
- Class F Insulation With Class B Temp Rise
- High Efficiency
- NEMA Design B
- Ball Bearings
- Rolled Steel Construction
- IP55 Protection
- Stainless Steel Nameplate

APPLICATIONS

- Pumps
- Compressors
- Fans
- Conveyors
- Machine Tools
- Three Phase or Other General Purpose Applications



48 thru 215T

Figure 1

IEC MOTOR

GOST MOTOR

NEMA MOTOR

PUMP

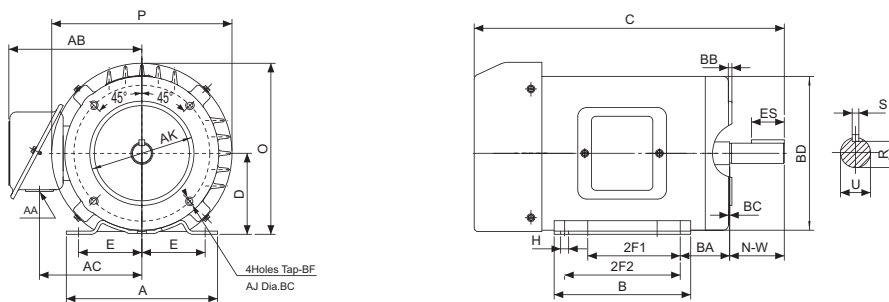
GENERATOR

D.C. MOTOR

NEMA EPACT & Premium Efficiency Rolled Steel 3-Phase TEFC Motors

Overall & Installation Dimensions

Frame	A	B	C	D	H	BA	E	2F1	2F2	AA	AB	AC	T	O	P	N-W	U	S	R	ES
48	5.75	4.00	11.05	3.00	0.34 Slot	2.50	2.12	2.75	—	0.88	5.15	4.00	—	6.0	6.4	1.50	0.500	Flat	0.453	—
56	6.50	4.15	12.25	3.50	0.34 Slot	2.75	2.44	3.00	—	0.88	5.65	4.45	—	7.10	7.2	1.88	0.625	0.188	0.517	1.41
56H		3.00	5.00																	
143T	6.50	6.00	13.50	3.50	0.34	2.25	2.75	4.00	5.00	0.88	5.65	4.45	—	7.10	7.2	2.25	0.875	0.188	0.771	1.41
145T		4.00	5.00																	
182T	8.50	6.50	15.75	4.50	0.41	2.75	3.75	4.50	5.50	0.88	7.05	5.65	1.75	9.10	9.70	2.75	1.125	0.250	0.986	1.78
184T																				
213T	10.45	8.50	19.50	5.25	0.41	3.50	4.25	5.50	7.00	1.10	8.25	6.50	1.75	10.65	11.35	3.38	1.375	0.312	1.201	2.41
215T																				



48C 56C 56HC 143TC 145TC **Figure 2**

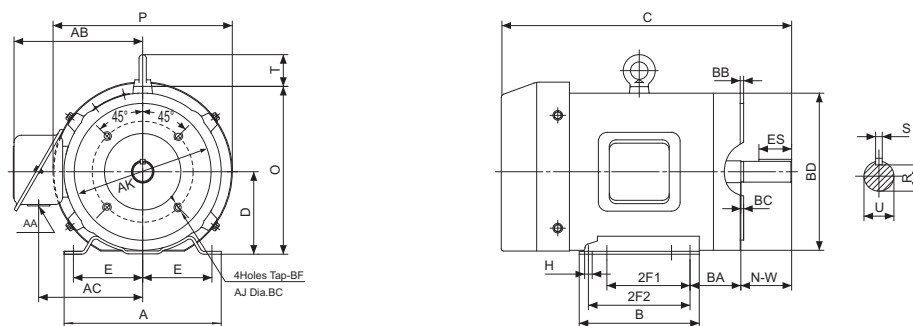


Figure 3 182TC 184TC 213TC 215TC

Overall & Installation Dimensions

Frame	A	B	C	D	H	BA	E	2F1	2F2	BC	BB	BD	AJ	AK	Tap-BF	AA	AB	AC	T	O	P	N-W	U	S	R	ES
48C	5.75	4.00	11.05	3.00	0.34 Slot	2.50	2.12	2.75	—	-0.19	0.16	5.625	3.75	3.0	1/4-20	0.88	5.15	4.00	—	6.0	6.4	1.50	0.500	Flat	0.453	—
56C	6.50	4.15	12.25	3.50	0.34 Slot	2.75	2.44	3.00	—	-0.19	0.16	6.45	5.875	4.50	3/8-16	0.88	5.65	4.45	—	7.10	7.2	1.88	0.625	0.188	0.517	1.41
56HC		3.00	5.00																							
143TC	6.50	6.00	14.00	3.50	0.34	2.75	2.75	4.00	5.00	+0.12	0.16	6.45	5.875	4.50	3/8-16	0.88	5.65	4.45	—	7.10	7.2	2.25	0.875	0.188	0.771	1.41
145TC																										
182TC	8.50	6.50	16.50	4.50	0.41	3.50	3.75	4.50	5.50	+0.12	0.25	9.00	7.250	8.50	1/2-13	0.88	7.05	5.65	1.75	9.10	9.70	2.75	1.125	0.250	0.986	1.78
184TC																										
213TC	10.45	8.50	20.25	5.25	0.41	4.25	4.25	5.50	7.00	+0.25	0.25	9.00	7.250	8.50	1/2-13	1.10	8.25	6.50	1.75	10.65	11.35	3.38	1.375	0.312	1.201	2.41
215TC																										



NEMA EPACT Efficiency Rolled Steel 3-Phase TEFC Motors Technical Data

HP	Sync Speed (r/min)	NEMA Frame	Conn	Code	Full Load Data				Locked Rotor Current at 460V (A)	T _s /T _n (%)	T _{max} /T _n (%)	Dim. "C" for Foot Mounted	Dim. "C" for C Type
					Speed (r/min)	Torque LB-FT	Eff. (%)	Current 460V (A)					
1/4	3600	48	YYY	T	3430	0.4	66.0	0.6	6	230	250	11.05	11.05
	1800	48	YYY	T	1740	0.8	64.0	0.7	6	275	300	11.05	11.05
	3600	56	YYY	T	3430	0.4	69.0	0.6	6	230	250	12.25	12.25
	1800	56	YYY	T	1740	0.8	64.0	0.7	6	275	300	12.25	12.25
	1200	56	YYY	T	1140	1.2	59.0	1.1	6	200	275	12.25	12.25
1/3	3600	48	YYY	T	3430	0.5	69.0	0.7	8	230	250	11.05	11.05
	1800	48	YYY	T	1740	1.0	67.0	0.8	8	275	300	11.05	11.05
	3600	56	YYY	T	3430	0.5	72.0	0.7	8	230	250	12.25	12.25
	1800	56	YYY	T	1740	1.0	67.0	0.8	8	275	300	12.25	12.25
	1200	56	YYY	T	1145	1.6	63.0	1.2	8	200	275	12.25	12.25
1/2	3600	48	YYY	R	3440	0.8	72.0	1.1	10	185	250	11.05	11.05
	1800	48	YYY	R	1745	1.6	70.0	1.2	10	275	300	11.05	11.05
	3600	56	YYY	R	3440	0.8	74.0	1.1	10	185	250	12.25	12.25
	1800	56	YYY	R	1745	1.6	70.0	1.2	10	275	300	12.25	12.25
	1200	56	YYY	R	1145	2.3	68.0	1.3	10	200	275	12.25	12.25
3/4	3600	48	YYY	P	3450	1.2	75.0	1.3	12.5	185	250	11.05	11.05
	1800	48	YYY	P	1745	2.3	74.0	1.4	12.5	275	300	11.05	11.05
	3600	56	YYY	P	3450	1.2	75.0	1.3	12.5	185	250	12.25	12.25
	1800	56	YYY	P	1745	2.3	74.0	1.4	12.5	275	300	12.25	12.25
	1200	56	YYY	P	1150	3.4	71.0	1.6	12.5	175	275	12.25	12.25
1	3600	56H	YYY	N	3500	1.5	75.5	1.5	15	180	250	13.75	13.75
	1800	56H	YYY	N	1745	3.0	82.5	1.6	15	275	300	13.75	13.75
	1200	56H	YYY	N	1150	4.6	80.0	1.9	15	170	265	13.75	13.75
	3600	143T	YYY	N	3500	1.5	75.5	1.5	15	180	250	13.50	14.00
	1800	143T	YYY	N	1745	3.0	82.5	1.6	15	275	300	13.50	14.00
1.5	1200	145T	YYY	N	1150	4.6	80.0	1.9	15	170	265	13.50	14.00
	3600	56H	YYY	M	3500	2.2	82.5	2.0	20	175	250	13.75	13.75
	1800	56H	YYY	M	1745	4.5	84.0	2.3	20	250	280	13.75	13.75
	3600	143T	YYY	M	3500	2.2	82.5	2.0	20	175	250	13.50	14.00
	1800	145T	YYY	M	1745	4.5	84.0	2.3	20	250	280	13.50	14.00
2	1200	182T	YYY	M	1150	6.9	85.5	2.5	20	165	250	15.75	16.50
	3600	56H	YYY	L	3500	3.0	84.0	2.7	25	170	240	13.75	13.75
	1800	56H	YYY	L	1745	6.0	84.0	3.0	25	235	270	13.75	13.75
	3600	145T	YYY	L	3500	3.0	84.0	2.7	25	170	240	13.50	14.00
	1800	145T	YYY	L	1745	6.0	84.0	3.0	25	235	270	13.50	14.00
3	1200	184T	YYY	L	1150	9.3	86.5	3.2	25	160	240	15.75	16.50
	3600	182T	YYY	K	3510	4.5	85.5	3.9	32	160	230	15.75	16.50
	1800	182T	YYY	K	1745	9.0	87.5	4.2	32	215	250	15.75	16.50
	1200	213T	YYY	K	1160	13.6	87.5	4.6	32	155	230	19.50	20.25
	3600	184T	YYY	J	3520	7.5	87.5	6.3	46	150	215	15.75	16.50
5	1800	184T	YYY	J	1745	15.0	87.5	6.8	46	185	225	15.75	16.50
	1200	215T	YYY	J	1160	22.7	87.5	8.2	46	150	215	19.50	20.25
	3600	213T	YYY	H	3530	11.2	88.5	9.2	64	140	200	19.50	20.25
7.5	1800	213T	YYY	H	1760	22.4	89.5	9.8	64	175	215	19.50	20.25
	3600	215T	YYY	H	3540	14.9	89.5	11.5	81	135	200	19.50	20.25
10	1800	215T	YYY	H	1766	29.8	89.5	12.5	81	165	200	19.50	20.25

IEC MOTOR

GOST MOTOR

NEMA MOTOR

PUMP



NEMA Premium Efficiency Rolled Steel 3-Phase TEFC Motors Technical Data

HP	Sync Speed (r/min)	NEMA Frame	Conn	Code	Full Load Data				Locked Rotor Current at 460V (A)	T _s /T _n (%)	T _{max} /T _n (%)	Dim. "C" for Foot Mounted	Dim. "C" for C Type
					Speed (r/min)	Torque LB-FT	Eff. (%)	Current 460V (A)					
1	3600	56H	YYY	N	3500	1.5	77.0	1.53	15	180	250	13.75	13.75
	1800	56H	YYY	N	1745	3.0	85.5	1.45	15	275	300	13.75	13.75
	1200	56H	YYY	N	1150	4.6	82.5	1.50	15	170	265	13.75	13.75
	3600	143T	YYY	N	3500	1.5	77.0	1.53	15	180	250	13.50	14.00
	1800	143T	YYY	N	1745	3.0	85.5	1.45	15	275	300	13.50	14.00
1.5	1200	145T	YYY	N	1150	4.6	82.5	1.50	15	170	265	13.50	14.00
	3600	56H	YYY	M	3500	2.2	84.0	1.89	20	175	250	13.75	13.75
	1800	56H	YYY	M	1745	4.5	86.5	2.09	20	250	280	13.75	13.75
	3600	143T	YYY	M	3500	2.2	84.0	1.89	20	175	250	13.50	14.00
	1800	145T	YYY	M	1745	4.5	86.5	2.09	20	250	280	13.50	14.00
2	1200	182T	YYY	M	1150	6.9	87.5	2.02	20	165	250	15.75	16.50
	3600	56H	YYY	L	3500	3.0	85.5	2.42	25	170	240	13.75	13.75
	1800	56H	YYY	L	1745	6.0	86.5	2.76	25	235	270	13.75	13.75
	3600	145T	YYY	L	3500	3.0	85.5	2.42	25	170	240	13.50	14.00
	1800	145T	YYY	L	1745	6.0	86.5	2.76	25	235	270	13.50	14.00
3	1200	184T	YYY	L	1150	9.3	88.5	2.59	25	160	240	15.75	16.50
	3600	182T	YYY	K	3510	4.5	86.5	3.55	32	160	230	15.75	16.50
	1800	182T	YYY	K	1745	9.0	89.5	3.85	32	215	250	15.75	16.50
	1200	213T	YYY	K	1160	13.6	89.5	3.94	32	155	230	19.50	20.25
	3600	184T	YYY	J	3520	7.5	88.5	5.72	46	150	215	15.75	16.50
5	1800	184T	YYY	J	1745	15.0	89.5	6.57	46	185	225	15.75	16.50
	1200	215T	YYY	J	1160	22.7	89.5	6.34	46	150	215	19.50	20.25
	3600	213T	YYY	H	3530	11.2	89.5	8.48	64	140	200	19.50	20.25
7.5	1800	213T	YYY	H	1760	22.4	91.7	9.75	64	175	215	19.50	20.25
	3600	215T	YYY	H	3540	14.9	90.2	11.22	81	135	200	19.50	20.25
10	1800	215T	YYY	H	1766	29.8	91.7	12.52	81	165	200	19.50	20.25

GENERATOR

D.C. MOTOR

TFA Series NEMA EPACT & Premium Efficiency 3-Phase Motors

1HP thru 10HP Aluminum TEFC

- 143T thru 215T
- 143TC thru 215TC

FEATURES

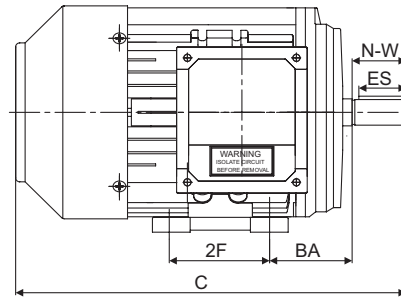
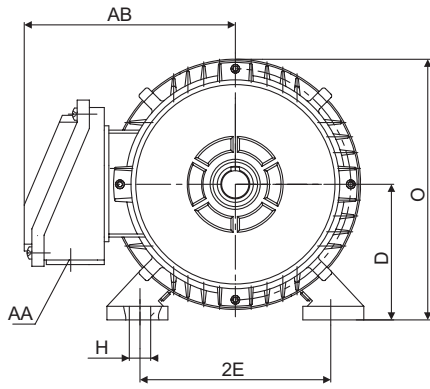
- 208–230/460V/60Hz
- NEMA Service Factor 1.15/1.25
- Continuous Duty 40°C Ambient
- Class F Insulation With Class B Temp Rise
- NEMA Design B
- Ball Bearings
- Aluminum Housing
- IP55 Protection



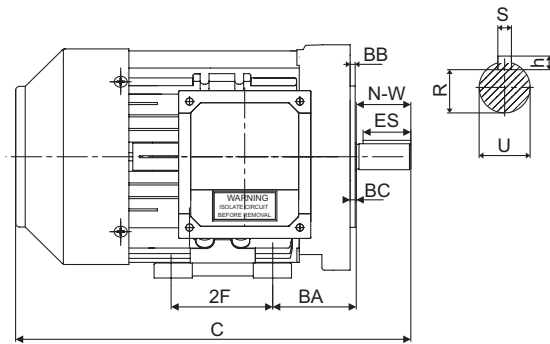
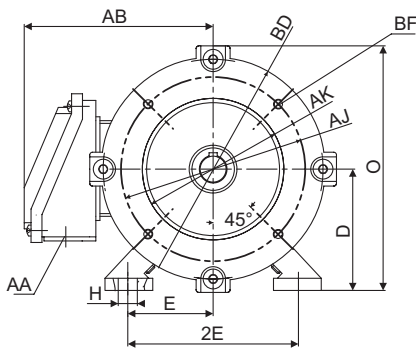
APPLICATIONS

- Pumps
- Compressors
- Fans
- Conveyors
- Machine Tools
- Petro–Chemical Plants
- Three Phase or Other General Purpose Applications





Foot Mounted **Figure 1**



C-Face, Foot Mounted **Figure 2**

Overall & Installation Dimensions

Frame	Foot Mounting				Shaft						General				C-Face						
	2E	2F	h	BA	N-W	U	S	H	R	ES	C	D	O	AA	AB	AJ	AK	BB	BC	BD	BF
143T	5.5	4.0	0.34	2.25	2.25	0.875	0.188	0.188	0.771	1.41	13.0	3.5	7.02	3/4	5.90	-	-	-	-	-	-
145T		5.0		14.0							-					-	-	-			
143TC		4.0		13.0							5.875					4.5	0.16	0.12	6.5	4*3/8-16	
145TC		5.0		14.0																	
182T	7.5	4.5	0.41	2.75	2.75	1.125	0.25	0.25	0.986	1.78	16.54	4.5	8.9	3/4	7.03	-	-	-	-	-	-
184T		5.5		16.54							-					-	-	-			
182TC		4.5		16.54							7.25					8.5	0.25	0.12	9.0	4*1/2-13	
184TC		5.5		16.54																	
213T	8.5	5.5	0.41	3.50	3.38	1.375	0.312	0.312	1.201	2.41	17.78	5.25	10.45	1	7.8	-	-	-	-	-	-
215T		7.0		20.28							-					-	-	-			
213TC		5.5		18.78							7.25					8.5	0.25	0.25	9.0	4*1/2-13	
215TC		7.0		20.28																	

NEMA EPACT Efficiency TEFC Motors Technical Data

HP	Full Load Speed (r/min)	NEMA Frame	Conn	Code	Current at 460V		Torque			Efficiency Full Load (%)
					Full Load(A)	Locked Rotor(A)	Full Load LB-FT	Locked Rotor(%)	Break Down(%)	
1	1745	143T	2Δ/Δ	N	1.6	15	3.0	275	300	82.5
	1150	145T	2Δ/Δ	N	1.9	15	4.7	170	265	80.0
1.5	3500	143T	2Δ/Δ	M	2.0	20	2.3	175	250	82.5
	1745	145T	2Δ/Δ	M	2.3	20	4.8	250	280	84.0
	1150	182T	2Δ/Δ	M	2.5	20	6.9	165	250	85.5
2	3500	145T	2Δ/Δ	L	2.7	25	3.0	170	240	84.0
	1745	145T	2Δ/Δ	L	3.0	25	6.2	235	270	84.0
	1150	184T	2Δ/Δ	L	3.2	25	9.3	160	240	86.5
3	3510	182T	2Δ/Δ	K	3.9	32	4.5	160	230	87.5
	1745	182T	2Δ/Δ	K	4.2	32	9.1	215	250	87.5
	1160	213T	2Δ/Δ	K	4.6	32	13.6	155	230	87.5
5	3520	184T	2Δ/Δ	J	6.3	46	7.5	150	215	85.5
	1755	184T	2Δ/Δ	J	6.8	46	15.0	185	225	87.5
	1160	215T	2Δ/Δ	J	8.2	46	22.7	150	215	87.5
7.5	3530	213T	2Δ/Δ	H	9.2	64	11.2	140	200	88.5
	1760	213T	2Δ/Δ	H	9.8	64	22.4	175	215	89.5
10	3540	215T	2Δ/Δ	H	11.5	81	14.9	135	200	89.5
	1765	215T	2Δ/Δ	H	12.5	81	29.8	165	200	89.5

NEMA Premium Efficiency TEFC Motors Technical Data

HP	Full Load Speed (r/min)	NEMA Frame	Current			Eff. 100% FL (%)	Power Factor (CosΦ)	Full Load Torque LB-FT	Locked Rotor		T _{st} /T _n (Times)	T _{min} /T _n (Times)	T _{max} /T _n (Times)	Service Factor
			I _n 460V (A)	I _n 230V (A)	I _n 460V (A)				KVA Code	I _{st} /I _n (Times)				
1	3495	143T	0.71	2.99	1.53	77	0.80	1.51	L	7.5	2.7	2.1	2.8	1.25
	1705	143T	0.73	2.84	1.45	85.5	0.76	3.10	G	5.4	2.3	2.1	2.9	1.25
	1120	145T	0.76	2.94	1.50	82.5	0.76	4.72	J	6.2	2.2	2	2.7	1.25
1.5	3495	143T	0.66	3.70	1.89	84	0.89	2.27	K	8	2.7	2.1	2.9	1.25
	1710	145T	1.02	4.10	2.09	86.5	0.78	4.63	H	5.9	2.3	2.1	2.7	1.25
	1120	182T	0.94	3.95	2.02	87.5	0.80	7.07	H	6	2.3	2.1	2.6	1.25
2	3510	145T	0.77	4.74	2.42	85.5	0.91	3.01	J	8	2.3	2	2.7	1.25
	1710	145T	1.31	5.39	2.76	86.5	0.79	6.18	H	6.4	2.4	2	2.7	1.25
	1120	184T	1.14	5.08	2.59	88.5	0.82	9.43	G	5.8	2.3	2.1	2.7	1.25
3	3525	182T	1.07	6.95	3.55	86.5	0.92	4.50	K	8.5	2.6	2.1	2.7	1.25
	1710	182T	1.70	7.53	3.85	89.5	0.82	9.27	H	6.6	2.4	2.1	2.9	1.25
	1130	213T	1.83	7.72	3.94	89.5	0.80	14.02	H	6.4	2.3	2.1	2.9	1.25
5	3540	184T	1.63	11.19	5.72	88.5	0.93	7.46	J	8.5	2.5	2	2.7	1.25
	1715	184T	3.05	12.87	6.57	89.5	0.80	15.40	J	6.9	2.4	2	2.8	1.25
	1130	215T	2.72	12.40	6.34	89.5	0.83	23.37	H	6.3	2.4	2.2	2.8	1.25
7.5	3540	213T	2.42	16.60	8.48	89.5	0.93	11.19	J	8	2.4	2	2.9	1.25
	1715	213T	4.63	19.08	9.75	91.7	0.79	23.10	K	7.9	2.5	2	3	1.25
10	3540	215T	3.20	21.97	11.22	90.2	0.93	14.92	J	8.5	2.7	2	2.8	1.25
	1720	215T	5.52	24.51	12.52	91.7	0.82	30.71	H	7.1	2.3	2	2.8	1.25

TFC Series NEMA EPACT & Premium Efficiency 3-Phase Motors

1HP thru 200 HP Cast Iron TEFC

- **143T thru 447T**
- **143TC thru 447TC**

FEATURES

- 208–230/460V/60Hz or 575V/60Hz
- NEMA Service Factor 1.15/1.25
- Continuous Duty 40°C Ambient
- TEFC (Totally Enclosed Fan Cooled)
- Class F Insulation With Class B Temp Rise
- Cast Iron frames
- NEMA Design B or C
- Ball Bearings
- IP55 Protection
- Up to 445T Available with Integral or Removable Feet



APPLICATIONS

- Pumps
- Compressors
- Fans
- Machine Tools
- Energy saving applications
- Other General Purpose Three Phase Applications

APPLICATIONS(Design C)

- Conveyors
- Gear Reducers
- Applications Requiring Design C Torque



IEC MOTOR

GOST MOTOR

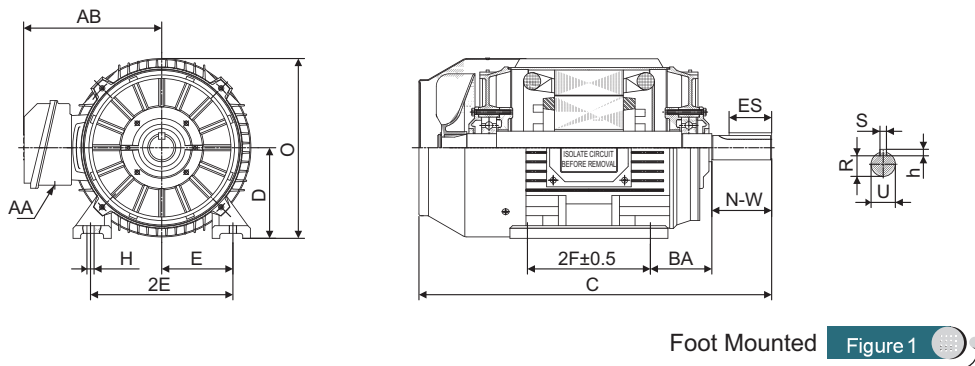
NEMA MOTOR

PUMP

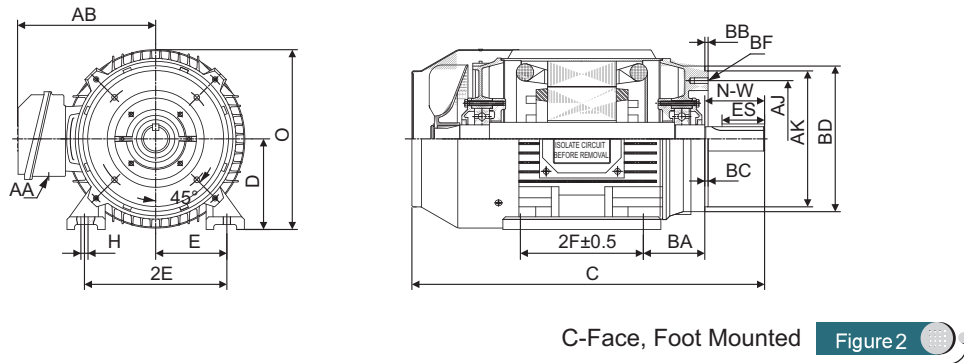
GENERATOR

D.C. MOTOR

NEMA EPACT & Premium Efficiency 3-Phase Cast Iron TEFC Motors



Foot Mounted Figure 1



C-Face, Foot Mounted Figure 2

Overall & Installation Dimensions

Frame	Foot Mounting				Shaft				General						C-Face						
	2E	2F	H	BA	N-W	U	S	h	R	ES	C	D	O	AA	AB	AJ	AK	BB	BC	BD	BF
143T	5.5	4.0	0.34	2.25	2.25	0.875	0.188	0.188	0.771	1.41	13.0	3.5	7.02	3/4	5.90	5.875	4.5	0.16	0.12	6.5	4*3/8-16
145T		5.0		2.75							14.0										
143TC		4.0		2.75							13.0										
145TC		5.0		2.75							14.0										
182T	7.5	4.5	0.41	2.75	2.75	1.125	0.25	0.25	0.986	1.78	16.54	4.5	8.9	3/4	7.03	7.25	8.5	0.25	0.12	9.0	4*1/2-13
184T		5.5		2.75							16.54										
182TC		4.5		3.5							16.54										
184TC		5.5		3.5							16.54										
213T	8.5	5.5	0.41	3.50	3.38	1.375	0.312	0.312	1.201	2.41	18.78	5.25	10.45	1	7.8	7.25	8.5	0.25	0.25	9.0	4*1/2-13
215T		7.0		4.25							20.28										
213TC		5.5		4.25							18.78										
215TC		7.0		4.25							20.28										
254T	10	8.25	0.53	4.25	4.0	1.625	0.375	0.375	1.416	2.91	24.00	6.25	12.44	1-1/4	9.96	7.25	8.5	0.25	0.25	10.0	4*1/2-13
256T		10		4.75							25.75										
254TC		8.25		4.75							24.00										
256TC		10		4.75							25.75										
284T	11	9.5	0.53	4.75	4.62	1.875	0.500	0.500	1.591	3.28	27.44	7.0	13.94	1-1/2	10.63	9.0	10.5	0.25	0.25	11.25	4*1/2-13
286T		11		4.75							28.94										
284TS		9.5		3.25							26.07										
286TS		11		3.25							27.57										
324T	12.5	10.5	0.66	5.25	5.25	2.125	0.500	0.500	1.845	3.91	31.30	8.0	15.94	2	12.88	11.0	12.5	0.25	0.25	14.0	4*5/8-11
326T		12		3.75							31.30										
324TS		10.5		3.75							29.8										
326TS		12		3.75							29.8										
364T	14	11.25	0.66	5.88	5.88	2.375	0.625	0.625	2.021	4.28	33.47	9.0	17.95	3	14.0	11.0	12.5	0.25	0.25	14.0	8*5/8-11
365T		12.25		3.75							34.45										
364TS		11.25		3.75							31.34										
365TS		12.25		3.75							32.32										
404T	16	12.25	0.81	6.62	7.25	2.875	0.750	0.750	2.450	5.65	38.19	10.0	19.85	3	15.13	11.0	12.5	0.25	0.25	15.5	8*5/8-11
405T		13.75		4.25							35.19										
404TS		12.25		4.25							35.19										
405TS		13.75		4.25							35.19										
444T	18	14.5	0.81	7.50	8.5	3.375	0.875	0.875	2.880	6.91	43.9	11.0	22.05	3	17.97	14.0	16.0	0.25	0.25	18.0	8*5/8-11
445T		16.5		4.75							40.15										
444TS		14.5		4.75							40.15										
445TS		16.5		4.75							40.15										
447T	18	20	0.81	7.50	8.5	3.375	0.875	0.875	2.880	6.91	52.4	11.0	22.05	3	17.97	14.0	16.0	0.25	0.25	18.0	8*5/8-11
449T		25		4.75							48.65										
447TS		20		4.75							48.65										
449TS		25		4.75							48.65										

NEMA EPACT Efficiency TEFC Motors Technical Data—Design B

HP	Full Load Speed (r/min)	NEMA Frame	Conn	Code	Current at 460V		Torque			Efficiency Full Load (%)
					Full Load (A)	Locked Rotor (A)	Full Load LB-FT	Locked Rotor (%)	Break Down (%)	
1	3450	143T	2Y/Y	N	1.4	15	1.5	180	250	75.5
	1720	143T	2Y/Y	N	1.7	15	3.1	275	300	82.5
	1150	145T	2Y/Y	N	2.0	15	4.6	170	265	80.0
1.5	3450	143T	2Y/Y	M	2.1	20	2.2	175	250	82.5
	1720	145T	2Y/Y	M	2.4	20	4.5	250	280	84.0
	1150	182T	2Y/Y	M	2.6	20	6.8	165	250	85.5
2	3450	145T	2Y/Y	L	2.8	25	3.0	170	240	84.0
	1720	145T	2Y/Y	L	3.1	25	6.1	235	270	84.0
	1150	184T	2Y/Y	L	3.3	25	9.2	160	240	86.5
3	3450	182T	2Y/Y	K	4.0	32	4.5	160	230	85.5
	1720	182T	2Y/Y	K	4.3	32	9.0	215	250	87.5
	1150	213T	2Y/Y	K	4.7	32	13.5	155	230	87.5
5	3450	184T	2Y/Y	J	6.4	46	7.5	150	215	87.5
	1720	184T	2Y/Y	J	6.9	46	15.2	185	225	87.5
	1150	215T	2Y/Y	J	8.3	46	22.6	150	215	87.5
7.5	3450	213T	2Y/Y	H	9.4	64	11.2	140	200	88.5
	1720	213T	2Y/Y	H	9.9	64	22.5	175	215	89.5
	1150	254T	2Y/Y	H	11.2	64	33.8	150	205	89.5
10	3450	215T	2Y/Y	H	12.2	81	15.0	135	200	89.5
	1720	215T	2Y/Y	H	13.0	81	30.5	165	200	89.5
	1150	256T	2Y/Y	H	15.0	81	45.0	150	200	89.5
15	3450	254T	2Δ/Δ	G	18.4	116	22.5	130	200	90.2
	1720	254T	2Δ/Δ	G	19.7	116	45.4	160	200	91.0
	1150	284T	2Δ/Δ	G	20.3	116	66.8	140	200	90.2
20	3450	256T	2Δ/Δ	G	23.1	145	29.8	130	200	90.2
	1720	256T	2Δ/Δ	G	24.7	145	60.0	150	200	91.0
	1150	286T	2Δ/Δ	G	25.8	145	89.4	135	200	90.2
25	3450	284TS	2Δ/Δ	G	28.9	183	37.0	130	200	91.0
	1720	284T	2Δ/Δ	G	29.6	183	74.2	150	200	92.4
	1150	324T	2Δ/Δ	G	31.9	183	111.3	135	200	91.7
30	3450	286TS	2Δ/Δ	G	34.5	218	44.4	130	200	91.0
	1720	286T	2Δ/Δ	G	35.5	218	89.1	150	200	92.4
	1150	326T	2Δ/Δ	G	38.0	218	133.6	135	200	91.7
40	3450	324TS	2Δ/Δ	G	46.5	290	59.1	125	200	91.7
	1720	324T	2Δ/Δ	G	47.1	290	118.7	140	200	93.0
	1150	364T	2Δ/Δ	G	48.4	290	178.1	135	200	93.0
50	3450	326TS	2Δ/Δ	G	58.4	363	73.8	120	200	92.4
	1720	326T	2Δ/Δ	G	59.2	363	148.4	140	200	93.0
	1150	365T	2Δ/Δ	G	60.5	363	222.6	135	200	93.0
60	3450	364TS	2Δ/Δ	G	64.5	435	88.6	120	200	93.0
	1720	364T	2Δ/Δ	G	69.4	435	177.6	140	200	93.6
	1150	404T	2Δ/Δ	G	70.2	435	266.0	135	200	93.6
75	3450	365TS	2Δ/Δ	G	84.3	543	110.0	105	200	93.0
	1720	365T	2Δ/Δ	G	86.2	543	222.0	140	200	94.1
	1150	405T	2Δ/Δ	G	87.7	543	333.0	135	200	93.6
100	3450	405TS	2Δ/Δ	G	100.2	725	147.2	105	200	93.6
	1720	405T	2Δ/Δ	G	114.0	725	295.2	125	200	94.5
	1150	444T	2Δ/Δ	G	116.0	725	445.2	125	200	94.1
125	3450	444TS	2Δ/Δ	G	137.0	908	183.7	100	200	94.5
	1720	444T	2Δ/Δ	G	141.0	908	368.3	110	200	94.5
	1150	445T	2Δ/Δ	G	145.0	908	556.5	125	200	94.1
150	3450	445TS	2Δ/Δ	G	164.0	1085	220.4	100	200	94.5
	1720	445T	2Δ/Δ	G	169.0	1085	442.0	110	200	95.0
	1150	447T	2Δ/Δ	G	170.0	1085	668.0	120	200	95.0
200	3450	447TS	Δ	G	215.0	1450	294.0	100	200	95.0
	1720	447T	Δ	G	223.0	1450	589.3	100	200	95.0

IEC MOTOR

GOST MOTOR

NEMA MOTOR

PUMP

GENERATOR

D.C. MOTOR



NEMA Premium Efficiency TEFC Motors Technical Data—Design B

HP	Full Load Speed (r/min)	NEMA Frame	Current			Eff. 100% FL	Power Factor (CosΦ)	Full Load Torque LB-FT	Locked Rotor		T _{st} /T _n (Times)	T _{min} /T _n (Times)	T _{max} /T _n (Times)	Service Factor
			I _{n1} 460V (A)	I _n 230V (A)	I _n 460V (A)				KVA Code	I _{sc} /I _n (Times)				
1	3495	143T	0.71	2.99	1.53	77	0.80	1.51	L	7.5	2.7	2.1	2.8	1.25
	1705	143T	0.73	2.84	1.45	85.5	0.76	3.10	G	5.4	2.3	2.1	2.9	1.25
	1120	145T	0.76	2.94	1.50	82.5	0.76	4.72	J	6.2	2.2	2	2.7	1.25
1.5	3495	143T	0.66	3.70	1.89	84	0.89	2.27	K	8	2.7	2.1	2.9	1.25
	1710	145T	1.02	4.10	2.09	86.5	0.78	4.63	H	5.9	2.3	2.1	2.7	1.25
	1120	182T	0.94	3.95	2.02	87.5	0.80	7.07	H	6	2.3	2.1	2.6	1.25
2	3510	145T	0.77	4.74	2.42	85.5	0.91	3.01	J	8	2.3	2	2.7	1.25
	1710	145T	1.31	5.39	2.76	86.5	0.79	6.18	H	6.4	2.4	2	2.7	1.25
	1120	184T	1.14	5.08	2.59	88.5	0.82	9.43	G	5.8	2.3	2.1	2.7	1.25
3	3525	182T	1.07	6.95	3.55	86.5	0.92	4.50	K	8.5	2.6	2.1	2.7	1.25
	1710	182T	1.70	7.53	3.85	89.5	0.82	9.27	H	6.6	2.4	2.1	2.9	1.25
	1130	213T	1.83	7.72	3.94	89.5	0.80	14.02	H	6.4	2.3	2.1	2.9	1.25
5	3540	184T	1.63	11.19	5.72	88.5	0.93	7.46	J	8.5	2.5	2	2.7	1.25
	1715	184T	3.05	12.87	6.57	89.5	0.80	15.40	J	6.9	2.4	2	2.8	1.25
	1130	215T	2.72	12.40	6.34	89.5	0.83	23.37	H	6.3	2.4	2.2	2.8	1.25
7.5	3540	213T	2.42	16.60	8.48	89.5	0.93	11.19	J	8	2.4	2	2.9	1.25
	1715	213T	4.63	19.08	9.75	91.7	0.79	23.10	K	7.9	2.5	2	3	1.25
	1140	254T	3.85	18.08	9.24	91	0.84	34.74	G	6.2	2.5	2	2.8	1.15
10	3540	215T	3.20	21.97	11.22	90.2	0.93	14.92	J	8.5	2.7	2	2.8	1.25
	1720	215T	5.52	24.51	12.52	91.7	0.82	30.71	H	7.1	2.3	2	2.8	1.25
	1140	256T	5.57	24.69	12.62	91	0.82	46.32	H	6.8	2.3	1.9	2.8	1.15
15	3545	254T	5.42	33.38	17.05	91	0.91	22.35	K	9	2.2	2.1	3	1.15
	1720	254T	7.90	36.04	18.41	92.4	0.83	46.07	J	7.8	2.3	2	2.7	1.15
	1140	284T	7.64	35.88	18.33	91.7	0.84	69.49	H	7	2.4	1.9	2.7	1.15
20	3550	256T	7.22	44.50	22.74	91	0.91	29.76	J	8.5	2.3	2.1	3	1.15
	1730	256T	7.07	43.55	22.25	93	0.91	61.07	H	7.9	2.5	2.1	2.8	1.15
	1145	286T	9.75	47.28	24.15	91.7	0.85	92.24	H	7.3	2.5	2	2.8	1.15
25	3550	284TS	8.42	54.60	27.90	91.7	0.92	37.20	H	7.5	2.4	2.1	2.9	1.15
	1730	284T	8.25	53.50	27.33	93.6	0.92	76.34	H	7.8	2.4	2.1	2.9	1.15
	1145	324T	13.08	59.68	30.49	93	0.83	115.30	J	7.8	2.3	2.1	2.9	1.15
30	3550	286TS	9.45	64.82	33.11	91.7	0.93	44.64	H	7.5	2.3	2	2.8	1.15
	1730	286T	13.06	67.88	34.68	93.6	0.87	91.60	J	7.8	2.4	2.1	3	1.15
	1150	326T	14.42	69.93	35.73	93	0.85	137.76	J	7.8	2.4	2.1	3.2	1.15
40	3555	324TS	14.22	87.66	44.78	92.4	0.91	59.44	H	7.7	2.4	2	2.7	1.15
	1740	324T	15.65	88.01	44.96	94.1	0.89	121.43	H	7.5	2.3	2	3	1.15
	1150	364T	18.17	91.08	46.53	94.1	0.86	183.68	J	7.9	2.3	1.9	3.1	1.15
50	3555	326TS	17.66	108.87	55.62	93	0.91	74.30	H	7.6	2.3	2	2.7	1.15
	1740	326T	20.52	110.79	56.60	94.5	0.88	151.79	J	7.9	2.4	2	2.7	1.15
	1150	365T	23.76	115.19	58.85	94.1	0.85	229.61	J	7.9	2.2	1.9	2.7	1.15
60	3560	364TS	18.53	127.01	64.89	93.6	0.93	89.03	H	8	2.3	2	2.8	1.15
	1745	364T	34.48	145.47	74.32	95	0.80	181.63	H	6.7	2.4	2	2.7	1.15
	1150	404T	30.90	140.96	72.01	94.5	0.83	275.53	J	7.5	2.3	2.1	2.7	1.15
75	3560	365TS	23.16	158.76	81.11	93.6	0.93	111.29	H	8	2.3	1.9	2.7	1.15
	1745	365T	42.92	181.08	92.51	95.4	0.80	227.04	H	7	2.3	2	2.8	1.15
	1155	405T	33.92	170.05	86.87	94.5	0.86	342.92	H	7.2	2.3	2	2.8	1.15
100	3565	405TS	30.71	210.56	107.57	94.1	0.93	148.17	J	9	2.2	1.9	2.7	1.15
	1750	405T	40.65	219.49	112.13	95.4	0.88	301.85	H	7.4	2.4	1.9	2.7	1.15
	1160	444T	44.99	225.54	115.22	95	0.86	455.25	H	7.7	2.2	1.9	2.7	1.15
125	3565	444TS	38.03	260.70	133.19	95	0.93	185.22	H	8	2.2	1.9	2.6	1.15
	1755	444T	43.05	265.32	135.54	95.4	0.91	376.24	H	7.6	2.2	1.9	2.6	1.15
	1160	445T	51.03	275.52	140.75	95	0.88	569.07	H	7.5	2.1	1.9	2.6	1.15
150	3565	445TS	42.51	309.52	158.12	95	0.94	222.26	H	7.5	2.2	1.9	2.5	1.15
	1760	445T	48.35	313.61	160.21	95.8	0.92	450.20	H	7.7	2.2	1.9	2.6	1.15
	1165	447T	54.54	320.57	163.77	95.8	0.90	679.95	H	7.5	2.1	1.9	2.6	1.15
200	3564	447TS	56.44	410.96	209.95	95.4	0.94	296.43	G	7.5	2.2	1.9	2.6	1.15
	1760	447T	64.19	416.40	212.73	96.2	0.92	600.27	H	7.5	2.2	1.9	2.5	1.15



NEMA EPACT Efficiency TEFC Motors Technical Data—Design C

HP	Full Load Speed (r/min)	NEMA Frame	Conn	Code	Current at 460V		Torque			Efficiency Full Load (%)
					Full Load (A)	Locked Rotor (A)	Full Load LB-FT	Locked Rotor (%)	Break Down (%)	
1	3450	143T	2Y/Y	N	1.4	15	1.5	245	225	74.0
	1720	143T	2Y/Y	N	1.7	15	3.1	285	200	73.0
	1150	145T	2Y/Y	N	2.0	15	4.6	255	225	72.0
1.5	3450	143T	2Y/Y	M	2.1	20	2.2	240	225	78.0
	1720	145T	2Y/Y	M	2.4	20	4.5	285	200	77.0
	1150	182T	2Y/Y	M	2.6	20	6.8	250	225	72.0
2	3450	145T	2Y/Y	L	2.8	25	3.0	240	225	79.0
	1720	145T	2Y/Y	L	3.1	25	6.1	285	200	78.5
	1150	184T	2Y/Y	L	3.3	25	9.2	250	225	78.5
3	3450	182T	2Y/Y	K	4.0	32	4.5	240	225	80.0
	1720	182T	2Y/Y	K	4.3	32	9.0	270	200	82.5
	1150	213T	2Y/Y	K	4.7	32	13.5	250	225	81.5
5	3450	184T	2Y/Y	J	6.4	46	7.5	240	200	82.0
	1720	184T	2Y/Y	J	6.9	46	15.2	255	200	82.5
	1150	215T	2Y/Y	J	8.3	46	22.6	250	200	82.5
7.5	3450	213T	2Y/Y	H	9.4	64	11.2	215	200	83.0
	1720	213T	2Y/Y	H	9.9	64	22.5	250	200	84.0
	1150	254T	2Y/Y	H	11.2	64	33.8	225	190	86.5
10	3450	215T	2Y/Y	H	12.2	81	15.0	215	190	84.0
	1720	215T	2Y/Y	H	13.0	81	30.5	250	200	84.0
	1150	256T	2Y/Y	H	15.0	81	45.0	225	190	86.5
15	3450	254T	2Δ/Δ	G	18.4	116	22.5	200	180	87.0
	1720	254T	2Δ/Δ	G	19.7	116	45.4	225	200	87.5
	1150	284T	2Δ/Δ	G	20.3	116	66.8	210	190	88.5
20	3450	256T	2Δ/Δ	G	23.1	145	29.8	180	180	86.5
	1720	256T	2Δ/Δ	G	24.7	145	60.0	200	200	87.5
	1150	286T	2Δ/Δ	G	25.8	145	89.4	200	190	88.5
25	3450	284TS	2Δ/Δ	G	28.9	183	37.2	200	190	89.5
	1720	284T	2Δ/Δ	G	29.6	183	74.2	200	190	89.5
	1150	324T	2Δ/Δ	G	31.9	183	111.3	200	190	89.5
30	3450	286TS	2Δ/Δ	G	34.5	218	44.4	200	190	91.0
	1720	286T	2Δ/Δ	G	35.5	218	89.1	200	190	91.0
	1150	326T	2Δ/Δ	G	38.0	218	133.6	200	190	91.0
40	3450	324TS	2Δ/Δ	G	46.5	290	59.1	200	190	90.2
	1720	324T	2Δ/Δ	G	47.1	290	118.7	200	190	91.0
	1150	364T	2Δ/Δ	G	48.4	290	178.1	200	190	91.0
50	3450	326TS	2Δ/Δ	G	58.4	363	73.8	200	190	91.0
	1720	326T	2Δ/Δ	G	59.2	363	148.4	200	190	91.7
	1150	365T	2Δ/Δ	G	60.5	363	222.6	200	190	91.0
60	3450	364TS	2Δ/Δ	G	64.5	435	88.6	200	190	91.7
	1720	364T	2Δ/Δ	G	69.4	435	177.6	200	190	91.7
	1150	404T	2Δ/Δ	G	70.2	435	266.0	200	190	91.7
75	3450	365TS	2Δ/Δ	G	84.3	543	110.0	200	190	91.7
	1720	365T	2Δ/Δ	G	86.2	543	222.0	200	190	92.4
	1150	405T	2Δ/Δ	G	87.7	543	333.0	200	190	91.7
100	3450	405TS	2Δ/Δ	G	100.2	725	147.2	200	190	91.8
	1720	405T	2Δ/Δ	G	114.0	725	295.2	200	190	92.4
	1150	444T	2Δ/Δ	G	116.0	725	445.2	200	190	91.7
125	3450	444TS	2Δ/Δ	G	137.0	908	183.7	200	190	92.4
	1720	444T	2Δ/Δ	G	141.0	908	368.3	200	190	92.4
	1150	445T	2Δ/Δ	G	145.0	908	556.5	200	190	92.4
150	3450	445TS	2Δ/Δ	G	164.0	1085	220.4	200	190	93.0
	1720	445T	2Δ/Δ	G	169.0	1085	442.0	200	190	93.0
	1150	447T	2Δ/Δ	G	170.0	1085	668.0	200	190	92.4
200	3450	447TS	Δ	G	215.0	1450	294.0	200	190	93.6
	1720	447T	Δ	G	223.0	1450	589.3	200	190	93.0

IEC MOTOR

GOST MOTOR

NEMA MOTOR

PUMP

GENERATOR

D.C. MOTOR

NEMA EPACT Efficiency TEFC Motors Technical Data (575V) - Design B

HP	Full Load Speed (r/min)	NEMA Frame	Current			Eff. 100% FL	Power Factor (CosΦ)	Full Load Torque LB-FT	Locked Rotor		T _{st} /T _n (Times)	T _{min} /T _n (Times)	T _{max} /T _n (Times)	Service Factor
			Output (KW)	I _a 575V (A)	I _b 575V (A)				KVA Code	I _{sr} /I _n (Times)				
1	3495	143T	0.75	0.58	1.25	75.5	0.80	1.51	L	7.5	2.7	2.1	2.8	1.25
	1705	143T	0.75	0.61	1.20	82.5	0.76	3.10	H	5.4	2.3	2.1	2.9	1.25
	1120	145T	0.75	0.63	1.24	80	0.76	4.72	J	6.2	2.2	2	2.7	1.25
1.5	3495	143T	1.125	0.54	1.54	82.5	0.89	2.27	K	8	2.7	2.1	2.9	1.25
	1710	145T	1.125	0.84	1.72	84	0.78	4.63	H	5.9	2.3	2.1	2.7	1.25
	1120	182T	1.125	0.77	1.65	85.5	0.80	7.07	H	6	2.3	2.1	2.6	1.25
2	3510	145T	1.5	0.63	1.97	84	0.91	3.01	J	8	2.3	2	2.7	1.25
	1710	145T	1.5	1.08	2.27	84	0.79	6.18	J	6.4	2.4	2	2.7	1.25
	1120	184T	1.5	0.94	2.12	86.5	0.82	9.43	G	5.8	2.3	2.1	2.7	1.25
3	3525	182T	2.25	0.87	2.87	85.5	0.92	4.50	K	8.5	2.6	2.1	2.7	1.25
	1710	182T	2.25	1.39	3.15	87.5	0.82	9.27	H	6.6	2.4	2.1	2.9	1.25
	1130	213T	2.25	1.50	3.23	87.5	0.80	14.02	H	6.4	2.3	2.1	2.9	1.25
5	3540	184T	3.75	1.32	4.63	87.5	0.93	7.46	J	8.5	2.5	2	2.7	1.25
	1715	184T	3.75	2.50	5.38	87.5	0.80	15.40	J	6.9	2.4	2	2.8	1.25
	1130	215T	3.75	2.22	5.18	87.5	0.83	23.37	H	6.3	2.4	2.2	2.8	1.25
7.5	3540	213T	5.625	1.96	6.86	88.5	0.93	11.19	J	8	2.4	2	2.9	1.25
	1715	213T	5.625	3.79	7.99	89.5	0.79	23.10	K	7.9	2.5	2	3	1.25
	1140	254T	5.625	3.13	7.51	89.5	0.84	34.74	G	6.2	2.5	2	2.8	1.15
10	3540	215T	7.5	2.58	9.05	89.5	0.93	14.92	J	8.5	2.7	2	2.8	1.25
	1720	215T	7.5	4.53	10.26	89.5	0.82	30.71	J	7.1	2.3	2	2.8	1.25
	1140	256T	7.5	4.53	10.26	89.5	0.82	46.32	H	6.8	2.3	1.9	2.8	1.15
15	3545	254T	11.25	4.37	13.76	90.2	0.91	22.35	K	9	2.2	2.1	3	1.15
	1720	254T	11.25	6.42	14.96	91	0.83	46.07	J	7.8	2.3	2	2.7	1.15
	1140	284T	11.25	6.21	14.91	90.2	0.84	69.49	H	7	2.4	1.9	2.7	1.15
20	3550	256T	15	5.83	18.35	90.2	0.91	29.76	J	8.5	2.3	2.1	3	1.15
	1730	256T	15	5.78	18.19	91	0.91	61.07	J	7.9	2.5	2.1	2.8	1.15
	1145	286T	15	7.93	19.64	90.2	0.85	92.24	J	7.3	2.5	2	2.8	1.15
25	3550	284TS	18.75	6.79	22.49	91	0.92	37.20	H	7.5	2.4	2.1	2.9	1.15
	1730	284T	18.75	6.68	22.15	92.4	0.92	76.34	H	7.8	2.4	2.1	2.9	1.15
	1145	324T	18.75	10.61	24.74	91.7	0.83	115.30	J	7.8	2.3	2.1	2.9	1.15
30	3550	286TS	22.5	7.62	26.70	91	0.93	44.64	H	7.5	2.3	2	2.8	1.15
	1730	286T	22.5	10.59	28.10	92.4	0.87	91.60	J	7.8	2.4	2.1	3	1.15
	1150	326T	22.5	11.70	28.99	91.7	0.85	137.76	J	7.8	2.4	2.1	3.2	1.15
40	3555	324TS	30	11.46	36.10	91.7	0.91	59.44	H	7.7	2.4	2	2.7	1.15
	1740	324T	30	12.66	36.39	93	0.89	121.43	H	7.5	2.3	2	3	1.15
	1150	364T	30	14.71	37.66	93	0.86	183.68	J	7.9	2.3	1.9	3.1	1.15
50	3555	326TS	37.5	14.22	44.78	92.4	0.91	74.30	H	7.6	2.3	2	2.7	1.15
	1740	326T	37.5	16.68	46.01	93	0.88	151.79	J	7.9	2.4	2	2.7	1.15
	1150	365T	37.5	19.23	47.63	93	0.85	229.61	J	7.9	2.2	1.9	2.7	1.15
60	3560	364TS	45	14.92	52.24	93	0.93	89.03	H	8	2.3	2	2.8	1.15
	1745	364T	45	28.00	60.34	93.6	0.80	181.63	H	6.7	2.4	2	2.7	1.15
	1150	404T	45	24.96	58.16	93.6	0.83	275.53	J	7.5	2.3	2.1	2.7	1.15
75	3560	365TS	56.25	18.64	65.30	93	0.93	111.29	H	8	2.3	1.9	2.7	1.15
	1745	365T	56.25	34.81	75.03	94.1	0.80	227.04	H	7	2.3	2	2.8	1.15
	1155	405T	56.25	27.40	70.17	93.6	0.86	342.92	H	7.2	2.3	2	2.8	1.15
100	3565	405TS	75	24.70	86.51	93.6	0.93	148.17	J	9	2.2	1.9	2.7	1.15
	1750	405T	75	32.83	90.56	94.5	0.88	301.85	H	7.4	2.4	1.9	2.7	1.15
	1160	444T	75	36.33	93.06	94.1	0.86	455.25	J	7.7	2.2	1.9	2.7	1.15
125	3565	444TS	93.75	30.58	107.11	94.5	0.93	185.22	H	8	2.2	1.9	2.6	1.15
	1755	444T	93.75	34.77	109.47	94.5	0.91	376.24	H	7.60	2.2	1.9	2.6	1.15
	1160	445T	93.75	41.22	113.68	94.1	0.88	569.07	H	7.5	2.1	1.9	2.6	1.15
150	3565	445TS	112.5	34.19	127.17	94.5	0.94	222.26	H	7.5	2.2	1.9	2.5	1.15
	1760	445T	112.5	39.00	129.25	95	0.92	450.20	H	7.7	2.2	1.9	2.6	1.15
	1165	447T	112.5	44.00	132.12	95	0.90	679.95	H	7.5	2.1	1.9	2.6	1.15
200	3564	447TS	150	45.34	168.66	95	0.94	296.43	G	7.5	2.2	1.9	2.6	1.15
	1760	447T	150	52.00	172.33	95	0.92	600.27	H	7.5	2.2	1.9	2.5	1.15

NEMA Premium Efficiency TEFC Motors Technical Data (575V) - Design B

HP	Full Load Speed (r/min)	NEMA Frame	Current			Eff. 100% FL (%)	Power Factor (CosΦ)	Full Load Torque LB-FT	Locked Rotor		T _{st} /T _n (Times)	T _{min} /T _n (Times)	T _{max} /T _n (Times)	Service Factor
			Output (KW)	I _{in} 575V (A)	I _e 575V (A)				KVA Code	I _{sc} /I _n (Times)				
1	3495	143T	0.75	0.57	1.22	77	0.80	1.51	L	7.5	2.7	2.1	2.8	1.25
	1705	143T	0.75	0.58	1.16	85.5	0.76	3.10	G	5.4	2.3	2.1	2.9	1.25
	1120	145T	0.75	0.61	1.20	82.5	0.76	4.72	J	6.2	2.2	2	2.7	1.25
1.5	3495	143T	1.125	0.53	1.51	84	0.89	2.27	K	8	2.7	2.1	2.9	1.25
	1710	145T	1.125	0.81	1.67	86.5	0.78	4.63	H	5.9	2.3	2.1	2.7	1.25
	1120	182T	1.125	0.75	1.61	87.5	0.80	7.07	H	6	2.3	2.1	2.6	1.25
2	3510	145T	1.5	0.61	1.94	85.5	0.91	3.01	J	8	2.3	2	2.7	1.25
	1710	145T	1.5	1.05	2.20	86.5	0.79	6.18	H	6.4	2.4	2	2.7	1.25
	1120	184T	1.5	0.92	2.08	88.5	0.82	9.43	G	5.8	2.3	2.1	2.7	1.25
3	3525	182T	2.25	0.86	2.84	86.5	0.92	4.50	K	8.5	2.6	2.1	2.7	1.25
	1710	182T	2.25	1.36	3.08	89.5	0.82	9.27	H	6.6	2.4	2.1	2.9	1.25
	1130	213T	2.25	1.46	3.16	89.5	0.80	14.02	H	6.4	2.3	2.1	2.9	1.25
5	3540	184T	3.75	1.31	4.57	88.5	0.93	7.46	J	8.5	2.5	2	2.7	1.25
	1715	184T	3.75	2.44	5.26	89.5	0.80	15.40	J	6.9	2.4	2	2.8	1.25
	1130	215T	3.75	2.18	5.07	89.5	0.83	23.37	H	6.3	2.4	2.2	2.8	1.25
7.5	3540	213T	5.625	1.94	6.79	89.5	0.93	11.19	J	8	2.4	2	2.9	1.25
	1715	213T	5.625	3.70	7.80	91.7	0.79	23.10	K	7.9	2.5	2	3	1.25
	1140	254T	5.625	3.08	7.39	91	0.84	34.74	G	6.2	2.5	2	2.8	1.15
10	3540	215T	7.5	2.56	8.98	90.2	0.93	14.92	J	8.5	2.7	2	2.8	1.25
	1720	215T	7.5	4.42	10.02	91.7	0.82	30.71	H	7.1	2.3	2	2.8	1.25
	1140	256T	7.5	4.45	10.09	91	0.82	46.32	H	6.8	2.3	1.9	2.8	1.15
15	3545	254T	11.25	4.33	13.64	91	0.91	22.35	K	9	2.2	2.1	3	1.15
	1720	254T	11.25	6.32	14.73	92.4	0.83	46.07	J	7.8	2.3	2	2.7	1.15
	1140	284T	11.25	6.11	14.67	91.7	0.84	69.49	H	7	2.4	1.9	2.7	1.15
20	3550	256T	15	5.78	18.19	91	0.91	29.76	J	8.5	2.3	2.1	3	1.15
	1730	256T	15	5.65	17.80	93	0.91	61.07	H	7.9	2.5	2.1	2.8	1.15
	1145	286T	15	7.80	19.32	91.7	0.85	92.24	H	7.3	2.5	2	2.8	1.15
25	3550	284TS	18.75	6.73	22.32	91.7	0.92	37.20	H	7.5	2.4	2.1	2.9	1.15
	1730	284T	18.75	6.60	21.86	93.6	0.92	76.34	H	7.8	2.4	2.1	2.9	1.15
	1145	324T	18.75	10.47	24.39	93	0.83	115.30	J	7.8	2.3	2.1	2.9	1.15
30	3550	286TS	22.5	7.56	26.49	91.7	0.93	44.64	H	7.5	2.3	2	2.8	1.15
	1730	286T	22.5	10.45	27.74	93.6	0.87	91.60	J	7.8	2.4	2.1	3	1.15
	1150	326T	22.5	11.54	28.58	93	0.85	137.76	J	7.8	2.4	2.1	3.2	1.15
40	3555	324TS	30	11.38	35.83	92.4	0.91	59.44	H	7.7	2.4	2	2.7	1.15
	1740	324T	30	12.52	35.97	94.1	0.89	121.43	H	7.5	2.3	2	3	1.15
	1150	364T	30	14.53	37.22	94.1	0.86	183.68	J	7.9	2.3	1.9	3.1	1.15
50	3555	326TS	37.5	14.13	44.49	93	0.91	74.30	H	7.6	2.3	2	2.7	1.15
	1740	326T	37.5	16.42	45.28	94.5	0.88	151.79	J	7.9	2.4	2	2.7	1.15
	1150	365T	37.5	19.01	47.08	94.1	0.85	229.61	J	7.9	2.2	1.9	2.7	1.15
60	3560	364TS	45	14.82	51.91	93.6	0.93	89.03	H	8	2.3	2	2.8	1.15
	1745	364T	45	27.59	59.45	95	0.80	181.63	H	6.7	2.4	2	2.7	1.15
	1150	404T	45	24.72	57.61	94.5	0.83	275.53	J	7.5	2.3	2.1	2.7	1.15
75	3560	365TS	56.25	18.53	64.89	93.6	0.93	111.29	H	8	2.3	1.9	2.7	1.15
	1745	365T	56.25	34.34	74.01	95.4	0.80	227.04	H	7	2.3	2	2.8	1.15
	1155	405T	56.25	27.14	69.50	94.5	0.86	342.92	H	7.2	2.3	2	2.8	1.15
100	3565	405TS	75	24.57	86.05	94.1	0.93	148.17	J	9	2.2	1.9	2.7	1.15
	1750	405T	75	32.52	89.70	95.4	0.88	301.85	H	7.4	2.4	1.9	2.7	1.15
	1160	444T	75	35.99	92.18	95	0.86	455.25	H	7.7	2.2	1.9	2.7	1.15
125	3565	444TS	93.75	30.42	106.55	95	0.93	185.22	H	8	2.2	1.9	2.6	1.15
	1755	444T	93.75	34.44	108.43	95.4	0.91	376.24	H	7.60	2.2	1.9	2.6	1.15
	1160	445T	93.75	40.83	112.60	95	0.88	569.07	H	7.5	2.1	1.9	2.6	1.15
150	3565	445TS	112.5	34.01	126.50	95	0.94	222.26	G	7.5	2.2	1.9	2.5	1.15
	1760	445T	112.5	38.68	128.17	95.8	0.92	450.20	H	7.7	2.2	1.9	2.6	1.15
	1165	447T	112.5	43.63	131.02	95.8	0.90	679.95	H	7.5	2.1	1.9	2.6	1.15
200	3564	447TS	150	45.15	167.96	95.4	0.94	296.43	G	7.5	2.2	1.9	2.6	1.15
	1760	447T	150	51.35	170.18	96.2	0.92	600.27	H	7.5	2.2	1.9	2.5	1.15

IEC MOTOR

GOST MOTOR

NEMA MOTOR

PUMP

GENERATOR

D.C. MOTOR

TOC Series Oil Well Pump Motors

3HP thru 125HP Design D foot mounted

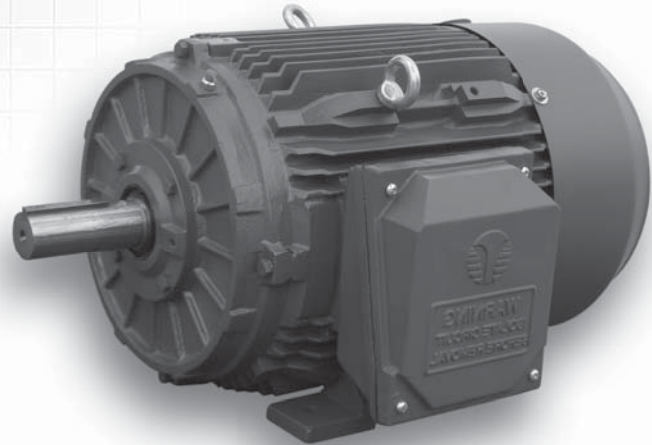
- 213T thru 445T
- Cast Iron TEFC

FEATURES

- Two-part epoxy paint,
- Moisture-resistant insulation,
- Shaft slinger, F2 position conduit box.

APPLICATIONS

- Oil field pumps and applications requiring high torque & high slip



Overall & Installation Dimensions

HP	Full Load Speed (r/min)	NEMA Frame	Current			Eff. 100% FL (%)	Power Factor (CosΦ)	Full Load Torque LB-FT	Locked Rotor		T_{st}/T_n (Times)	Service Factor
			I_n 460V (A)	I_n 230V (A)	I_n 460V (A)				KVA Code	I_{sc}/I_n (Times)		
3	1120	213T	2.27	8.97	4.58	80	0.77	14.15	J	6.4	3.5	1.25
5	1115	215T	3.45	14.22	7.27	82	0.79	23.68	J	6.3	4	1.25
7.5	1110	254T	4.93	20.81	10.63	83	0.80	35.68	H	6.2	3.6	1.15
10	1110	256T	6.19	26.76	13.67	85	0.81	47.58	J	6.8	4	1.15
15	1115	284T	7.89	38.26	19.54	85	0.85	71.04	J	7	2.8	1.15
20	1115	286T	10.40	50.41	25.76	86	0.85	94.73	J	7.3	3	1.15
25	1110	324T	13.57	63.77	32.58	86	0.84	118.94	K	7.8	2.8	1.15
30	1115	326T	16.98	77.44	39.56	86	0.83	142.09	K	7.8	2.8	1.15
40	1115	364T	18.74	97.38	49.75	87	0.87	189.45	J	7.9	2.5	1.15
50	1118	365T	22.04	118.97	60.78	88	0.88	236.18	J	7.9	2.5	1.15
60	1120	404T	29.14	146.09	74.63	88	0.86	282.91	J	7.5	2.5	1.15
75	1115	405T	34.74	180.51	92.22	88	0.87	355.22	H	7.2	2.5	1.15
100	1110	444T	43.58	235.27	120.19	89	0.88	475.76	J	7.7	2.5	1.15
125	1110	445T	53.87	290.82	148.57	90	0.88	594.70	J	7.5	2.5	1.15

TDC Series NEMA Premium Efficiency 3-Phase Motors

7.5HP thru 150HP

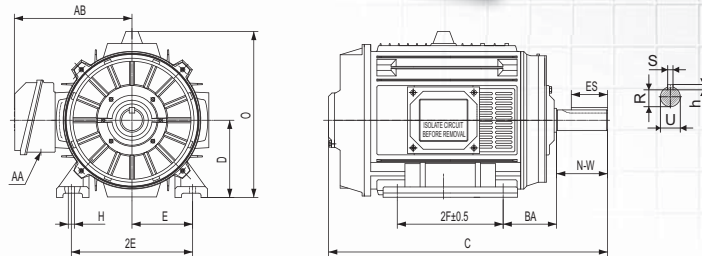
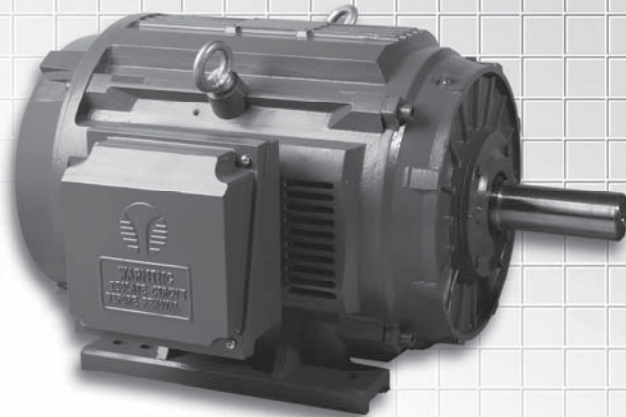
- 254T thru 445T
- Cast Iron ODP

FEATURES

- Continuous Duty 40°C Ambient
- Cast Iron frames
- Ball Bearings
- IP23 Protection

APPLICATIONS

- Pumps
 - Compressors
 - Fans
 - Machine Tools
 - Other General Purpose
- Three Phase Applications



Foot Mounted Figure 1

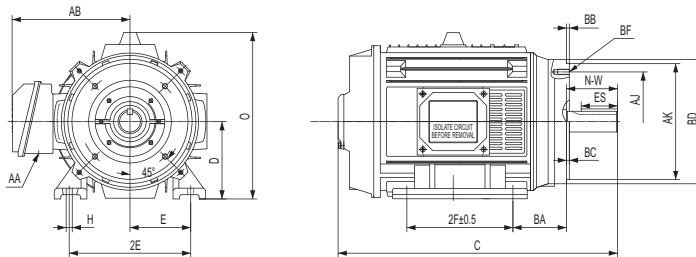


Figure 2 C-Face, Foot Mounted

Overall & Installation Dimensions

Frame	Foot Mounting				Shaft								General				C-Face					
	2E	2F	H	BA	N-W	U	S	h	R	ES	C	D	O	AA	AB	AJ	AK	BB	BC	BD	BF	
254T	10	8.25	0.53	4.25	4.00	1.625	0.375	0.375	1.416	2.91	24.00	6.25	14.44	1-1/4	9.96	—	—	—	—	—	—	
256T		10		4.75							25.75					7.25	8.5	0.25	0.25	10.0	4*1/2-13	
254TC		8.25		4.00							24.00					—	—	—	—	—	—	
256TC		10		4.75							25.75					—	—	—	—	—	—	
284T	11	9.5	0.53	4.75	4.62	1.875	0.500	0.500	1.591	3.28	26.9	7.0	15.55	1-1/2	10.63	9.0	10.5	0.25	0.25	11.25	4*1/2-13	
286T		11		3.25							25.5					9.0	10.5	0.25	0.25	11.25	4*1/2-13	
284TS		9.5		4.00							26.9					—	—	—	—	—	—	
286TS		11		4.75							25.5					—	—	—	—	—	—	
324T	12.5	10.5	0.66	5.25	5.25	2.125	0.500	0.500	1.845	3.91	29.3	8.0	16.93	2	12.88	11.0	12.5	0.25	0.25	14.0	4*5/8-11	
326T		12		3.75							27.8					11.0	12.5	0.25	0.25	14.0	4*5/8-11	
324TS		10.5		4.00							29.3					—	—	—	—	—	—	
326TS		12		5.25							27.8					—	—	—	—	—	—	
364T	14	11.25	0.66	5.88	5.88	2.375	0.625	0.625	2.021	4.28	32.4	9.0	19.3	3	14.0	11.0	12.5	0.25	0.25	14.0	8*5/8-11	
365T		12.25		3.75							30.2					11.0	12.5	0.25	0.25	14.0	8*5/8-11	
364TS		11.25		4.00							32.4					—	—	—	—	—	—	
365TS		12.25		5.88							30.2					—	—	—	—	—	—	
404T	16	12.25	0.81	6.62	7.25	2.875	0.750	0.750	2.450	5.65	36.9	10.0	21.53	3	15.13	11.0	12.5	0.25	0.25	15.5	8*5/8-11	
405T		13.75		4.25							33.9					11.0	12.5	0.25	0.25	15.5	8*5/8-11	
404TS		12.25		4.00							36.9					—	—	—	—	—	—	
405TS		13.75		6.62							33.9					—	—	—	—	—	—	
444T	18	14.5	0.81	7.50	8.5	3.375	0.875	0.875	2.880	6.91	43.65	11.0	23.66	3	17.97	14.0	16.0	0.25	0.25	18.0	8*5/8-11	
445T		16.5		4.75							39.9					14.0	16.0	0.25	0.25	18.0	8*5/8-11	
444TS		14.5		4.00							43.65					—	—	—	—	—	—	
445TS		16.5		7.50							39.9					—	—	—	—	—	—	

NEMA Premium Efficiency ODP Motors Technical Data -Design B

HP	Full Load Speed (r/min)	NEMA Frame	Current			Eff. 100% FL (%)	Power Factor (CosΦ)	Full Load Torque LB-FT	Locked Rotor		T _{st} /T _n (Times)	T _{min} /T _n (Times)	T _{max} /T _n (Times)	Service Factor
			I _h 460V (A)	I _h 230V (A)	I _h 460V (A)				KVA Code	I _{st} /I _n (Times)				
7.5	1140	254T	3.85	18.08	9.24	91	0.84	34.74	G	6.2	2.5	2	2.8	1.15
10	1140	256T	5.57	24.69	12.62	91	0.82	46.32	H	6.8	2.3	1.9	2.8	1.15
15	3545	254T	5.42	33.38	17.05	91	0.91	22.35	K	9	2.2	2.1	3	1.15
	1720	254T	7.90	36.04	18.41	92.4	0.83	46.07	J	7.8	2.3	2	2.7	1.15
	1140	284T	7.70	36.16	18.47	91	0.84	69.49	H	7	2.4	1.9	2.7	1.15
20	3550	256T	7.22	44.50	22.74	91	0.91	29.76	J	8.5	2.3	2.1	3	1.15
	1730	256T	7.07	43.55	22.25	93	0.91	61.07	H	7.9	2.5	2.1	2.8	1.15
	1145	286T	9.83	47.64	24.34	91	0.85	92.24	H	7.3	2.5	2	2.8	1.15
25	3550	284TS	8.30	53.84	27.51	93	0.92	37.20	H	7.5	2.4	2.1	2.9	1.15
	1730	284T	8.25	53.50	27.33	93.6	0.92	76.34	H	7.8	2.4	2.1	2.9	1.15
	1145	324T	13.27	60.53	30.92	91.7	0.83	115.30	J	7.8	2.3	2.1	2.9	1.15
30	3550	286TS	9.32	63.91	32.65	93	0.93	44.64	H	7.5	2.3	2	2.8	1.15
	1730	286T	13.06	67.88	34.68	93.6	0.87	91.60	J	7.8	2.4	2.1	3	1.15
	1150	326T	14.63	70.92	36.23	91.7	0.85	137.76	J	7.8	2.4	2.1	3.2	1.15
40	3555	324TS	13.97	86.07	43.97	94.1	0.91	59.44	H	7.7	2.4	2	2.7	1.15
	1740	324T	15.65	88.01	44.96	94.1	0.89	121.43	H	7.5	2.3	2	3	1.15
	1150	364T	18.50	92.75	47.39	92.4	0.86	183.68	J	7.9	2.3	1.9	3.1	1.15
50	3555	326TS	17.46	107.59	54.97	94.1	0.91	74.30	H	7.6	2.3	2	2.7	1.15
	1740	326T	20.52	110.79	56.60	94.5	0.88	151.79	J	7.9	2.4	2	2.7	1.15
	1150	365T	24.04	116.55	59.54	93	0.85	229.61	J	7.9	2.2	1.9	2.7	1.15
60	3560	364TS	18.35	125.80	64.27	94.5	0.93	89.03	H	8	2.3	2	2.8	1.15
	1745	364T	34.48	145.47	74.32	95	0.80	181.63	H	6.7	2.4	2	2.7	1.15
	1150	404T	31.23	142.46	72.78	93.5	0.83	275.53	J	7.5	2.3	2.1	2.7	1.15
75	3560	365TS	22.94	157.25	80.33	94.5	0.93	111.29	H	8	2.3	1.9	2.7	1.15
	1745	365T	42.92	181.08	92.51	95.4	0.80	227.04	H	7	2.3	2	2.8	1.15
	1155	405T	34.24	171.69	87.71	93.6	0.86	342.92	H	7.2	2.3	2	2.8	1.15
100	3565	405TS	30.42	208.56	106.55	95	0.93	148.17	J	9	2.2	1.9	2.7	1.15
	1750	405T	40.65	219.49	112.13	95.4	0.88	301.85	H	7.4	2.4	1.9	2.7	1.15
	1160	444T	45.42	227.70	116.32	94.1	0.86	455.25	J	7.7	2.2	1.9	2.7	1.15
125	3565	444TS	38.03	260.70	133.19	95	0.93	185.22	H	8	2.2	1.9	2.6	1.15
	1755	444T	43.05	265.32	135.54	95.4	0.91	376.24	H	7.6	2.2	1.9	2.6	1.15
	1160	445T	51.03	275.52	140.75	95	0.88	569.07	H	7.5	2.1	1.9	2.6	1.15
150	3565	445TS	42.15	306.93	156.80	95.8	0.94	222.26	G	7.5	2.2	1.9	2.5	1.15
	1760	445T	48.35	313.61	160.21	95.8	0.92	450.20	H	7.7	2.2	1.9	2.6	1.15

NEMA Premium Efficiency ODP Motors Technical Data (575V)—Design B

HP	Full Load Speed (r/min)	NEMA Frame	Current		Eff. 100% FL (%)	Power Factor (CosΦ)	Full Load Torque LB-FT	Locked Rotor		T _{st} /T _n (Times)	T _{min} /T _n (Times)	T _{max} /T _n (Times)	Service Factor
			I _{fl} 575V (A)	I _l 575V (A)				KVA Code	I _{gr} /I _n (Times)				
7.5	1140	254T	3.08	7.39	91	0.84	34.74	G	6.2	2.5	2	2.8	1.15
10	1140	256T	4.45	10.09	91	0.82	46.32	H	6.8	2.3	1.9	2.8	1.15
15	3545	254T	4.33	13.64	91	0.91	22.35	K	9	2.2	2.1	3	1.15
	1720	254T	6.32	14.73	92.4	0.83	46.07	J	7.8	2.3	2	2.7	1.15
	1140	284T	6.11	14.67	91.7	0.84	69.49	H	7	2.4	1.9	2.7	1.15
20	3550	256T	5.78	18.19	91	0.91	29.76	J	8.5	2.3	2.1	3	1.15
	1730	256T	5.65	17.80	93	0.91	61.07	H	7.9	2.5	2.1	2.8	1.15
	1145	286T	7.80	19.32	91.7	0.85	92.24	H	7.3	2.5	2	2.8	1.15
25	3550	284TS	6.73	22.32	91.7	0.92	37.20	H	7.5	2.4	2.1	2.9	1.15
	1730	284T	6.60	21.86	93.6	0.92	76.34	H	7.8	2.4	2.1	2.9	1.15
	1145	324T	10.47	24.39	93	0.83	115.30	J	7.8	2.3	2.1	2.9	1.15
30	3550	286TS	7.56	26.49	91.7	0.93	44.64	H	7.5	2.3	2	2.8	1.15
	1730	286T	10.45	27.74	93.6	0.87	91.60	J	7.8	2.4	2.1	3	1.15
	1150	326T	11.54	28.58	93	0.85	137.76	J	7.8	2.4	2.1	3.2	1.15
40	3555	324TS	11.38	35.83	92.4	0.91	59.44	H	7.7	2.4	2	2.7	1.15
	1740	324T	12.52	35.97	94.1	0.89	121.43	H	7.5	2.3	2	3	1.15
	1150	364T	14.53	37.22	94.1	0.86	183.68	J	7.9	2.3	1.9	3.1	1.15
50	3555	326TS	14.13	44.49	93	0.91	74.30	H	7.6	2.3	2	2.7	1.15
	1740	326T	16.42	45.28	94.5	0.88	151.79	J	7.9	2.4	2	2.7	1.15
	1150	365T	19.01	47.08	94.1	0.85	229.61	J	7.9	2.2	1.9	2.7	1.15
60	3560	364TS	14.82	51.91	93.6	0.93	89.03	H	8	2.3	2	2.8	1.15
	1745	364T	27.59	59.45	95	0.80	181.63	H	6.7	2.4	2	2.7	1.15
	1150	404T	24.72	57.61	94.5	0.83	275.53	J	7.5	2.3	2.1	2.7	1.15
75	3560	365TS	18.53	64.89	93.6	0.93	111.29	H	8	2.3	1.9	2.7	1.15
	1745	365T	34.34	74.01	95.4	0.80	227.04	H	7	2.3	2	2.8	1.15
	1155	405T	27.14	69.50	94.5	0.86	342.92	H	7.2	2.3	2	2.8	1.15
100	3565	405TS	24.57	86.05	94.1	0.93	148.17	J	9	2.2	1.9	2.7	1.15
	1750	405T	32.52	89.70	95.4	0.88	301.85	H	7.4	2.4	1.9	2.7	1.15
	1160	444T	35.99	92.18	95	0.86	455.25	H	7.7	2.2	1.9	2.7	1.15
125	3565	444TS	30.42	106.55	95	0.93	185.22	H	8	2.2	1.9	2.6	1.15
	1755	444T	34.44	108.43	95.4	0.91	376.24	H	7.60	2.2	1.9	2.6	1.15
	1160	445T	40.83	112.60	95	0.88	569.07	H	7.5	2.1	1.9	2.6	1.15
150	3565	445TS	34.01	126.50	95	0.94	222.26	G	7.5	2.2	1.9	2.5	1.15
	1760	445T	38.68	128.17	95.8	0.92	450.20	H	7.7	2.2	1.9	2.6	1.15

IEC MOTOR

GOST MOTOR

NEMA MOTOR

PUMP

GENERATOR

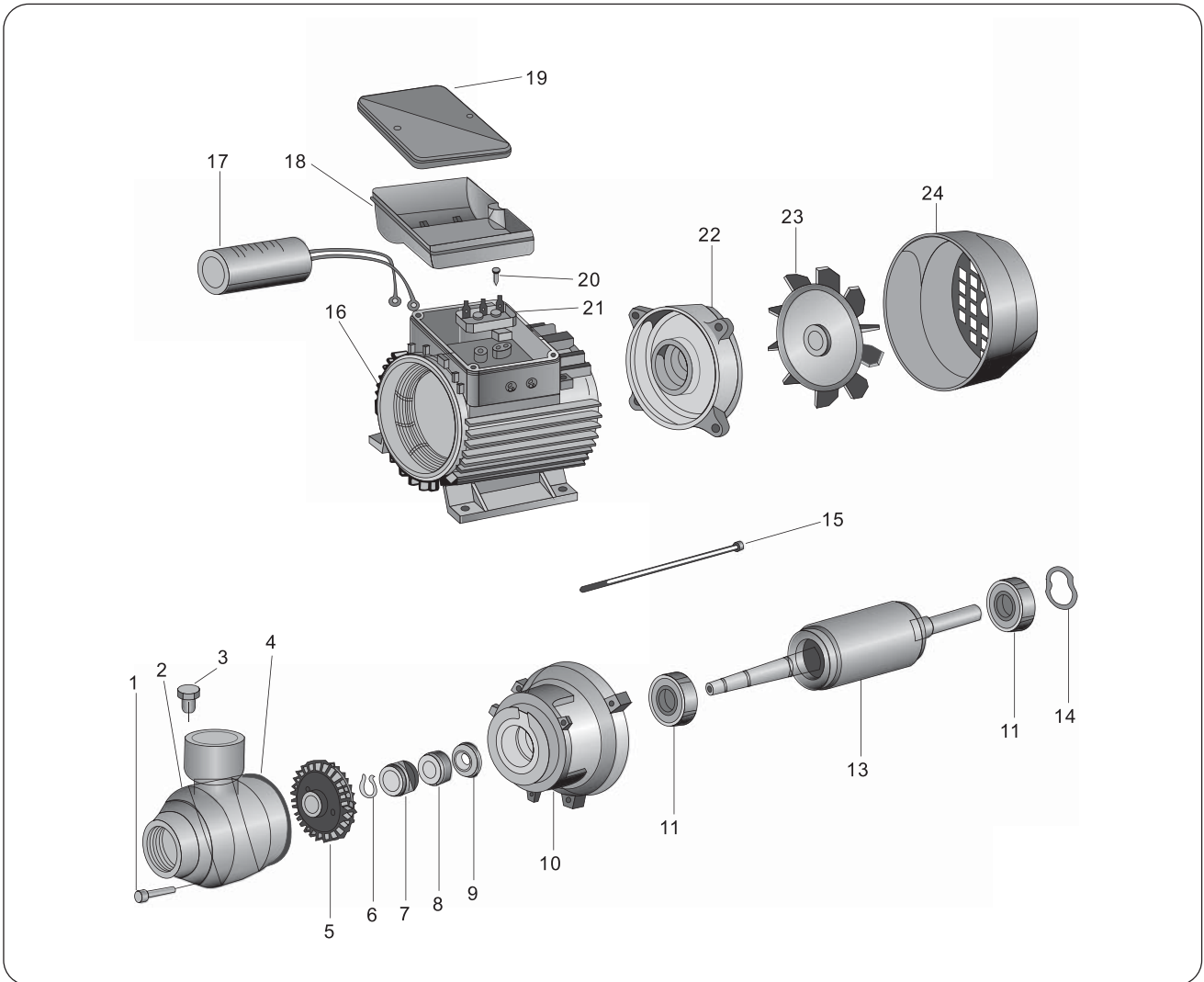
D.C. MOTOR



PERIPHERAL(VORTEX) PUMPS



Motor Spare Part List/Drawing



N.	Description	N.	Description	N.	Description
1	Screw	11	Bearing	21	Terminal board
2	Casing	12	Key	22	Rear end shield
3	Charge plug	13	Rotor shaft	23	Fan
4	Gland OR	14	Split ring	24	Fan cover
5	Impeller	15	Tie-rod		
6	Snap ring	16	Casing with wound stator		
7	Mechanical seal	17	Capacitor		
8	Mechanical seal	18	Terminal box		
9	Drops guard	19	Terminal cover		
10	Pump support	20	Screw		

IEC MOTOR
 GOST MOTOR
 NEMA MOTOR
 PUMP
 GENERATOR
 D.C. MOTOR

TPM Series

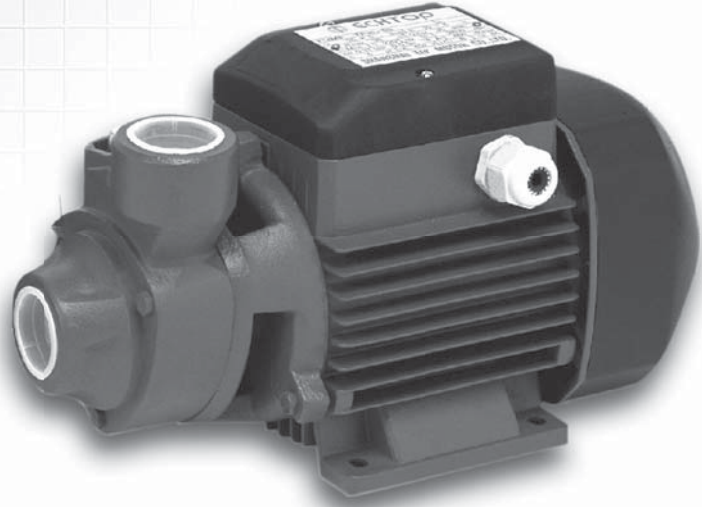
End Suction Peripheral Pumps

Performance Range

Flow rate up to 60l/min (3.6 m³/h)
Dynamic head up to 80 m

Operating Limits

Suction lift up to 8m
Fluid temperature up to +60°C
Maximum ambient temperature +40°C



Working Principle

The **TPM** series consists of PERIPHERAL PUMPS, so called because the peripheral edge of the impeller contains numerous radial blades, designed to yield energy to the fluid being pumped. The particular shape of the blades rapidly transfers radial recirculation motion to the fluid on entry to the pump, between the impeller blades and the double channel, machined on each side of the pump body. Since each of the numerous blades helps transfer energy, the fluid pressure increases progressively as it passes from the suction opening to the delivery opening, ensuring an even, non-pulsing flow and high pressures with particularly steep curves. The relatively simple construction technology embodied in the **TPM** series nevertheless requires particularly accurate mechanical machining during manufacture to prevent a drop in performance.

SHANGHAI TOP MOTOR CO.,LTD. Has been in the peripheral pump market since 1988 and has developed an unequalled experience in optimizing design. This, together with great efforts in achieving fully automated production processes, makes **TOP** one of the leading world industries in its field.

Pump Installation And Applications

These pumps are suitable for handling clean water not containing abrasive particles and fluids which are not chemically aggressive to the pump components. **RELIABLE, ECONOMICAL AND SIMPLE TO USE, THEY ARE SUITABLE FOR DOMESTIC APPLICATIONS AND THE AUTOMATIC DISTRIBUTION OF WATER FORM SURGE TANKS, WATERING GARDENS AND FOR BOOSTING INSUFFICIENT MAINS WATER PRESSURE.**

These pumps should be installed in a covered area, protected against the weather.

Performance

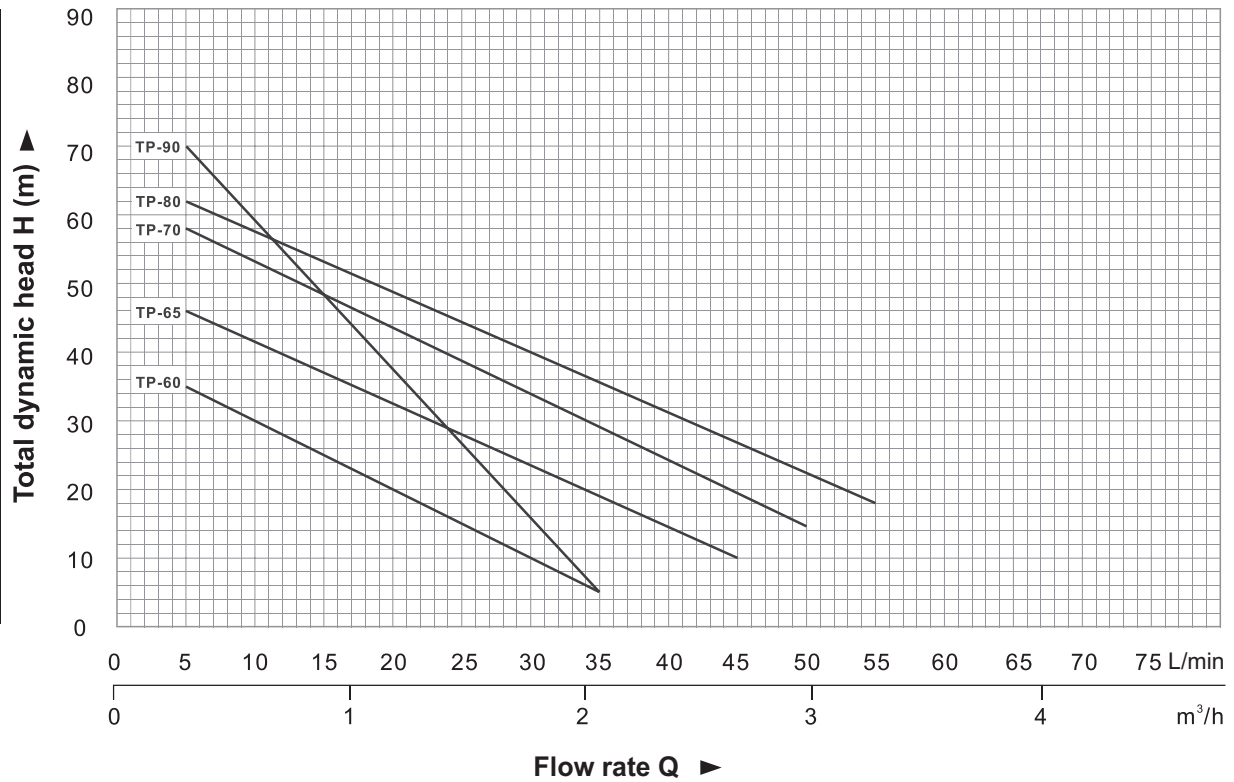
The wide range of pumps in the **TPM** series satisfies the most various operating requirements with features such as:

- high head with respect to power requirements;
- stable operating curves, with small variations in delivery rates with respect to large variations in the pressure demand;
- high tolerance of the presence of entrained air in the liquid being pumped

Structural Characteristics

- Cast iron **PUMP BODY**
- Aluminum **MOTOR BRACKET**
- BRASS IMPELLER**, with radial peripheral blades, floating on the shaft.
- Ceramic and graphite **MECHANICAL SEAL**.
- MOTOR**: the pumps are coupled directly to an asynchronous, high efficiency **TOP** induction motor of suitable size, which is quiet running, closed and externally ventilated, with «IM B3» structural shape, suitable for continuous duty. INSULATION class F (B up to 0.75kW).
The thermal cutout relay (motor protector) is incorporated in single phase motors.
- Three phase motors require an adequate external motor protector, with connections according to current standards.
- PROTECTION IP44**
- CONSTRUCTION AND SAFETY STANDARDS** in compliance with **IEC**.

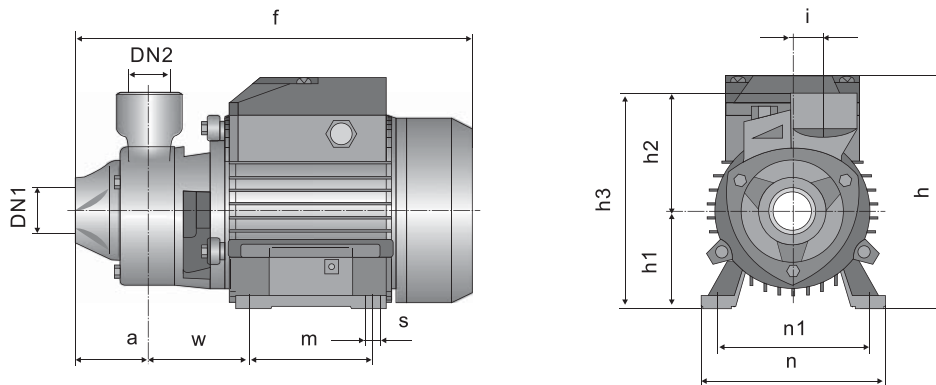
WARRANTY:1 YEAR (according to our general sales conditions)



Performance Data At N=2900 L/min

Pump Model		Power		Q(m³/h)	0	0.3	0.6	0.9	1.2	1.5	1.8	2.1	2.7	3.0	3.3	
Single phase	Three phase	KW	HP	Q(L/min)	0	5	10	15	20	25	30	35	45	50	55	
TPm-60	TP-60	0.37	0.50	H(m)	36	35	30	25	20	15	10	5				
TPm-65	TP-65	0.50	0.70		50	46	41.5	37	32.5	28	23.5	19	10			
TPm-70	TP-70	0.60	0.85		60	58	53	48.5	43.5	39	34	29	20	15		
TPm-80	TP-80	0.75	1		66	62	57.5	53	49	44.5	40	35.5	27	21.5	18	
TPm-90	TP-90	0.75	1		80	70	58	50	37.5	27	16	5				

H=Total dynamic head In meters. Q=Flow rate



Pump Model		DN1	DN2	Dimensions (mm)											
Single phase	Three phase			a	f	h	h1	h2	h3	i	m	n	n1	w	s
TPm-60	TP-60	1"	1"	42	251	152	63	75	138	20	80	120	100	63	7
TPm-65	TP-65	1"	1"	48	265	152	63	80	143	20	80	120	100	63	7
-	-	1"	1"	48	265	152	63	80	143	20	80	120	100	63	7
TPm-70	TP-70	1"	1"	55	291	179	71	85	156	20	90	134	112	68	7
TPm-80	TP-80	1"	1"	55	291	179	71	85	156	20	90	134	112	68	7
TPm-90	TP-90	3/4"	3/4"	58	294	179	71	95	166	20	90	134	112	68	7

TPQ Series

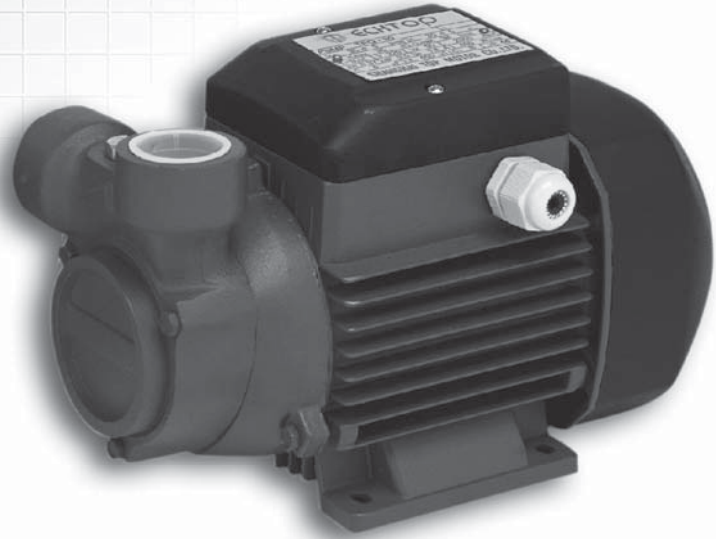
Side Suction Peripheral Pumps

Performance Range

Flow rate up to 60 l/min (3.6 m³/h)
Dynamic head up to 70 m

Operating Limits

Suction lift up to 9 m
Fluid temperature up to +60°C
Maximum ambient temperature +40°C



Working Principle

The **TPQ** series consists of PERIPHERAL PUMPS, so called because the peripheral edge of the impeller contains numerous radial blades, designed to yield energy to the fluid being pumped. The particular shape of the blades rapidly transfers radial recirculation motion to the fluid on entry to the pump, between the impeller blades and the double channel, machined on each side of the pump body. Since each of the numerous blades helps transfer energy, the fluid pressure increases progressively as it passes from the suction opening to the delivery opening, ensuring an even, non-pulsing flow and high pressures with particularly steep curves. The relatively simple construction technology embodied in the **TPQ** series nevertheless requires particularly accurate mechanical machining during manufacture to prevent a drop in performance.

SHANGHAI TOP MOTOR CO.,LTD. has been in the peripheral pump market since 1988 and has developed an unequalled experience in optimizing design. This, together with great efforts in achieving fully automated production processes, makes **TOP** one of the leading world industries in its field.

Pump Installation And Applications

These pumps are suitable for handling clean water not containing abrasive particles and fluids that are not chemically aggressive to the pump components. **RELIABLE, ECONOMICAL AND SIMPLE TO USE, THEY SUITABLE FOR DOMESTIC APPLICATIONS AND, IN PARTICULAR, THE AUTOMATIC DISTRIBUTION OF WATER FROM SURGE TANKS, WATERING GARDENS, FOR BOOSTING INSUFFICIENT MAINS WATER PRESSURE AND FOR SANITARY APPLICATIONS. THE HYDRAULIC PERFORMANCE OF THESE STURDY AND COMPACT PUMPS ALSO MAKES THEM IDEALLY SUITED FOR INDUSTRIAL APPLICATIONS, SINCE THEY CAN BE INSTALLED IN CONDITIONS PROHIBITIVE FOR OTHER PUMP TYPES.** These pumps should be installed in a covered area, protected against the weather.

Performance

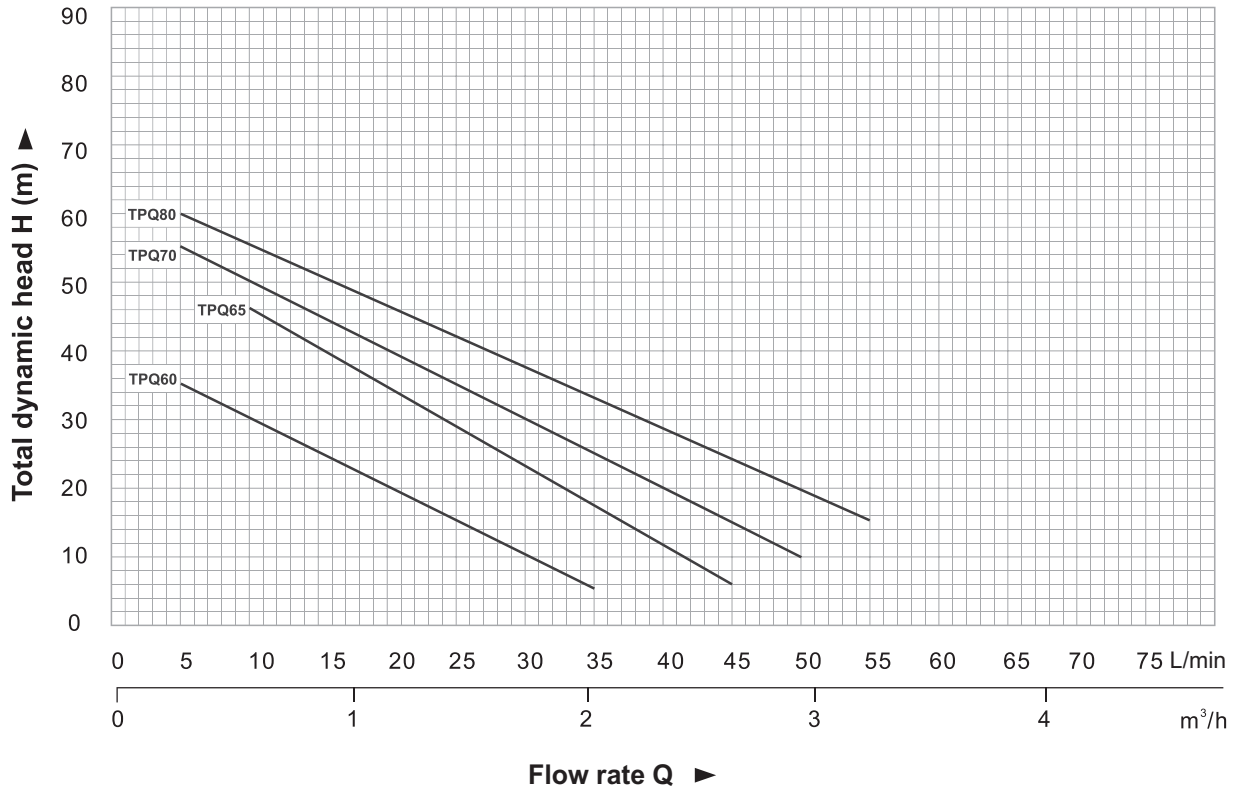
The wide range of pumps in the **TPQ** series satisfies the most various operating requirements with features such as:

- High head with respect to power requirements;
- Stable operating curves, with small variations in delivery rates with respect to large variations in the pressure demand;
- High tolerance of the presence of entrained air in the liquid being pumped.

Structural Characteristics

- Cast iron **PUMP BODY**
- Aluminum **MOTOR BRACKET**
- BRASS IMPELLER**, with radial peripheral blades, floating on the shaft.
- Ceramic and graphite **MECHANICAL SEAL**
- MOTOR**: the pumps are coupled directly to an asynchronous, high efficiency **TOP** induction motor of suitable size, which is quiet running, close and externally ventilated, with «B3» structural shape, suitable for continuous duty. INSULATION class F (B up to 0.75kW).
The thermal cutout relay (motor protector) is incorporated in single phase motors.
- Three phase motors require an adequate motor protector, with connections according to current standards.
- PROTECTION IP44**
- CONSTRUCTION AND SAFETY STANDARDS** in compliance with IEC.

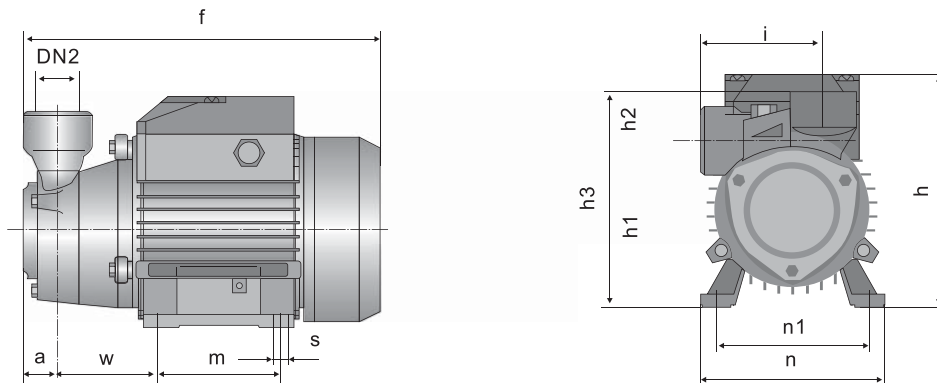
WARRANTY: 1 YEAR (according to our general sales conditions)



Performance Data At N=2900 L/min

Pump Model		Power		Q(m³/h)	0	0.3	0.6	0.9	1.2	1.5	1.8	2.1	2.7	3.0	3.3	
Single phase	Three phase	KW	HP	Q(L/min)	0	5	10	15	20	25	30	35	45	50	55	
TPQm-60	TPQ-60	0.37	0.50	H(m)	36	35	30	25	20	15	10	5				
TPQm-65	TPQ-65	0.50	0.70		50	—	46	40	34.5	28.5	23	17	5			
TPQm-70	TPQ-70	0.60	0.85		60	55	50	45	40	35	30	25	15	10		
TPQm-80	TPQ-80	0.75	1		66	60	55.5	51	46.5	42	37.5	33	24	19.5	15	

H=Total dynamic head In meters. Q=Flow rate



Pump Model		DN1	DN2	Dimensions (mm)											
Single phase	Three phase			a	f	h	h1	h2	h3	i	m	n	n1	w	s
TPQm-60	TPQ-60	1"	1"	22	223	152	108	30	138	78	80	120	100	55	7
TPQm-60	—	1"	1"	22	234	152	113	30	143	78	80	120	100	57	7
—	TPQ-65	1"	1"	22	227	152	113	30	143	78	80	120	100	57	7
TPQm-70	TPQ-70	1"	1"	22	253	179	121	30	151	83	80	134	112	62	7
TPQm-80	TPQ-80	1"	1"	22	253	179	121	30	151	83	80	134	112	62	7

IEC MOTOR
GOST MOTOR
NEMA MOTOR
PUMP
GENERATOR
D.C. MOTOR

TPS Series

Self-priming Peripheral Pumps

Performance Range

Flow rate up to 50l/min (3 m³/h)
Dynamic head up to 70 m

Operating Limits

Suction lift up to 9 m
Fluid temperature up to +60°C
Maximum ambient temperature +40°C



Working Principle

The **TPS** series consists of SELF-PRIMING PERIPHERAL PUMPS:

so called because the peripheral edge of the impeller contains numerous radial blades, designed to yield energy to the fluid being pumped and self-priming because the particular design of the pump body ensures the elimination of any air in the suction piping. The recirculation of the pumped fluid induced by the particular shape of the pump body permits the self-priming effect, extracting and completely expelling any air in the suction piping. Since each of the numerous blades help transfer energy, the fluid pressure increases progressively as it passes from the suction opening to the delivery opening, ensuring an even, non-pulsing flow and high pressures with particularly steep curves.

Pump Installation And Applications

These pumps are suitable for handling clean water not containing abrasive particles and fluids which are not chemically aggressive to the pump components. **RELIABLE, COMPACT, ECONOMICAL AND SIMPLE TO USE ,THEY ARE PARTICULARLY SUITABLE FOR DOMESTIC AND INDUSTRIAL APPLICATIONS SUCH AS WATER SUPPLY FOR RECIRCULATION IN AIR CONDITIONERS AND REFRIGERATORS, INDUSTRIAL WATER USES IN GENERAL, AND THE AUTOMATIC DISTRIBUTION OF WATER FROM SURGE TANKS, WATERING GARDENS, LIFTING WATER FROM TANKS OR WELLS DOWN TO 9m DEPTH.**

The pump is supplied with check valve on the suction side so that no foot valve is required.

These pumps should be installed in a covered area, protected against the weather.

Performance

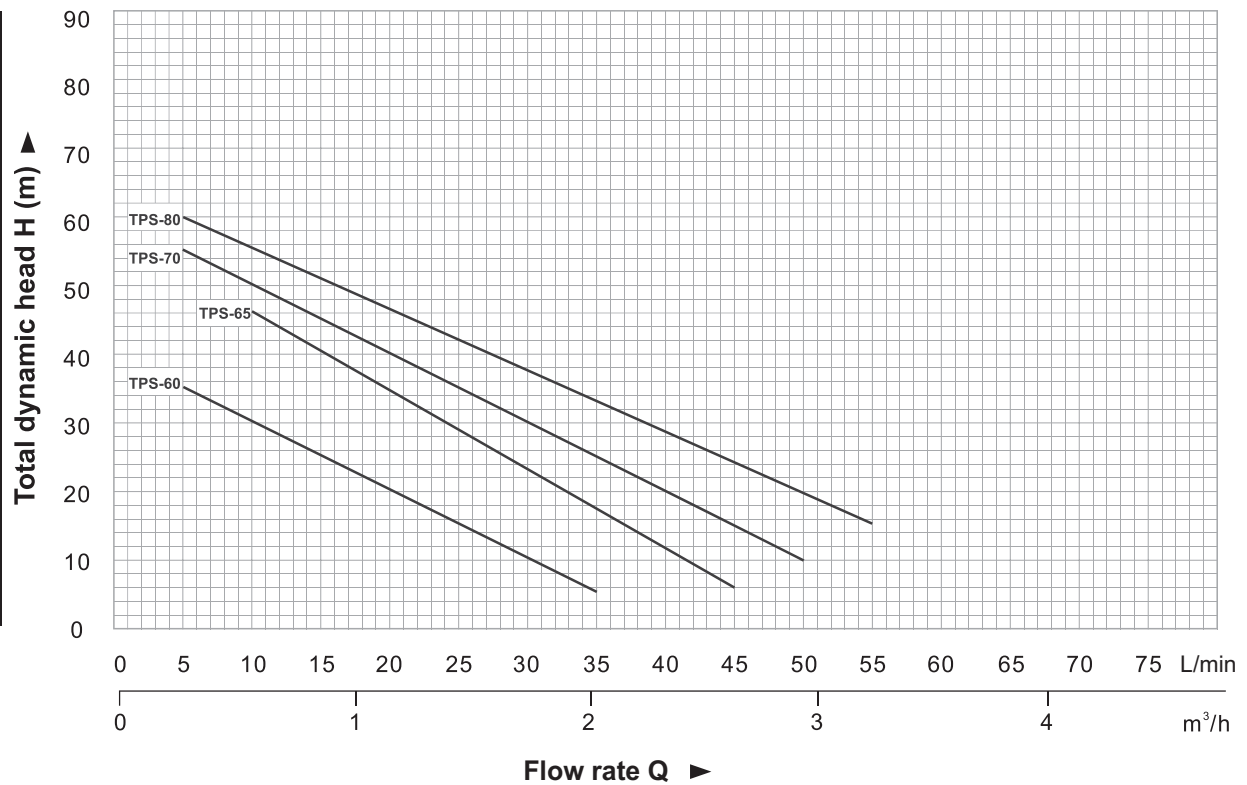
The range of pumps in the **TPS** series satisfies the most operating requirements with features such as:

- high heads with respect to power requirements;
- stable operating curves, with small variations in delivery rates with respect to large variations in the pressure demand;
- high tolerance of the presence of entrained air in the liquid being pumped;

Structural Characteristics

- Cast iron **PUMP BODY**
- CHECK VALVE**, built into the suction opening
- Aluminium **MOTOR BRACKET**
- BRASS IMPELLER, with radial peripheral blades, floating on the shaft.
- Ceramic and graphite **MECHANICAL SEAL**.
- MOTOR**: the pumps are coupled directly to an asynchronous, high efficiency **TOP** induction motor of suitable size, which is quiet running closed and externally ventilated, with «IM B3» structural shape, suitable for continuous duty. INSULATION class B. The thermal cutout relay (motor protector) is incorporated in single phase motors. Three phase motors require an adequate external motor protector, with connections according to current standards.
- PROTECTION IP44**
- CONSTRUCTION AND SAFETY STANDARDS in compliance with IEC.**

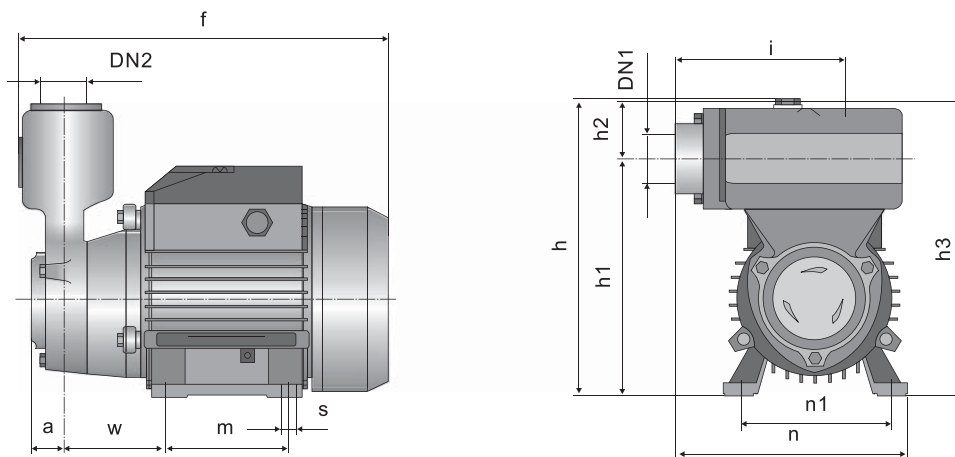
WARRANTY:1 YEAR (according to our general sales conditions)



Performance Data At N=2900 L/min

Pump Model		Power		Q(m³/h)	0	0.3	0.6	0.9	1.2	1.5	1.8	2.1	2.7	3.0	3.3	
Single phase	Three phase	KW	HP	Q(L/min)	0	5	10	15	20	25	30	35	45	50	55	
TPSm-60	TPS-60	0.37	0.50	H(m)	36	35	30	25	20	15	10	5				
TPSm-65	TPS-65	0.50	0.70		50	-	46	40	34.5	28.5	23	17	5			
TPSm-70	TPS-70	0.60	0.85		60	55	50	45	40	35	30	25	15	10		
TPSm-80	TPS-80	0.75	1		66	60	55.5	51	46.5	42	37.5	33	24	19.5	15	

H=Total dynamic head In meters. Q=Flow rate



Pump Model		DN1	DN2	Dimensions (mm)											
Single phase	Three phase			a	f	h	h1	h2	h3	i	m	n	n1	w	s
TPSm-60	TPS-60	1"	1"	29	230	192	156	34	190	110	80	150	100	55	7
TPSm-60	-	1"	1"	29	238	192	156	34	190	110	80	150	100	55	7
-	TPS-65	1"	1"	29	230	192	156	34	190	110	80	150	100	55	7
TPSm-70	TPS-70	1"	1"	29	260	200	164	34	198	110	90	160	112	62	7
TPSm-80	TPS-80	1"	1"	29	260	200	164	34	198	110	90	160	112	62	7

TGP Series

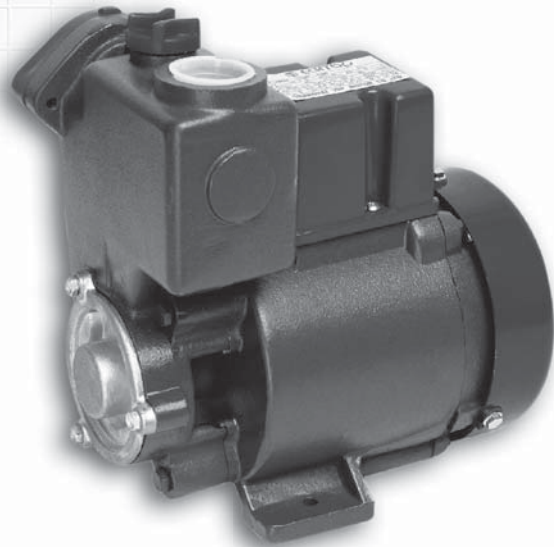
End Suction Peripheral Pumps

Performance Range

Flow rate up to 45l/min (2.8 m³/h)
Dynamic head up to 45 m

Operating Limits

Suction lift up to 9 m
Fluid temperature up to +60°C
Maximum ambient temperature +40°C



Working Principle

The **TGP** series consists of SELF-PRIMING PERIPHERAL PUMPS: peripheral because the peripheral edge of the impeller contains numerous radial blades, designed to yield energy to the fluid being pumped and self-priming because the particular design of the pump body ensures the elimination of any air in the suction piping. The recirculation of the pumped fluid induced by the particular shape of the pump body permits the self-priming effect, extracting and completely expelling any air in the suction piping. Since each of the numerous blades help transfer energy, the fluid pressure increases progressively as it passes from the suction opening to the delivery opening, ensuring an even, non-pulsing flow and high pressures with particularly steep curves.

Pump Installation And Applications

These pumps are suitable for handling clean water not containing abrasive particles and fluids which are not chemically aggressive to the pump components.

RELIABLE, COMPACT, ECONOMICAL AND SIMPLE TO USE ,THEY ARE PARTICULARLY SUITABLE FOR DOMESTIC AND INDUSTRIAL APPLICATIONS SUCH AS WATER SUPPLY FOR RECIRCULATION IN AIR CONDITIONERS AND REFRIGERATORS, INDUSTRIAL WATER USES IN GENERAL, AND THE AUTOMATIC DISTRIBUTION OF WATER FROM SURGE TANKS, WATERING GARDENS, LIFTING WATER FROM TANKS OR WELLS DOWN TO 9m DEPTH.

The pump is supplied with check valve on the suction side so that no foot valve is required.
These pumps should be installed in a covered area, protected against the weather.

Performance

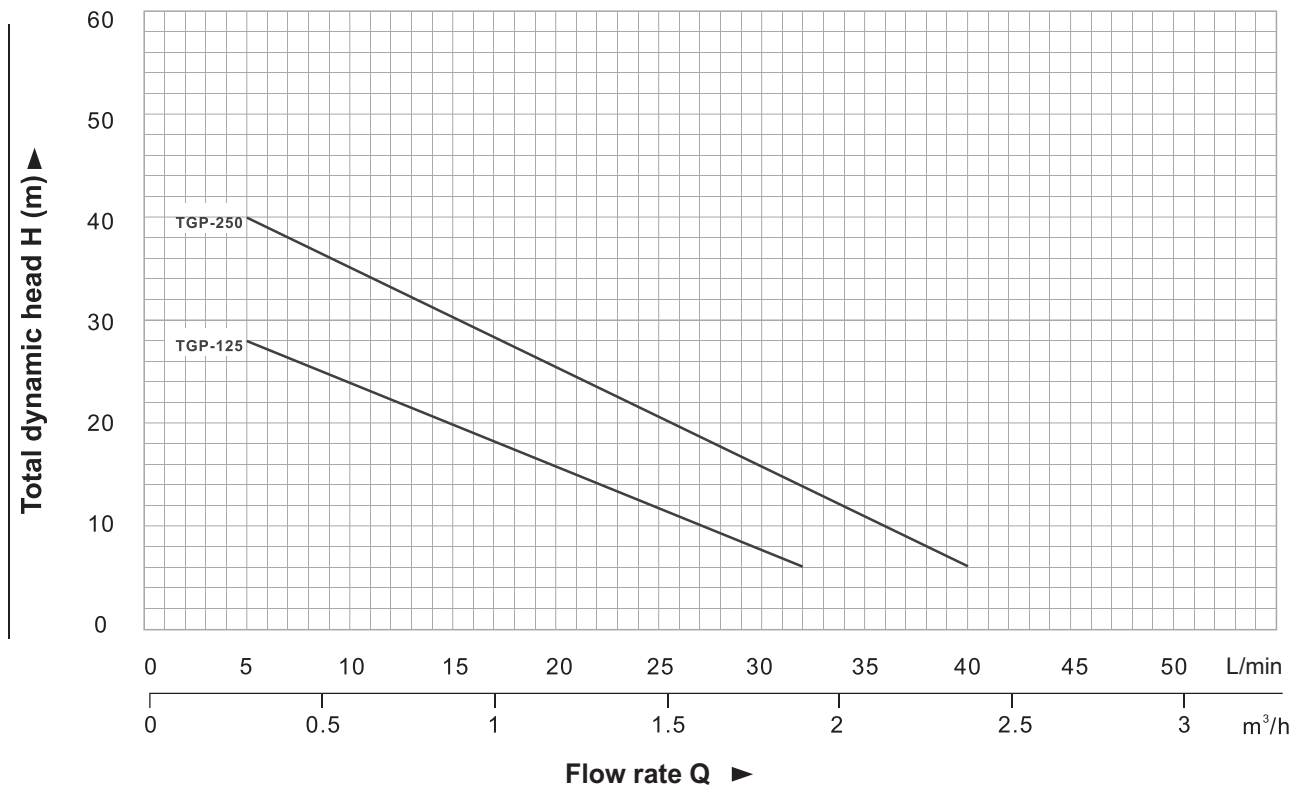
The range of pumps in the **TGP** series satisfies the most operating requirements with features such as:

- high heads with respect to power requirements;
- stable operating curves, with small variations in delivery rates with respect to large variations in the pressure demand;
- high tolerance of the presence of entrained air in the liquid being pumped;

Structural Characteristics

- Cast iron **PUMP BODY**
- **CHECK VALVE**, built into the suction opening
- Aluminium **MOTOR BRACKET**
- BRASS IMPELLER, with radial peripheral blades, floating on the shaft.
- Ceramic and graphite **MECHANICAL SEAL**.
- **MOTOR**: the pumps are coupled directly to an asynchronous, high efficiency **TOP** induction motor of suitable size, which is quiet running closed and externally ventilated, with «IM B3» structural shape, suitable for continuous duty, INSULATION class B.
The thermal cutout relay (motor protector) is incorporated in single phase motors.
Three phase motors require an adequate external motor protector, with connections according to current standards.
- **PROTECTION IP44**
- **CONSTRUCTION AND SAFETY STANDARDS in compliance with IEC.**

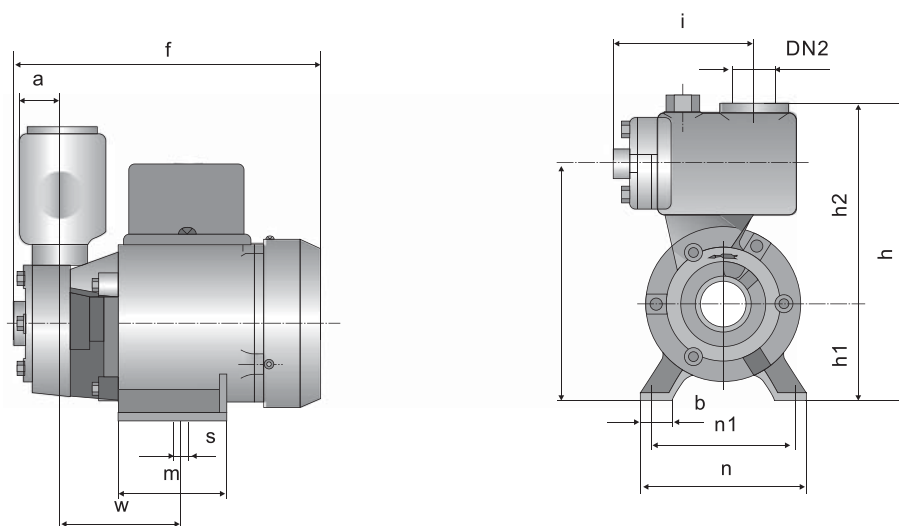
WARRANTY:1 YEAR (according to our general sales conditions)



Performance Data At $N=2900$ L/min

Pump Model		Power		Q(m^3/h)	0	0.3	0.6	0.9	1.2	1.5	1.8	1.92	2.1	2.4
Single phase	Three phase	KW	HP	Q(L/min)	0	5	10	15	20	25	30	32	35	40
TGPm-125	TGP-125	0.30	0.50	H(m)	30	28	24	20	16	11.5	7.5	6		
TGPm-250	TGP-250	0.50	0.70		45	40	35	30.5	25.5	20.5	16	14	11	6

H=Total dynamic head In meters. Q=Flow rate



Pump Model		DN1	DN2	Dimensions (mm)											
Single phase	Three phase			a	f	h	h1	h2	i	m	n	n1	w	b	s
TGPm-125	TGP-125	1"	1"	23	260	240	63	173	156	120	120	100	80	22	7
TGPm-250	TGP-250	1"	1"	23	285	240	63	173	156	120	120	100	80	22	7

PS Series

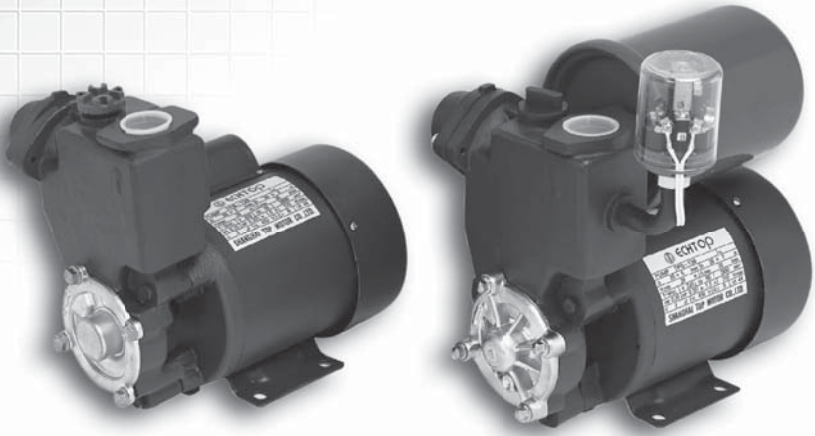
End Suction Peripheral Pumps

Performance Range

Flow rate up to 40l/min (2.4 m³/h)
Dynamic head up to 28 m

Operating Limits

Suction lift up to 9 m
Fluid temperature up to +60°C
Maximum ambient temperature +40°C



Working Principle

The **PS** series consists of SELF-PRIMING PERIPHERAL PUMPS: peripheral because the peripheral edge of the impeller contains numerous radial blades, designed to yield energy to the fluid being pumped and self-priming because the particular design of the pump body ensures the elimination of any air in the suction piping. The recirculation of the pumped fluid induced by the particular shape of the pump body permits the self-priming effect, extracting and completely expelling any air in the suction piping. Since each of the numerous blades help transfer energy, the fluid pressure increases progressively as it passes from the suction opening to the delivery opening, ensuring an even, non-pulsing flow and high pressures with particularly steep curves.

Pump Installation And Applications

These pumps are suitable for handling clean water not containing abrasive particles and fluids which are not chemically aggressive to the pump components.

RELIABLE, COMPACT, ECONOMICAL AND SIMPLE TO USE ,THEY ARE PARTICULARLY SUITABLE FOR DOMESTIC AND INDUSTRIAL APPLICATIONS SUCH AS WATER SUPPLY FOR RECIRCULATION IN AIR CONDITIONERS AND REFRIGERATORS, INDUSTRIAL WATER USES IN GENERAL, AND THE AUTOMATIC DISTRIBUTION OF WATER FROM SURGE TANKS, WATERING GARDENS, LIFTING WATER FROM TANKS OR WELLS DOWN TO 9m DEPTH.

The pump is supplied with check valve on the suction side so that no foot valve is required.
These pumps should be installed in a covered area, protected against the weather.

Performance

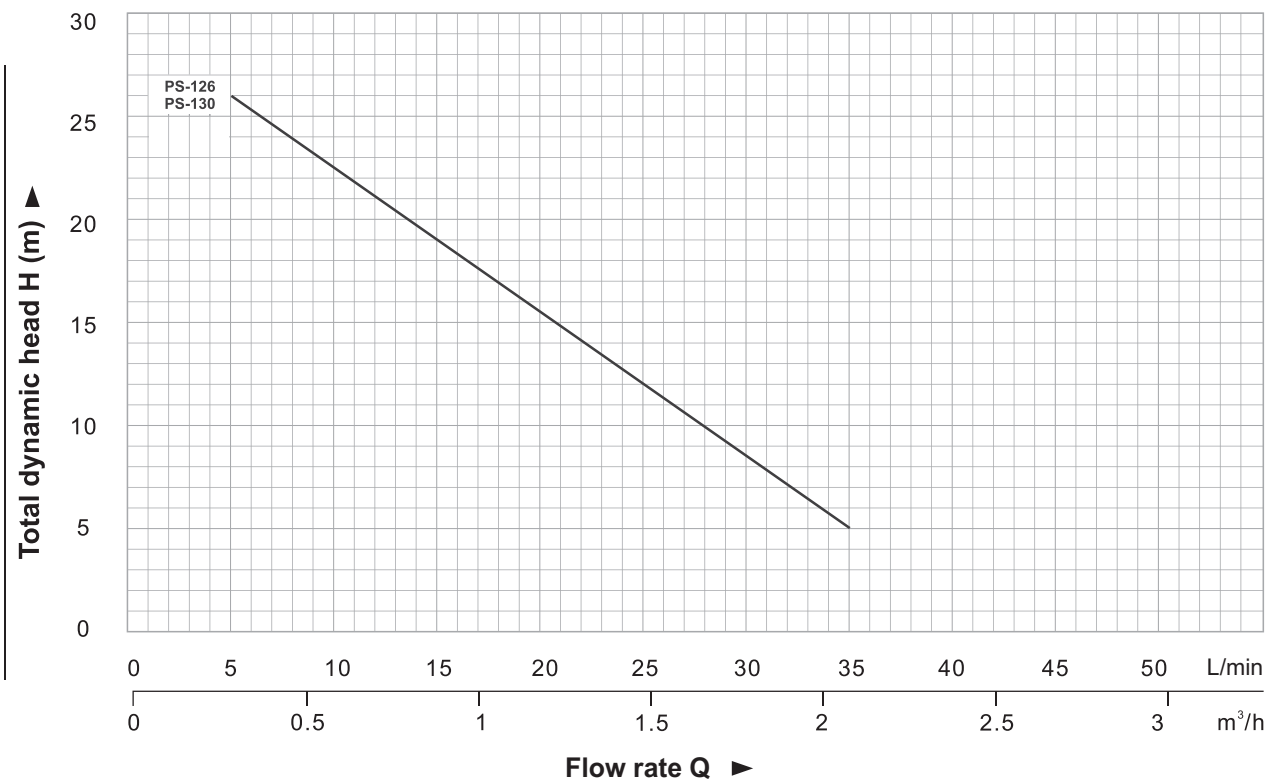
The range of pumps in the **PS** series satisfies the most operating requirements with features such as:

- high heads with respect to power requirements;
- stable operating curves, with small variations in delivery rates with respect to large variations in the pressure demand;
- high tolerance of the presence of entrained air in the liquid being pumped;

Structural Characteristics

- Cast iron **PUMP BODY**
- CHECK VALVE**, built into the suction opening
- Aluminium **MOTOR BRACKET**
- BRASS IMPELLER, with radial peripheral blades, floating on the shaft.
- Ceramic and graphite **MECHANICAL SEAL**.
- MOTOR**: the pumps are coupled directly to an asynchronous, high efficiency **TOP** induction motor of suitable size, which is quiet running closed and externally ventilated, with «IM B3» structural shape, suitable for continuous duty. INSULATION class B.
The thermal cutout relay (motor protector) is incorporated in single phase motors.
Three phase motors require an adequate external motor protector, with connections according to current standards.
- PROTECTION IP44**
- CONSTRUCTION AND SAFETY STANDARDS** in compliance with IEC.

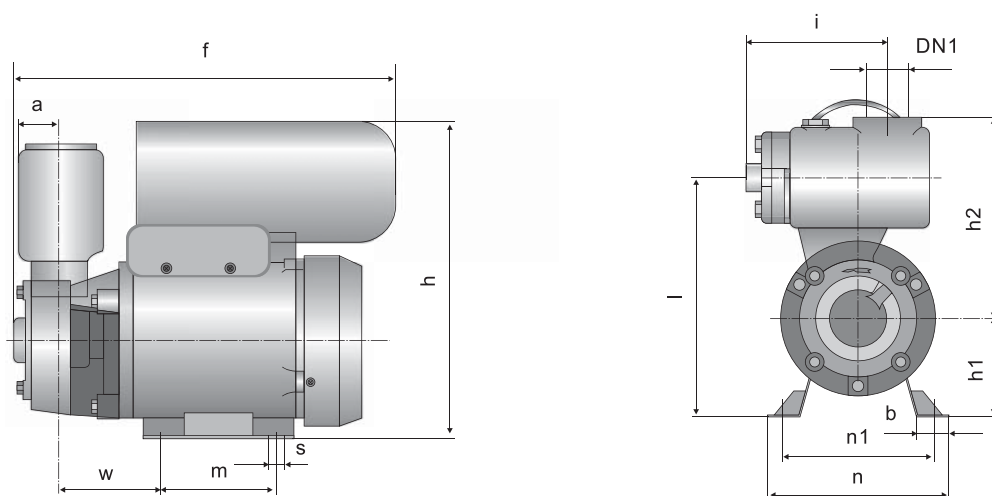
WARRANTY:1 YEAR (according to our general sales conditions)



Performance Data At N=2900 L/min

Pump Model		Power		Q(m³/h)	0	0.3	0.6	0.9	1.2	1.5	1.8	2.1	2.4
Single phase	Three phase	KW	HP	Q(L/min)	0	5	10	15	20	25	30	35	40
PSm-126	PS-126	0.25	0.33	H(m)	28	26	22.5	19	15.5	12	8.5	5	
PSm-130	PS-130	0.25	0.33		28	26	22.5	19	15.5	12	8.5	5	

H=Total dynamic head In meters. Q=Flow rate



Pump Model		DN1	DN2	Dimensions (mm)											
Single phase	Three phase			a	f	h	h1	h2	i	n	n1	M	w	b	s
PSm-126	PS-126	1"	1"	23	286	190	63	127	156	120	100	80	76	22	7
PSm-130	PS-130	1"	1"	23	316	220	63	127	156	120	100	80	76	22	7



CENTRIFUGAL PUMPS



Motor spare part list/Drawing

IEC MOTOR

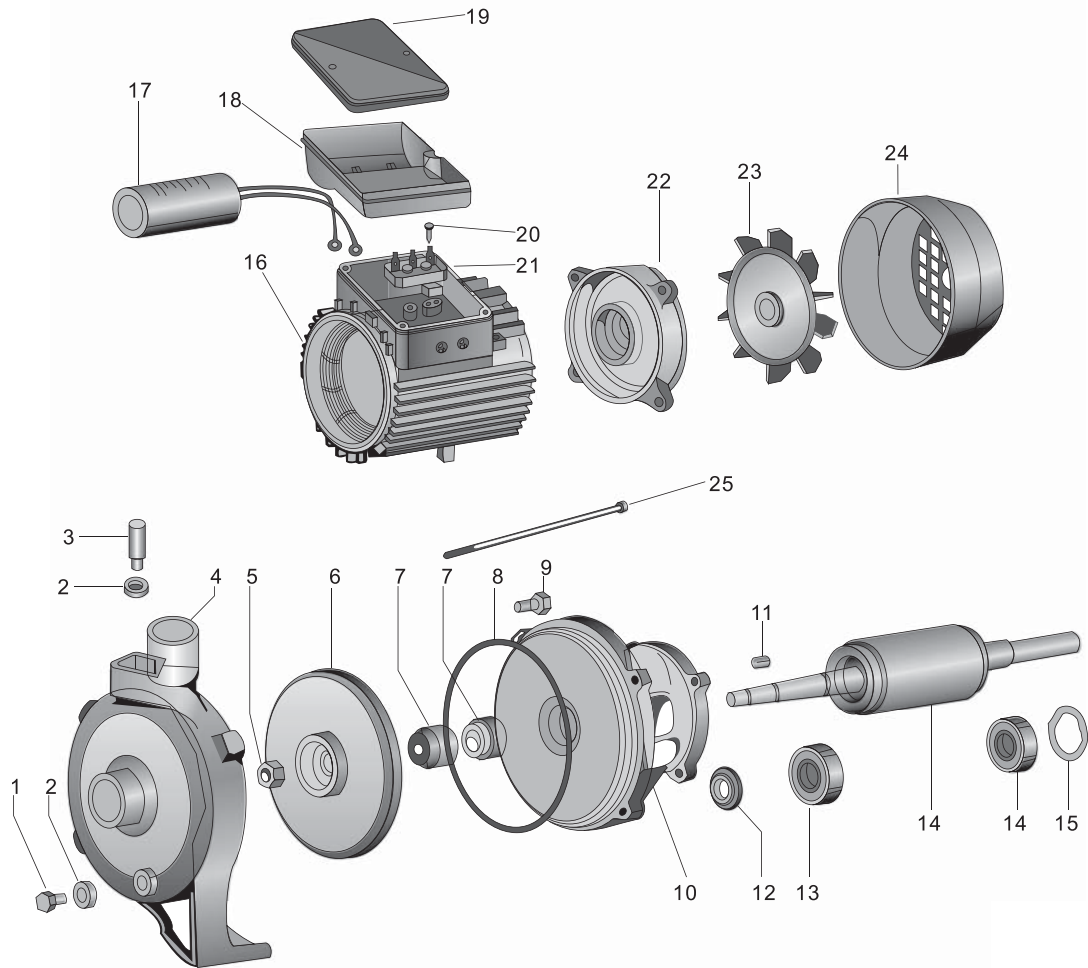
GOST MOTOR

NEMA MOTOR

PUMP

GENERATOR

D.C. MOTOR



N.	Description	N.	Description	N.	Description
1	Discharge plug	11	Key	21	Terminal board
2	Gland	12	Drops guard	22	Rear end shield
3	Charge plug	13	Bearing	23	Fan
4	Casing	14	Rotor shaft	24	Fan cover
5	Impeller check nut	15	Split ring	25	Tie-rod
6	Impeller	16	Casing with wound stator		
7	Mechanical seal	17	Capacitor		
8	Gland OR	18	Terminal box		
9	Pump gripping screw	19	Terminal cover		
10	Pump support	20	Screw		

TCP Series Centrifugal Pumps

Performance Range

Flow rate up to 160 l/min
Dynamic head up to 63 m

Operating Limits

Suction lift up to 7 m
Fluid temperature up to +60°C
Maximum ambient temperature +40°C



Working Principle

The **TCP** series consists of PUMPS with a SINGLE CENTRIFUGAL IMPELLER. These pumps have an essential form and are the result of precise design choices, made to obtain specific performance characteristics. The impeller, mounted on the end of the motor shaft, directly faces the suction opening machined in the pump. The shape of the impeller transmits a radial motion to the fluid from the center outwards, with minimum hydraulic loss. The blades inside the impeller channel transfer energy to the fluid both in the form of pressure and an increase in speed. After leaving the fluid passes to the volute and tapered diffuser which transform part of the kinetic energy into pressure energy.

Pump Installation And Applications

These pumps are suitable for pumping clean water and fluids which are not chemically aggressive to the pump components. **THEY ARE EXTREMELY RELIABLE, SIMPLE TO USE, QUIET AND VIRTUALLY MAINTENANCE-FREE, FINDING MANY USES IN DOMESTIC AND CIVIL APPLICATIONS, AND IN PARTICULAR THE AUTOMATIC DISTRIBUTION OF WATER FROM SMALL AND MEDIUM-SIZE SURGE TANKS, TRANSFERRING WATER, WATERING GARDENS, ECT.**

These pumps should be installed in a covered area, protected against the weather.

Performance

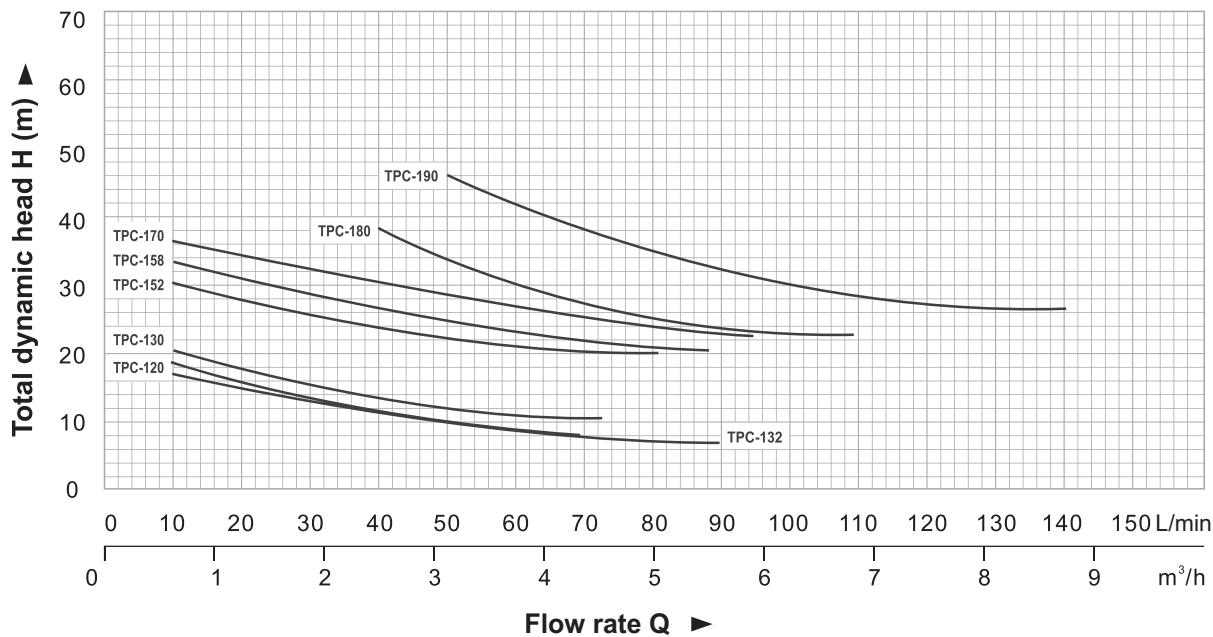
The range of pumps making up the **TCP** series is particularly varied: however when developing the single units, care was taken to aim at standardizing the following features within the series:

- Ample and stable characteristic curves
- Outputs having good absolute values and tendentially flat curves;
- Flat absorption curves at high delivery rates, preventing motor overloading even during prolonged use;
- Good suction capacities both at low and high delivery rates

Structural Characteristics

- Cast iron PUMP BODY**
- Stainless steel **PUMP BODY COVER**, in cast iron on more powerful model.
- BRASS IMPELLER**, centrifugal radial flow type (technopolymer impeller on request)
- Ceramic and graphite **MECHANICAL SEAL**.
- MOTOR**: the pumps are coupled directly to an asynchronous, high efficiency **TOP** induction motor of suitable size, which is quiet running, close and externally ventilated, suitable for continuous duty. **INSULATION** class F(B up to 0.75kw)
The thermal cutout rely(motor protector)is incorporated in single phase motors.
Three phase motors require an adequate external motor protector, with continuous according to current standards.
- PROTECTION IP44**
- CONSTRUCTION AND SAFETY STANDARDS** in compliance with IEC.

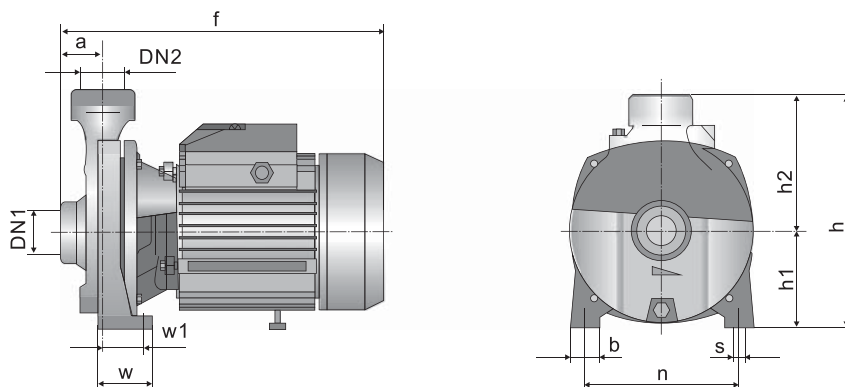
WARRANTY: 1YEAR (according to our general sales conditions).



Performance Data At N=2900 L/min

Pump Model		Power		Q(m³/h)	0	0.6	1.2	1.8	2.4	3	3.6	4.2	4.5	4.8	5.4	6.0	6.6	8.4	
Single phase	Three phase	KW	HP	Q(L/min)	0	10	20	30	40	50	60	70	75	80	90	100	110	140	
TCPm-120	TCP-120	0.3	0.40	H(m)	18	17	15	13	11.5	10	9	8							
TCPm-130	TCP-130	0.37	0.50		22	20	17.5	15	13.5	12	11	10.5	10						
TCPm-132	TCP-132	0.45	0.60		20	19	16	13.5	11	9	8	7.8	7.5	7.3	7				
TCPm-152	TCP-152	0.55	0.75		32	30	27	25	24.5	22	21	20.5	20.1	20					
TCPm-158	TCP-158	0.75	1		35	33	30.5	28	26	24.5	23	21.5	21	20.5	20				
TCPm-170	TCP-170	1.1	1.5		38	36	34	32	30	28.5	27	25.5	24.5	24	22.5	20			
TCPm-180	TCP-180	1.1	1.5		41	—	—	—	38	33.5	30	27	26	25	23	20.5	20		
TCPm-190	TCP-190	1.5	2		46	—	—	—	—	48	41.5	38	36.5	35	32	30	28.5	26	

H=Total dynamic head In meters. Q=Flow rate



Pump Model		Dimensions (mm)													
Single phase	Three phase	DN1	DN2	a	f	h	h1	h2	n	n1	w	w1	b	g	s
TCPm-120	TCP-120	1"	1"	42	259	259	82	129	165	135	52	41	32	10	10
TCPm-130	TCP-130	1"	1"	42	259	259	82	129	165	135	52	41	32	10	10
TCPm-132	TCP-132	1"	1"	42	259	259	82	129	165	135	52	41	32	10	10
TCPm-152	TCP-152	1"	1"	44	298	298	97	145	190	160	58	42.5	33	10	10
TCPm-158	TCP-158	1"	1"	44	298	298	97	145	190	160	58	42.5	33	10	10
TCPm-170	TCP-170	1 1/4"	1"	51	341	341	110	150	206	165	66	44.5	40	12	11
TCPm-180	TCP-180	1 1/4"	1"	51	341	341	110	150	206	165	66	44.5	40	12	11
—	TCP-190	1 1/4"	1"	51.5	338	338	115	175	242	206	55	32.5	36	10	11
TCPm-190	—	1 1/4"	1"	51.5	358	358	115	175	242	206	55	32.5	36	10	11

2TCP Series

Tow-stage Centrifugal Pumps (Back-to-back Impellers)

Performance Range

Flow rate up to 180 l/min (10.4 m³/h)
Dynamic head up to 65 m

Operating Limits

Suction lift up to 7 m
Fluid temperature up to +60°C
Maximum ambient temperature +40°C

High efficiency, quiet running pumps with ample, stable curves. Suitable for continuous heavy duty service in domestic, agricultural or industrial applications.



Working Principle

The **2TCP** series consists of CENTRIFUGAL PUMPS with TWO BACK-TO-BACK IMPELLERS, working in series.

The first impeller directly faces the suction opening machined in suction body. The second impeller is housed back-to-back to the first in the delivery body. The shape of the impellers transmits a radial motion to the fluid form of pressure and an increase in speed. After leaving the first impeller the fluid passes to the volute in the suction body connected to the second impeller suction chamber where it receives an equal energy increase. After leaving the second impeller the fluid enters the volute of the delivery body and the tapered diffuser which transform part of the kinetic into pressure energy. The axial hydraulic thrusts are perfectly balanced by the back-to-back installation of the two impellers on the same shaft, thus avoiding any overload on the motor bearings.

Pump Installation And Applications

These pumps are suitable for pumping clean water and fluid which are not chemically aggressive to the pump components. These pumps are an obvious choice wherever there is a need for high head values hard to reach with single impeller pumps, all thanks to the following features: extremely high outputs, suitable for continuous and heavy-duty use and particularly adaptable to a wide range of particular applications.

2TCP SERIES PUMPS ARE EXTREMELY RELIABLE, SIMPLE TO USE, QUIET AND VIRTUALLY MAINTENANCE-FREE, FINDING MANY USES IN DOMESTIC, CIVIL AND INDUSTRIAL APPLICATIONS, THE AUTOMATIC DISTRIBUTION OF WATER FROM SURGE TANKS, WATERING GARDENS, INCREASING THE MAINS SUPPLY PRESSURE, FEEDING BOILERS, COOLING SYSTEMS AND FIRE-FIGHTING UNITS.

These pumps should be installed in a covered area, protected against the weather.

Performance

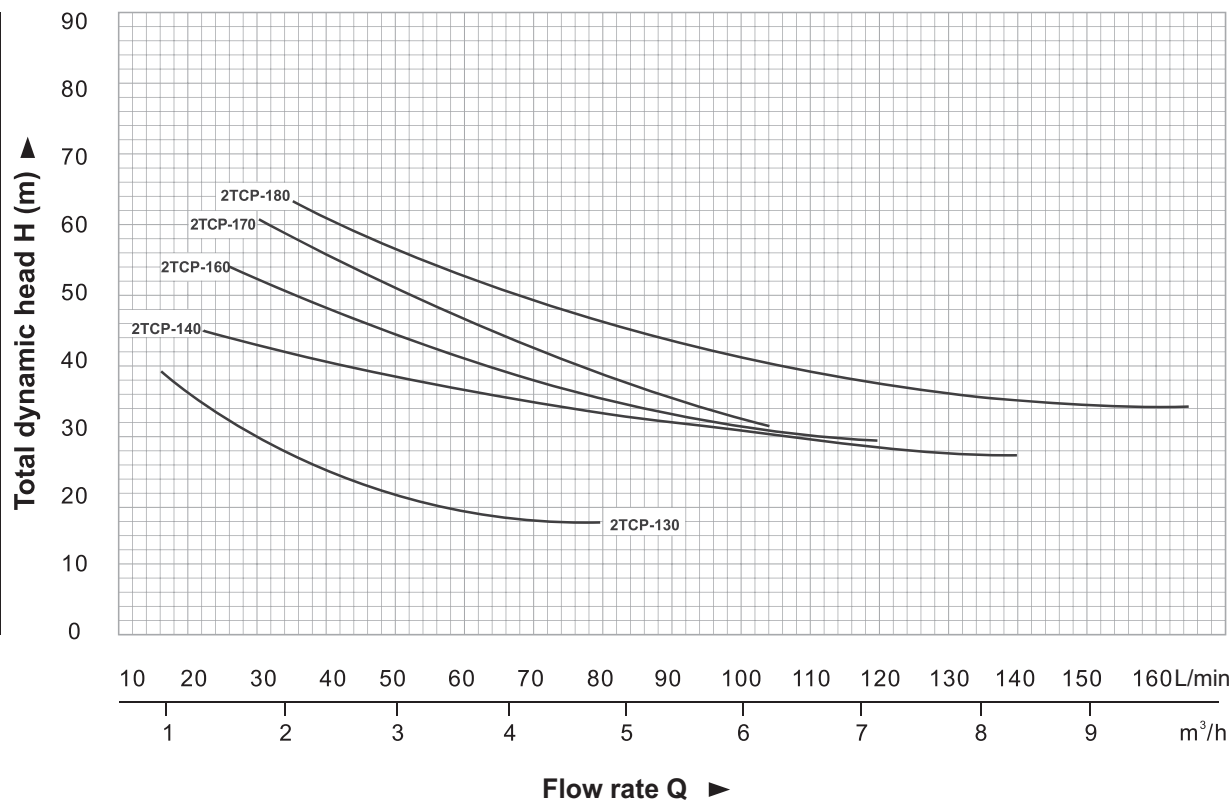
The wide range of pumps making up the **2TCP** series has the following features :

- particularly ample and stable characteristic curves (high ratio between minimum and maximum head values);
- outputs having high absolute values and tendentially flat curves;
- flat absorption curves at high delivery rates, preventing motor overloading even during prolonged use;
- good suction capacities both at low and high delivery rates

Structural Characteristics

- Cast iron **SUCTION BODY**
- Cast iron **DELIVERY BODY**
- BRASS IMPELLER**, centrifugal radial flow type.
- Ceramic and graphite **MECHANICAL SEAL**.
- MOTOR**: the pumps are coupled directly to an asynchronous, high efficiency **TOP** induction motor of suitable size, which is quiet running, closed and externally ventilated, suitable for continuous duty. **INSULATION** class F. (B up to 0.75kw)
The thermal cutout relay (motor protector) is incorporated in single phase motors up to 1.5kw.
The remaining single phase motors and all three phase motors require an adequate external motor protector, with connections according to current standards.
- PROTECTION IP44**
- CONSTRUCTION AND SAFETY STANDARDS** in compliance with IEC.

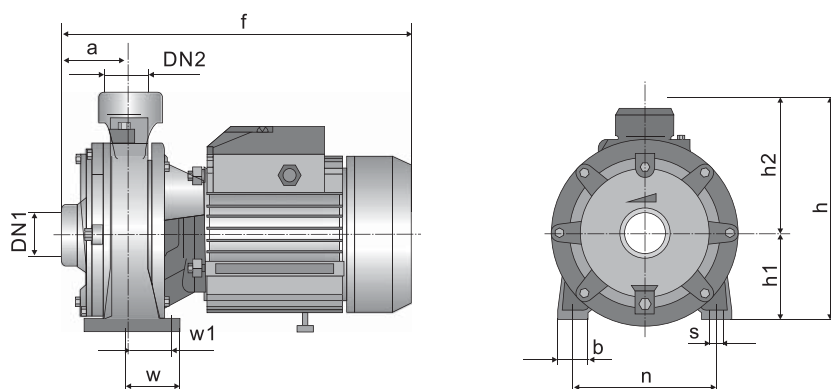
WARRANTY: 1 YEAR (according to our general to our general sales conditions)



Performance Data At N=2900 L/min

Pump Model		Power		Q(m³/h)	0	0.96	1.32	1.56	1.8	2.1	3.0	3.6	4.2	4.8	5.4	6.3	7.2	8.4	9.9
Single phase	Three phase	KW	HP	Q(L/min)	0	16	22	26	30	35	50	60	70	80	90	105	120	140	165
2TCPm-130	2TCP-130	0.75	1	H(m)	40	38	33.5	31	28.5	26	20	17.5	16.5	16					
2TCPm-140	2TCP-140	1.1	1.5		46	—	44	43	42	40.5	37	35	33.5	32	31	29	28		
2TCPm-160	2TCP-160	1.5	2		56	—	—	55	51	49	43.5	40	37	33.5	32	29.5	27.5	26	
2TCPm-170	2TCP-170	1.5	2		64	—	—	—	60	57	50	45.5	41	38	34.5	30			
2TCPm-180	2TCP-180	2.2	3		66	—	—	—	—	63	56	52	48.5	45	42.5	39	36	34	33

H=Total dynamic head In meters. Q=Flow rate



Pump Model		DN1	DN2	Dimensions (mm)											
Single phase	Three phase			a	f	h	h1	h2	n	n1	w	w1	w2	b	s
2TCPm-130	2TCP-130	1 1/4"	1"	78	335	213	89	124	180	145	60	28	15	35	10
2TCPm-140	2TCP-140	1 1/4"	1"	84	379	263	110	153	225	185	78	32	26	40	11
—	2TCP-160	1 1/4"	1"	84	379	263	110	153	225	185	78	32	26	40	11
2TCPm-160	—	1 1/4"	1"	84	399	263	110	153	225	185	78	32	26	40	11
2TCP m-170	2TCP-170	1 1/2"	1 1/4"	86	381	263	110	153	225	185	78	32	26	40	11
2TCPm-180	—	1 1/2"	1 1/4"	86	401	263	110	153	225	185	78	32	26	40	11
—	2TCP-180	1 1/2"	1 1/4"	86	381	263	110	153	225	185	78	32	26	40	11

TGA Series

Centrifugal Pumps With Open Impeller

Performance Range

Flow rate up to 250 l/min (15 m³/h)
Dynamic head up to 20 m

Operating Limits

Suction lift up to 7 m
Fluid temperature up to +60°C
Maximum ambient temperature +40°C



Working Principle

TGA pumps are CENTRIFUGAL PUMPS WITH AN OPEN IMPELLER. The impeller, mounted on the end of the motor shaft, consists of a back disk and blade. The design uses the pump body to delimit the blade channel, rather than a front counterdisk, as with closed impeller pumps. The blade channel therefore consists of a rotating part (back disk and blades) and of fixed part (pump body); this form of construction avoids the possibility of clogging even when handling fluids with fairly large amounts of impurities. The fluid enters the rotating blade channel via the suction opening, which faces the center of the impeller. From here the fluid is accelerated by the impeller from the center outward, acquiring energy from the blades in the form of pressure and an increase in speed. When the fluid leaves the impeller it passes around the pump volute and is guided out of the top delivery opening, under pressure, by the diffuser.

Pump Installation And Applications

TGA pumps are recommended for pumping water and fluid which are not chemically aggressive to the pump components. The open impeller design enables fairly large amounts of impurities to be pumped without danger of clogging.

TGA PUMPS ARE VERY DEPENDABLE, SIMPLE TO USE, AND VIRTUALLY MAINTENANCE-FREE, THEY SUIT A WIDE RANGE OF INDUSTRIAL APPLICATIONS, WATERING GARDENS AND TRANSFERRING WATER FROM CANALS, RIVERS, TANKS, TUBS, ETC.

These pumps should be installed in a covered area, protected against the weather.

Performance

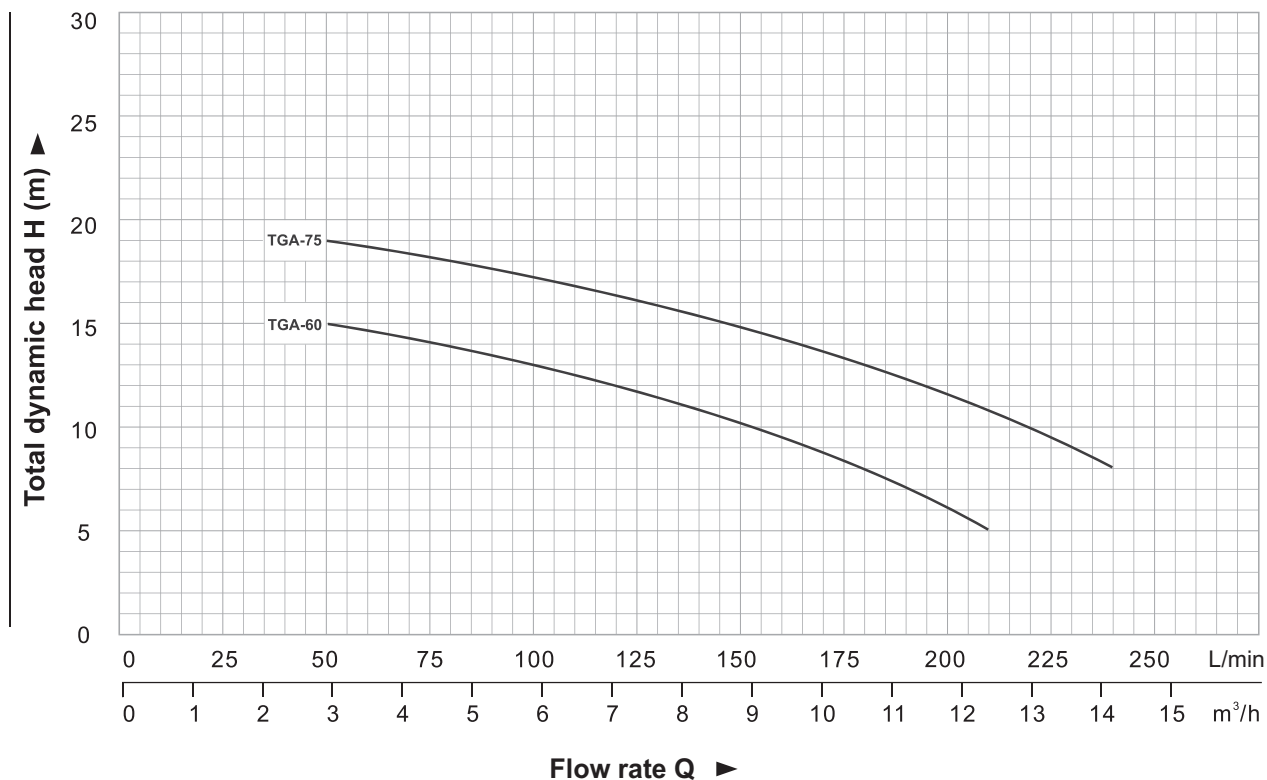
Special attention was given, when designing performance levels for the TGA range, to typical requirements for pumps having to perform the functions described above. The result is a series of pumps characterized by:

- especially wide and flat characteristic curves, making it possible to handle large quantities of water.
- especially wide high absolute values over much of the characteristic curve (efficiency curves that tend to be flat);
- flat absorption curves at high delivery rates, to prevent motor overloading even during prolonged use at high rates.

Structural Characteristics

- Cast iron **PUMP BODY**
- Stainless steel **PUMP BODY COVER** serving also as mechanical seal housing.
- Open **BRASS IMPELLER**.
- Ceramic and graphite **MECHANICAL SEAL**.
- MOTOR**: the pumps are coupled directly to an asynchronous, high efficiency **TOP** induction motor of suitable size, which is quiet running, closed and externally ventilated, suitable for continuous duty. **INSULATION** class B.
The thermal cutout relay (motor protector) is incorporated in single phase motors.
Three phase motors and an adequate external motor protector, and connections are to be according to current standards.
- PROTECTION IP44**
- CONSTRUCTION AND SAFETY STANDARDS** in compliance with **IEC**.

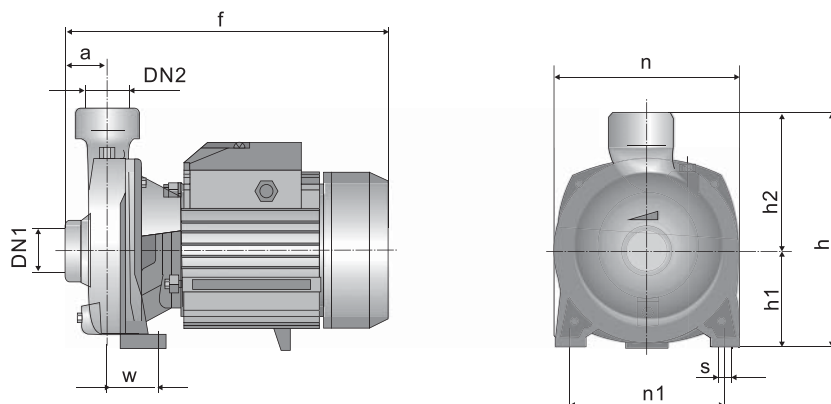
WARRANTY: 1 YEAR (according to our general to our general sales conditions)



Performance Data At N=2900 L/min

Pump Model		Power		Q(m ³ /h)	0	3.0	4.5	6.0	7.5	9.0	10.5	12.0	12.6	14.4
Single phase	Three phase	KW	HP	Q(L/min)	0	50	75	100	125	150	175	200	210	240
TGAm-60	TGA-60	0.6	0.85	H(m)	16	15	14	13	11.5	10	8	6	5	
TGAm-75	TGA-75	0.75	1.0		20	19	16.5	17.5	16.5	15	13.5	11.5	10.5	8

H=Total dynamic head In meters. Q=Flow rate



Pump Model		DN1	DN2	Dimensions (mm)								
Single phase	Three phase			a	f	h	h1	n	n1	w	b	s
TGAm-60	TGA-60	1 1/2"	1 1/2"	33	299	237	97	190	160	53	45	10
TGAm-75	TGA-75	1 1/2"	1 1/2"	33	299	237	97	190	160	53	45	10

TNF Series Centrifugal Pumps

Performance Range

Flow rate up to 1200 l/min (72 m³/h)
Dynamic head up to 22 m

Operating Limits

Suction lift up to 7 m
Fluid temperature up to +60°C
Maximum ambient
temperature +40°C



Working Principle

TNF pumps are CENTRIFUGAL SINGLE-IMPELLER PUMPS designed to achieve high delivery rates with low to average heads. The impeller, mounted on the end of the drive shaft, directly faces the suction opening machined in the pump body. The shape of the impeller is designed, with minimal hydraulic losses, to impart radial motion from the center outwards. During this operation the blades inside the impeller channel transfer energy to the fluid both in the form of pressure and increased speed. The fluid that leaves the impeller is conveyed into the volute which, together with the cone diffuser, transforms part of the kinetic energy into pressure energy.

Pump Installation And Applications

TNF pumps are specifically designed for domestic, agricultural and industrial use. Their performance levels, mechanical design and structural materials are explicitly selected for these uses. The shapes of their volutes and impellers, with ample passages, make them suitable for pumping even fairly dirty water.

THEY CAN ACHIEVE HIGH DELIVERY RATES UNDER CONTINUOUS OR HEAVY DUTY, MAKING THEM ADVANTAGEOUS FOR RAIN AND GRAVITY IRRIGATION, FOR PUMPING WATER FROM LAKES, RIVERS, WELLS AND FOR A WIDE VARIETY OF INDUSTRIAL USES WHERE HIGH DELIVERY, RATES MUST BE ACHIEVED AT LOW TO AVERAGE HEADS.

These pumps should be installed in a covered area, protected against the weather.

Performance

TNF pumps come in a wide and well-diversified range.

Characteristic curves for the different models are distributed in a rational and complementary manner, making it easy to select the model most suited to each specific user requirement.

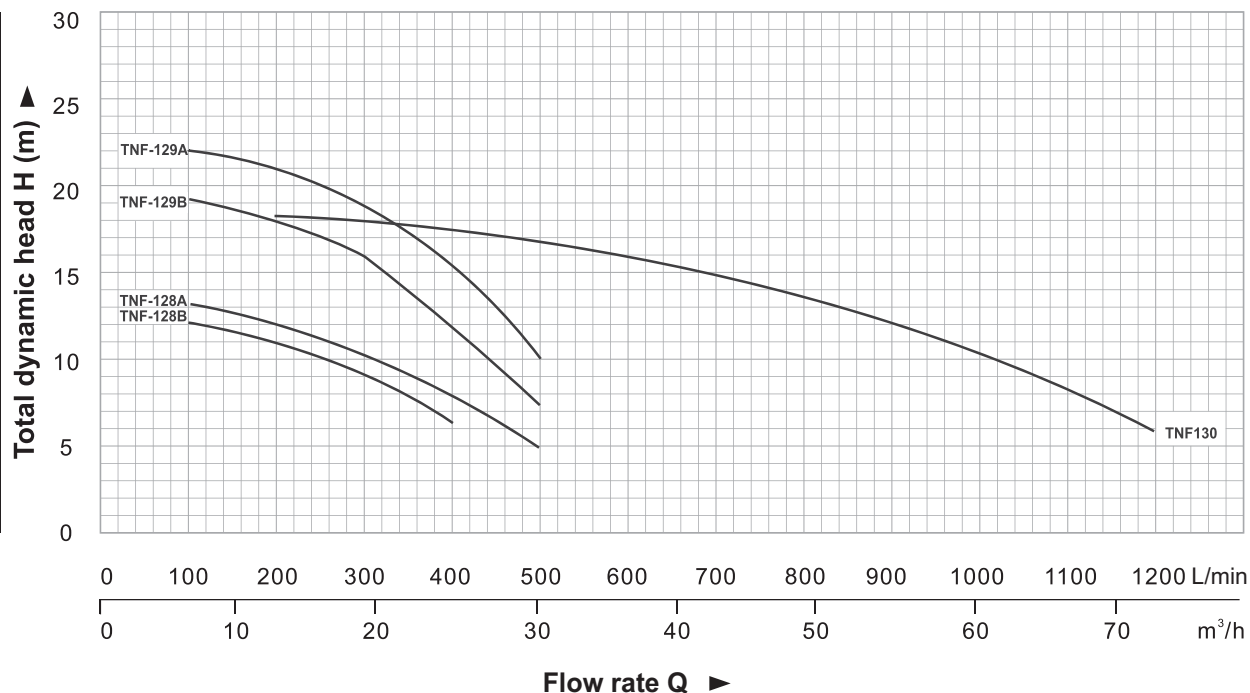
Special design efforts were made to unify the entire **TNF** series, which is distinctive for:

- especially ample characteristic curve;
- no surging phenomena even when pumping near minimum forecast delivery rates;
- performance characterized by high absolute value over the majority of the characteristic curve;
- flat absorption curves at high delivery rates, to prevent motor overloading even during prolonged use;
- good suction capacities at both low and high delivery rates.

Structural Characteristics

- Cast iron PUMP BODY;**
- BRASS IMPELLER** centrifugal radial flow type.
- Ceramic and graphite **MECHANICAL SEAL.**
- MOTOR:** the pumps are coupled directly to an asynchronous, high efficiency **TOP** induction motor of suitable size, which is quiet running, closed and externally ventilated, suitable for continuous duty. **INSULATION CLASS F**(B up to 0.75kW).
The thermal cutout relay (motor protector) is incorporated in single phase motors.
Three phase motors require an adequate external motor protector, and connections are to be according to current standards.
- PROTECTION IP44**
- CONSTRUCTION AND SAFETY STANDARDS** in compliance with IEC.

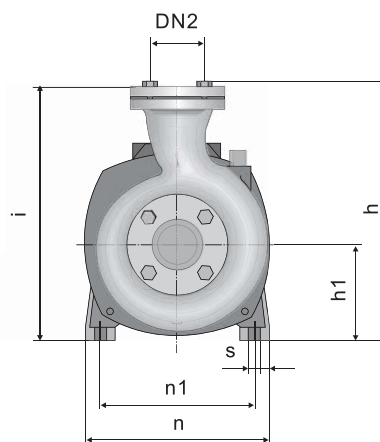
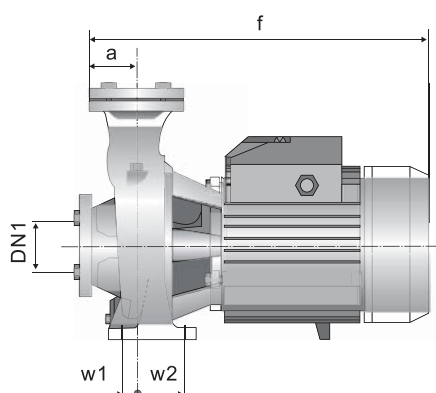
WARRANTY: 1 YEAR (according to our general to our general sales conditions)



Performance Data At N=2900 L/min

Pump Model		Power		Q(m³/h)	0	6	9	12	15	18	21	24	24	30	36	60	72	
Single phase	Three phase	KW	HP	Q(L/min)	0	100	150	200	250	300	350	400	450	500	600	1000	1200	
TNFm-128B	TNF-128B	0.60	0.85	H(m)	12.5	12	11.7	11	10.5	9.2	8	6.5						
TNFm-128A	TNF-128A	0.75	1		13.7	13.2	13	12	11.6	10.5	9.2	8	6.5	5				
TNFm-129B	TNF-129B	1.1	1.5		20	19.2	19	18	17	16	14	12	9.5	7.5				
TNFm-129A	TNF-129A	1.5	2		22.5	22	21.5	21	20	18.5	16.5	14.5	12.5	10				
TNFm130	TNF130	2.2	3		18.5	-	-	18.1	18	17.8	17.5	17.2	17	16.8	16	10.5	6	

H=Total dynamic head In meters. Q=Flow rate



Pump Model		DN1	DN2	Dimensions (mm)									
Single phase	Three phase			a	f	h	h1	i	n	n1	w	w1	s
TNFm128B	TNF128B	2"	2"	65	344	271	97	264	196	160	8	60	12
TNFm128B	TNF128B	2"	2"	65	344	271	97	264	196	160	8	60	12
TNFm129B	TNF129B	2"	2"	56	372	276	110	269	206	160	1	62	11
TNFm129A	TNF129A	2"	2"	56	372	276	110	269	206	160	1	62	11
TNFm130	TNF130	3"	3"	71	390	320	120	313	240	190	6	66	13

THF Series Centrifugal Pumps

Performance Range

Flow rate up to 360 l/min (21 m³/h)
Dynamic head up to 30 m

Operating Limits

Suction lift up to 7 m
Fluid temperature up to +60°C
Maximum ambient temperature +40°C



Working Principle

THF pumps are CENTRIFUGAL SINGLE-IMPELLER PUMPS designed to achieve high delivery rates with low to average heads. The impeller, mounted on the end of the drive shaft, directly faces the suction opening machined in the pump body. The shape of the impeller is designed, with minimal hydraulic losses, to impart radial motion from the center outwards. During this operation the blades inside the impeller channel transfer energy to the fluid both in the form of pressure and increased speed. The fluid that leaves the impeller is conveyed into the volute which, together with the cone diffuser, transforms part of the kinetic energy into pressure energy.

Pump Installation And Applications

THF pumps are specifically designed for domestic, agricultural and industrial use.

Their performance levels, mechanical design and structural materials are explicitly selected for these uses. The shapes of their volutes and impellers, with ample passages, make them suitable for pumping even fairly dirty water.

THEY CAN ACHIEVE HIGH DELIVERY RATES UNDER CONTINUOUS OR HEAVY DUTY, MAKING THEM ADVANTAGEOUS FOR RAIN AND GRAVITY IRRIGATION, FOR PUMPING WATER FROM LAKES, RIVERS, WELLS AND FOR A WIDE VARIETY OF INDUSTRIAL USES WHERE HIGH DELIVERY, RATES MUST BE ACHIEVED AT LOW TO AVERAGE HEADS.

The pumps should be installed in a covered area, protected against the weather.

Performance

THF pumps come in a wide and well-diversified range.

Characteristic curves for the different models are distributed in a rational and complementary manner, making it easy to select the model most suited to each specific user requirement.

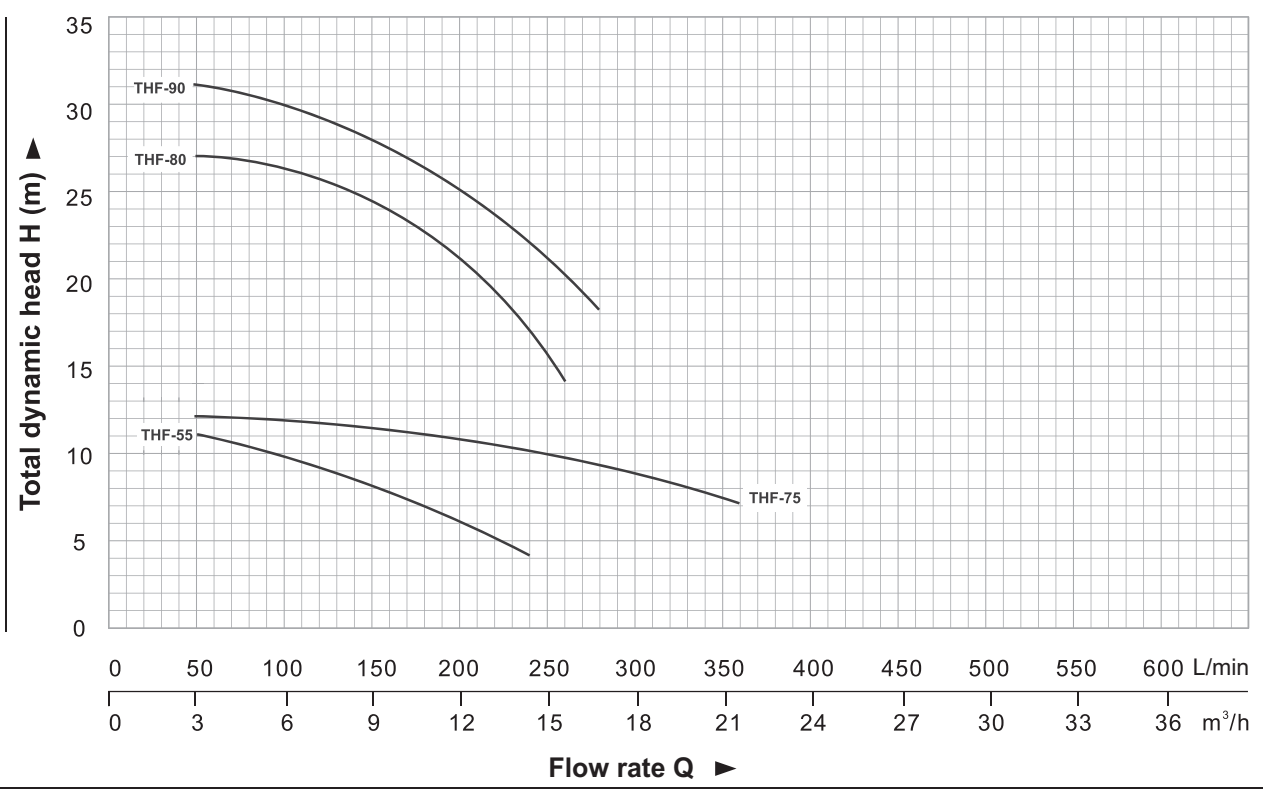
Special design efforts were made to unify the entire **THF** series, which is distinctive for:

- especially ample characteristic curve;
- no surging phenomena even when pumping near minimum forecast delivery rates;
- performance characterized by high absolute value over the majority of the characteristic curve;
- flat absorption curves at high delivery rates, to prevent motor overloading even during prolonged use;
- good suction capacities at both low and high delivery rates.

Structural Characteristics

- Cast iron **PUMP BODY**;
- BRASS IMPELLER centrifugal radial flow type.
- Ceramic and graphite **MECHANICAL SEAL**.
- MOTOR**: the pumps are coupled directly to an asynchronous, high efficiency **TOP** induction motor of suitable size, which is quiet running, closed and externally ventilated, suitable for continuous duty. INSULATION CLASS F(B up to 0.75kW).
The thermal cutout relay(motor protector)is incorporated in single phase motors.
Three phase motors require an adequate external motor protector, and connections are to be according to current standards.
- PROTECTION IP44**
- CONSTRUCTION AND SAFETY STANDARDS** in compliance with IEC.

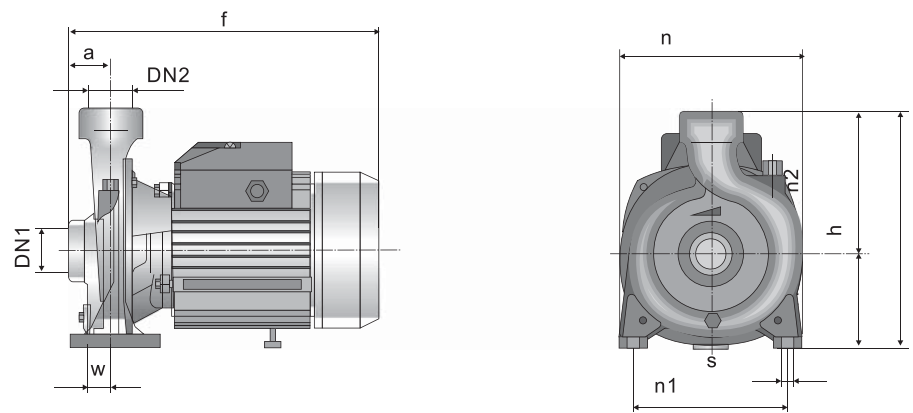
WARRANTY: 1 YEAR (according to our general to our general sales conditions)



P Performance Data At N=2900 L/min

Pump Model		Power		Q(m³/h)	0	3	6	9	12	14.4	15.6	16.8	18	21	21.6
Single phase	Three phase	KW	HP	Q(L/min)	0	50	100	150	200	240	260	280	300	350	360
THFm-55	THF-55	0.55	0.75	H(m)	12	11	10	8	6	4					
THFm-75	THF-75	0.75	1.85		13.5	12	11.7	11.5	11	10	9.5	9	8.5	7.5	7
THFm-80	THF-80	1.1	1.5		28	27	26	24.5	21	17	14				
THFm-90	THF-90	1.5	2.0		32	31	29.5	27.5	25	22	20	18			

H=Total dynamic head In meters. Q=Flow rate



Pump Model		Dimensions (mm)										
Single phase	Three phase	DN1	DN2	a	f	h	h1	h2	n	n1	w	s
THFm-55	THF-55	2"	2"	45	276	200	82	118	165	135	5	10
THFm-75	THF-75	2"	2"	45	300	225	92	133	190	160	8	10
THFm-80	THF-80	3"	3"	48.5	347	269	114	155	216	171	15	12
THFm-90	-	3"	3"	48.5	367	269	114	155	216	171	15	12
-	THF-90	3"	3"	48.5	347	269	114	155	216	171	15	12

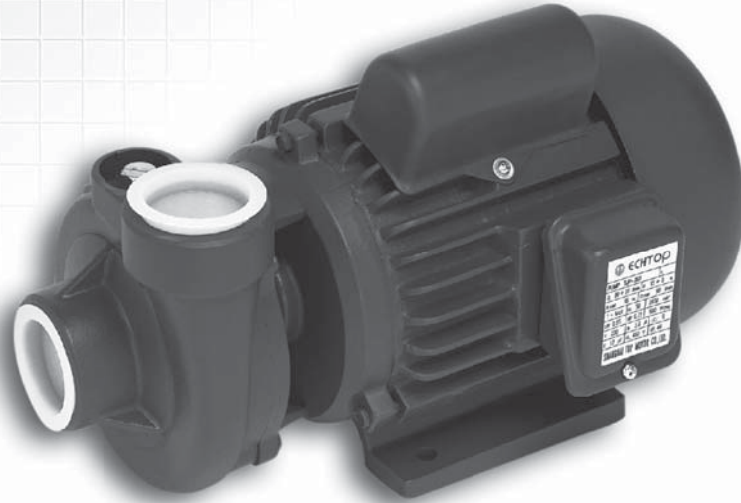
TPU Series Centrifugal Pumps

Performance Range

Flow rate up to 700 l/min (42 m³/h)
Dynamic head up to 24 m

Operating Limits

Suction lift up to 7 m
Fluid temperature up to +60°C
Maximum ambient temperature +40°C



Working Principle

TPU pumps are CENTRIFUGAL SINGLE-IMPELLER PUMPS designed to achieve high delivery rates with low to average heads. The impeller, mounted on the end of the drive shaft, directly faces the suction opening machined in the pump body. The shape of the impeller is designed, with minimal hydraulic losses, to impart radial motion from the center outwards. During this operation the blades inside the impeller channel transfer energy to the fluid both in the form of pressure and increased speed. The fluid that leaves the impeller is conveyed into the volute which, together with the cone diffuser, transforms part of the kinetic energy into pressure energy.

Pump Installation And Applications

TPU pumps are specifically designed for domestic, agricultural and industrial use.

Their performance levels, mechanical design and structural materials are explicitly selected for these uses. The shapes of their volutes and impellers, with ample passages, make them suitable for pumping even fairly dirty water.

THEY CAN ACHIEVE HIGH DELIVERY RATES UNDER CONTINUOUS OR HEAVY DUTY, MAKING THEM ADVANTAGEOUS FOR RAIN AND GRAVITY IRRIGATION, FOR PUMPING WATER FROM LAKES, RIVERS, WELLS AND FOR A WIDE VARIETY OF INDUSTRIAL USES WHERE HIGH DELIVERY, RATES MUST BE ACHIEVED AT LOW TO AVERAGE HEADS.

These pumps should be installed in a covered area, protected against the weather.

Performance

TPU pumps come in a wide and well-diversified range.

Characteristic curves for the different models are distributed in a rational and complementary manner, making it easy to select the model most suited to each specific user requirement.

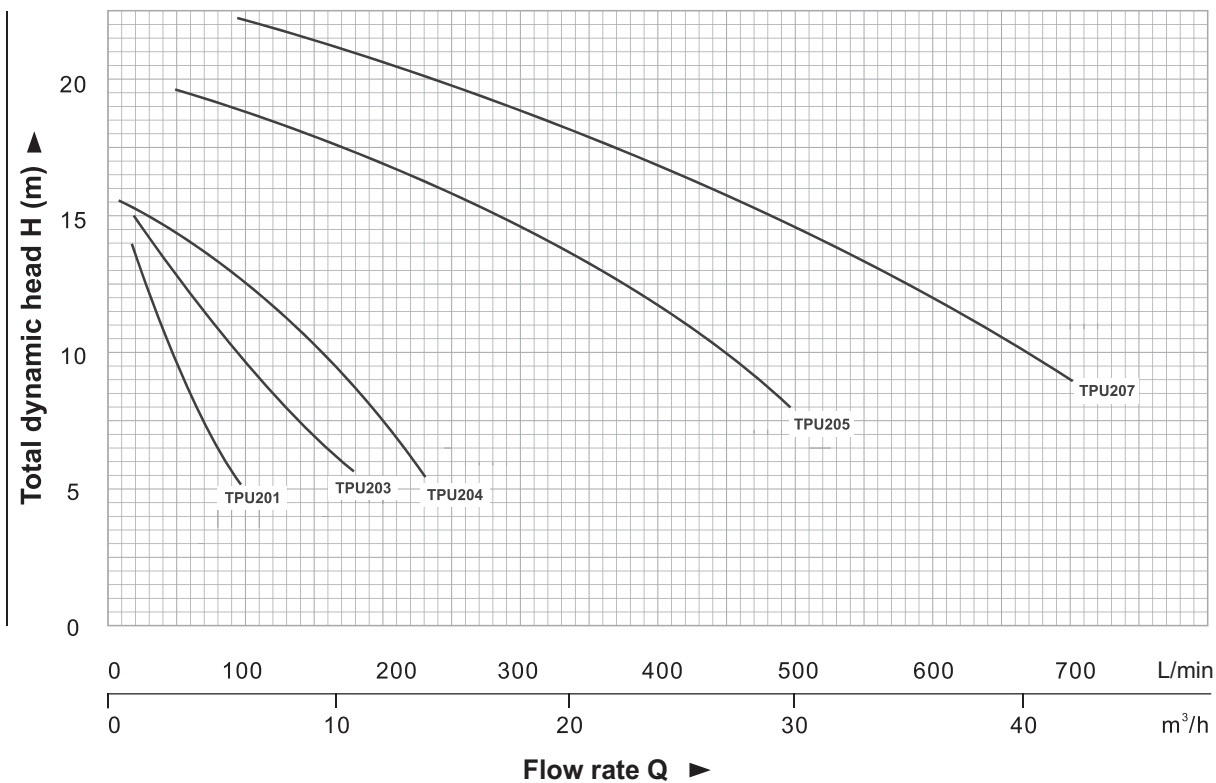
Special design efforts were made to unify the entire **TPU** series, which is distinctive for:

- especially ample characteristic curve;
- no surging phenomena even when pumping near minimum forecast delivery rates;
- performance characterized by high absolute value over the majority of the characteristic curve;
- flat absorption curves at high delivery rates, to prevent motor overloading even during prolonged use;
- good suction capacities at both low and high delivery rates.

Structural Characteristics

- Cast iron **PUMP BODY**;
- BRASS IMPELLER** centrifugal radial flow type.
- Ceramic and graphite **MECHANICAL SEAL**.
- MOTOR**: the pumps are coupled directly to an asynchronous, high efficiency **TOP** induction motor of suitable size, which is quiet running, closed and externally ventilated, suitable for continuous duty. **INSULATION CLASS F**(B up to 0.75kW).
The thermal cutout relay(motor protector)is incorporated in single phase motors.
Three phase motors require an adequate external motor protector, and connections are to be according to current standards.
- PROTECTION IP44**
- CONSTRUCTION AND SAFETY STANDARDS** in compliance with IEC.

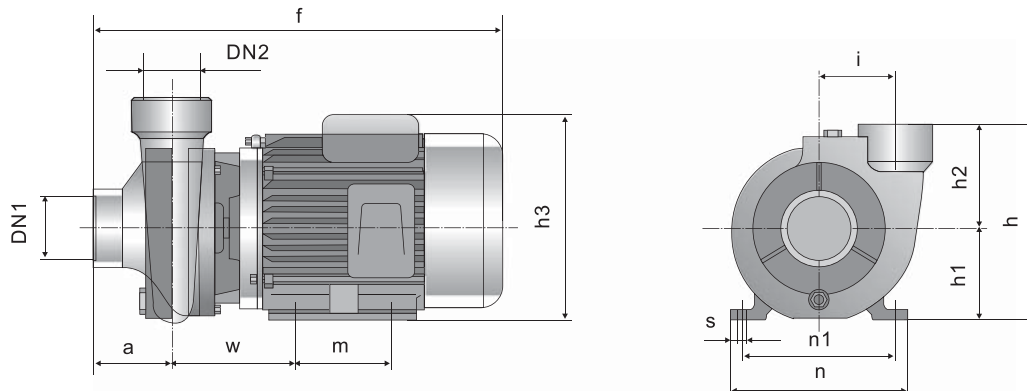
WARRANTY: 1 YEAR (according to our general to our general sales conditions)



Performance Data At N=2900 L/min

Pump Model		Power		Q(m³/h)	0	1.2	3	6	9	15	18	24	30	42
Single phase	Three phase	KW	HP	Q(L/min)	0	20	50	100	150	200	300	400	500	700
TPU 201	TPU 201	0.37	0.5	H(m)	15	14	10	5						
TPU 203	TPU 203	0.55	0.75		15	14	13	9.5	7					
TPU 204	TPU 204	0.75	1.0		16	15	14.5	12.5	10	7.5				
TPU 205	TPU 205	1.5	2.0		20	-	19.5	18.5	17.5	15.5	14.5	11.5	8	
TPU 207	TPU 207	2.2	3		24	-	-	22	21.5	20.5	18.5	16.5	14.5	9

H=Total dynamic head in meters. Q=Flow rate



Pump Model		DN1	DN2	Dimensions (mm)											
Single phase	Three phase			a	f	h	h1	h2	h3	i	m	n	n1	w	s
TPU 201	TPU 201	1"	1"	45	305	164	80	84	160	30	75	150	125	85	10
TPU 203	TPU 203	1.5"	1.5"	50	335	168	80	88	160	40	75	150	125	85	10
TPU 204	TPU 204	1.5"	1.5"	50	365	177	92	85	190	43	100	170	142	95	11
TPU 205	TPU 205	2"	2"	70	395	193	92	100	190	63	100	170	142	105	11
TPU 207	TPU 207	3"	3"	80	435	240	100	140	220	75	125	180	150	105	12

TDK Series

Centrifugal Pumps With Open Impeller

Performance Range

Flow rate up to 550 l/min (33 m³/h)
Dynamic head up to 20 m

Operating Limits

Suction lift up to 7 m
Fluid temperature up to +60°C
Maximum ambient temperature +40°C



Working Principle

TDK pumps are CENTRIFUGAL PUMPS WITH AN OPEN IMPELLER. The impeller, mounted on the end of the motor shaft, consists of a back disk and blade. The design uses the pump body to delimit the blade channel, rather than a front counterdisk, as with closed impeller pumps. The blade channel therefore consists of a rotating part(back disk and blades) and of fixed part(pump body);this form of construction avoids the possibility of clogging even when handling fluids with fairly large amounts of impurities. The fluid enters the rotating blade channel via the suction opening, which faces the center of the impeller. From here the fluid is accelerated by the impeller from the center outward, acquiring energy from the blades in the form of pressure and an increase in speed. When the fluid leaves the impeller it passes around the pump volute and is guided out of the top delivery opening, under pressure, by the diffuser.

Pump Installation And Applications

TDK pumps are recommended for pumping water and fluid which are not chemically aggressive to the pump components. The open impeller design enables fairly large amounts of impurities to be pumped without danger of clogging.
TGA PUMPS ARE VERY DEPENDABLE, SIMPLE TO USE, AND VIRTUALLY MAINTENANCE-FREE, THEY SUIT A WIDE RANGE OF INDUSTRIAL APPLICATIONS, WATERING GARDENS AND TRANSFERRING WATER FROM CANALS, RIVERS, TANKS, TUBS, ETC.
These pumps should be installed in a covered area, protected against the weather.

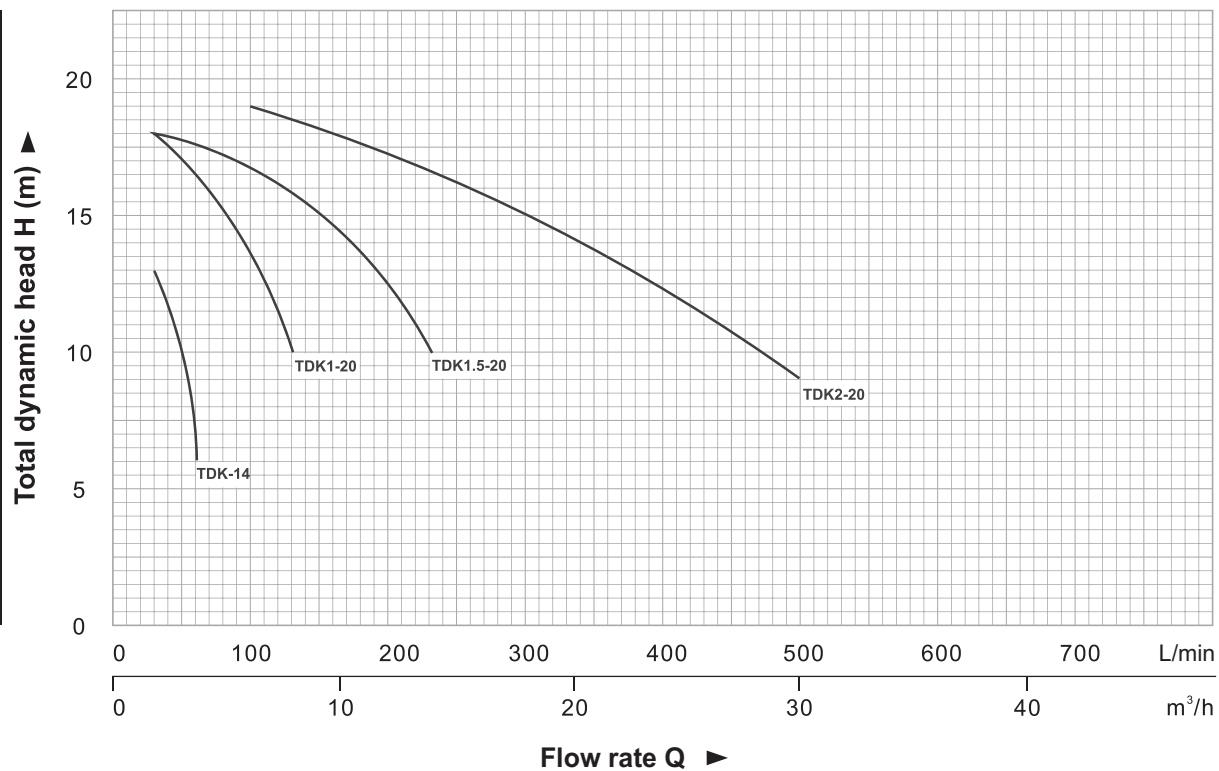
Performance

Special attention was given, when designing performance levels for the **TDK** range, to typical requirements for pumps having to perform the functions described above. The result is a series of pumps characterized by:
-especially wide and flat characteristic curves, making it possible to handle large quantities of water.
-especially wide high absolute values over much of the characteristic curve(efficiency curves that tend to be flat);
-flat absorption curves at high delivery rates, to prevent motor overloading even during prolonged use at high rates.

Structural Characteristics

- Cast iron **PUMP BODY**
- Stainless steel **PUMP BODY COVER** serving also as mechanical seal housing.
- Open **BRASS IMPELLER**.
- Ceramic and graphite **MECHANICAL SEAL**.
- MOTOR**: the pumps are coupled directly to an asynchronous, high efficiency **TOP** induction motor of suitable size, which is quiet running, closed and externally ventilated, suitable for continuous duty, **INSULATION** class B.
The thermal cutout relay(motor protector)is incorporated in single phase motors .
Three phase motors and an adequate external motor protector, and connections are to be according to current standards. To current standards.
- PROTECTION IP44**
- CONSTRUCTION AND SAFETY STANDARDS** in compliance with **IEC**.

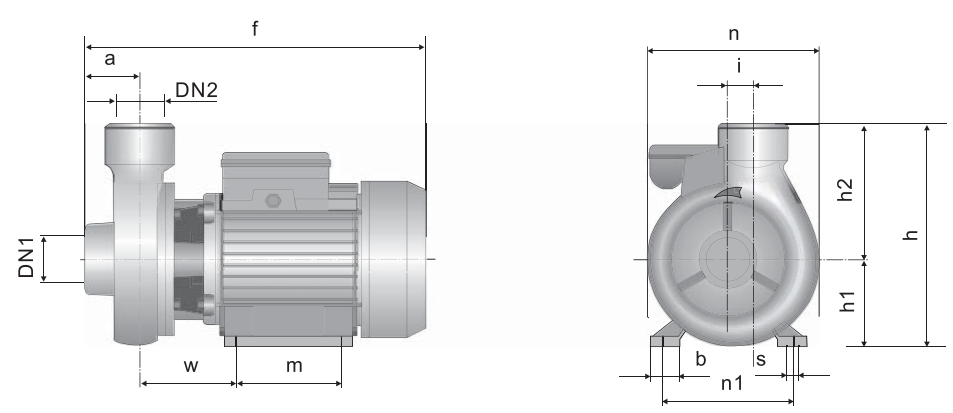
WARRANTY:1YEAR (according to our general to our general sales conditions)



Performance Data At N=2900 L/min

Pump Model		Power		Q(m³/h)	0	1.8	2.4	3.3	6	9	12	18	24	30
Single phase	Three phase	KW	HP	Q(L/min)	0	30	40	55	100	150	200	300	400	500
TDKm-14	TDK-14	0.37	0.5	H(m)	15	13	11.5	6						
TDKm1-20	TDK1-20	0.55	0.75		19	18	17.5	16.5	13.5	10				
TDKm1.5-20	TDK1.5-20	0.75	1.0		19	18	17.8	17.5	16.5	15	12.5			
TDKm2-20	TDK2-20	1.5	2.0		20	—	—	—	19	18	16.8	15	12	9

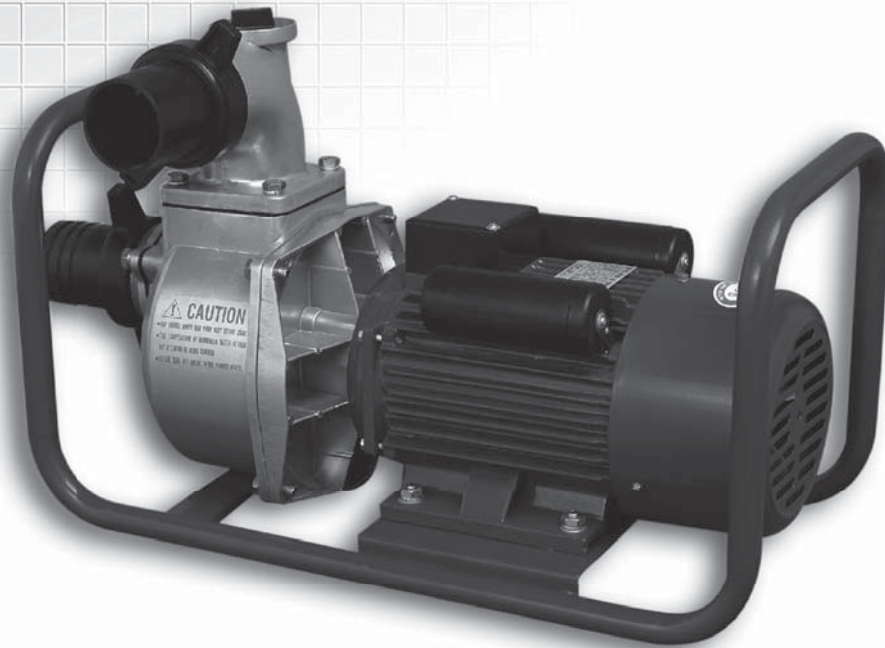
H=Total dynamic head In meters. Q=Flow rate



Pump Model		DN1	DN2	Dimensions (mm)								
Single phase	Three phase			a	f	h	h1	n	n1	w	b	s
TDKm-14	TDK-14	1"	1"	40	270	163	63	110	100	75	22	7
TDKm1-20	TDK1-20	1"	1"	40	305	186	71	115	112	85	22	7
TDKm1.5-20	TDK1.5-20	1.5"	1.5"	40	305	186	71	115	112	85	22	7
TDKm2-20	TDK2-20	2"	2"	60	350	210	80	130	125	95	35	9

DZD Series

Water Pumps



Aluminum alloy high pressure casting large fuel for hours of continuous operation compact in structure and lightweight.

T echnical Data

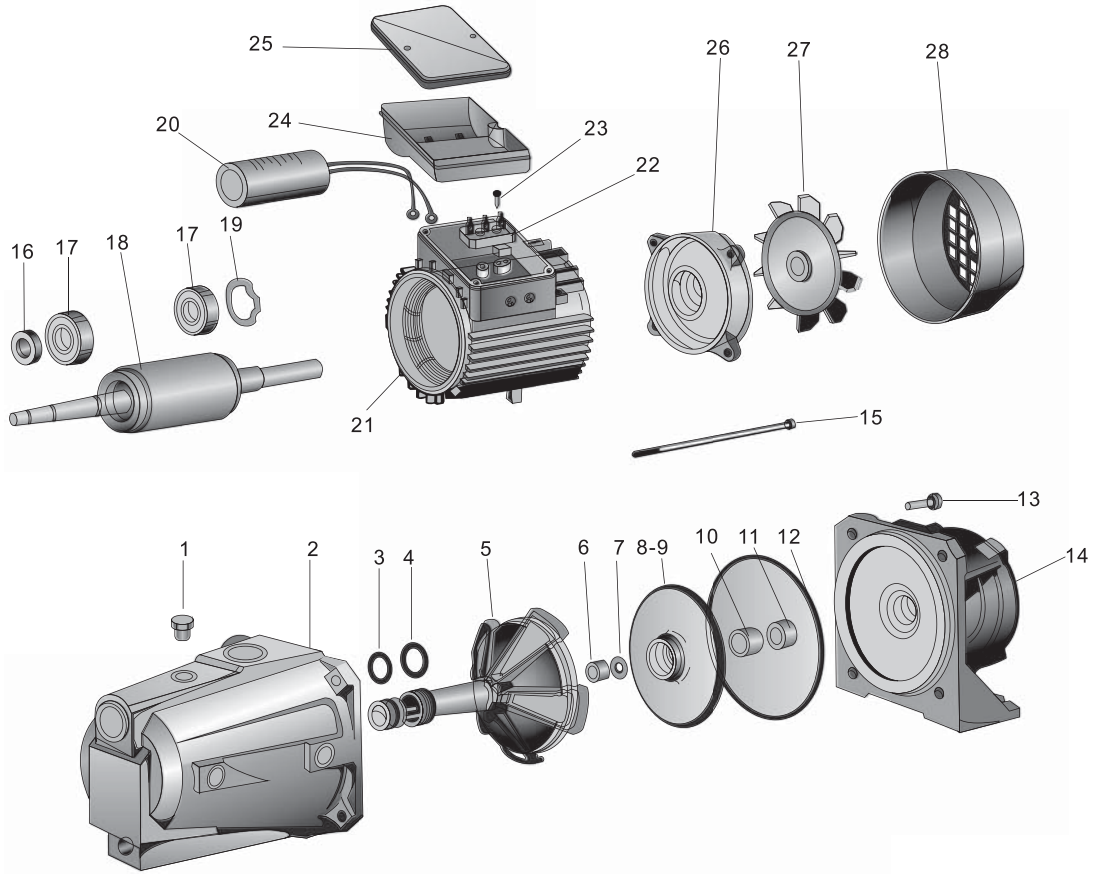
Model	Water Pump				Sets		
	Inlet and Outlet Inside di MM(IN)	Pump Lift (m)	Suction Height (m)	Max. Pump Output (L/min)	Model	Dimintions (cm)	Net Weight (kg)
DZD-50C	50×50(2"×2")	20	8	400	YC90L-2(2HP)	55×32×42	33
DZD-80C	80×80(3"×3")	22	8	750	YC100L-2(3HP)	63×35×45	41



“JET” PUMPS



Motor Spare Part List/Drawing



N.	Description	N.	Description	N.	Description
1	Plug	11	Fixed seal member	21	Casing with wound stator
2	Casing	12	Ring gland	22	Terminal board
3	Nozzle OR	13	Screw	23	Screw
4	Venturi OR	14	Pump support	24	Terminal box
5	Venturi OR	15	Tie-rod	25	Terminal cover
6	Impeller check nut	16	Drops guard	26	Rear end shield
7	Washer	17	Bearing	27	Fan
8	Impeller	18	Rotor shaft	28	Fan cover
9	Impeller	19	Split ring		
10	Rolling seal member	20	Capacitor		

JET Series

Self-priming “JET” Pumps

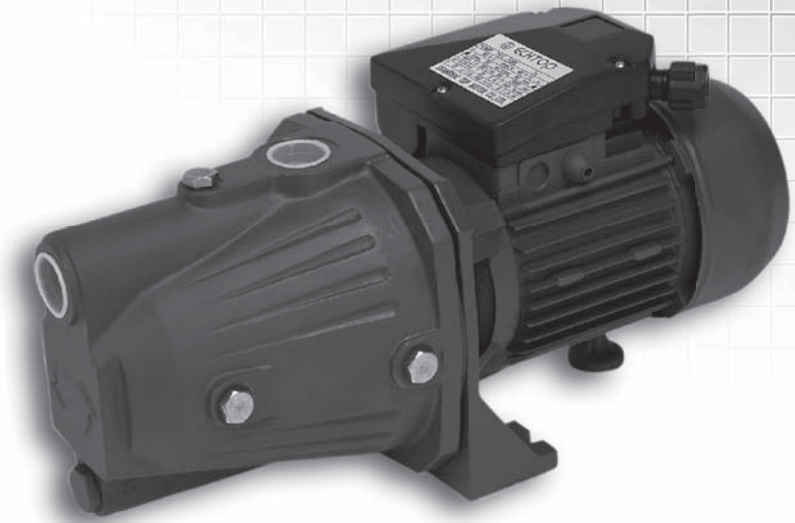
Performance Range

Flow rate up to 60 l/min
Dynamic head up to 47 m

Operating Limits

Suction lift up to 9 m
Fluid temperature up to +40°C
Maximum ambient temperature +40°C

A new and improved self-priming pump design, increased hydraulic efficiency, to current standards



Working Principle

The **JET** series are SELF-PRIMING CENTRIFUGAL PUMPS. Self-priming is achieved using an ejector, housed in the pump body. The total delivery produced by the closed centrifugal impeller is sent only partly to the delivery opening. The remaining water is recirculated through the ejector, which is connected to the suction chamber and generates the necessary vacuum of self-priming the pump. When first starting the pump is started up the water, without bothering to fill the suction piping and eliminate any air pockets. When the pump is started up the water in the pump body circulates through the ejector and transfers any air from the suction to delivery chamber, expelling it through the delivery piping. At the same time the vacuum thus generated causes water to rise in the suction piping, thus self-priming the pump. Since the self-priming system operates continuously, these pumps are practically unaffected even by the presence of large amounts of entrained air in the fluid being pumped. The **JET** series, based on past **TOP** experience, is designed with particular attention to hydraulic efficiency and choice of materials. The result is a compact, quiet high performance pump.

Pump Installation And Applications

These pumps are suitable for pumping clean water and fluids which are not chemically aggressive to pump components. **THEY ARE EXTREMELY RELIABLE, ECONOMICAL AND SIMPLE TO USE, BEING PARTICULARLY SUITABLE FOR DOMESTIC APPLICATIONS SUCH AS THE AUTOMATIC DISTRIBUTION OF WATER FROM SMALL AND MEDIUM-SIZE TANKS, WATERING GARDENS, ECT.** These pumps should be installed in a covered area, protected against the weather.

Performance

The wide range of pump in the **JET** series satisfied the most varied requirements with features such as:

- high heads with respect to power required;
- flat operating and power absorption curves, giving moderate curve variations with respect to large variations in delivery demand;
- high tolerance of the presence of entrained air in the fluid to be pumped;
- suction capacity up to 9 meters

Structural Characteristics

- Cast iron **PUMP BODY**
- Stainless steel **PUMP BODY COVER** serving also as mechanical seal housing.
- Technopolymer **EJECTOR UNIT**(approved for drinking water)
- Centrifugal radial flow **IMPELLER in BRASS** or technopolymer (approved for drinking water)on request.
- Ceramic and graphite **MECHANICAL SEAL**.
- MOTOR**: the pumps are coupled directly to an asynchronous, high efficient **TOP** induction motor of suitable size, which is quiet running, closed and externally ventilated, suitable for continuous duty. **INSULATION class B.**
The thermal cutout relay(motor protector) is incorporated in all single phase motors.
- Three phase motors require an adequate external motor protector, with connection according to current standards.
- PROTECTION IP44**
- CONSTRUCTION AND SAFETY STANDARDS in compliance with IEC.**

WARRANTY: 1YEAR (according to our general sales conditions)

IEC MOTOR

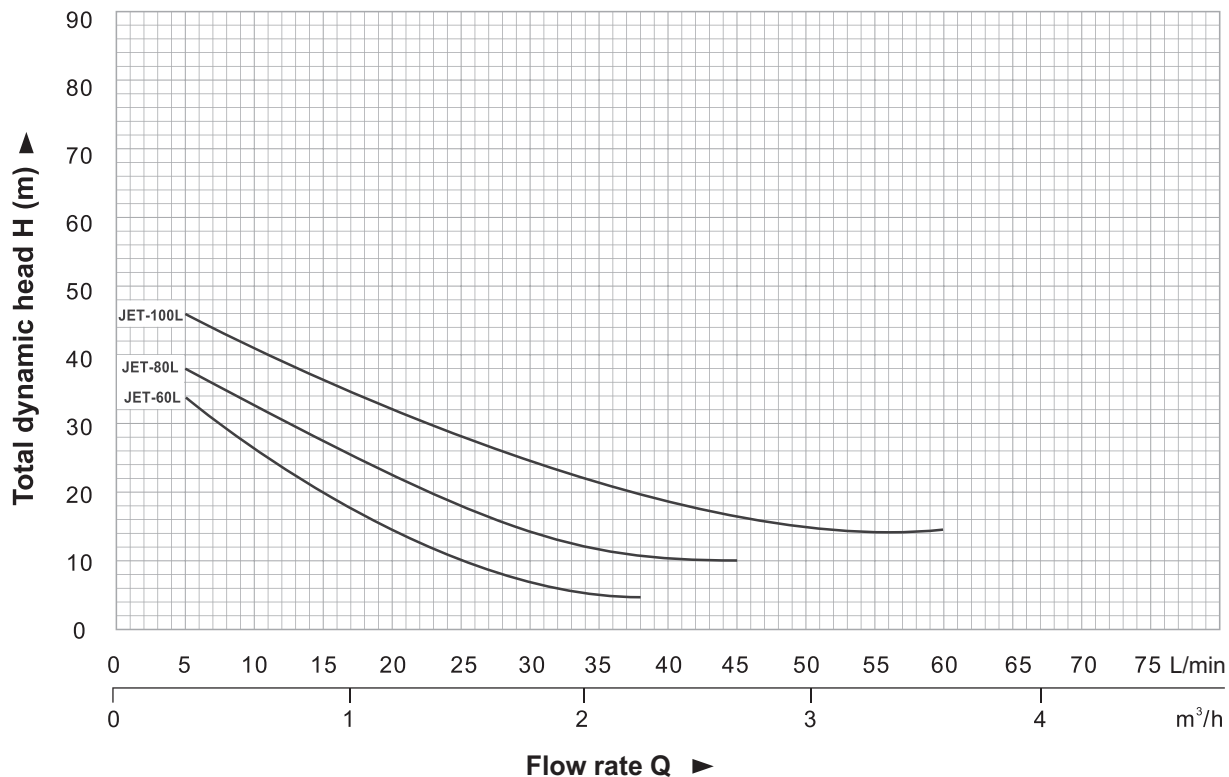
GOST MOTOR

NEMA MOTOR

PUMP

GENERATOR

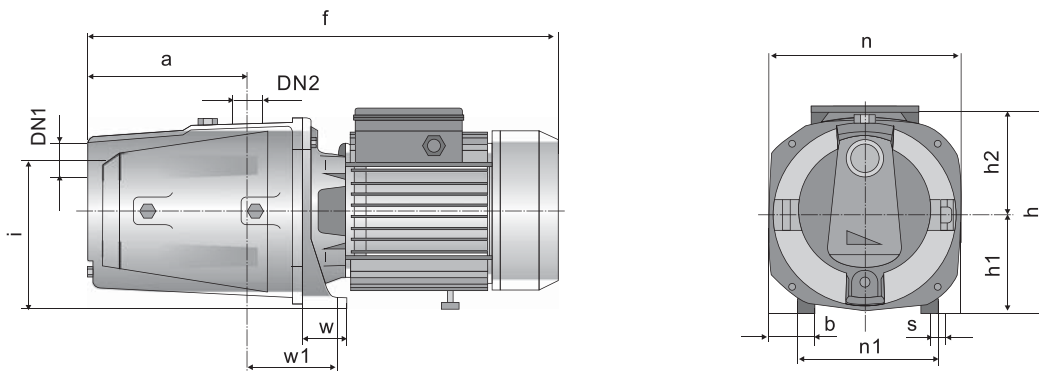
D.C. MOTOR



Performance Data At N=2900 L/min

Pump Model		Power		Q(m^3/h)	0	0.3	0.6	0.9	1.2	1.5	1.8	2.1	2.28	2.7	3.6
Single phase	Three phase	KW	HP	Q(L/min)	0	5	10	15	20	25	30	35	38	45	60
JETm-60L	JET-60L	0.4	0.50	H(m)	35	34	26.5	20	15	11	8	6	5		
JETm-80L	JET-80L	0.55	0.70		40	38	32	28	21.5	18	15	13	11.5	10	
JETm-100L	JET-100L	0.75	0.85		50	46	40	35	30.5	27	32.5	21	19	17	15

H=Total dynamic head In meters. Q=Flow rate



Pump Model		DN1	DN2	Dimensions (mm)												
Single phase	Three phase			a	f	h	h1	h2	i	n	n1	w	w1	b	g	s
JETm-60L	JET-60L	1"	1"	115	369	171	82	79	127	158	124	45	95	35	10	10
JETm-80L	JET-80L	1"	1"	115	369	171	82	79	127	158	124	45	95	35	10	10
JETm-100L	JET-100L	1"	1"	115	376	171	82	79	127	158	124	45	95	35	10	10

JETw Series Self-priming “JET” Pumps

IEC MOTOR

GOST MOTOR

NEMA MOTOR

PUMP

GENERATOR

D.C. MOTOR

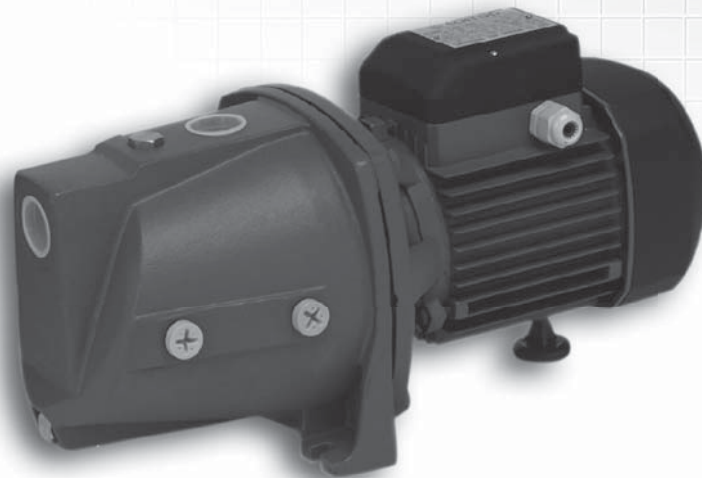
Performance Range

Flow rate up to 75 l/min
Dynamic head up to 70 m

Operating Limits

Suction lift up to 9 m
Fluid temperature up to +40°C
Maximum ambient temperature +40°C

A new and improved self-priming pump design, increased hydraulic efficiency, to current standards



Working Principle

The **JETw** series are SELF-PRIMING CENTRIFUGAL PUMPS. Self-priming is achieved using an ejector, housed in the pump body. The total delivery produced by the closed centrifugal impeller is sent only partly to the delivery opening. The remaining water is recirculated through the ejector, which is connected to the suction chamber and generates the necessary vacuum of self-prime the pump. When first starting the pump fill the pump body with water, without bothering to fill the suction piping and eliminate any air pockets. When the pump is started up the water in the pump body circulates through the ejector and transfers any air from the suction to delivery chamber, expelling it through the delivery piping. At the same time the vacuum thus generated causes water to rise in the suction piping, thus self-priming the pump. Since the self-piping system operates continuously, these pumps are practically unaffected even by the presence of large amounts of entrained air in the fluid being pumped. The **JETw** series, based on past TOP experience, is designed with particular attention to hydraulic efficiency and choice of materials. The result is a compact, quiet high performance pump.

Pump Installation And Applications

These pumps are suitable for pumping clean water and fluids which are not chemically aggressive to pump components. **THEY ARE EXTREMELY RELIABLE, ECONOMICAL AND SIMPLE TO USE, BEING PARTICULARLY SUITABLE FOR DOMESTIC APPLICATIONS SUCH AS THE AUTOMATIC DISTRIBUTION OF WATER FROM SMALL AND MEDIUM-SIZE TANKS, WATERING GARDENS, ECT.** These pumps should be installed in a covered area, protected against the weather.

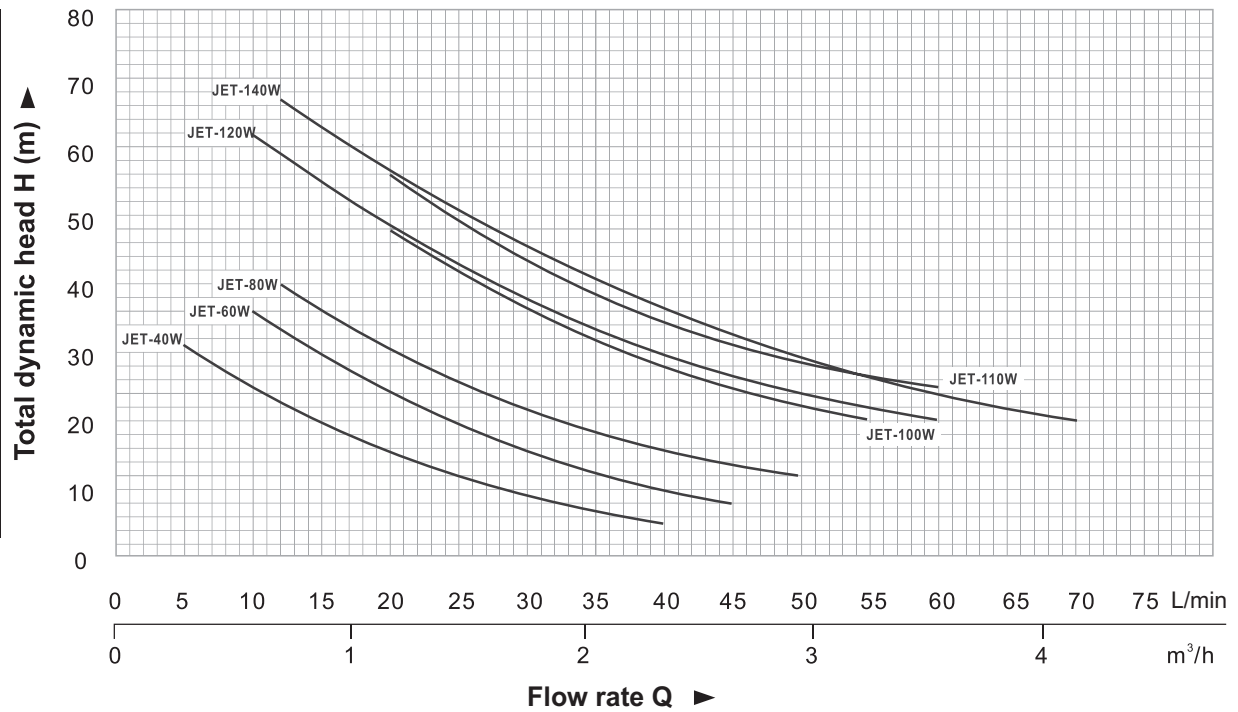
Performance

The wide range of pump in the **JETw** series satisfied the most varied requirements with features such as:
-high heads with respect to power requirements;
-flat operating and power absorption curves, giving moderate curve variations with respect to large variations in delivery demand;
-high tolerance of the presence of entrained air in the fluid to be pumped;
-suction capacity up to 9 meters

Structural Characteristics

- Cast iron **PUMP BODY**
- Stainless steel **PUMP BODY COVER** serving also as mechanical seal housing.
- Technopolymer **EJECTOR UNIT**(approved for drinking water)
- Centrifugal radial flow **IMPELLER** in **BRASS** or technopolymer (approved for drinking water)on request.
- Ceramic and graphite **MECHANICAL SEAL**.
- MOTOR**: the pumps are coupled directly to an asynchronous, high efficient **TOP** induction motor of suitable size, which is quiet running, closed and externally ventilated, suitable for continuous duty. **INSULATION** class B.
The thermal cutout relay(motor protector) is incorporated in all single phase motors.
Three phase motors require an adequate external motor protector, with connection according to current standards.
- PROTECTION IP44**
- CONSTRUCTION AND SAFETY STANDARDS** in compliance with **IEC**.

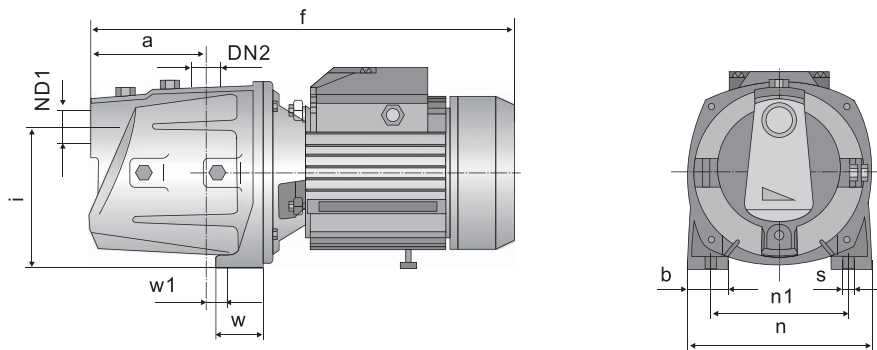
WARRANTY: 1YEAR (according to our general sales conditions)



Performance Data At N=2900 L/min

Pump Model		Power		Q(m³/h)																
Single phase	Three phase	KW	HP	0	0.3	0.6	0.72	0.9	1.2	1.5	1.8	2.1	2.4	2.7	3.0	3.3	3.6	4.2		
				Q(L/min)																
				0	5	10	12	15	20	25	30	35	40	45	50	55	60	60	70	
JETm-40W	JET-40W	0.37	0.50	H(m)	32	31	25	23	20	15.5	12	9	7	5						
JETm-60W	JET-60W	0.5	0.70		38	—	36	33	30	24	19.5	15.5	12.5	10	8					
JETm-80W	JET-80W	0.6	0.85		42	—	—	40	36	31	25.5	21.5	18.5	15.5	13.5	12				
JETm-100W	JET-100W	0.75	1		46	—	—	—	10	48	42	36.5	32	28	25	22	20			
JETm-110W	JET-110W	0.9	1.25		60	—	—	—	10	56	49	43	38.5	34	30.5	28	26.5	25		
JETm-120W	JET-120W	1.1	1.5		64	—	62	59	55	49	43	38	34	30	27	24	22	20		
JETm-140W	JET-140W	1.5	2		70	—	—	67	63	57	51	45.5	41	37	33	29	26.5	24	20	

H=Total dynamic head In meters. Q=Flow rate



Pump Model		DN1	DN2	Dimensions (mm)												
Single phase	Three phase			a	f	h	h1	h2	i	n	n1	w	w1	b	g	s
JETm-40W	TJWm-370	1"	1"	115	369	171	82	79	127	158	124	45	17	35	10	10
JETm-60W	TJWm-500	1"	1"	115	369	171	82	79	127	158	124	45	17	35	10	10
JETm-80W	—	1"	1"	115	376	171	82	79	127	158	124	45	17	35	10	10
—	TJWm-600	1"	1"	115	369	171	82	79	127	158	124	45	17	35	10	10
JETm-100W	TJWm-750	1"	1"	130	425	195	97	90	152	190	145	50	17	40	12	10
JETm-110W	TJWm-900	1"	1"	130	425	195	97	90	152	190	145	50	17	40	12	10
JETm-120W	TJWm-1100	1 1/4"	1"	155	497	233	110	98	165	206	164	70	30	40	13	11
JETm-140W	—	1 1/4"	1"	155	517	233	110	98	165	206	164	70	30	40	13	11
—	TJWm-1500	1 1/4"	1"	155	497	233	110	98	165	206	164	70	30	40	13	11

TAB Series

Self-priming “JET” Pumps

Performance Range

Flow rate up to 80 l/min(4.8 m³/h)
Dynamic head up to 70 m

Operating Limits

Suction lift up to 9 m
Fluid temperature up to +40°C
Maximum ambient temperature +40°C

A new and improved self-priming pump design, increased hydraulic efficiency, to current standards



Working Principle

The **TAB** series are SELF-PRIMING CENTRIFUGAL PUMPS. Self-priming is achieved using an ejector, housed in the pump body. The total delivery produced by the closed centrifugal impeller is sent only partly to the delivery opening. The remaining water is recirculated through the ejector, which is connected to the suction chamber and generates the necessary vacuum of self-prime the pump. When first starting the pump fill the pump body with water, without bothering to fill the suction piping and eliminate any air pockets. When the pump is started up the water in the pump body circulates through the ejector and transfers any air from the suction to delivery chamber, expelling it through the delivery piping. At the same time the vacuum thus generated causes water to rise in the suction piping, thus self-priming the pump. Since the self-priming system operates continuously, these pumps are practically unaffected even by the presence of large amounts of entrained air in the fluid being pumped. The **TAB** series, based on past **TOP** experience, is designed with particular attention to hydraulic efficiency and choice of materials. The result is a compact, quiet high performance pump.

Pump Installation And Applications

These pumps are suitable for pumping clean water and fluids which are not chemically aggressive to pump components. **THEY ARE EXTREMELY RELIABLE, ECONOMICAL AND SIMPLE TO USE, BEING PARTICULARLY SUITABLE FOR DOMESTIC APPLICATIONS SUCH AS THE AUTOMATIC DISTRIBUTION OF WATER FROM SMALL AND MEDIUM-SIZE TANKS, WATERING GARDENS, ECT.** These pumps should be installed in a covered area, protected against the weather.

Performance

The wide range of pump in the **TAB** series satisfied the most varied requirements with features such as:

- high heads compared to required power levels;
- flat operating and power absorption curves, giving moderate curve variations with respect to large variations in delivery demand;
- high tolerance of the presence of entrained air in the fluid to be pumped;
- suction capacity up to 9 meters

Structural Characteristics

- Cast iron **PUMP BODY**
- Stainless steel **PUMP BODY COVER** serving also as mechanical seal housing.
- Technopolymer **EJECTOR UNIT**(approved for drinking water)
- Centrifugal radial flow **IMPELLER in BRASS** or technopolymer (approved for drinking water)on request.
- Ceramic and graphite **MECHANICAL SEAL.**
- MOTOR:** the pumps are coupled directly to an asynchronous, high efficient **TOP** induction motor of suitable size, which is quiet running, closed and externally ventilated, suitable for continuous duty. **INSULATION class B .**
The thermal cutout relay (motor protector) is incorporated in all single phase motors.
Three phase motors require an adequate external motor protector, with connection according to current standards.
- PROTECTION IP44**
- CONSTRUCTION AND SAFETY STANDARDS** in compliance with IEC.

WARRANTY: 1YEAR(according to our general sales conditions)

IEC MOTOR

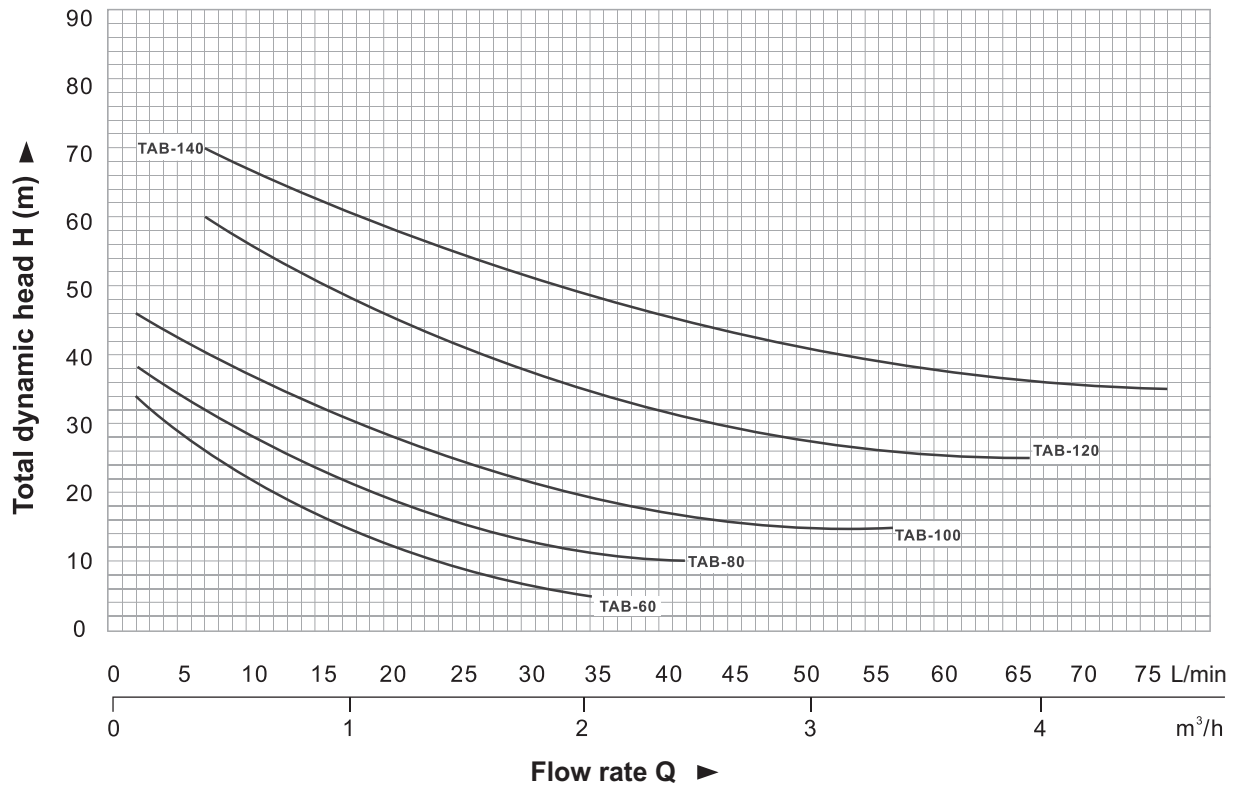
GOST MOTOR

NEMA MOTOR

PUMP

GENERATOR

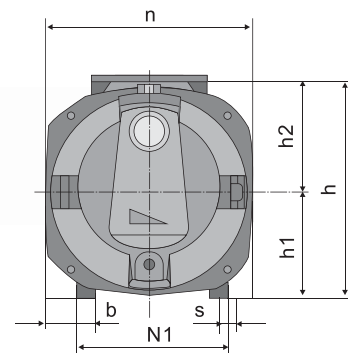
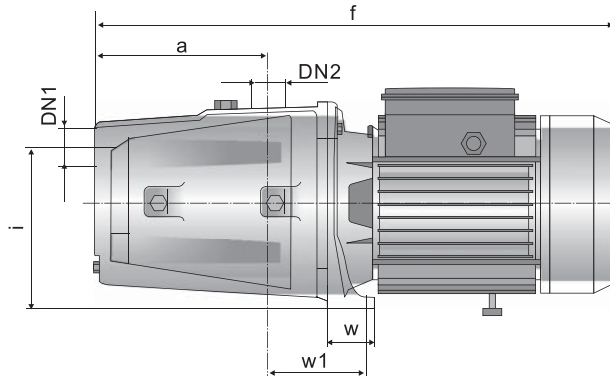
D.C. MOTOR



Performance Data At N=2900 L/min

Pump Model		Power		Q(m³/h)																
Single phase	Three phase	KW	HP	Q(L/min)	0	0.3	0.6	0.9	1.2	1.5	1.8	2.1	2.28	2.7	3.6	4.2	4.8			
TABm-60	TAB-60	0.4	0.50	H(m)	35	34	26.5	20	15	11	8	6	5							
TABm-80	TAB-80	0.55	0.70		40	38	32	28	21.5	18	15	13	11.5	10						
TABm-100	TAB-100	0.75	0.85		50	46	40	35	30.5	27	23.5	21	19	17	15					
TABm-120	TAB-120	1.1	1.5		64	-	60	54	49	44	40	36	34.5	31	26	25				
TABm-140	TAB-140	1.5	2		70	-	70	65	61	57	53	49.5	48	44	38.5	36	35			

H=Total dynamic head In meters. Q=Flow rate



Pump Model		DN1	DN2	Dimensions (mm)											
Single phase	Three phase			a	f	h	h1	h2	i	n	n1	w	w1	b	s
TABm-60	TAB-60	1"	1"	90	345	174	82	92	122	160	120	37	95	38	9
TABm-80	TAB-80	1"	1"	90	345	174	82	92	122	160	120	37	95	38	9
TABm-100	TAB-100	1"	1"	90	345	174	82	92	122	160	120	37	95	38	9
TABm-120	TAB-120	1"	1"	90	353	174	82	92	122	160	120	37	95	38	9
TABm-140	TAB-140	1"	1"	90	353	174	82	92	122	160	120	37	95	38	9

TJC Series

Self-priming “JET” Pumps

IEC MOTOR

GOST MOTOR

NEMA MOTOR

PUMP

GENERATOR

D.C. MOTOR

Performance Range

Flow rate up to 60 l/min
Dynamic head up to 45 m

Operating Limits

Suction lift up to 9 m
Fluid temperature up to +40°C
Maximum ambient temperature +40°C

Made from stainless steel for long life, these self-priming pumps are equipped reducing noise levels compared to current standards.



Working Principle

The **TJC** series are SELF-PRIMING CENTRIFUGAL PUMPS with stainless steel body. Self-priming is achieved using an ejector, housed in the pump body. The total delivery produced by the closed centrifugal impeller is sent only partly to the delivery opening. The remaining water is recirculated through the ejector, which is connected to the suction chamber and generates the necessary vacuum of self-priming the pump. When first starting the pump body fill with water, without bothering to fill the suction piping and eliminate any air pockets. When the pump is started up the water in the pump body circulates through the ejector and transfers any air from the suction to delivery chamber, expelling it through the delivery piping. At the same time the vacuum thus generated causes water to rise in the suction piping, thus self-priming the pump. Since the self-priming system operates continuously, these pumps are practically unaffected even by the presence of large amounts of entrained air in the fluid being pumped.

The **TJC** series, based on past **TOP** experience, is designed with particular attention to compact shape, lightweight structure and choice of materials, combining high performance with extremely quiet running.

Pump Installation And Applications

These pumps are suitable for pumping clean water and fluids which are not chemically aggressive to pump components.

THEY ARE EXTREMELY RELIABLE, LIGHT, ECONOMIC AND SIMPLE TO USE, FINDING MANY USES IN DOMESTIC APPLICATIONS, IN PARTICULAR THE AUTOMATIC DISTRIBUTION OF WATER FROM SMALL AND MEDIUM-SIZED SURGE TANKS, WATERING GARDENS, ETC.

These pumps should be installed in a covered area, protected against the weather.

N.B. it is always advisable to install a foot valve or a non return valve on the suction opening.

Performance

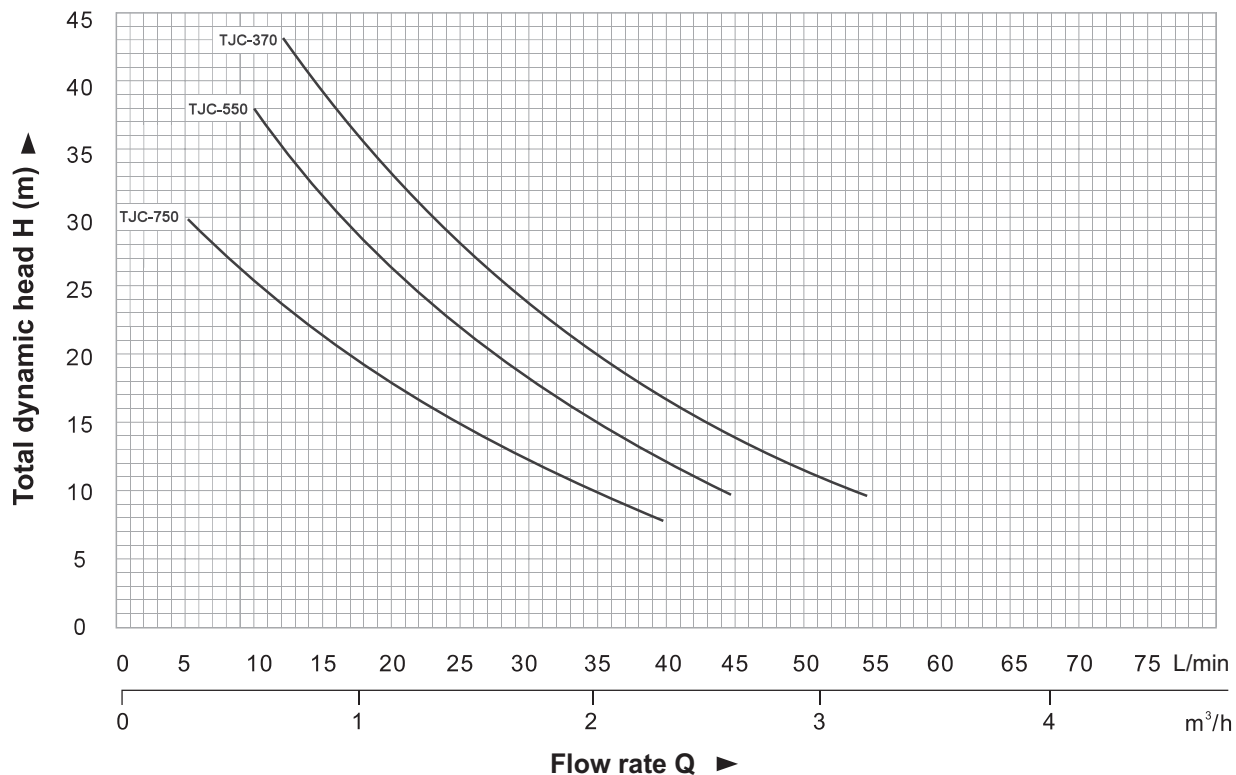
The wide range of pump in the **TJC** series satisfied the most varied requirements with features such as:

- high heads with respect to power required;
- flat operating and power absorption curves, giving moderate curve variations with respect to large variations in delivery demand;
- very low noise levels within the field of application;
- high tolerance of the presence of entrained air in the fluid to be pumped;
- suction capacity up to 9 meters.

Structural Characteristics

- Plastic **PUMP BODY**
- Stainless steel **PUMP BODY COVER** serving also as mechanical seal housing.
- Technopolymer **EJECTOR UNIT** (approved for drinking water)
- Centrifugal radial flow **IMPELLER** in technopolymer (approved for drinking water).
- Ceramic and graphite **MECHANICAL SEAL**.
- MOTOR**: the pumps are coupled directly to an asynchronous, high efficient **TOP** induction motor of suitable size, which is quiet running, closed and externally ventilated, suitable for continuous duty. **INSULATION** class F. (class B up to .90kW).
The thermal cutout relay (motor protector) is incorporated in all single phase motors.
- Three phase motors require an adequate external motor protector, with connection according to current standards.
- PROTECTION IP44**
- CONSTRUCTION AND SAFETY STANDARDS** in compliance with IEC.

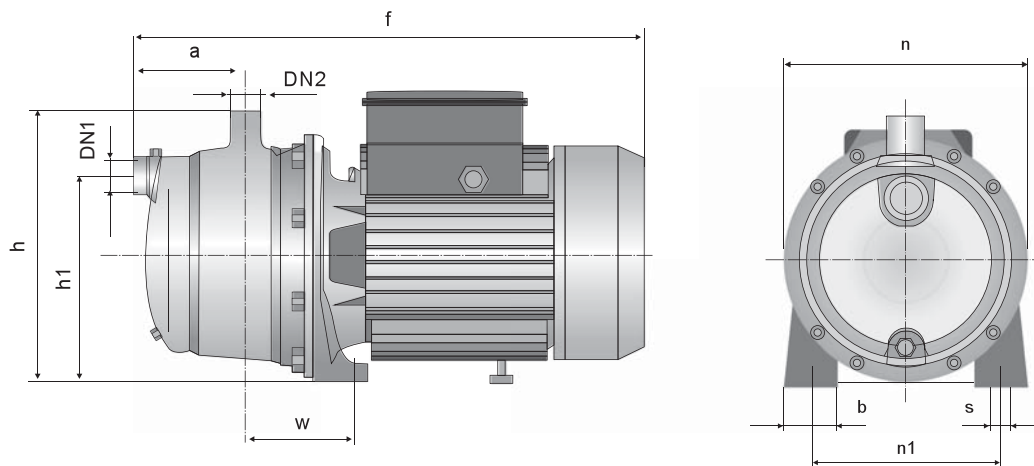
WARRANTY: 1YEAR (according to our general sales conditions)



Performance Data At $N=2900$ L/min

Pump Model		Power		Q(m^3/h)	0	0.3	0.6	0.72	0.9	1.2	1.5	1.8	2.1	2.4	2.7	3.0	3.3	
Single phase	Three phase	KW	HP	Q(L/min)	0	5	10	12	15	20	25	30	35	40	45	50	55	
TJcM-370A	TJC-370A	0.37	0.50	H(m)	32	30	25.5	24	21.5	18	15	12.5	10	8				
TJcM-550A	TJC-550A	0.55	0.70		40	-	38	35	31.5	26.5	22	18	15	12.5	10			
TJcM-750A	TJC-750A	0.75	0.85		45	-	-	43	39	33	28	23.5	20	17	14.5	12	10	

H =Total dynamic head In meters. Q =Flow rate



Pump Model		Dimensions (mm)											
Single phase	Three phase	DN1	DN2	a	f	h	h1	h2	n	n1	w	b	s
TJcM-370A	TJC-370A	1"	1"	90	345	174	122	52	160	120	95	22	9
TJcM-550A	TJC-550A	1"	1"	90	345	174	122	52	160	120	95	22	9
TJcM-750A	TJC-750A	1 1/4"	1"	117	406	206	145	55	184	120	110	22	10

TJC-G Series Portable Self-priming Pumps

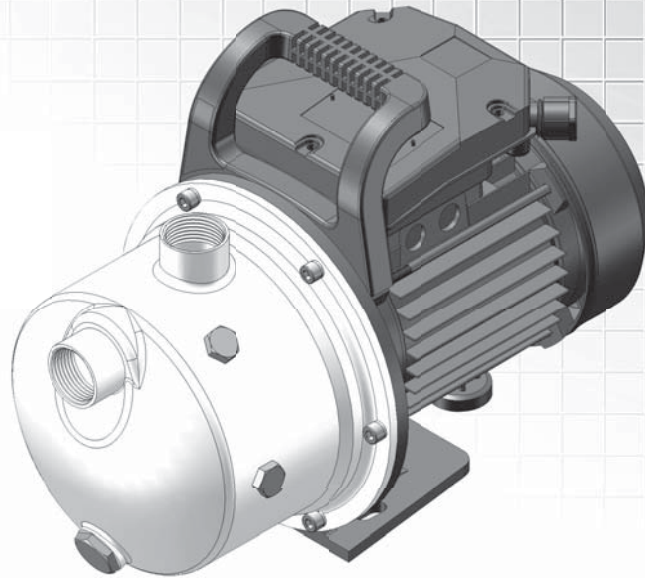
Performance Range

Flow rate up to 60 l/min
Dynamic head up to 45 m

Operating Limits

Suction lift up to 9 m
Fluid temperature up to +40°C
Maximum ambient temperature +40°C

Made from stainless steel for long life, these self-priming pumps are equipped reducing noise levels compared to current standards.



Working Principle

The **TJC-G** series are SELF-PRIMING CENTRIFUGAL PUMPS with stainless steel body. Self-priming is achieved using an ejector, housed in the pump body. The total delivery produced by the closed centrifugal impeller is sent only partly to the delivery opening. The remaining water is recirculated through the ejector, which is connected to the suction chamber and generates the necessary vacuum of self-priming the pump. When first starting the pump body fill with water, without bothering to fill the suction piping and eliminate any air pockets. When the pump is started up the water in the pump body circulates through the ejector and transfers any air from the suction to delivery chamber, expelling it through the delivery piping. At the same time the vacuum thus generated causes water to rise in the suction piping, thus self-priming the pump. Since the self-priming system operates continuously, these pumps are practically unaffected even by the presence of large amounts of entrained air in the fluid being pumped.

The **TJC-G** series, based on past **TOP** experience, is designed with particular attention to compact shape, lightweight structure and choice of materials, combining high performance with extremely quiet running.

Pump Installation And Applications

These pumps are suitable for pumping clean water and fluids which are not chemically aggressive to pump components. **THEY ARE EXTREMELY RELIABLE, LIGHT, ECONOMIC AND SIMPLE TO USE, FINDING MANY USES IN DOMESTIC APPLICATIONS, IN PARTICULAR THE AUTOMATIC DISTRIBUTION OF WATER FROM SMALL AND MEDIUM-SIZED SURGE TANKS, WATERING GARDENS, ETC.**

These pumps should be installed in a covered area, protected against the weather.

N.B. it is always advisable to install a foot valve or a non return valve on the suction opening.

Performance

The wide range of pump in the **TJC-G** series satisfied the most varied requirements with features such as:

- high heads with respect to power required;
- flat operating and power absorption curves, giving moderate curve variations with respect to large variations in delivery demand;
- very low noise levels within the field of application;
- high tolerance of the presence of entrained air in the fluid to be pumped;
- suction capacity up to 9 meters.

Structural Characteristics

- Plastic **PUMP BODY**
- Stainless steel **PUMP BODY COVER** serving also as mechanical seal housing.
- Technopolymer **EJECTOR UNIT**(approved for drinking water)
- Centrifugal radial flow **IMPELLER** in technopolymer (approved for drinking water).
- Ceramic and graphite **MECHANICAL SEAL**.
- MOTOR**: the pumps are coupled directly to an asynchronous, high efficient **TOP** induction motor of suitable size, which is quiet running, closed and externally ventilated, suitable for continuous duty. **INSULATION** class F.(class B up to .90kW).
The thermal cutout relay(motor protector) is incorporated in all single phase motors.
Three phase motors require an adequate external motor protector, with connection according to current standards.
- PROTECTION IP44**
- CONSTRUCTION AND SAFETY STANDARDS** in compliance with IEC.
- With carrying handle**

WARRANTY: 1YEAR (according to our general sales conditions)

IEC MOTOR

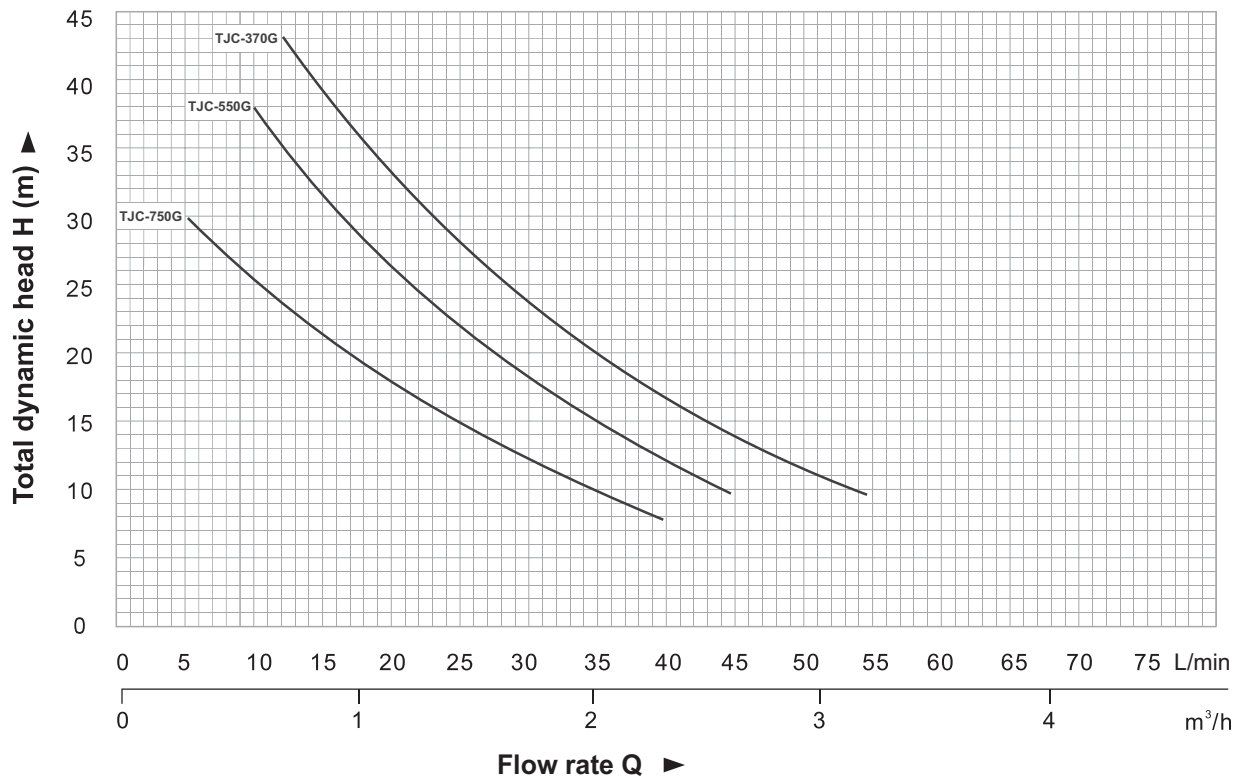
GOST MOTOR

NEMA MOTOR

PUMP

GENERATOR

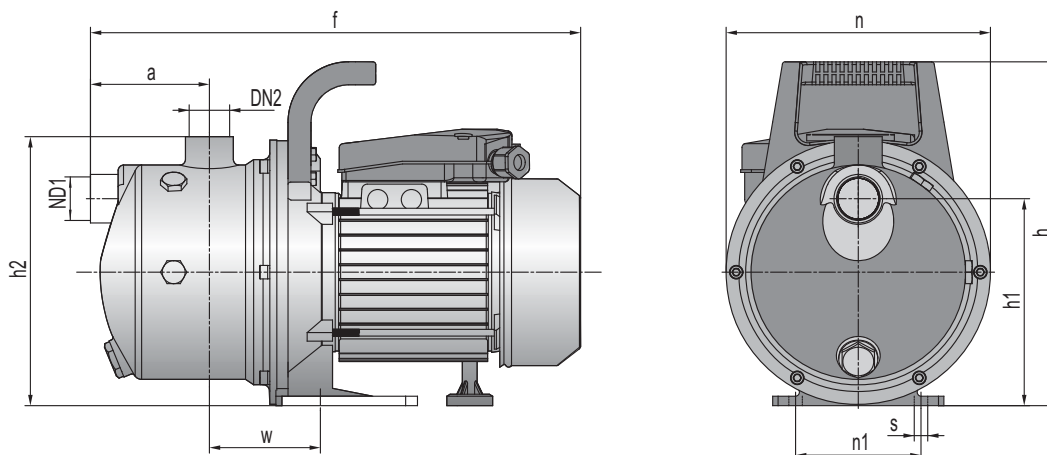
D.C. MOTOR



Performance Data At $N=2900$ L/min

Pump Model		Power		Q(m^3/h)	0	0.3	0.6	0.72	0.9	1.2	1.5	1.8	2.1	2.4	2.7	3.0	3.3	
Single phase	Three phase	KW	HP	Q(L/min)	0	5	10	12	15	20	25	30	35	40	45	50	55	
TJcM-370G	TJC-370G	0.37	0.50	H(m)	32	30	25.5	24	21.5	18	15	12.5	10	8				
TJcM-550G	TJC-550G	0.55	0.70		40	-	38	35	31.5	26.5	22	18	15	12.5	10			
TJcM-750G	TJC-750G	0.75	0.85		45	-	-	43	39	33	28	23.5	20	17	14.5	12	10	

H=Total dynamic head In meters. Q=Flow rate



Pump Model		DN1	DN2	Dimensions (mm)								
Single phase	Three phase			a	f	h	h1	h2	n	n1	w	s
TJcM-370G	TJC-370G	1"	1"	94	362	239	130	200	175	102	104	7
TJcM-550G	TJC-550G	1"	1"	88	364	255	154	200	196	93	82	10
TJcM-750G	TJC-750G	1"	1"	88	364	255	154	200	196	93	82	10

TDW Series

Self-priming "JET" Pumps (For Deep Wells)

IEC MOTOR

GOST MOTOR

NEMA MOTOR

PUMP

GENERATOR

D.C. MOTOR

Performance Range

Flow rate up to 60 l/min (3.6m³/h)
Dynamic head up to 50 m

Operating Limits

Suction lift up to 30 m
Fluid temperature up to +40
Maximum ambient
temperature +40°C



Working Principle

The **TDW** series are SELF-PRIMING CENTRIFUGAL PUMPS suitable for suction from deep wells. Self-priming is achieved using an ejector, housed in the jet body, which can be installed directly to the pump body or more often lowered in a well and connected to the pump body by two pipes. The total delivery produced by the closed centrifugal impeller is sent only partly to the delivery opening. The remaining (driving) water is recirculated through the ejector, which is connected to the suction chamber where it generates the necessary vacuum to draw up water from the point where the jet body is immersed. The water from the jet body opening mixes in the diffuser with recirculating water from the pump, thus increasing its pressure at the expense of the recirculating water, and is drawn into the pump through the suction pipe.

Pump Installation And Applications

These pumps are suitable for pumping clean water and fluids which are not chemically aggressive to pump components.

The **TDW** series installed above ground with the jet body submerged guarantee functioning even when the static level of the well water falls as far as 30 meters below the level of the installed pump. **FOR THIS REASON THESE PUMPS ARE EXTREMELY RELIABLE, ECONOMICAL AND SIMPLE TO USE AND FIND MANY USES IN DOMESTIC APPLICATIONS AND THE AUTOMATIC DISTRIBUTION OF WATER FROM SMALL AND MEDIUM-SIZE SURGE TANKS, WATERING GARDENS, ECT. IN ALL CASES WHERE THE SUCTION DEPTH EXCEEDS THE NORMAL CAPACITY (9 METERS) FOR SURFACE PUMPS.**

Always install a retention valve on the jet body opening. It is advisable to install a valve on the pump delivery opening, to ensure adequate counter-pressure when working. Fill the pump body and the piping connecting the pump to the jet body with water before starting up. These pumps should be installed in a covered area, protected against the weather.

Performance

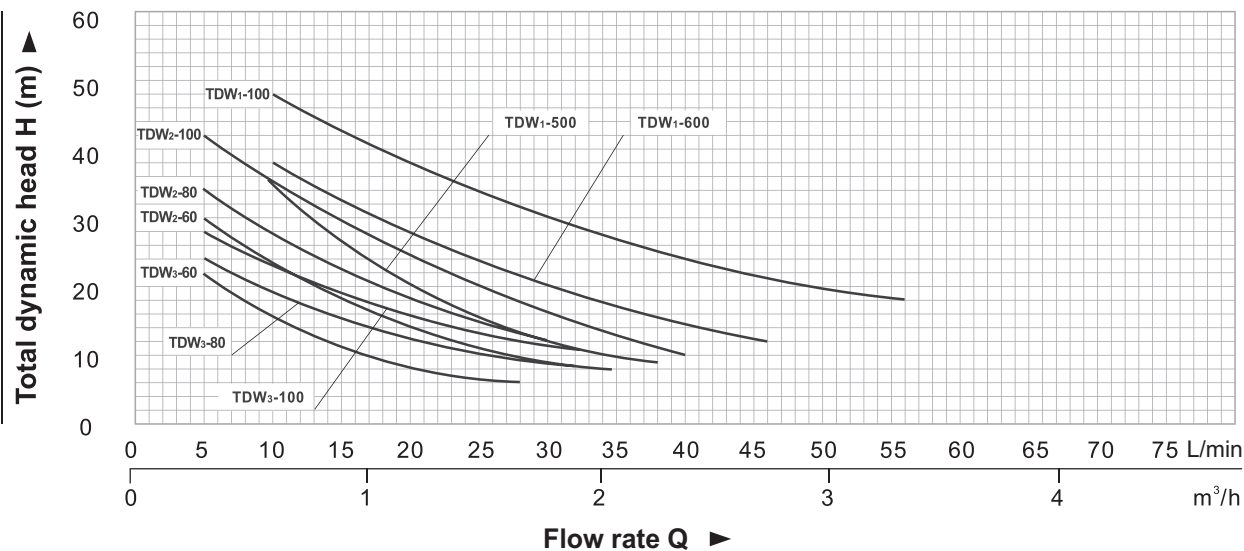
The wide range of pump in the **TDW** series satisfied the most varied requirements with features such as:

- high heads compared to required power levels;
 - high tolerance of the presence of entrained air in the fluid to be pumped;
 - suction depth down to 30 meters in installations with submerged jet systems;
- in order to enhance performance in installations with different suction depths and well diameters, pumps can be supplied with:
- 3 different ejectors for depths down to 15 m, 20 m for 4 wells;
 - ejector for depths down to 30 m and 3 wells;

Structural Characteristics

- Cast iron **PUMP BODY**
- Cast iron **JET BODY**
- BRASS IMPELLER** centrifugal radial flow type (technopolymer on request).
- Ceramic and graphite **MECHANICAL SEAL**.
- MOTOR:** the pumps are coupled directly to an asynchronous, high efficient **TOP** induction motor of suitable size, which is quiet running, closed and externally ventilated, suitable for continuous duty. **INSULATION** class F (class B up to 0.75 kw)
The thermal cutout relay (motor protector) is incorporated in all single phase motors
Three phase motors require an adequate external motor protector, with connection according to current standards.
- PROTECTION IP44**
- CONSTRUCTION AND SAFETY STANDARDS** in compliance with IEC.

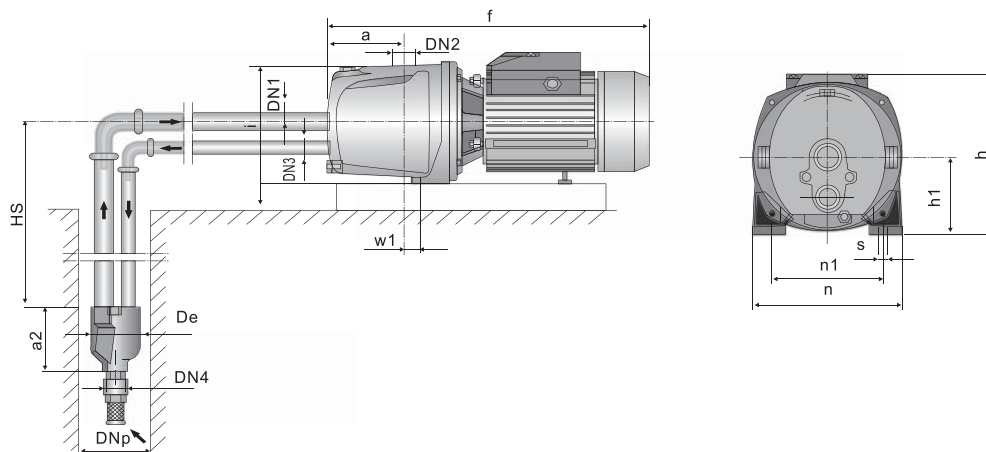
WARRANTY: 1 YEAR (according to our general sales conditions)



Performance Data At N=2900 L/min

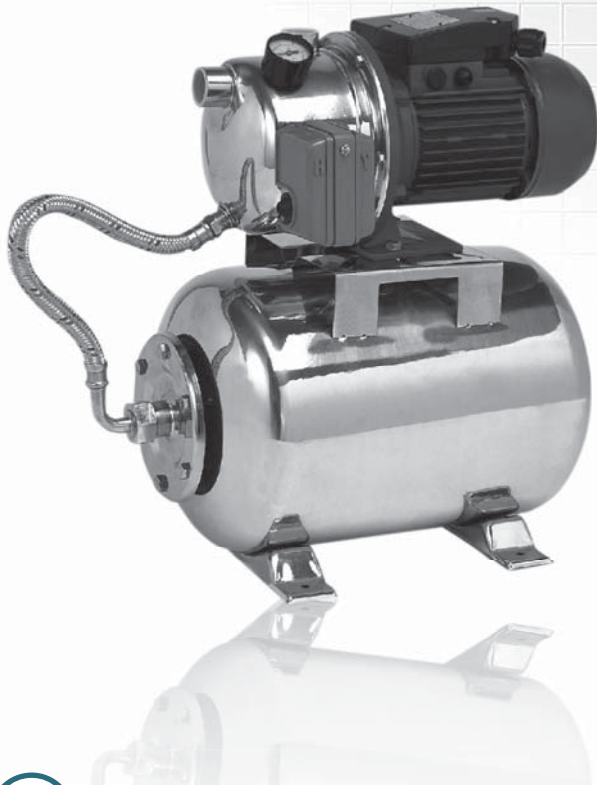
Pump Model		Power		Q(m³/h)	0	0.3	0.6	0.9	1.2	1.5	1.8	2.1	2.4	2.7	3.0	3.3
Single phase	Three phase	KW	HP	Q(L/min)	0	5	10	15	20	25	30	35	40	45	50	55
TDW _{1m} -60	TDW ₁₋₆₀	0.5	0.75	H(m)	37	-	35	26	20	16	12	10				
TDW _{1m} -80	TDW ₁₋₈₀	0.6	0.85		41	-	38	33	28	24	20	17	14	12		
TDW _{1m} -100	TDW ₁₋₁₀₀	0.75	1.0		50	-	48	43	38	34	30	27	24	22	20	18
TDW _{2m} -60	TDW ₂₋₆₀	0.5	0.75		32	30	23.5	18	14	11	8					
TDW _{2m} -80	TDW ₂₋₈₀	0.6	0.85		35	34	28	22	18	15	11	9				
TDW _{2m} -100	TDW ₂₋₁₀₀	0.75	1.0		45	42	35	29.5	24	20	16	13	10			
TDW _{3m} -60	TDW ₃₋₆₀	0.5	0.75		23	22	16	11	8	6						
TDW _{3m} -80	TDW ₃₋₈₀	0.6	0.85		25	24	19	15	12	10	8					
TDW _{3m} -100	TDW ₃₋₁₀₀	0.75	1.0		30	28	23	19	15.5	13	10.5	10				

H=Total dynamic head in meters. Q=Flow rate



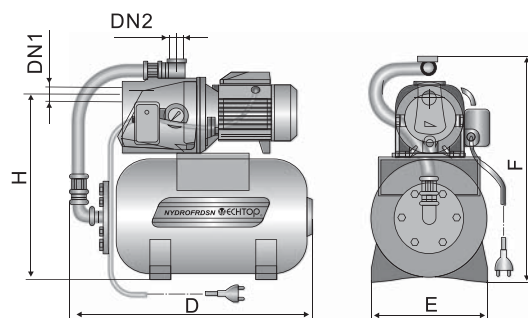
Pump Model		DN1	DN2	DN3	DN4	DNp	De	Dimensions (mm)										
Single phase	Three phase							a	a1	a2	f	h1	h	i	n	n1	w1	s
TDW _{1m} -60	TDW ₁₋₆₀	1 1/4"	1"	1"	1"	4"	96	75	46	148	374	97	206	184	190	149	24	11
TDW _{1m} -80	TDW ₁₋₈₀	1 1/4"	1"	1"	1"	4"	96	75	46	148	374	97	206	184	190	149	24	11
TDW _{1m} -100	TDW ₁₋₁₀₀	1 1/4"	1"	1"	1"	4"	96	75	46	148	374	97	206	184	190	149	24	11
TDW _{2m} -60	TDW ₂₋₆₀	1 1/4"	1"	1"	1"	4"	96	69.5	46	148	325	92	181	181	180	144	24	10
TDW _{2m} -80	TDW ₂₋₈₀	1 1/4"	1"	1"	1"	4"	96	75	46	148	350	92	201	201	180	144	24	10
TDW _{2m} -100	TDW ₂₋₁₀₀	1 1/4"	1"	1"	1"	4"	96	75	46	148	350	92	201	201	180	144	24	10
TDW _{3m} -60	TDW ₃₋₆₀	1 1/4"	1"	1"	1"	4"	96	69.5	46	148	325	92	201	181	180	144	24	10
TDW _{3m} -80	TDW ₃₋₈₀	1 1/4"	1"	1"	1"	4"	96	75	46	148	350	92	201	201	180	144	24	10
TDW _{3m} -100	TDW ₃₋₁₀₀	1 1/4"	1"	1"	1"	4"	96	75	46	148	350	92	201	201	180	144	24	10

HYDROFRESH/24CL (cylindrical tank)



Hydrofresh/24CL Components

- ❑ WATER PUMP
- ❑ 20 Liters CYLINDRICAL TANK with membrane
- ❑ 350 mm FLEXIBLE HOSE.
- ❑ Adjustable Square D PRESSURE SWITCH (preset at 1.4-2.8 bar)
- ❑ PRESSURE GAUGE.
- ❑ 3 or 5 way brass CONNECTOR.
- ❑ 1.5m SUPPLY CABLE with schuko plug.

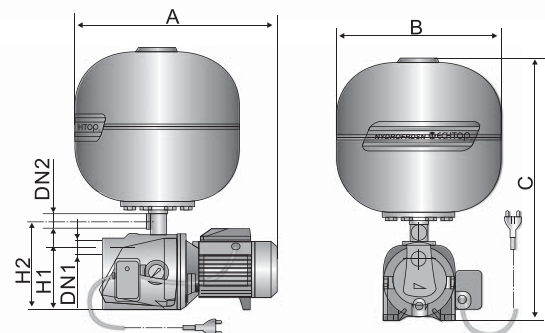


HYDROFRESH/24SF (spherical tank)



Hydrofresh/24SF Components

- ❑ WATER PUMP
- ❑ 24 liters CYLINDRICAL TANK with membrane
- ❑ Adjustable Square D PRESSURE SWITCH (preset at 1.4-2.8 bar)
- ❑ PRESSURE GAUGE.
- ❑ 3 or 5 way brass CONNECTOR.
- ❑ 1.5m SUPPLY CABLE with schuko plug.



IEC MOTOR

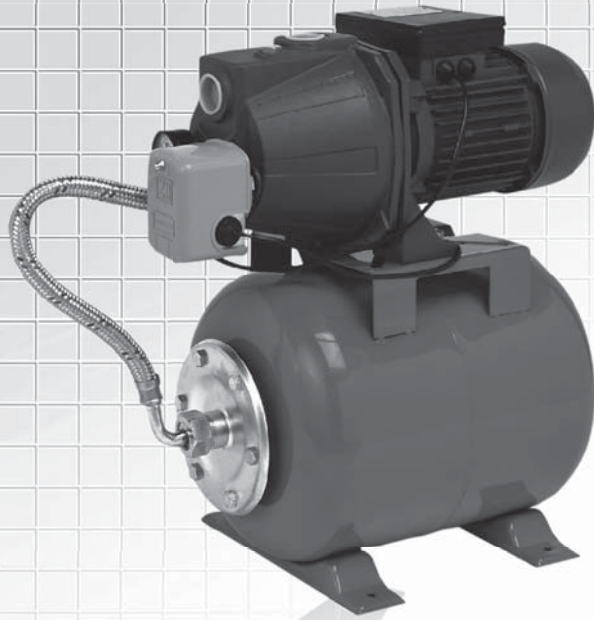
GOST MOTOR

NEMA MOTOR

PUMP

GENERATOR

D.C. MOTOR



Pump Model Single phase	Dimensions (mm)									DN1	DN2
	A	B	C	D	E	F	H	H1	H2		
TPm-60	381	360	513	540	255	475	338	63	168	1"	1"
TPm-65	389	360	518	540	255	480	338	63	173	1"	1"
TPm-70	409	360	531	540	255	490	346	71	186	1"	1"
TPm-80	409	360	531	540	255	490	346	71	186	1"	1"
TPm-90	447	360	549	540	255	510	355	80	204	1"	1"
TPS-60	381	360	565	540	255	540	426	156	220	1"	1"
TPS-65	389	360	565	540	255	540	426	156	220	1"	1"
TPS-70	409	360	577	540	255	550	434	164	232	1"	1"
TPS-80	409	360	577	540	255	550	434	164	232	1"	1"
TPC-152	434	360	617	540	255	580	372	97	272	1"	1"
TPC-158	434	360	617	540	255	580	372	97	272	1"	1"
TPC-170	470	360	635	540	255	595	385	110	290	1 1/4"	1"
TPC-180	470	360	635	540	255	595	385	110	290	1 1/4"	1"
2TPC-130	441	360	588	540	255	650	364	89	243	1 1/4"	1"
2TPC-160	462	360	599	540	255	562	368	93	254	1 1/4"	1"
2TPC-170	462	360	599	540	255	562	402	93	254	1 1/4"	1"
TJW-370	434	360	536	540	265	497	402	127	192	1"	1"
TJW-500	434	360	536	540	265	497	402	127	192	1"	1"
TJW-600	441	360	536	540	265	497	422	127	192	1"	1"
TJW-750	460	360	555	540	315	515	422	147	210	1"	1"
TJW-900	460	360	555	540	315	515	440	147	210	1"	1"
TJW-1100	522	360	583	540	290	545	397	165	238	1"	1"
TJC-370	435	360	548	540	255	509	397	122	204	1"	1"
TJC-550	435	360	548	540	255	509	420	122	204	1"	1"
TJC-750	443	360	548	540	255	539	420	122	204	1"	1"
TET-60S	460	360	579	540	255	539	420	145	208	1"	1"
TET-80S	460	360	579	540	255	539	420	145	208	1"	1"
TET-100S	460	360	579	540	255	539	420	145	208	1"	1"
TDW ₁ -500	460	360	579	540	255	539	420	145	208	1 1/4"	1"
TDW ₁ -600	460	360	579	540	255	539	420	145	208	1 1/4"	1"
TDW ₁ -750	460	360	579	540	255	539	420	145	208	1 1/4"	1"



SWIMMING POOL & BATHTUB PUMPS



BWP Series

Quiet-running Bathtub Whirlpool Pumps

Applications

Recycling of treated and soluble water(chloric water, salted water and so on). Irrigation with additives.

single-stage centrifugal pumps for bathtub whirlpool

Materials

Pump body, pump in polypropylene.

Motor mounting in anticorrosive materials.

Motor shaft in stainless steel AISI-420.

Impeller in Luranyl.

Mechanical seal in graphite and alumine.

Motor housing in aluminum L-2521.

Windings impregnated with epoxy resin.

Motor

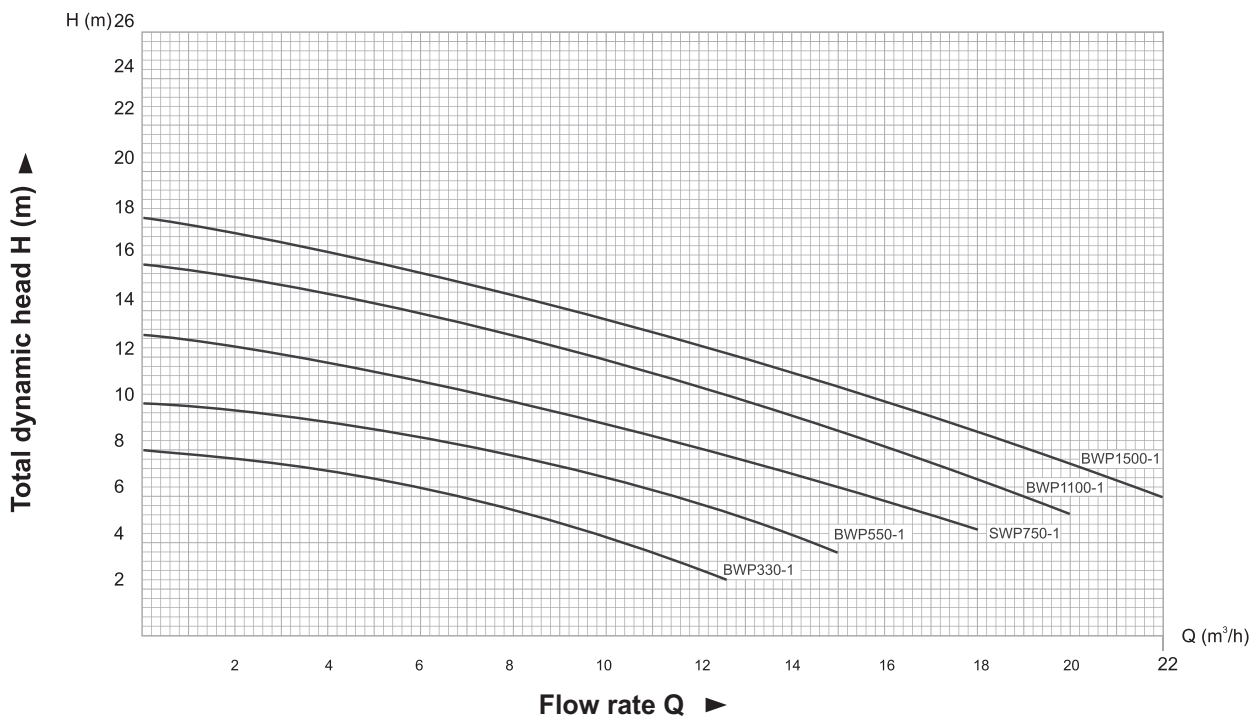
Asynchronous, two poles.

IP55 protection.

Class F insulation.

Continuous operation

Single phase version built-in thermal protection



Model	Max Capacity (m³/h)	Max Head (m)	Max Suction lift (m)	Speed (r/min)	Power (w)	Volt (v)	Frequency (Hz)	Inlet / Outlet dia (mm)
BWP330-1	12.5	8	9	2780	330	220	50	40/40
BWP550-1	15	10	9	2780	550	220	50	40/40
BWP750-1	18	13	9	2780	750	220	50	40/40
BWP1100-1	20	16	9	2780	1100	220	50	40/40
BWP1500-1	22	18	9	2780	1500	220	50	40/40

SWP Series

Quiet-running Series Swimming Pool Pumps

Applications

Recycling and filtering of water from medium and great swimming pools.

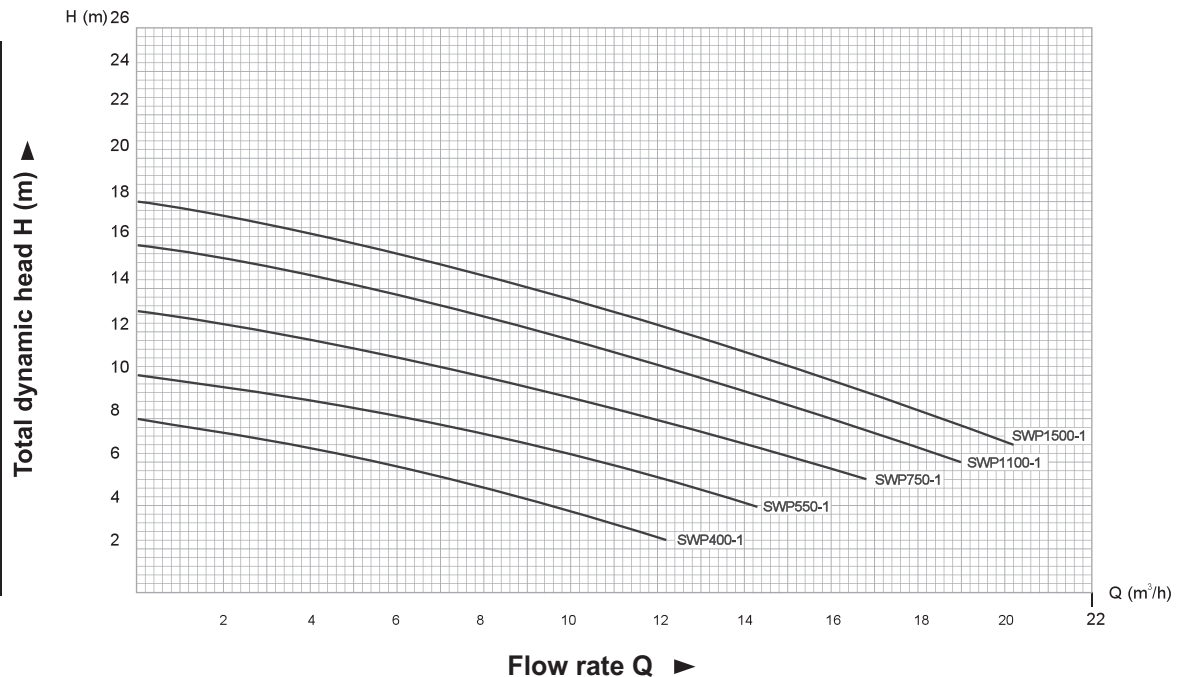
Quiet running single-stage centrifugal and self-priming pumps, complete with pre-filter.

Materials

Pump body, pump foot and diffuser in polypropylene enforced with glass fiber.
 Impeller in Nory1 enforced with glass fiber.
 Seal mounting in polyamide enforced with glass fiber.
 Motor shaft in stainless steel AISI 420.
 Mechanical seal in graphite and alumine.
 Motor housing in aluminum L-2521.
 Windings impregnated with epoxy resin.

Motor

Asynchronous, two poles.
 IP55 protection.
 Class F insulation.
 Continuous operation
 Single phase version built-in thermal protection



Model	Max Capacity (m³/h)	Max Head (m)	Max Suction lift (m)	Speed (r/min)	Power (w)	Volt (v)	Frequency (Hz)	Inlet / Outlet dia (mm)
SWP400-1	12	8	9	2780	400	220	50	40/40
SWP550-1	14	10	9	2780	550	220	50	40/40
SWP750-1	16	13	9	2780	750	220	50	40/40
SWP1100-1	18	16	9	2780	1100	220	50	40/40
SWP1500-1	20	18	9	2780	1500	220	50	40/40

EWP Series Pumps

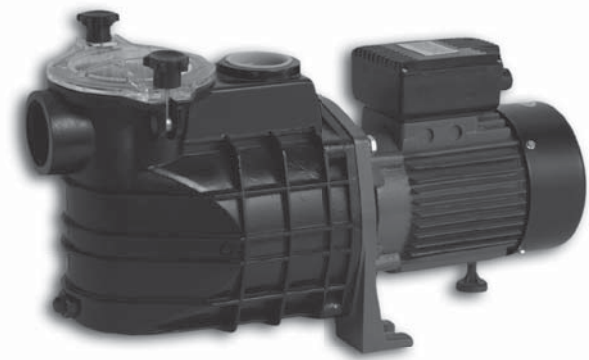
Performance

Flow rate up to 320l/min
Dynamic head up to: 15m

Operating Limits

Fluid temperature up to +40°C
Maximum ambient temperature +40°C

They are the kind of swimming pool pump with high flow rate



Pump Installation And Applications

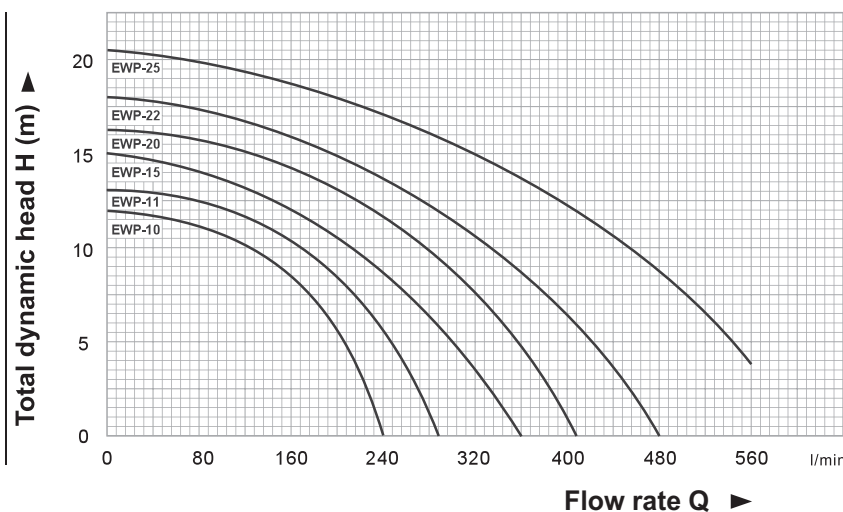
These pumps are suitable for homely used swimming pools or public swimming pools which are not chemically aggressive to pump components.

They are extremely reliable, economical and simple to use, being particularly suitable for home swimming pools and public swimming pools.

These pumps should be installed in a covered area to protect against the weather.

Structural Characteristics

- PUMP BODY: PP+30%GF
- EJECTOR UNIT AND IMPELLER: PPO
- MECHANICAL SEAL: Ceramic and graphite
- MOTOR: the pumps are coupled to an asynchronous, high efficient TECHTOP induction motor of suitable size, which is quite running, closed and externally ventilated, suitable for continuous duty. **INSULATION CLASS B**
- The thermal cutout relay (motor protector) is incorporated in all the single phase motors.
Three phase motors require an adequate external motor protector, with connection according to current standards.
- **PROTECTION IP44**
- **CONSTRUCTION AND STANDARDS** in compliance with IEC standard . **WARRANTY: 1YEAR** (according to our general sales conditions)

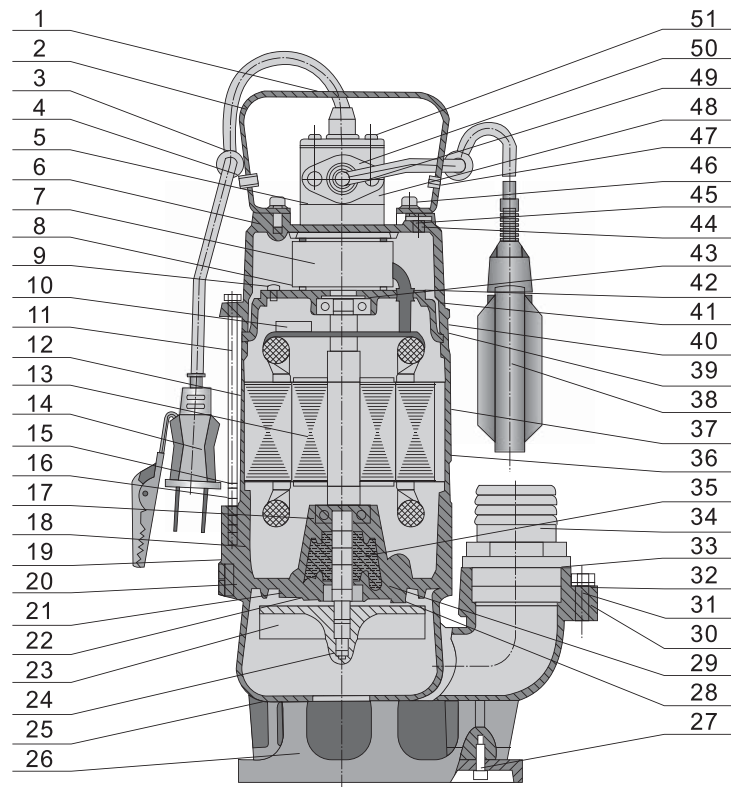


Model	KW	HP	Size	A
EWP-10	370	1/2	1.5" X 1.5"	2.4
EWP-11	550	3/4	1.5" X 1.5"	3.7
EWP-15	750	1	1.5" X 1.5"	4.6
EWP-20	1100	1.5	2" X 2"	6.4
EWP-22	1500	2	2" X 2"	8.6
EWP-25	2200	3	2" X 2"	13



SUBMERSIBLE PUMPS





N.	Description	N.	Description	N.	Description	N.	Description
1	Warning label	14	Source line	27	Screw	40	"O" ring
2	Handle	15	Fan-slice	28	Screw	41	Cover
3	line protector	16	"O" ring	29	"O" ring	42	line protector
4	Hexagon nut	17	Bearing	30	Washer	43	Spring
5	Tees washer	18	Jointing support	31	Screw	44	Screw
6	Capacitor cover	19	Screw	32	Connecting screw	45	"O" ring
7	capactor	20	Screw	33	"O" ring	46	Screw
8	"O" ring	21	Oil cylinder cover	34	Outlet jointing	47	Screw
9	Grounding screw	22	Oil seal	35	Mechanical seal	48	Tees
10	Thermal protector	23	Impeller	36	Stator	49	Self-taping screw
11	Screw	24	Nut	37	Label	50	Rubber
12	Machine frame	25	Pump body	38	Floating switch	51	Screw
13	Rotor	26	Chassis	39	Square section washer		

QSA Series Submersible Drainage Pumps (For Clear Water)

IEC MOTOR

GOST MOTOR

NEMA MOTOR

PUMP

GENERATOR

D.C. MOTOR

Performance Range

Flow rate up to 200 l/min (12 m³/h)
Dynamic head up to 11 m

Operating Limits

Maximum operating depth 2m below water level
Maximum fluid temperature +40°C
Maximum passage for suspended solids 10mm
Maximum emptying level 9mm from the bottom



Working Principle

The **QSA** is a single open impeller centrifugal submersible drainage pump designed to function either partly or totally submerged. The impeller, mounted on the end of the drive shaft, consists of a back disk and blades. The fluid enters the rotating blade channel through the suction, where it moves radially from the center outwards, acquiring energy both in the form of pressure and increased speed. When it leaves the impeller the fluid is conveyed towards the volute. Here part of the kinetic energy is transformed into pressure energy, and the fluid leaves the pump via the side delivery opening in the pump body. Correct motor cooling is ensured by the fluid being pumped.

Pump Installation And Applications

QSA is designed to pump clear or slightly dirty water not containing abrasive substances.

IT IS RECOMMENDED FOR SMALL EMPTYING JOBS SUCH AS FLOODED BASEMENTS AND GARAGES, HOLIDAY HOMES, TUBS AND USED DOMESTIC WATER DISPOSAL.

A purposely built pit with minimum dimensions 350X350X350h mm is recommended for fixed installation, to provide total drainage and allow correct operation of the float switch. This system automatically starts the pump when the fluid reaches a preset level, stopping it once the fluid has been emptied. Installing a suitable non return valve on the delivery pipe prevents reverse flow when the pump stops.

Performance

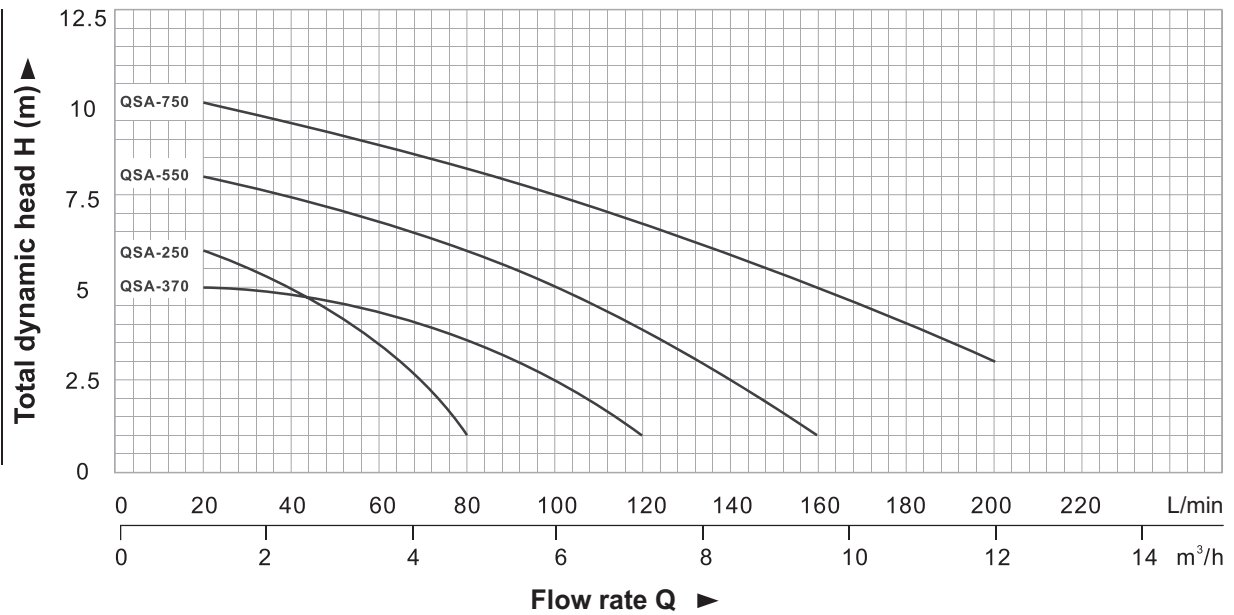
When designing performance level for the **QSA** pump, special attention was given to typical requirements for domestic usage.

-Performance curve specially designed for high delivery rates at the low installed power rating.

Structural Characteristics

- stainless steel **DELIVERY BODY**
- stainless steel **BASE**
- Technopolymer open impeller
- EXTERNAL FLOAT SWITCH for automatic pump operation
- stainless steel **MOTOR SHAFT**
- Carbon/alumina **MECHANICAL SEAL.**
- Sealed induction **MOTOR** designed for continuous duty.
- The thermal cutout relay (motor protector) is incorporated.
- INSULATION class B
- neoprene submerged **SUPPLY CABLE.** Supplied standard with 5 metres of cable and plug (10 meters on request).
- CONSTRUCTION AND SAFETY STANDARDS** in compliance with IEC.

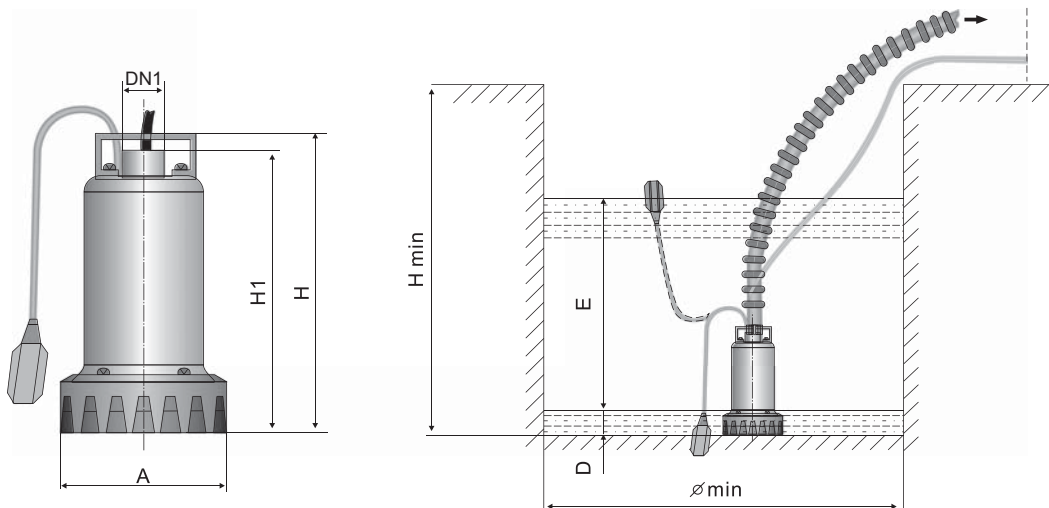
WARRANTY: 1 YEAR (according to our general sales conditions)



Performance Data At N=2900 L/min

Pump Model		Power		Q(m ³ /h)	0	1.2	1.8	2.4	3.0	3.6	4.2	4.8	6.0	7.2	9.6	12
Single phase	Three phase	KW	HP	Q(L/min)	0	20	30	40	50	60	70	80	100	120	160	200
QSA-250	QSA-250	0.25	0.33	H(m)	6.5	6	5.5	5	3.8	3.5	2.3	1				
QSA-370	QSA-370	0.37	0.5		5.5	5	4.8	4.7	4.6	4.3	4	3.6	2.5	1		
QSA-550	QSA-550	0.55	0.75		10	8	7.8	7.5	7.2	6.7	6.3	6	5	3.8	1	
QSA-750	QSA-750	0.75	1		11	10	9.8	9.5	9.2	8.7	8.5	8.2	7.5	6.7	5	3

H=Total dynamic head In meters. Q=Flow rate



Pump Model		DN1	Dimensions (mm)						
Single phase	Three phase		A	H	H1	Dmin	E	Hmin	Φmin
QSA-250	QSA-250	1 1/4"	150	245	205	40	Adjustable	500	350
QSA-370	QSA-370	1 1/4"	150	245	205	40	Adjustable	500	350
QSA-550	QSA-550	1 1/4"	150	276	235	40	Adjustable	500	350
QSA-750	QSA-750	1 1/4"	150	276	235	40	Adjustable	500	350

QSB Series

Submersible Drainage Pumps (For Clear Water)

IEC MOTOR

GOST MOTOR

NEMA MOTOR

PUMP

GENERATOR

D.C. MOTOR

Performance Range

Flow rate up to 200 l/min (12 m³/h)
Dynamic head up to 11 m

Operating Limits

Maximum operating depth 3m below water level
Maximum fluid temperature +40°C
Maximum passage for suspended solids 10mm
Maximum emptying level 14mm from the bottom

Design, technology and innovative materials are the main features behind the new QSB pump, designed to be easy to use and extremely reliable. The vortex system permits to drain dirty water without fear of impeller clogging



Working Principle

QSB centrifugal pumps is a SUBMERSIBLE PUMP, for dirty water, designed mainly for domestic use. Their operation principle is that of a centrifugal pump. A large sized ring chamber with a threaded delivery opening is machined in the pump body and closed at the front by a cover, housing the suction opening, which is shaped to prevent suspended solid over a certain sized from entering the pump. Since the impeller is retracted with respect to the cover, water entering the front chamber lying between these two components assumes a vortex motion and is centrifuged into the ring chamber, leaving the pump via the delivery opening. This principle does not require the pumped liquid to pass directly through the impeller, enabling the pump to handle suspended solids without risk of clogging.

Pump Installation And Applications

QSB pumps are suitable for lifting clear water not containing abrasive substances. These pumps have been designed for easy use and it is extremely reliable even when subjected to continuous use, since the motor is fully cooled. It is particularly suited for domestic use, to drain dirty water in all cases where suspended solids up to 20 mm have to be dealt with.

RECOMMENDED APPLICATIONS THEREFORE INCLUDE EMPTYING OF POOLS AND TANKS, DISPOSAL OF DOMESTIC SEWAGE, EMPTYING OF SUMP PITS.

Performance

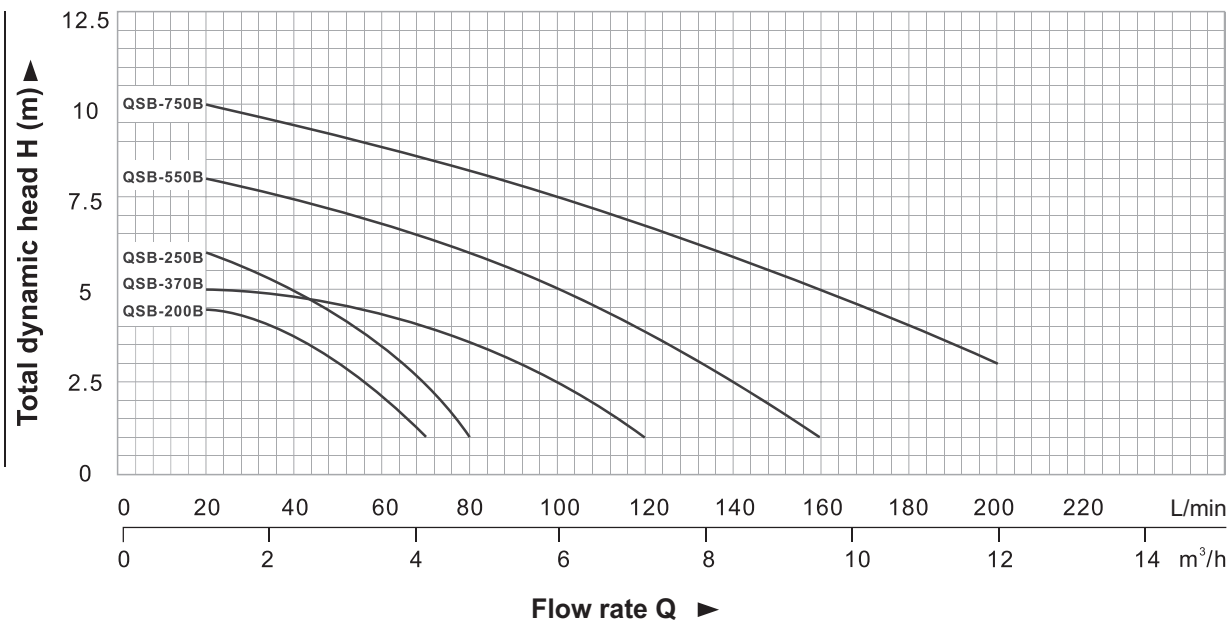
When designing performance levels for **QSB pumps**, special attention was given to typical requirements for domestic usage.

-Performance curves specially designed for high delivery rates at the low installed power rating.

Structural Characteristics

- DELIVERY BODY** made from fiberglass reinforced technopolymer, particularly resistant to mechanical stress, knocks and corrosion, fitted with gas threaded vertical delivery opening.
- SUCTION STRAINER** made from fiberglass reinforced technopolymer, providing the support base for the pump.
- Technopolymer **HOSE JOINT** with screw fitting.
- Technopolymer open **IMPELLER**
- EXTERNAL FLOAT SWITCH** for automatic pump operation.
- DOUBLE MECHANICAL SEAL** carbon/alumina on the pump side and sealing ring on the motor side (with barrier oil chamber to lubricate and cool the sealing surfaces in the absence of water).
- Seal induction **MOTOR**, suitable for continuous duty with built-in thermal cutout relay (motor protector). **INSULATION Class F** (provides the motor with a considerable overload tolerance and substantially increases the service life of the motor itself). Cooling of motor assured by the liquid by the liquid in which the pump is immersed.
- PROTECTION IP68**
- Neoprene submersible **SUPPLY CABLE**. Supplied standard with 5 meters of cable and plug (10 meters on request)
- CONSTRUCTION AND SAFETY STANDARDS** is compliance with the IEC.

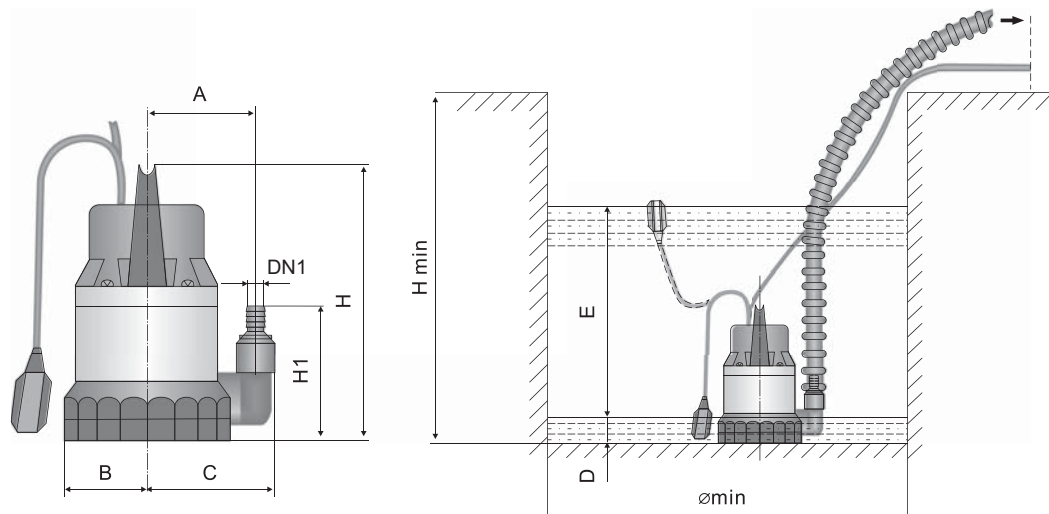
WARRANTY: 1 YEAR (according to our sales conditions)



Performance Data At N=2900 L/min

Pump Model		Power		Q(m³/h)	0	1.2	1.8	2.4	3.0	3.6	4.2	4.8	6.0	7.2	9.6	12	
Single phase	Three phase	KW	HP	Q(L/min)	0	20	30	40	60	60	70	80	100	120	160	200	
QSBm-100	QSB-100	0.20	0.25	H(m)	5	4.5	4	3.5	2.8	2	1						
QSBm-200	QSB-200	0.25	0.33		6.5	6	5.5	5	3.8	3.5	2.3	1					
QSBm-400	QSB-400	0.37	0.5		5.5	5	4.8	4.7	4.6	4.3	4	3.6	2.5	1			
QSBm-550	QSB-550	0.55	0.75		9	8	7.8	7.5	7.2	6.7	6.3	6	5	3.8	1		
QSBm-750	QSB-750	0.75	1		11	10	9.8	9.5	9.2	8.7	8.5	8.2	7.5	6.7	5	3	

H=Total dynamic head In meters. Q=Flow rate



Pump Model		DN1	Dimensions (mm)								
Single phase	Three phase		A	B	C	H	H1	Dmin	E	Hmin	ømin
QSBm-100	QSB-100	1"	110	78	150	300	180	80	Adjustable	400	400
QSBm-200	QSB-200	1"	110	78	150	300	180	80	Adjustable	400	400
QSBm-400	QSB-400	1"	110	78	150	300	180	80	Adjustable	400	400
QSBm-550	QSB-550	1"	120	78	156	345	215	100	Adjustable	450	400
QSBm-750	QSB-750	1"	120	78	156	345	215	100	Adjustable	450	400



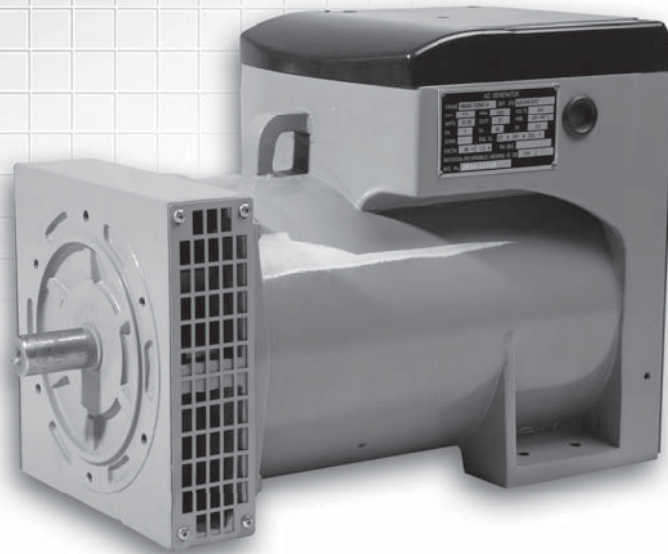
GENERATORS



HM1 Series

Brush Alternator

Size 132/2P KVA10~36



STANDARDS: the alternators series HM1 are produced in accordance with the following standards: CEI 2-3; NF C51-100-111-and 112; VDE 0530; BS 4999-5000.

MECHANICAL STRUCTURE: casing in aluminium (cast iron and rolled steel) and shield covers in cast iron. Shaft in steel C50. Rotor in laminated steel with dumper cage that allows good running also with single-phase and distorting loads.

VENTILATION: of axial type with the air inlet from the opposite drive end.

SENSE OF ROTATION: both directions are allowed.

ELECTRICAL CHARACTERISTICS: the insulation is of class H; the voltage regulation of type "three-phase compound" is realized by an auxiliary winding separated from the main one in order to allow the main connections either star or delta.

ENCLOSURE: IP21 standard (on request IP 20,IP23,and IP44R).

TRANSIENT VOLTAGE DIP: <10% when applying the full load at $\cos \phi$ 0.8.

OVERLOADS: short overloads may even be three times the rated current but the one generally accepted is of 10% for one hour every six hours.

SLIP RING AND BRUSHES: sized and mounted to assure long-lasting perfect working as that of a diesel engine.

SHORT CIRCUIT CURRENT: in case of three-phase superposed short circuit the permanent current is more than three times higher than the nominal current.

VOLTAGE ACCURACY: +/- 4%from no load to full load, $\cos \phi$ 0.8 at constant speed.

STARTING OF ASYNCHRONOUS MOTORS: it is possible to start a 1.1 Hp asynchronous motor for each KVA of the alternator.

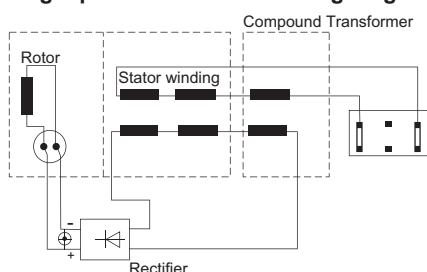
SINGLE-PHASE RUNNING: the three-phase alternators can also run at single-phase with power equal to 0.70 the three-phase power printed on the label.

FREQUENCY: the alternators can work at 50Hz/3000 r.p.m, or at 60 Hz/3600 r.p.m.

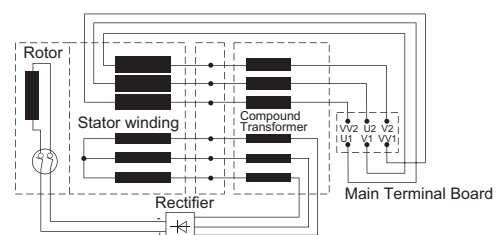
STANDARD VOLTAGE: 230/400V. at 50 Hz; 277/480V. at 60Hz with star and delta connections.

WORKING CONDITIONS: they are referred to the following conditions: ambient temperature: 40°C; altitude not higher than 1000 mt.a.s.l., continuous duty $\cos \phi$ 0.8. In case of applications at an altitude over 1000 mt,a.s.l., it is necessary a derating of 4% every 500 mt.of increase. In case of an application at more than 40°C it is necessary a derating of 4% every 5°C of increase.

Single-phase Alternators:wiring diagram



Three-phase Alternators:wiring diagram



Technical Characteristics

Three Phase

Model	Ref. Code	50HZ - COS ph0,8 -3000 r.p.m.						60HZ - COS ph0,8 -3600 r.p.m.							
		Rating		Eff.%		Driving Power		Start. Cap.	Rating		Eff.%		Driving Power		Start. Cap.
		KVA	KW	F/L	0.75F/L	KW	HP	KVA	KVA	KW	F/L	0.75F/L	KW	HP	KVA
HM1-132 MA-2	HM1-1334	12.5	10	81	82	12.3	16.7	55	15.5	12.4	82.5	83	15.1	20.5	62
HM1-132 MB-2	HM1-1344	15	12	82.5	83	14.5	19.7	60	18.8	15	83	84	18	25	75
HM1-132 MC-2	HM1-1354	17.5	14	83.5	84	16.75	22.8	70	22	17.6	85	86	20.7	28.1	88
HM1-132 MD-2	HM1-1364	20	16	85	86	18.8	25.5	80	25	20	86	87	23.2	31.5	95
HM1-132 LC-2	HM1-1374	25	20	86	87	23.2	31.5	100	30	24	87	87.5	27.5	37.4	110
HM1-132 LX-2	HM1-1384	30	24	85.5	86.5	28	38	105	36	28.8	86.5	87	33.2	45.2	115

Single Phase

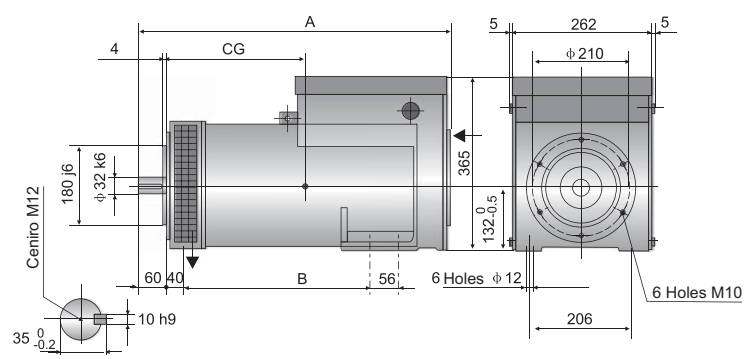
Model	Ref. Code	50HZ - COS ph0,9 -3000 r.p.m.						60HZ - COS ph0,9 -3600 r.p.m.							
		Rating		Eff.%		Driving Power		Start. Cap.	Rating		Eff.%		Driving Power		Start. Cap.
		KVA	KW	F/L	0.75F/L	KW	HP	KVA	KVA	KW	F/L	0.75F/L	KW	HP	KVA
HM1-132 MA-2	HM1-1334	10	9	81	81	11	15.1	30	12.5	11.25	83	83	13.5	18.3	37
HM1-132 MB-2	HM1-1344	11	9.9	82	81.5	12.1	16.4	33	13.75	12.37	84	83.5	14.7	20	41
HM1-132 MC-2	HM1-1354	13	11.7	83	82.5	14.1	19.2	39	16.25	14.6	85	84.5	17.1	23	48
HM1-132 MD-2	HM1-1364	15	13.5	84	84	16.1	21.9	45	18.75	16.8	86	86	19.5	26.5	56
HM1-132 LC-2	HM1-1374	17.5	15.75	85	85	18.5	25.1	58	22	19.8	87	86.5	22.7	30.8	66
HM1-132 LX-2	HM1-1384	20	18	85	85	21.1	28.8	62	23	20.7	87	86.5	23.8	32.3	70

Electrical And Mechanical Characteristics

Model	Rating		Electrical Characteristics								Mom.Inertia	Weight
	KVA	KVA	P CC	X d%	X`d%	X``d%	X q%	T`do	T`d	T``d	B3/B14	
	50HZ	60HZ						(ms)	(ms)	(ms)	Kgm ²	Kg
HM1-132 MA-2	12.5	15.5	0.4	430	22	17	185	500	25	9	0.040	65
HM1-132 MB-2	15	18.8	0.41	420	22	17	180	550	30	10	0.043	69
HM1-132 MC-2	17.5	22	0.42	405	23	18	182	550	33	10	0.050	74
HM1-132 MD-2	20	25	0.42	400	23	18	170	600	36	10	0.060	82
HM1-132 LC-2	25	30	0.43	390	22	17	165	650	40	11	0.072	96
HM1-132 LX-2	30	36	0.36	360	20	18	150	650	36	11.5	0.074	98

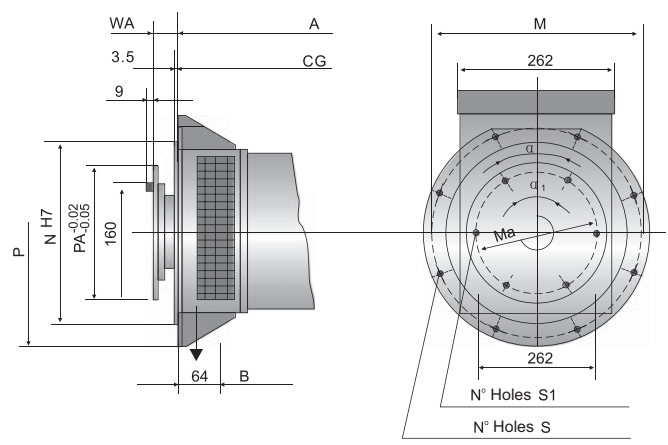
Overall Dimensions

Form B3/B14



Type	Dimensions = mm		
	A	B	CG
MR	556	316	204
MA			219
MB			229
MC			242
MD			259
LC			264
LD	611	371	269

Form SAE

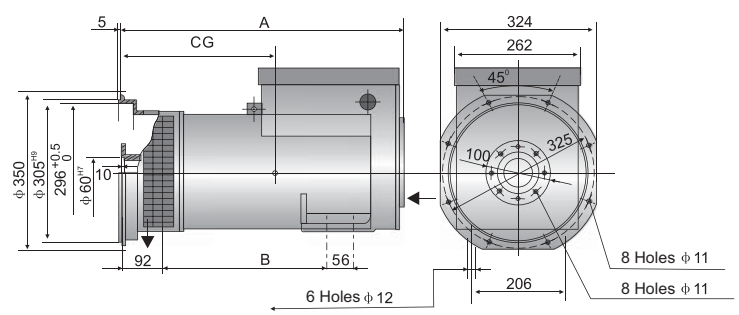


Type	MR	MA	MB	MC	MD	LC	LD
Dimensions = mm							
A	520					575	
B	316					371	
CG	194	209	219	232	249	254	259

SAE N°	Flange					
	N ¹⁷	P	M	N°	S	α
5	314.3	356	333.4	8	11	45°
4	362	405	381	12	11	30°
3	409.6	450	428.6	12	11	30°

SAE N°	Coupling					
	PA ^{0.02/0.05}	Ma	N° Fori	S1	α ₁	WA
6 1/2	215.9	200	6	9	60°	30.2
7 1/2	241.3	222.3	8	9	45°	30.2
8	263.52	244.5	6	11	60°	62
10	314.32	295.3	8	11	45°	53.8
11 1/2	352.42	333.4	8	11	45°	39.6

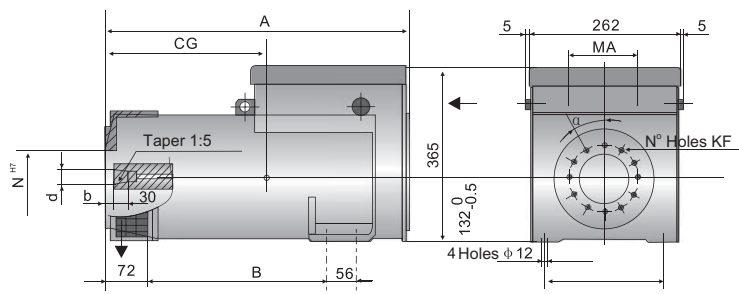
Form B2



Type	Dimensions = mm		
	A	B	CG
MR	548	316	222
MA			237
MB			247
MC			260
MD			277
LC			282
LD	603	371	287

Overall Dimensions

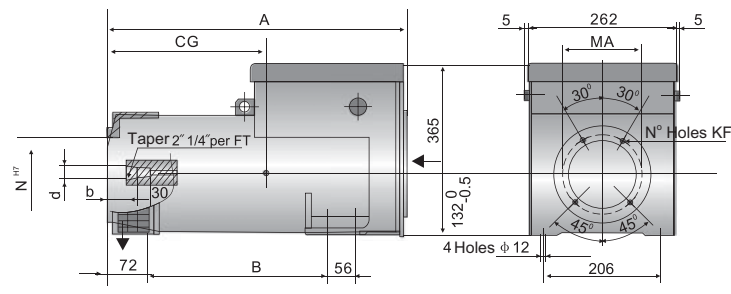
Form B3/B9



Form: B3/B9						
Tapered Shaft		Flange				
d	b	MA	N ^{HT}	α	KF	N ^{Fori}
23	8					
24	3	135	105	30°	9	12
30	16					
38	5	150	125	90°	12	4

Form: B3/B9							
Type	MR	MA	MB	MC	MD	LC	LD
Dimensions = mm							
A	528					583	
B	316					371	
CG	253	268	278	291	308	313	318

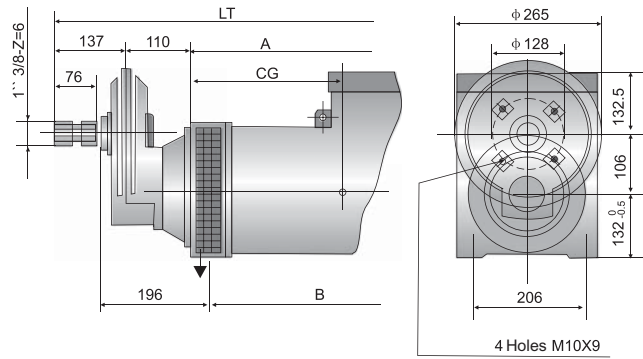
Form SAE J 609a



Form: SAE J 609a						
Tapered Shaft		Flange				
d	y	x	MA	N ^{HT}	N ^{Fori}	KF
22.16	80.5	35.5	165	146	4	11
25.4	63.5	53	197	163.6	4	11
29.9	40	78	197	177.8	4	11
35	14	85				

Form: SAE J 609a							
Type	MR	MA	MB	MC	MD	LC	LD
Dimensions = mm							
A	528					583	
B	316					371	
CG	253	268	278	291	308	313	318

Alternators With Gear Box



Type	Dimensions = mm			
	A	B	LT	CG
MR	496	316	743	45
MA				60
MB				70
MC				83
MD				100
LC	551	371	798	105
LD				110

Ratio	
1 ÷ 3.48	1 ÷ 6.92

IEC MOTOR
GOST MOTOR
NEMA MOTOR
PUMP
GENERATOR
D.C. MOTOR

HM1 Series

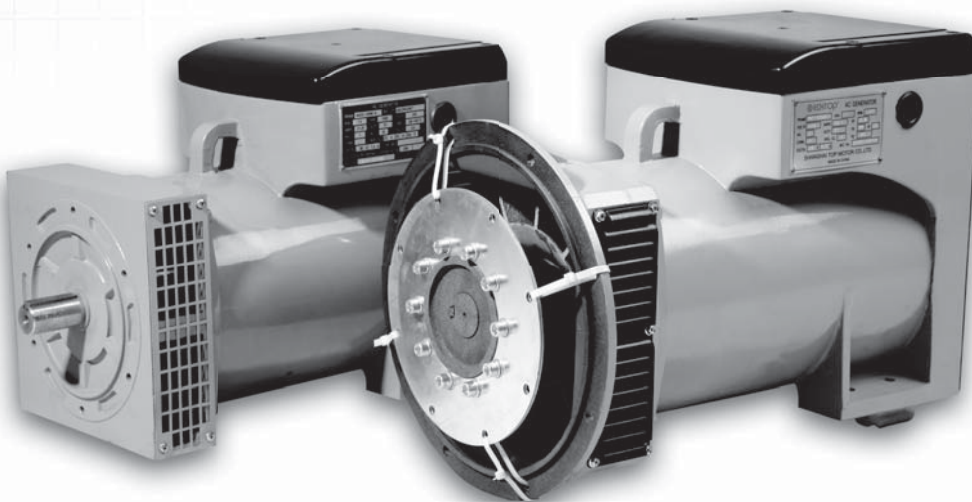
Brush Alternator

Size 132-4P KVA 6.5~18

HM2 Series

Brushless Alternator

Size 132~200-4P KVA 6.5~130



STANDARDS: the alternators series HM1 and HM2 are produced in accordance with the following standards:CEI2-3; NF C51-100-111-and 112; VDE0530; BS 4999-5000

MECHANICAL STRUCTURE: casing in cast iron (aluminium or rolled steel) and shield covers in cast iron. Shaft in steel C45. Rotor in laminated steel with dumper cage that allows good running also with single - phase and distorting loads.

VENTILATION: of axial type with the air inlet from the opposite drive end.

SENSE OF ROTATION: both directions are allowed.

ELECTRICAL CHARACTERISTICS:

HM1-with Brush: the insulation is of class H; the voltage regulation of type "three - phase compound" is realized by an auxiliary winding separated from the main one in order to allow the main connections either star or delta; HM2-Brushless: Brushless excited by AC exciter, with AVR to guarantee the stable voltage output."

ENCLOSURE: IP21 standard (on request IP 20, IP23, and IP44R)

TRANSIENT VOLTAGE DIP: <10% when applying the full load at $\cos\Phi 0.8$.

OVERLOADS: short overloads may even be three times the rated current but the one generally accepted is of 10% for one hour every six hours.

SLIP RING AND BRUSHES: sized and mounted to assure long - lasting perfect working as that of a diesel engine.

SHORT CIRCUIT CURRENT: in case of three - phase superposed short circuit the permanent current is more than three times higher than the nominal current.

VOLTAGE ACCURACY: +/- 4% for HM1, +/- 1% for HM2 from no load to full load, $\cos\Phi 0.8$, at constant speed.

STARTING OF ASYNCHRONOUS MOTORS: it is possible to start a 1.1Hp asynchronous motor for each KVA of the alternator.

SINGLE - PHASE RUNNING: the three - phase alternators can also run at single - phase with power equal to 0.70 the three - phase power printed on the label.

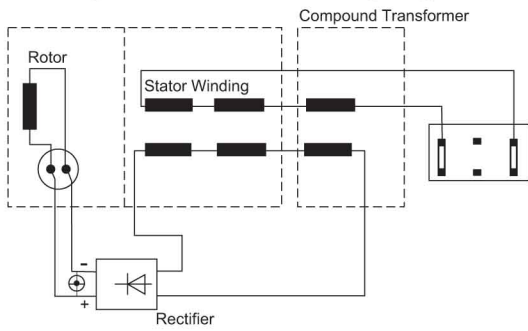
FREQUENCY: the alternators can work at 50Hz/3000r.p.m.or at 60Hz /3600r.p.m.

STANDARD VOLTAGE: 230/400V. at50 Hz; 277/480V.at 60Hz with star and delta connections.

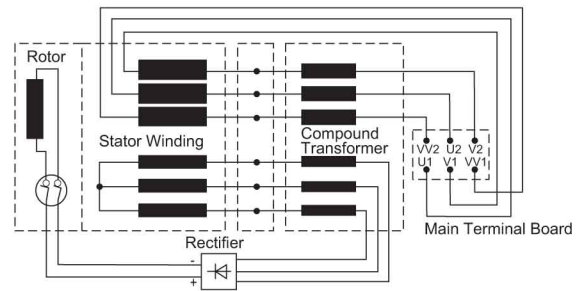
WORKING CONDITIONS: ambient temperature 40°C; altitude not higher than 1000 mt.a.s.l., continuous duty $\cos\Phi 0.8$. In case of application at an altitude over 1000 mt.a.s.l, it is necessary a derating of 4% every 500 mt. of increase. In case of an application at more than 40°C it is necessary a derating of 4% every 5°C of increase.

HM1/HM2 Series Wiring Diagram

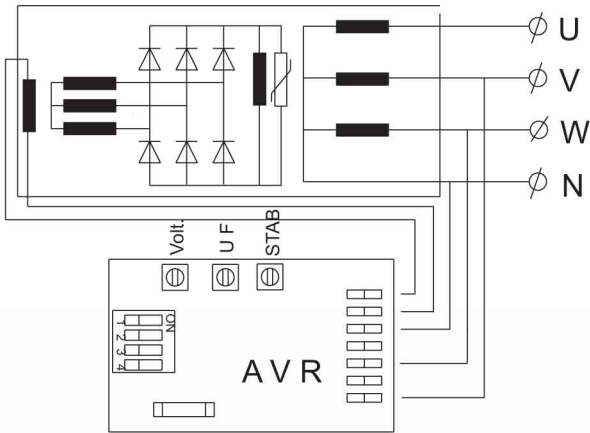
HM1 - Single Phase Aternators: Wiring Diagram



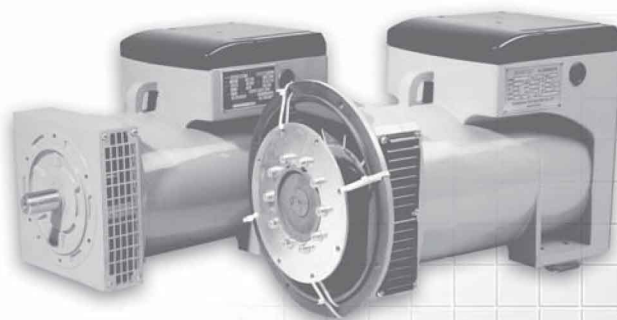
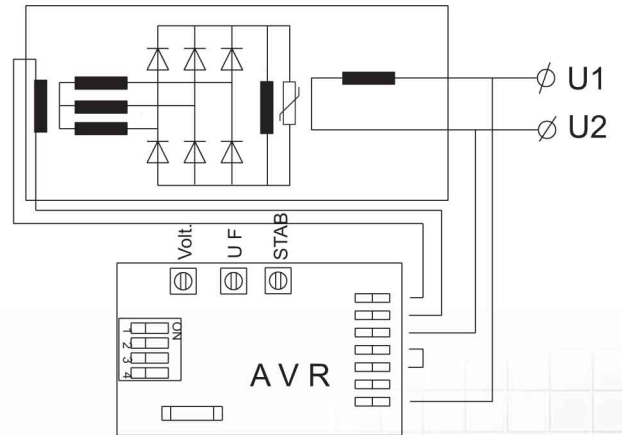
HM1 Three - Phase Aternators: wiring diagram



HM2 Single - Phase Aternators: wiring diagram



HM2 Three - Phase Aternators: wiring diagram



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IEC MOTOR

GOST MOTOR

NEMA MOTOR

PUMP

GENERATOR

D.C. MOTOR

Technical Characteristics

HM1-Brush (HM2 - Brushless) Series Three Phase Alternator

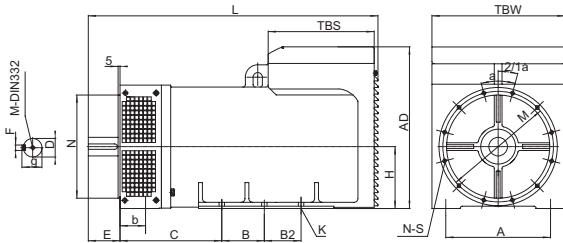
Model	50Hz-Cos ph0.8 – 1500 r.p.m.									60Hz-Cos ph0.8 – 1800 r.p.m.									W.T (kg)
	ΔCL.H		ΔCL.F						ΔCL.H		ΔCL.F								
	Rating		Rating		Eff.%		Driving Power		Start. Cap	Rating		Rating		Eff.%		Driving Power		Start. Cap	
	KVA	KW	KVA	KW	F/L	0.75F/L	KW	HP	KVA	KVA	KW	KVA	KW	F/L	0.75F/L	KW	HP	KVA	
HM1(HM2)-132MR-4	7	5.6	6.5	5.2	81	82	6.4	8.7	23	8.75	7	8	6.4	82	84	7.7	10.4	28	85
HM1(HM2)-132MA-4	8.75	7	8	6.4	82	83.5	7.8	10.6	28	10.75	8.6	10	8	83	85	9.5	13	35	92
HM1(HM2)-132MC-4	11	8.8	10	8	83	84.5	9.6	13	35	13.5	10.8	12.5	10	84	85	11.9	16.1	43	97
HM1(HM2)-132MD-4	13.5	10.8	12.5	10	84	85	11.9	16.1	44	16.75	13.4	15.5	12.4	85	86	14.5	19.7	54	106
HM1(HM2)-132LC-4	16	12.8	15	12	85	86	14.1	19.2	53	20	16	18.75	15	86	87	17.4	23.6	64	120
HM2-160SA-4	17.5	14	16	13	85	86	15.3	21	60	21	16.8	20	16	85.5	86	18.9	25.7	70	145
HM2-160SB-4	22.5	18	20	16	86	87	19	26	75	27	21.6	24.5	19.6	86.5	87	22.8	31	90	150
HM2-160SC-4	27	21.6	25	20	87	88	23	32	90	33	26	30	24	87.5	88	27.5	37.4	115	170
HM2-160SD-4	30	24	27.5	22	87.5	88.5	25	34.2	98	35	28	33	26.4	88	88.5	30	41	125	185
HM2-160MA-4	34	27.2	32	25	88	89	29	40	105	40	32	38	30.4	88.5	89	34.5	46.9	150	195
HM2-160MB-4	43	34.4	40	32	89	90	36	50	140	52	41.2	49	39.2	89.5	89.5	44	59.8	190	220
HM2-200SA-4	50	40	45	36	89.5	91	40	55	150	60	48	55	44	90	90	49.1	66.7	195	260
HM2-200SB-4	63	50.4	58	46	90	91	52	71	180	75	60	72	57.6	90	90.5	64	87	210	285
HM2-200SC-4	75	60	68.8	55	90.3	91.3	81	83	210	91.6	73	82.5	66	90.5	91	73	100	240	300
HM2-200SD-4	83	66.4	75	60	90.5	91.5	67	91	235	100	80	90	72	91	91.5	79.1	107.5	265	345
HM2-200MB-4	100	80	90	72	91	92	80	108	280	120	96	110	88	91.5	92	96.1	130	320	382
HM2-200MD-4	110	88	100	80	91.2	92	88	120	320	130	104	125	100	92	92.5	108	147	375	405

HM1-Brush (HM2 -Brushless) Series Single Phase Alternator

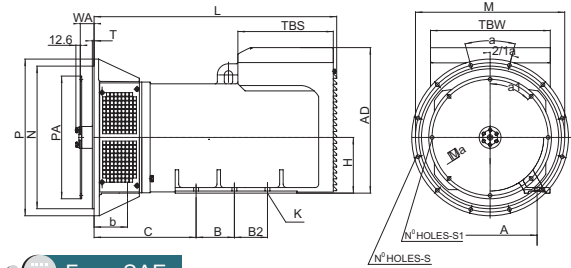
Model	50Hz-Cos ph0.9 – 1500 r.p.m.							60Hz-Cos ph0.9 – 1800 r.p.m.							W.T (kg)
	ΔCL.H							ΔCL.H							
	Rating		Eff.%		Driving Power		Start. Cap	Rating		Eff.%		Driving Power		Start. Cap	
	KVA	KW	F/L	0.75F/L	KW	HP	KVA	KVA	KW	F/L	0.75F/L	KW	HP	KVA	
HM1S(HM2S)-132MR-4	5	4.5	76	77	5.9	8	16	6.25	5.6	77	78	7.3	9.9	19	88
HM1S(HM2S)-132MA-4	6	5.4	76.4	77.4	7	9.6	19	7.5	6.75	77.5	78.5	8.7	11.9	23	92
HM1S(HM2S)-132MC-4	8	7.2	78	79	9.3	12.5	25	10	9	79	80	11.5	15.6	31	100
HM1S(HM2S)-132LD-4	10	9	79	80	11.4	15.5	31	12.5	11.25	80	81.5	14	19	38	113
HM1S(HM2S)-132LC-4	11.5	10.35	79.5	80.5	13	17.5	36	14.5	13	80.5	82	16.2	22	44	125
HM2S-160SA-4	15	13.5	81	82.5	16.7	22.7	41	17.8	16	82	82.5	19.5	27	53	168
HM2S-160MA-4	20	18	82	83	22	30	46	24	22	83	83.5	26.5	36	70	182
HM2S-160MB-4	25	22.5	83	84	27	37	51	30	27	84	84.5	32	43.7	84	195
HM2S-160MC-4	30	27	84	85	32	44	57	35.5	32	85	85.5	37.6	51.2	90	210

Model	50Hz-Cos ph0.8 – 1500 r.p.m.							60Hz-Cos ph0.8 – 1800 r.p.m.							W.T (kg)
	ΔCL.H							ΔCL.H							
	Rating		Eff.%		Driving Power		Start. Cap	Rating		Eff.%		Driving Power		Start. Cap	
	KVA	KW	F/L	0.75F/L	KW	HP	KVA	KVA	KW	F/L	0.75F/L	KW	HP	KVA	
HM1S(HM2S)-132MR-4	5	4	74	75	5.4	7.5	16	6.25	5	75	76	6.7	9	20	90
HM1S(HM2S)-132MA-4	6	4.8	75	76	6.4	8.7	19	7.5	6	76	77	7.9	10.8	24	95
HM1S(HM2S)-132MC-4	7.5	6	76	77	8	11	24	9.375	7.5	76.5	77.5	9.8	13.4	29	105
HM1S(HM2S)-132LD-4	10	8	77	78	10.5	14.2	32	12.5	10	77.7	78.7	13	18	38	118
HM1S(HM2S)-132LC-4	11.5	9.2	78	79	12	16.3	34	13.75	11	78.6	79.6	14	19	41	130
HM2S-160SA-4	15	12	79	80	15.2	21	40	18.75	15	79.5	80.5	18.9	25.7	54	175
HM2S-160MA-4	20	16	80	81	20	27.2	42	24	19.2	81	82	18.9	25.7	62.5	190
HM2S-160MB-4	25	20	81	82	24.7	33.6	51	30	24	82	83	30	40	75	205
HM2S-160MC-4	30	24	82	83	29.3	40	57	36	28.8	83	84	35	47.5	90	220

Overall Dimensions



Form B3/B14



Form SAE

B3/B14

Frame	A	B	B2	b	C	H	K	D	g	F	E	M	N	N-S	α	AD	L	TBS	TBW
132M	206	56	—	40	356	132 ⁰ _{-0.5}	6- ϕ 14	ϕ 32 ^{h6}	35	10 ^{h9}	60	ϕ 210	ϕ 180 ^{h6}	6-M10	60°	370	556	290	262
132L					411												611		
160S	270	95	—	66	263	160 ⁰ _{-0.5}	6- ϕ 14	ϕ 48 ^{h6}	51.5	14 ^{h9}	82	ϕ 285.8	ϕ 266.7 ^{h6}	8-M10	45°	418	640	274	344
160M		110			95		263										8- ϕ 14		
200S	340	120	—	57	457	200 ⁰ _{-0.5}	6- ϕ 18	ϕ 60 ^{h6}	64	18 ^{h9}	105	ϕ 381	ϕ 362 ^{h6}	12-M10	30°	510	795	343	410
200M					120		437										8- ϕ 18		

SAE

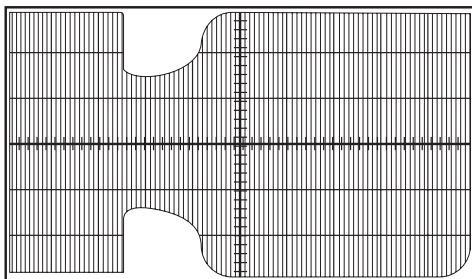
Frame	A	B	B2	b	C	H	K	T	AD	L	TBS	TBW	Flange SAE		Flywheel SAE		
													5	4	3	6 1/2	7 1/2
132M	206	56	—	64	380	132 ⁰ _{-0.5}	6- ϕ 14	5	370	520	290	262	5	4	3	6 1/2	7 1/2
132L					435					575							
160S	270	95	—	96	293	160 ⁰ _{-0.5}	6- ϕ 14	5	418	588	274	344	5	4	3	6 1/2	7 1/2
160M		110					95			8- ϕ 14							
200S	340	120	—	83	483	200 ⁰ _{-0.5}	6- ϕ 18	5	510	715	343	410	3	2	1	8	10
200M					120		463			8- ϕ 18							

Flange

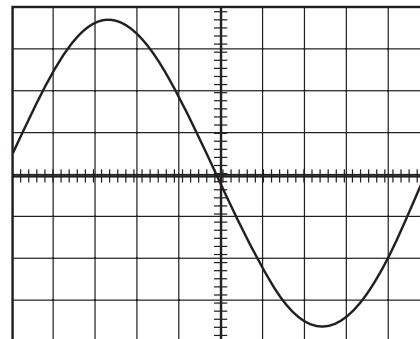
SAE N°	N	P	M	S	α	Flywheel Disc SAE
5	ϕ 314.3 ^{h6}	ϕ 356	ϕ 333.4	8- ϕ 11	45°	6 1/2 - 7 1/2 - 8
4	ϕ 362 ^{h6}	ϕ 405	ϕ 381	12- ϕ 11	30°	6 1/2 - 7 1/2 - 8 - 10
3	ϕ 409.6 ^{h6}	ϕ 450	ϕ 428.6	12- ϕ 11	30°	8 - 10 - 11 1/2
2	ϕ 447.7 ^{h6}	ϕ 490	ϕ 466.7			10 - 11 1/2
1	ϕ 511.18 ^{h6}	ϕ 550	ϕ 530.2			11 1/2 - 14

Fly wheel Disc

SAE N°	PA ^{-0.02} _{-0.05}	Ma	S1	α_1	WA	WB
6 1/2	ϕ 215.9	ϕ 200	6- ϕ 9	60°	30.2	22
7 1/2	ϕ 241.3	ϕ 222.3	8- ϕ 9	45°	30.2	22
8	ϕ 263.52	ϕ 244.5	6- ϕ 11	60°	62	17
10	ϕ 314.32	ϕ 295.3	8- ϕ 11	45°	53.8	25.2
11 1/2	ϕ 352.42	ϕ 333.4	8- ϕ 11	45°	39.6	39.4
14	ϕ 466.72	ϕ 438.2	8- ϕ 14	45°	25.4	53.6



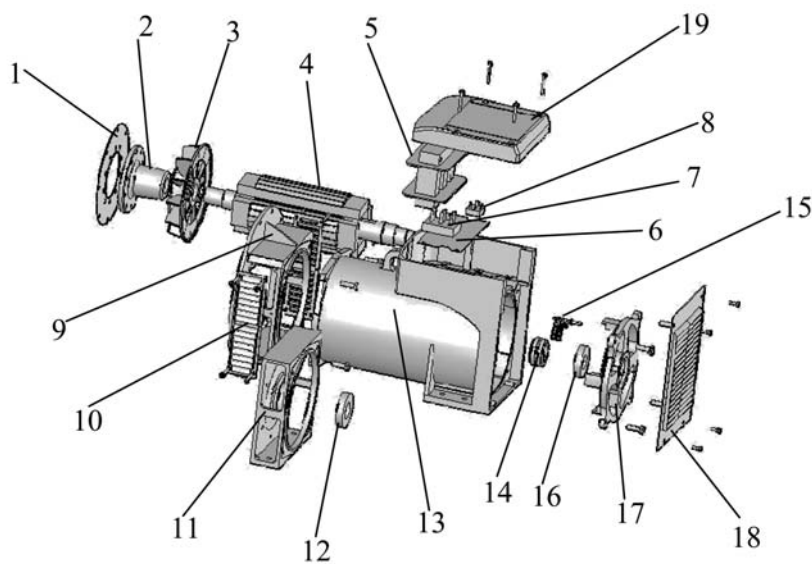
Voltage diagram when starting an asynchronous motor with power(in HP) equal to the power (in KVA) of the alternator.



Wave form of the load voltage COS ϕ 0,8

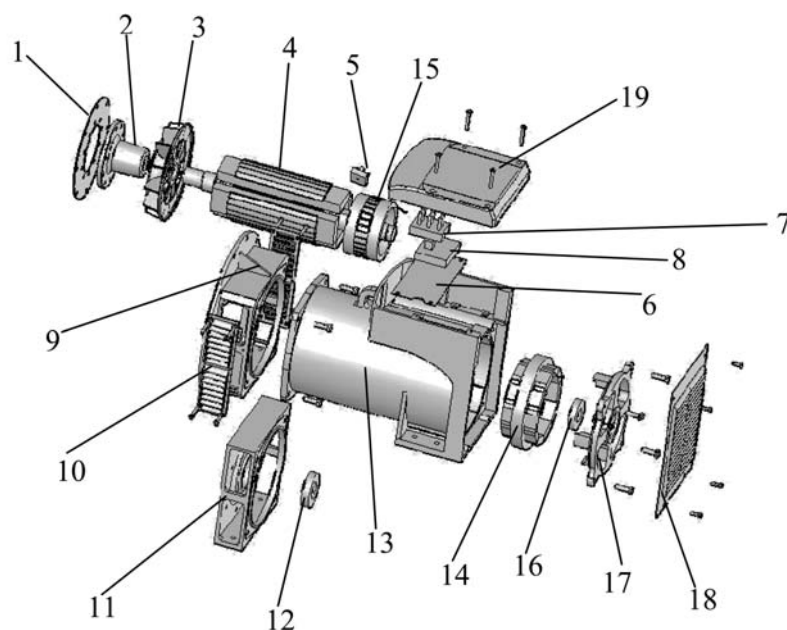
A Alternator Components List/Drawing

HM1 Series



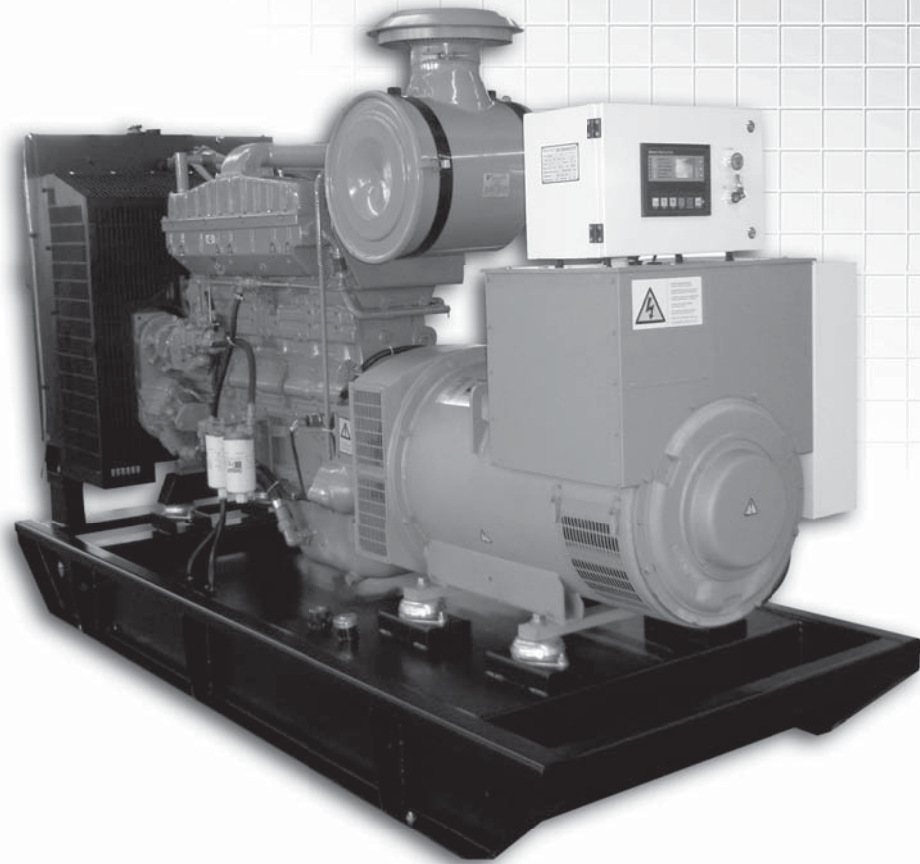
1. Coupling Disc Sae
2. Coupling
3. Fan
4. Rotor
5. Reactor
6. Complete Regulation Panel
7. Terminal Board
8. Rectifier
9. B2 D.E.Shield
10. De.Protection
11. B34 D.E.Shield
12. D.E.Bearing
13. Frame With Stator
14. Slip - Ring
15. Brush
16. N.D.E.Bearing
17. Rear Endshield
18. Rear Protection
19. Terminal Box Cover

HM2 Series



1. Coupling Disc Sae
2. Coupling
3. Fan
4. Rotor
5. Rotating Rectifier
6. Complete Regulation Panel
7. Terminal Board
8. A.V.R
9. B2 D.E.Shield
10. De.Protection
11. B34 D.E.Shield
12. D.E.Bearing
13. Frame With Stator
14. Exciter Stator
15. Exciter Rotor
16. N.D.E.Bearing
17. Rear Endshield
18. Rear Protection
19. Terminal Box Cover

GF2 Series Diesel Generating Sets



IEC MOTOR

GOST MOTOR

NEMA MOTOR

PUMP

GENERATOR

D.C. MOTOR

The Instruction Of Diesel Generating Sets

1. Diesel generating sets

–All diesel generating sets include diesel engine, alternator and control box

2. Starting method of gensets

–Manual switcher

Automatic starting: when electric supply has been stopped, the gensets can start three times automatically in 3–28 seconds (time can be adjustable) between electric supply and gensets need 6–8 seconds. It will spend 12 seconds to accept load when electric supply resumed, genset will maintain 20–230 seconds, then closes down automatically.

3. Control system

–Apparatus: voltmeter, frequency meter, amperage meter, voltmeter of battery, meter of water temp. oil meter, control section: starting/halt, key type switch, inductive type self-protection switch, and indicator lamp

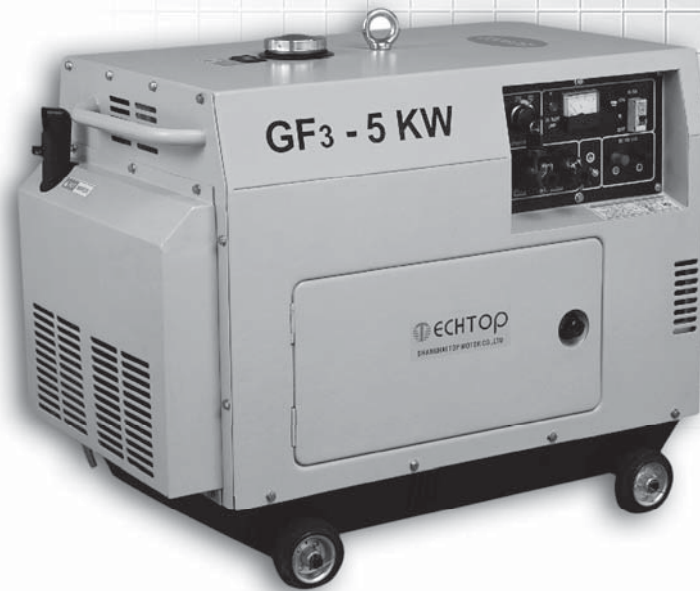
T echnical Data

Genset Model	50HZ, Power Factor 0.8(Lag) 400V 3-Phase 4-Wire				Fuel Cons.- Full Load L/Hr	Cummins Engine (1500 r.p.m.)											Genset Dimension & Weight				Alternator HM2 Or Stamfort	
	Standby Output		Prime Output			Engine Model	Standby Output (kw)	Rated Output (kw)	Cyl.	Bore (mm)	Stroke (mm)	Disp. (L)	Air Exhaust (M ³ /Min)	Air Cons. (M ³ /Min)	Smoke Volume (M ³ /Min)	Exhaust Temp. (°C)	Oil Tank (L)	Overall Size (mm)				N.Wt. (kg)
	KW	KVA	KW	KVA														L	W	H		
GF2-20C	22.0	27.5	20	25.0	6.7	4B3.9-G1	27	24.5	4	102	120	3.9	135.6	4.13	9.96	380	10.9	1690	850	1230	830	160SC
GF2-20C	22.0	27.5	20	25.0	6.7	4B3.9-G1	27	24.5	4	102	120	3.9	135.6	4.13	9.96	380	10.9	1630	850	1250	830	184F
GF2-20C	22.0	27.5	20	25.0	6.7	4B3.9-G2	27	24.5	4	102	120	3.9	135.6	4.13	9.96	380	10.9	1690	850	1230	830	160SC
GF2-20C	22.0	27.5	20	25.0	6.7	4B3.9-G2	27	24.5	4	102	120	3.9	135.6	4.13	9.96	380	10.9	1630	850	1250	830	184F
GF2-25C	27.5	34.4	25	31.3	9.3	4BT3.9-G1	40	36.3	4	102	120	3.9	135.6	4.13	9.96	463	10.9	1800	850	1230	865	160MA
GF2-25C	27.5	34.4	25	31.3	9.3	4BT3.9-G1	40	36.3	4	102	120	3.9	135.6	4.13	9.96	463	10.9	1630	850	1250	865	184G
GF2-25C	27.5	34.4	25	31.3	9.3	4BT3.9-G2	40	36.3	4	102	120	3.9	135.6	4.13	9.96	463	10.9	1800	850	1230	865	160MA
GF2-25C	27.5	34.4	25	31.3	9.3	4BT3.9-G2	40	36.3	4	102	120	3.9	135.6	4.13	9.96	463	10.9	1630	850	1250	865	184G
GF2-30C	33.0	41.3	30	37.5	9.3	4BT3.9-G1	40	36.3	4	102	120	3.9	135.6	4.13	9.96	463	10.9	1800	850	1230	865	160MB
GF2-30C	33.0	41.3	30	37.5	9.3	4BT3.9-G1	40	36.3	4	102	120	3.9	135.6	4.13	9.96	463	10.9	1760	850	1250	865	184H
GF2-30C	33.0	41.3	30	37.5	9.3	4BT3.9-G2	40	36.3	4	102	120	3.9	135.6	4.13	9.96	463	10.9	1800	850	1240	930	160MB
GF2-30C	33.0	41.3	30	37.5	9.3	4BT3.9-G2	40	36.3	4	102	120	3.9	135.6	4.13	9.96	463	10.9	1760	850	1260	930	184H
GF2-40C	44.0	55.0	40	50.0	12.9	4BTA3.9-G2	55	50	4	102	120	3.9	135.6	4.13	9.96	526	10.9	1820	900	1250	1050	200SA
GF2-40C	44.0	55.0	40	50.0	12.9	4BTA3.9-G2	55	50	4	102	120	3.9	135.6	4.13	9.96	526	10.9	1750	900	1280	1050	224D
GF2-48C	52.8	66.0	48	60.0	14.1	4BTA3.9-G2	55	50	4	102	120	3.9	135.6	4.13	9.96	548	10.9	1820	900	1250	1050	200SB
GF2-48C	52.8	66.0	48	60.0	14.1	4BTA3.9-G2	55	50	4	102	120	3.9	135.6	4.13	9.96	548	10.9	1840	900	1280	1050	224E
GF2-58C	63.8	79.8	58	72.5	17.0	6BT5.9-G1	92	83.6	6	102	120	5.9	148.0	5.80	14.00	526	16.4	2100	1020	1350	1250	200SD
GF2-58C	63.8	79.8	58	72.5	17.0	6BT5.9-G1	92	83.6	6	102	120	5.9	148.0	5.80	14.00	526	16.4	2120	1020	1370	1250	224F
GF2-68C	74.8	93.5	68	85.0	20.0	6BT5.9-G1	92	83.6	6	102	120	5.9	148.0	5.80	14.00	526	16.4	2200	1020	1350	1250	200MB
GF2-68C	74.8	93.5	68	85.0	20.0	6BT5.9-G1	92	83.6	6	102	120	5.9	148.0	5.80	14.00	526	16.4	2170	1020	1370	1250	224G
GF2-75C	82.5	103.1	75	93.8	25.0	6BT5.9-G1	92	83.6	6	102	120	5.9	148.0	5.80	14.00	565	16.4	2200	1020	1350	1350	200MB
GF2-75C	82.5	103.1	75	93.8	25.0	6BT5.9-G1	92	83.6	6	102	120	5.9	148.0	5.80	14.00	565	16.4	2130	1020	1420	1350	274C
GF2-75C	82.5	103.1	75	93.8	25.0	6BT5.9-G2	92	83.6	6	102	120	5.9	148.0	5.80	14.00	565	16.4	2200	1020	1350	1350	200MB
GF2-75C	82.5	103.1	75	93.8	25.0	6BT5.9-G2	92	83.6	6	102	120	5.9	148.0	5.80	14.00	565	16.4	2130	1020	1420	1350	274C
GF2-90C	99.0	123.8	90	112.5	30.0	6BTA5.9-G2	120	109	6	102	120	5.9	176.0	7.60	21.00	481	16.4	2080	1020	1470	1450	274D
GF2-100C	110.0	137.5	100	125.0	34.0	6BTAA5.9-G2	130	118.1	6	102	120	5.9	176.0	7.60	21.00	495	16.4	2270	1020	1510	1600	274E
GF2-128C	140.8	176.0	128	160.0	36.6	6CTA8.3-G2	180	163.6	6	114	135	8.3	186.0	11.20	30.84	536	23.8	2340	1080	1450	1700	274F
GF2-140C	154.0	192.5	140	175.0	40.0	6CTA8.3-G2	180	163.6	6	114	135	8.3	186.0	11.20	30.84	536	23.8	2390	1080	1450	1750	274G
GF2-160C	176.0	220.0	160	200.0	47.0	6CTAA8.3-G2	202	183.6	6	114	135	8.3	240.0	16.80	32.58	570	23.8	2490	1080	1610	1800	274H
GF2-200C	220.0	275.0	200	250.0	53.0	6LTAA8.9-G2	240	218.1	6	114	145	8.9	490.0	20.70	56.90	580	27.6	2550	1080	1600	1950	274K

※ This brochure is only a reference to customers without binding force on us.
Excuse for none notice anymore in case of data changed

GF3 Series

Low Noise Diesel Generating Sets



IEC MOTOR

GOST MOTOR

NEMA MOTOR

PUMP

GENERATOR

D.C. MOTOR

1. Top air-cooled, 4-stroke, direct injection diesel engine are built to meet the demanding stress of every day operation.
2. The super silencer and high efficient inwulating material lined enclosure reduced the operation noise and vibration to animum.
3. Automatically shuts the engine when oil pressure drops below safe point, preventing costly engine seizure.
4. Convenient operation
 - No fuse circuit breakers prootestion are convenience.
 - Condenser voltage regulator ensures stable voltage.
 - Various model of voltage output for choice:
 - Single voltage:120v,220v.240v.
 - Dual voltage:120/240v.
 - Large fuel tank ensures more than 10 hours of continuous operation. tank fuel level monitoring.
5. Long live durability
 - New, reliable brushless alternator, which eliminates tine consuming brush maintenance.
 - Trouble frdd condenser voltage regulation guarantee stable output voltage forced feed oil lubrication and balancer assure long service lift.
 - Full rubber mounts reduce vibration and ensure greater protection.

Technical Data

Model	Alternator						Diesel engine		Gensets	
	Model	Rated Output	Rated Voltage (V)	Rated Current (V)	Frequency (Hz)	Power Factor	Power Factor	Fuel Consumption	Dimension Lxmxh (cm)	Net Weight
GF3-3KW	ST3-3KW	3KW	220/110	13.6/27.2	50or60	1.0	178F(5.44HP)	325g/kw.h	83.5x52.5x70.5	133kg
GF3.5KW	ST3-5KW	5KW	220/110	22.7/45.4	50or60	1.0	186F(8.8HP)	318g/kw.h	92x52.5x70.5	170kg

GF3 Series

Low Noise Diesel Generating Sets



Sound Proof Diesel Generating Sets Technical Specifications

1. Safety and reliable designing with emergency stop buttons on control panel and outside of canopy
2. Silencer is built-in canopy with better noise reduction.
3. With a compact structure, common skid, built up type between housing and doors, the canopy is very convenient for the factory assembling, after-sales service maintenance. At the same time it has a very good air ventilation system and high efficiency radiation housing to secure a perfect outdoor operation performance.
4. Outside coolant inlet and oil drainage outlet is convenient for maintenance.
5. Aluminum alloy hinges and door locks are strong with good looking and rust proof.
6. High temperature powder coating canopy enclosure with high rust proof , strong air proof performance can be used for outdoor all-weather durable operation.
7. High volume skid type fuel tank for easier operation.
8. The sound level is measured at 1 meter points from the Genset at full load.



Cummins Series Canopy Type Diesel Generating Sets' Techdata list

Genset Model	50HZ, Power Factor 0.8(Lag) 400V 3-Phase 4-Wire				Fuel Cons.- Full Load L/Hr	Cummins Engine (1500 r.p.m.)											Genset Dimension & Weight			Alternator HM2 Or Stamford	Noise Db(A)			
	Standby Output		Prime Output			Engine Model	Standby Output (kw)	Rated Output (kw)	Cyl.	Bore (mm)	Stroke (mm)	Disp. (L)	Air Exhaust (M ³ /Min)	Air Cons. (M ³ /Min)	Smoke Volume (M ³ /Min)	Exhaust Temp. (°C)	Oil Tank (L)	Overall Size (mm)				N.Wt. (Kg)	Amodel	
	KW	KVA	KW	KVA														L	W					H
GF3-20C	22	28	20	25	6.7	4B3.9-G1	27	24.5	4	102	120	3.9	135.6	4.13	9.96	380	10.9	2500	1000	1450	1130	160SC/184F	75.7	
GF3-20C	22	28	20	25	6.7	4B3.9-G2	27	24.5	4	102	120	3.9	135.6	4.13	9.96	380	10.9	2500	1000	1450	1130	160SC/184F	75.7	
GF3-25C	28	34	25	31	9.3	4BT3.9-G1	40	36.3	4	102	120	3.9	135.6	4.13	9.96	463	10.9	2500	1000	1450	1150	184G	76.8	
GF3-25C	28	34	25	31	9.3	4BT3.9-G2	40	36.3	4	102	120	3.9	135.6	4.13	9.96	463	10.9	2500	1000	1450	1150	184G	76.8	
GF3-25C	28	34	25	31	9.3	4BT3.9-G1	40	36.3	4	102	120	3.9	135.6	4.13	9.96	463	10.9	2590	1000	1450	1230	160MA	76.8	
GF3-25C	28	34	25	31	9.3	4BT3.9-G2	40	36.3	4	102	120	3.9	135.6	4.13	9.96	463	10.9	2590	1000	1450	1230	160MA	76.8	
GF3-30C	33	41	30	38	9.3	4BT3.9-G1	40	36.3	4	102	120	3.9	135.6	4.13	9.96	463	10.9	2590	1000	1450	1230	160MB/184H	76.8	
GF3-30C	33	41	30	38	9.3	4BT3.9-G2	40	36.3	4	102	120	3.9	135.6	4.13	9.96	463	10.9	2590	1000	1450	1230	160/MB184H	76.8	
GF3-40C	44	55	40	50	12.9	4BTA3.9-G2	55	50	4	102	120	3.9	135.6	4.13	9.96	526	10.9	2640	1040	1500	1350	200SB/224D	78.5	
GF3-48C	53	66	48	60	14.1	4BTA3.9-G2	55	50	4	102	120	3.9	135.6	4.13	9.96	548	10.9	2640	1040	1500	1350	200SB/224E	78.5	
GF3-58C	64	80	58	73	17.0	6BT5.9-G1	92	83.6	6	102	120	5.9	148.0	5.80	14.00	526	16.4	3060	1120	1700	1800	200SD/224F	79.0	
GF3-68C	75	94	68	85	20.0	6BT5.9-G1	92	83.6	6	102	120	5.9	148.0	5.80	14.00	526	16.4	3060	1120	1700	1850	200MB/224G	79.0	
GF3-75C	83	103	75	94	25.0	6BT5.9-G1	92	83.6	6	102	120	5.9	148.0	5.80	14.00	565	16.4	3060	1120	1700	1900	200MD/274C	79.0	
GF3-75C	83	103	75	94	25.0	6BT5.9-G2	92	83.6	6	102	120	5.9	148.0	5.80	14.00	565	16.4	3060	1120	1700	1900	200MD/274C	79.0	
GF3-90C	99	124	90	113	30.0	6BTA5.9-G2	120	109	6	102	120	5.9	176.0	7.60	21.00	481	16.4	3060	1120	1700	2000	274D	79.3	
GF3-100C	110	138	100	125	34.0	6BTA5.9-G2	130	118.1	6	102	120	5.9	176.0	7.60	21.00	495	16.4	3210	1160	1750	2100	274E	79.3	
GF3-128C	141	176	128	160	36.6	6CTA8.3-G2	180	163.6	6	114	135	8.3	186.0	11.20	30.84	536	23.8	3210	1160	1750	2600	274F	79.6	
GF3-140C	154	193	140	175	40.0	6CTA8.3-G2	180	163.6	6	114	135	8.3	186.0	11.20	30.84	536	23.8	3210	1160	1750	2700	274G	79.6	
GF3-160C	176	220	160	200	47.0	6CTA8.3-G2	202	183.6	6	114	135	8.3	240.0	16.80	32.58	570	23.8	3500	1170	1950	2800	274H	79.9	
GF3-200C	220	275	200	250	53.0	6LTAA8.9-G2	240	218.1	6	114	145	8.9	490.0	20.70	56.90	580	27.6	3660	1170	1880	2900	274K	80.3	

※ This brochure is only a reference to customers without binding force on us.

Excuse for none notice anymore in case of data changed

1. Genset

- ① Genset adopts integrate constructure, high strength steel skid and floating vibration absorbtion connection.
- ② Cummins engine with 24V starter and radiator cooling system.
- ③ HM2 or Stamford Alternator with AVR, H class insulation, IP22/23 standard protection.
- ④ Special Genset controler modul with auto-start, data sampling and display, trouble alarm and auto-protection. Updatable as per customer's technical request.
- ⑤ With MCCB palstic mould circuit breaker for short circuit and overload protection.
- ⑥ The genset rated output is accordance with the following condition: sea-level ≤ 1000m, ambient temp. ≤ 40°C.

2. Genset with 24V hi-performace battery and chanrging generator (with electric network floating charging function), it can be started continously in six times.

3. The genset equipped with daily fuel tank can be operated more than 6 hours at full load.

4. With silencer, built-in shock absorber, corrugation pipe and simple installation materials.

5. Options: Auto load output pannel; ATS switch board; AMF electric network votage lost auto detect modul; water (fuel) heater; sound proof canopy; trailer.

6. Warranty: One year or 1000 operating hours (which ever the first arrival), fast moving parts and problems caused by abnormal operation is not included in this warranty.



D.C. MOTORS



SL-14 Series

Brushless & Slotless DC Motors

IEC MOTOR

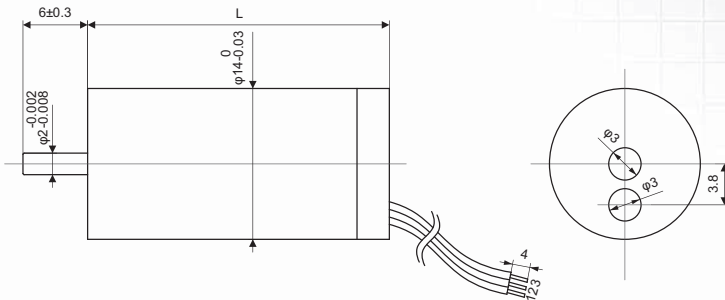
GOST MOTOR

NEMA MOTOR

PUMP

GENERATOR

D.C. MOTOR



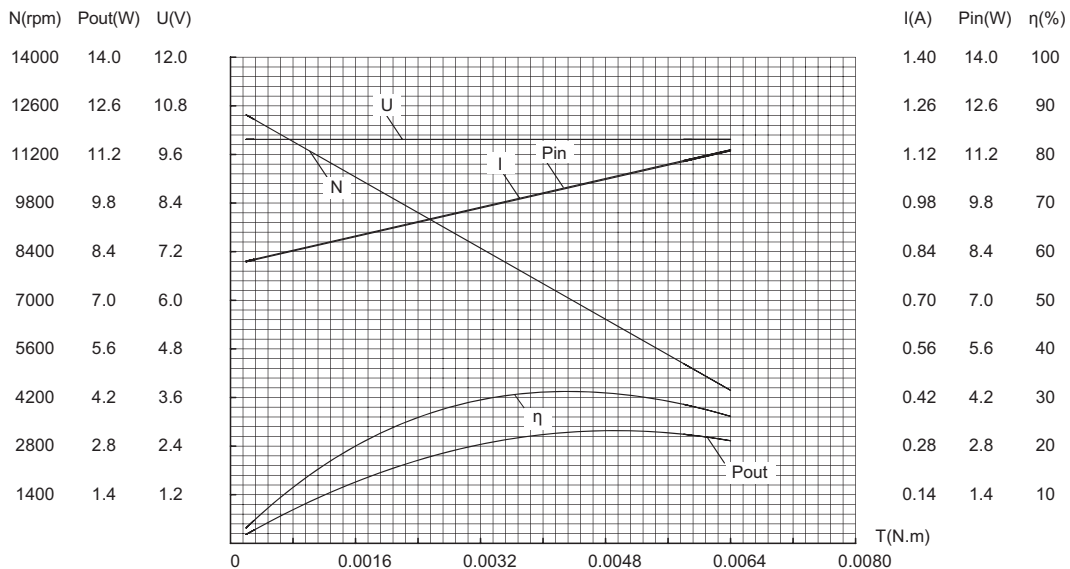
Dimension SL-1428 SL-1435

Specification

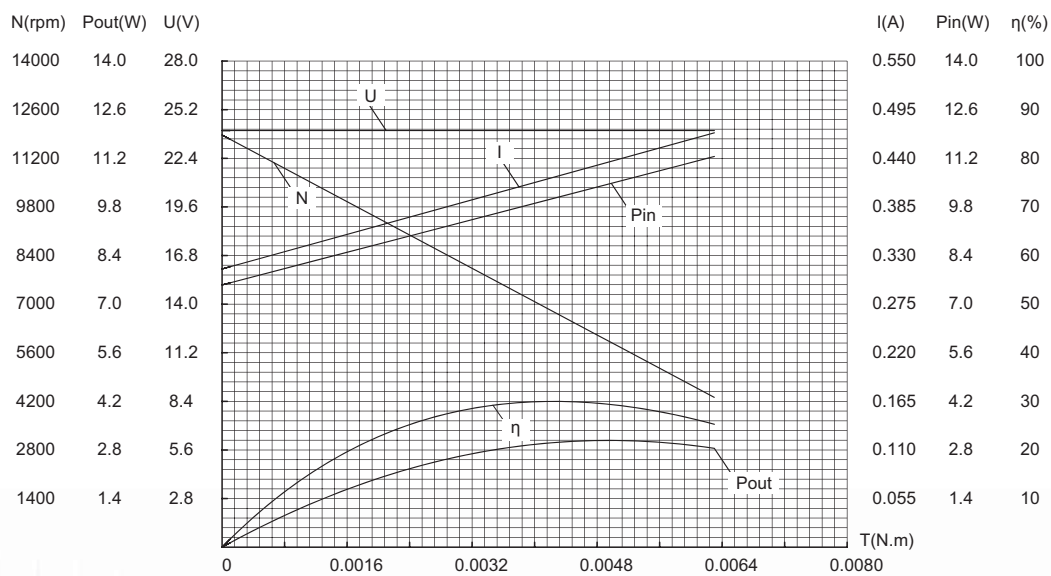
Model	Voltage (V _{DC})	No Load Current (A)	No Load Speed (rpm)	Max Efficiency (%)	Max Torque (N.M)	Max Output (W)	Length(L) (mm)	N.W. (Kg)
SL-1428	10	0.13	20000	31%	0.0064	3.24	28	0.015
SL-1435	24	0.15	20000	30%	0.0063	3.07	35	0.020

※ Controller is requested for motor running

Curve (SL-1428-10V)



Curve (SL-1435-24V)



SL-22 Series

Brushless & Slotless DC Motors

IEC MOTOR

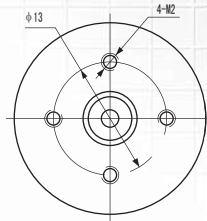
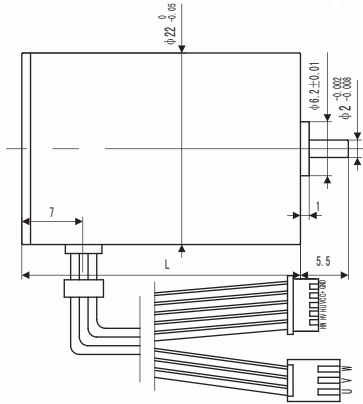
GOST MOTOR

NEMA MOTOR

PUMP

GENERATOR

D.C. MOTOR



Dimension

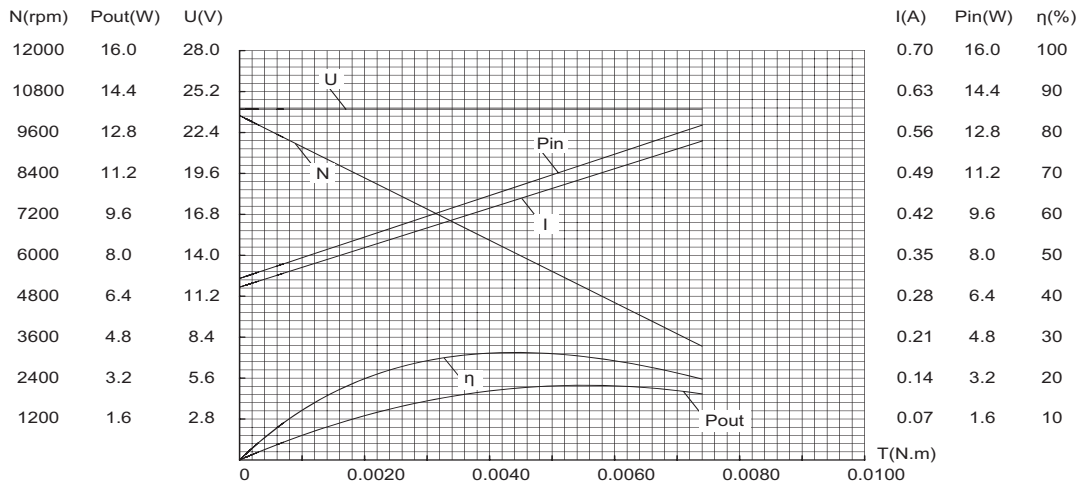
SL-2232 SL-2238 SL-2243 SL-2286

Specification

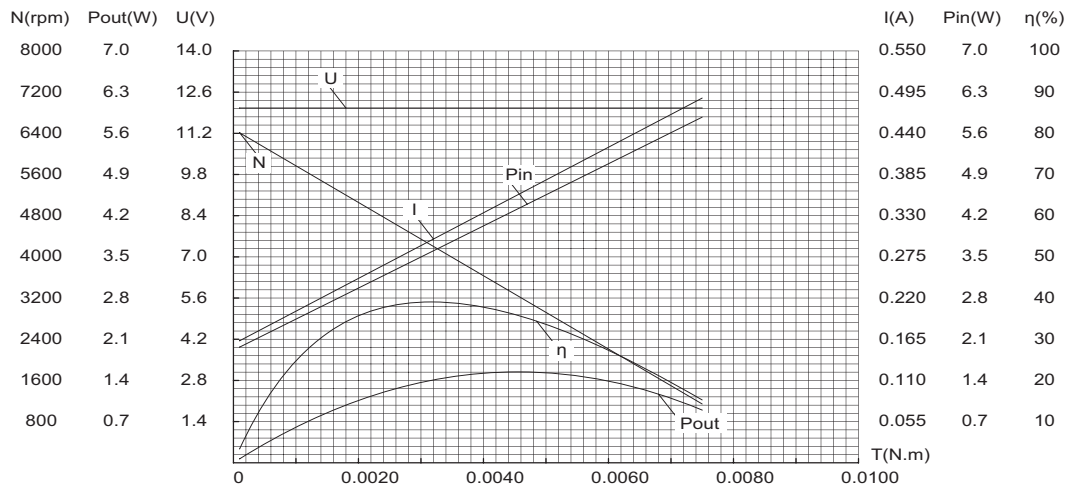
Model	Voltage (V _{DC})	No Load Current (A)	No Load Speed (rpm)	Max Efficiency (%)	Max Torque (N.M)	Max Output (W)	Length(L) (mm)	N.W. (Kg)
SL-2232	24	0.15	10000	26%	0.0074	2.92	32	0.045
	12	0.13	6500	39%	0.0075	1.54	32	0.050
SL-2238	12	0.2	7500	38%	0.0078	2.19	38	0.060
SL-2243	24	0.22	40000	54%	0.0189	11.08	43	0.065
controller built-in								
SL-2286	12	0.13	5500	28%	0.0049	0.91	86	0.065
	24	0.17	11000	32%	0.0083	3.44	86	0.065

※ Controller is requested for motor running

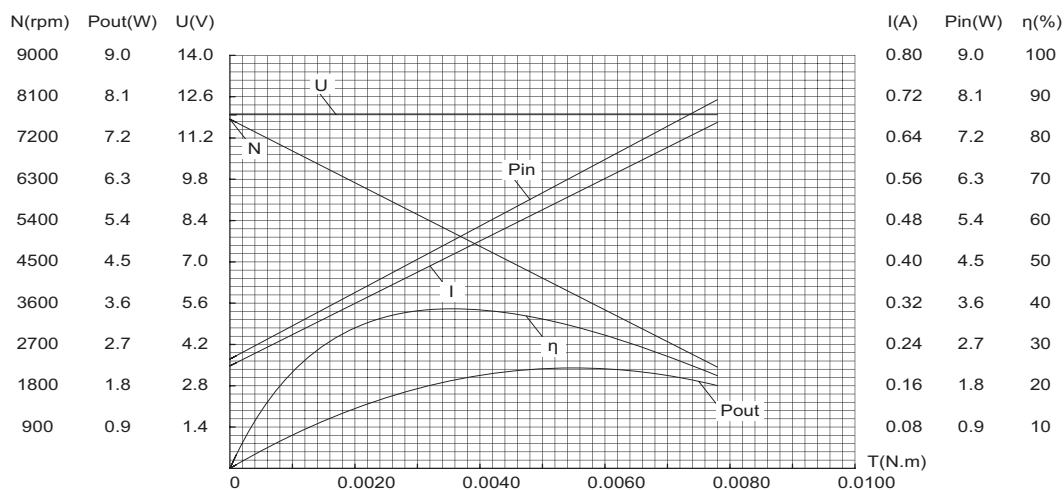
Curve (SL-2232-24V)



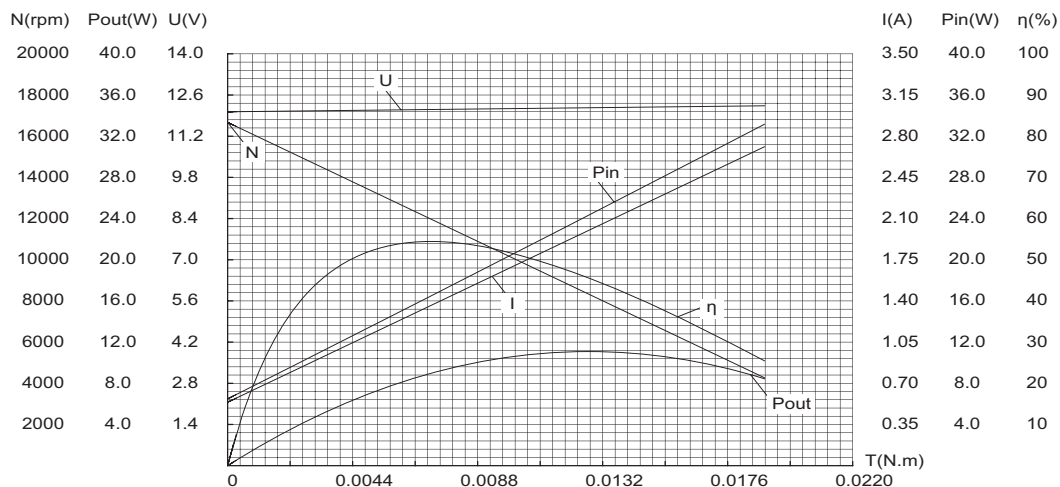
C curve (SL-2232-12V)



C curve (SL-2238-12V)

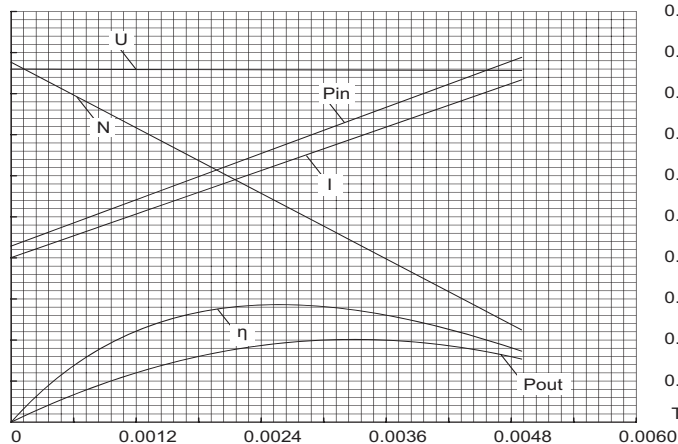


C curve (SL-2243-24V)



Curve (SL-2286-12V)

N(rpm)	Pout(W)	U(V)
6000	4.50	14.0
5400	4.05	12.6
4800	3.60	11.2
4200	3.15	9.8
3600	2.70	8.4
3000	2.25	7.0
2400	1.80	5.6
1800	1.35	4.2
1200	0.90	2.8
600	0.45	1.4

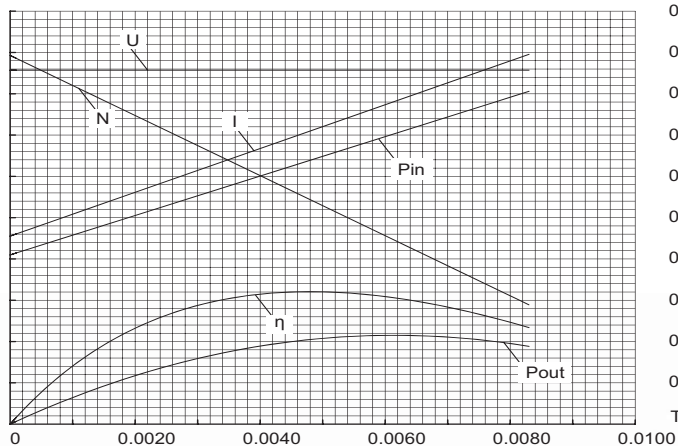


I(A)	Pin(W)	η(%)
0.400	4.50	100
0.360	4.05	90
0.320	3.60	80
0.280	3.15	70
0.240	2.70	60
0.200	2.25	50
0.160	1.80	40
0.120	1.35	30
0.080	0.90	20
0.040	0.45	10

T(N.m)

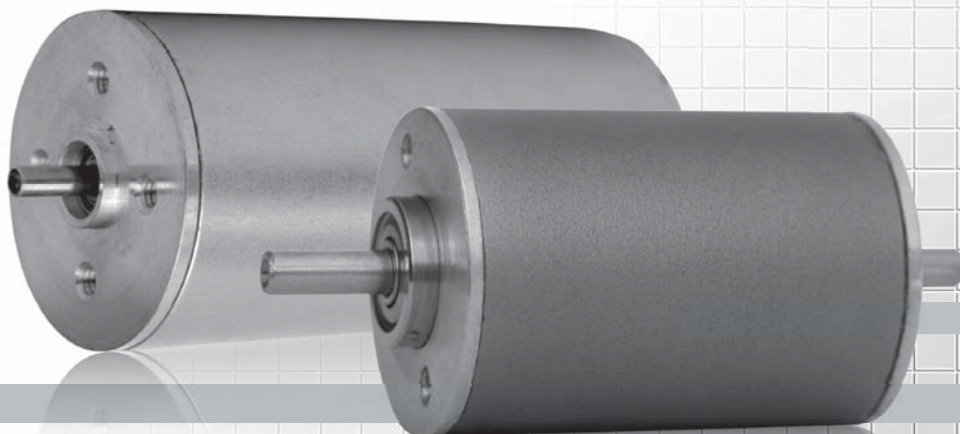
Curve (SL-2286-24V)

N(rpm)	Pout(W)	U(V)
12000	16.0	28.0
10800	14.4	25.2
9600	12.8	22.4
8400	11.2	19.6
7200	9.6	16.8
6000	8.0	14.0
4800	6.4	11.2
3600	4.8	8.4
2400	3.2	5.6
1200	1.6	2.8



I(A)	Pin(W)	η(%)
0.60	16.0	100
0.54	14.4	90
0.48	12.8	80
0.42	11.2	70
0.36	9.6	60
0.30	8.0	50
0.24	6.4	40
0.18	4.8	30
0.12	3.2	20
0.06	1.6	10

T(N.m)



IEC MOTOR

GOST MOTOR

NEMA MOTOR

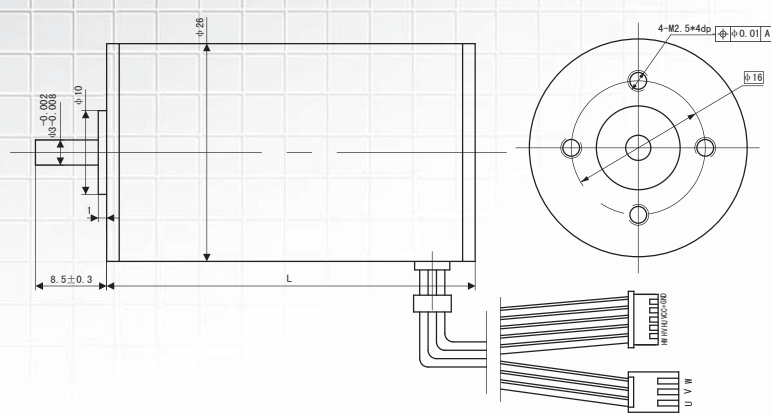
PUMP

GENERATOR

D.C. MOTOR

SL-26 Series

Brushless & Slotless DC Motors



Dimension SL-2644

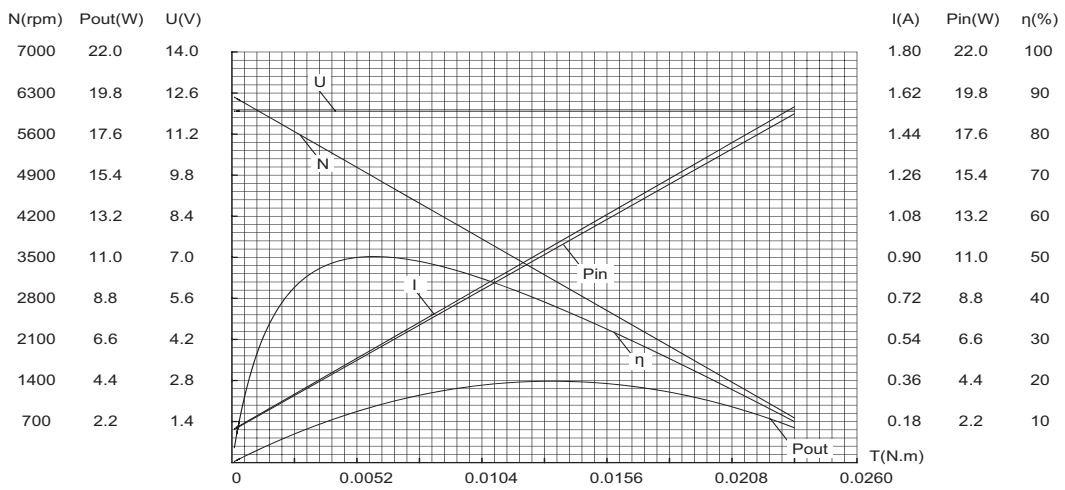


Specification

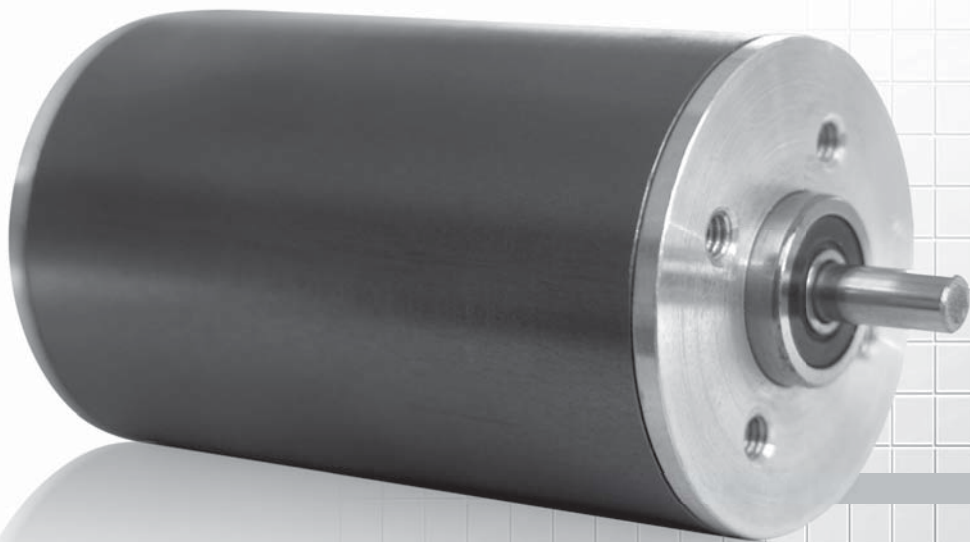
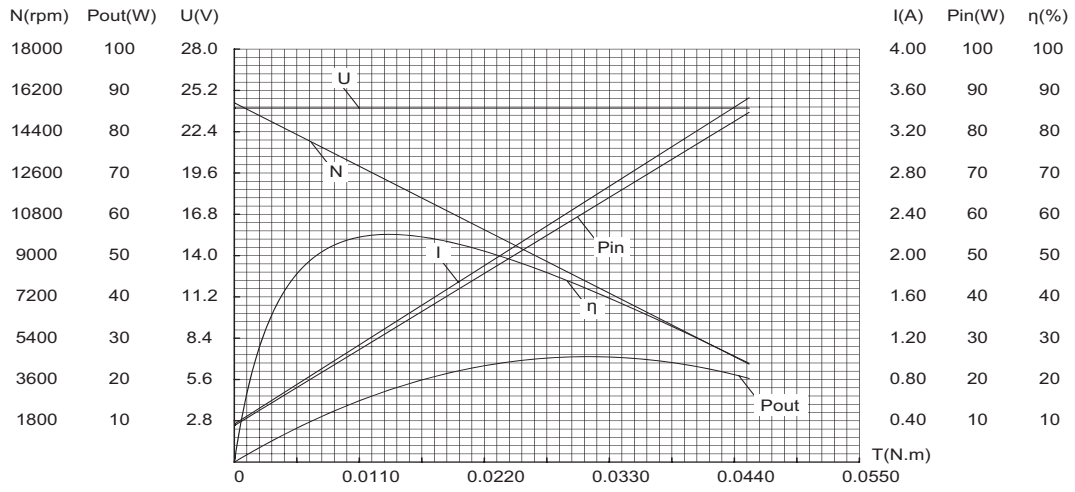
Model	Voltage (V _{DC})	No Load Current (A)	No Load Speed (rpm)	Max Efficiency (%)	Max Torque (N.M)	Max Output (W)	Length(L) (mm)	N.W. (Kg)
SL-2644	12	0.15	6500	50%	0.0234	4.36	44	0.105
	24	0.19	15000	55%	0.0453	25.53	44	0.105

※ Controller is requested for motor running

Curve (SL-2644-12V)



Curve (SL-2644-24V)



IEC MOTOR

GOST MOTOR

NEMA MOTOR

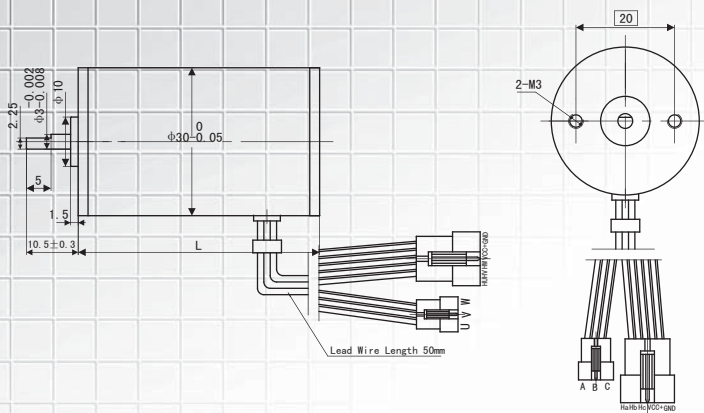
PUMP

GENERATOR

D.C. MOTOR

SL-30 Series

Brushless & Slotless DC Motors



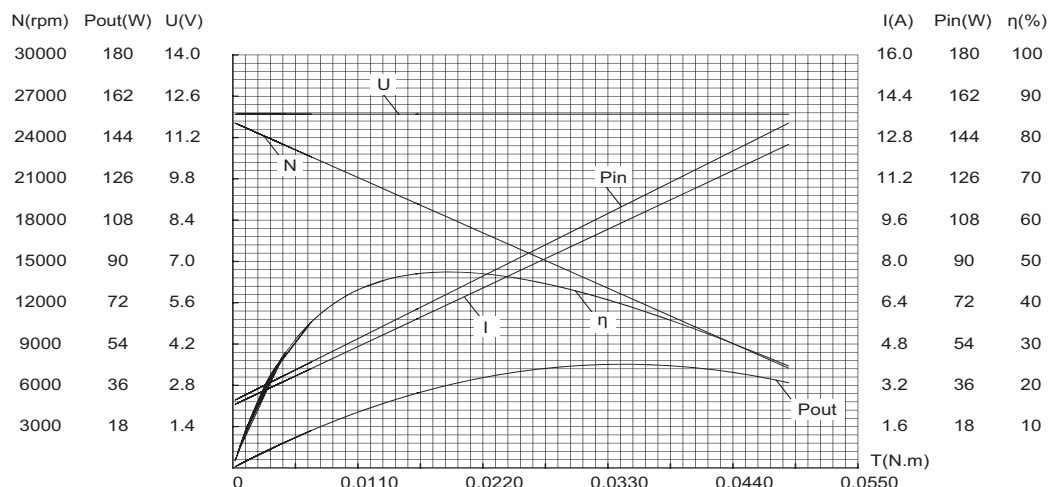
Dimension SL-3049 SL-3056 SL-3096

Specification

Model	Voltage (V _{DC})	No Load Current (A)	No Load Speed (rpm)	Max Efficiency (%)	Max Torque (N.M)	Max Output (W)	Length(L) (mm)	N.W. (Kg)
SL-3049	12	0.34	25000	48%	0.0489	45.19	49	0.150
	24	0.18	9000	59%	0.0664	19.64	49	0.150
SL-3056	12	0.14	5500	59%	0.0642	12.79	56	0.170
	24	0.19	12000	69%	0.1140	58.04	56	0.170
controller built-in <input checked="" type="checkbox"/>								
SL-3096	12	0.18	5500	61%	0.0642	14.46	96	0.185
	24	0.17	6500	63%	0.1086	26.09	96	0.185

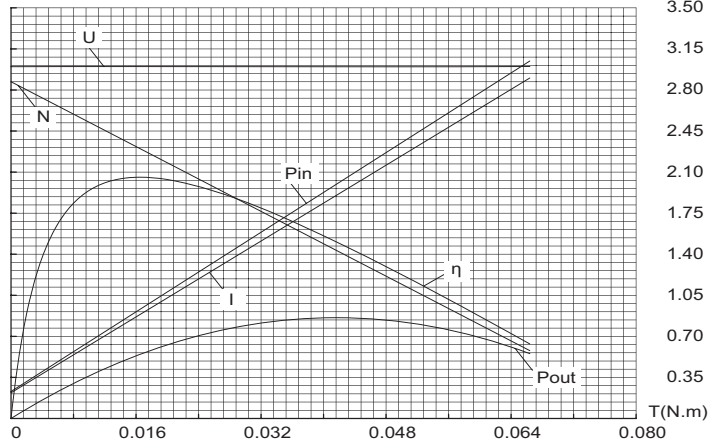
※ Controller is requested for motor running

Curve (SL-3049-12V)



Curve (SL-3049-24V)

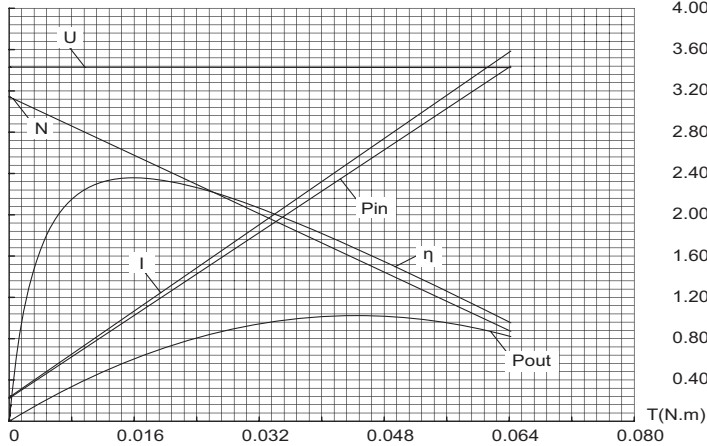
N(rpm)	Pout(W)	U(V)
11000	80	28.0
9900	72	25.2
8800	64	22.4
7700	56	19.6
6600	48	16.8
5500	40	14.0
4400	32	11.2
3300	24	8.4
2200	16	5.6
1100	8	2.8



I(A)	Pin(W)	η(%)
3.50	80	100
3.15	72	90
2.80	64	80
2.45	56	70
2.10	48	60
1.75	40	50
1.40	32	40
1.05	24	30
0.70	16	20
0.35	8	10

Curve (SL-3056-12V)

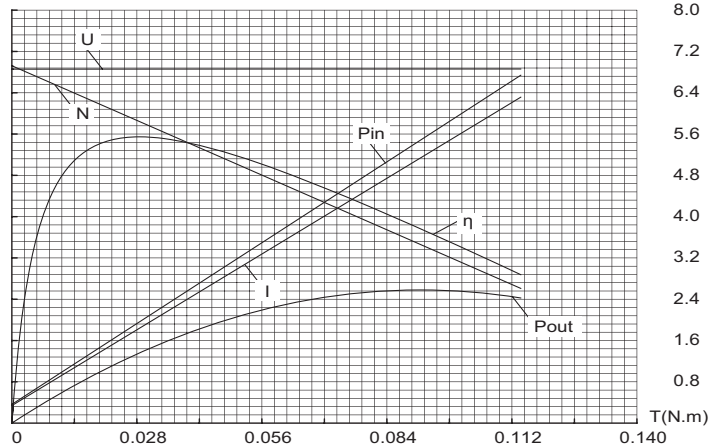
N(rpm)	Pout(W)	U(V)
7000	50.0	14.0
6300	45.0	12.6
5600	40.0	11.2
4900	35.0	9.8
4200	30.0	8.4
3500	25.0	7.0
2800	20.0	5.6
2100	15.0	4.2
1400	10.0	2.8
700	5.0	1.4



I(A)	Pin(W)	η(%)
4.00	50.0	100
3.60	45.0	90
3.20	40.0	80
2.80	35.0	70
2.40	30.0	60
2.00	25.0	50
1.60	20.0	40
1.20	15.0	30
0.80	10.0	20
0.40	5.0	10

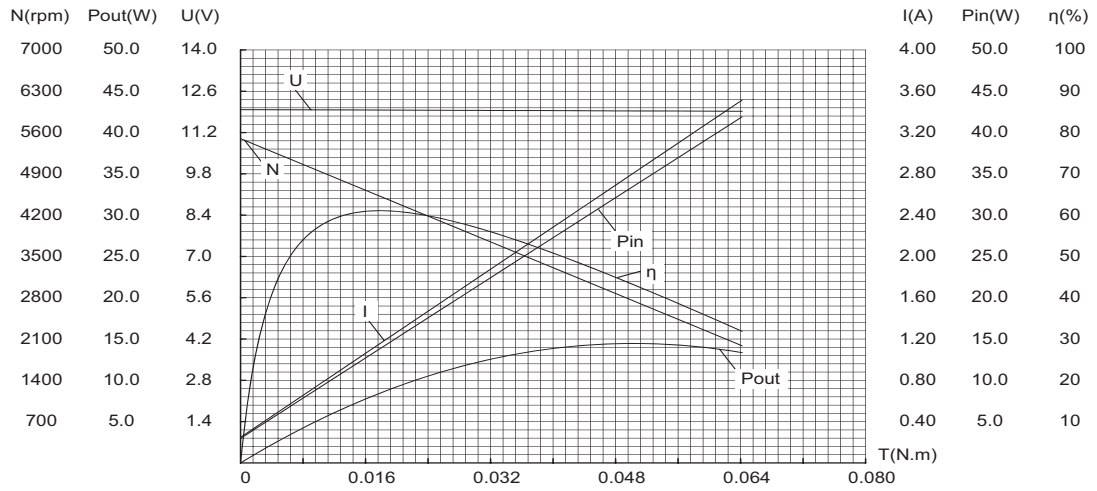
Curve (SL-3056-24V)

N(rpm)	Pout(W)	U(V)
14000	180	28.0
12600	162	25.2
11200	144	22.4
9800	126	19.6
8400	108	16.8
7000	90	14.0
5600	72	11.2
4200	54	8.4
2800	36	5.6
1400	18	2.8

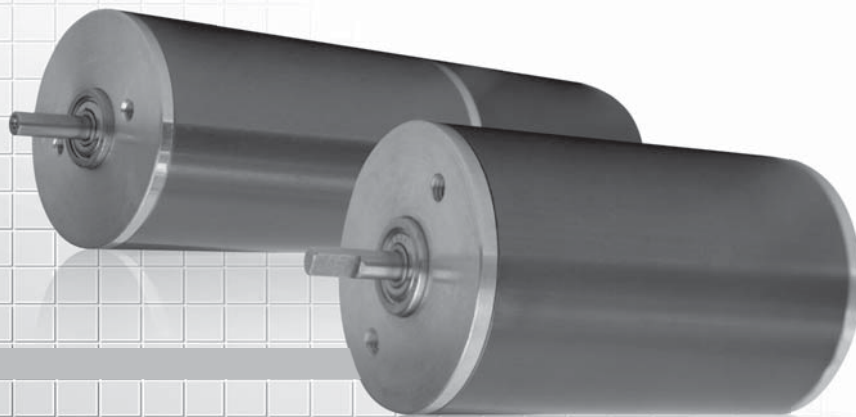
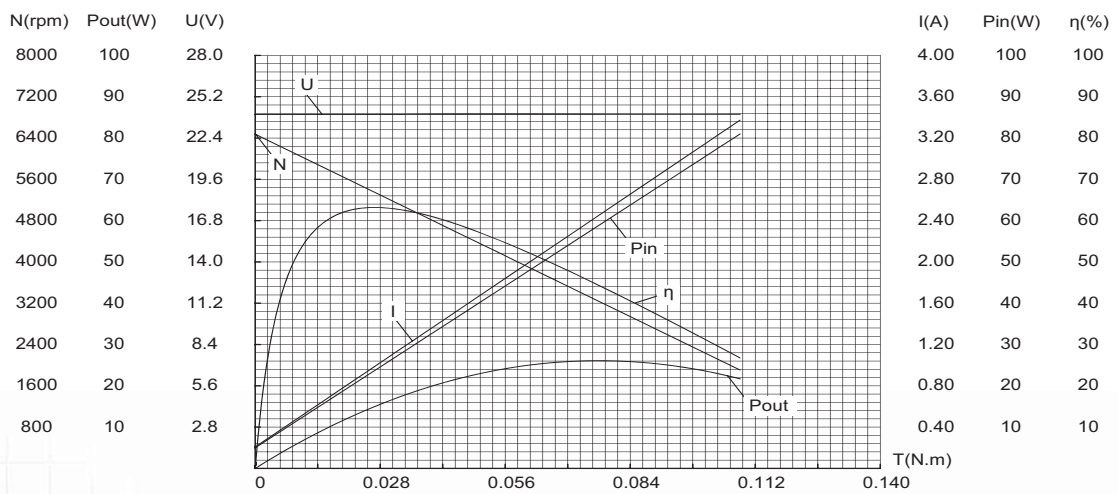


I(A)	Pin(W)	η(%)
8.0	180	100
7.2	162	90
6.4	144	80
5.6	126	70
4.8	108	60
4.0	90	50
3.2	72	40
2.4	54	30
1.6	36	20
0.8	18	10

Curve (SL-3096-12V)



Curve (SL-3096-24V)



SL-35 Series

Brushless & Slotless DC Motors

IEC MOTOR

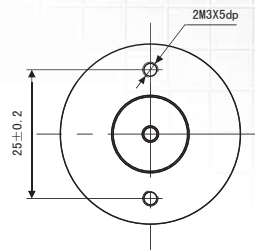
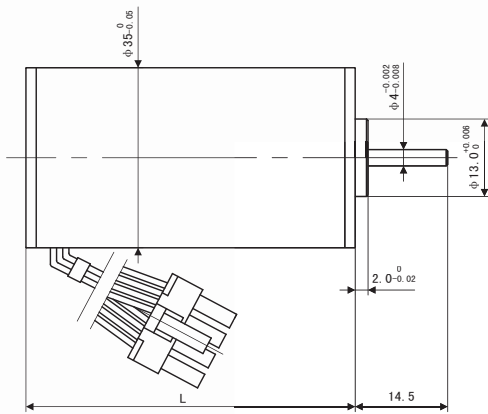
GOST MOTOR

NEMA MOTOR

PUMP

GENERATOR

D.C. MOTOR



Dimension SL-3564 SL-3575

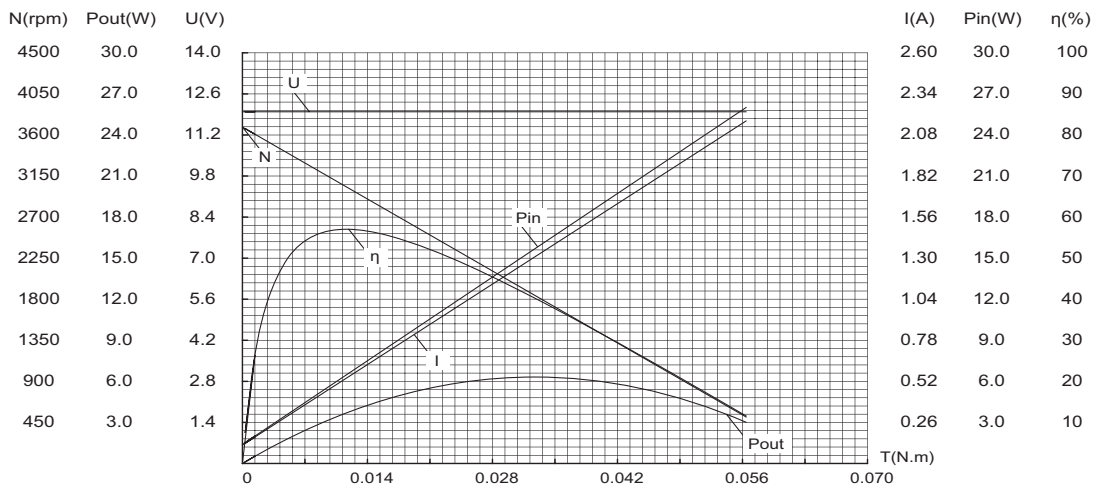


Specification

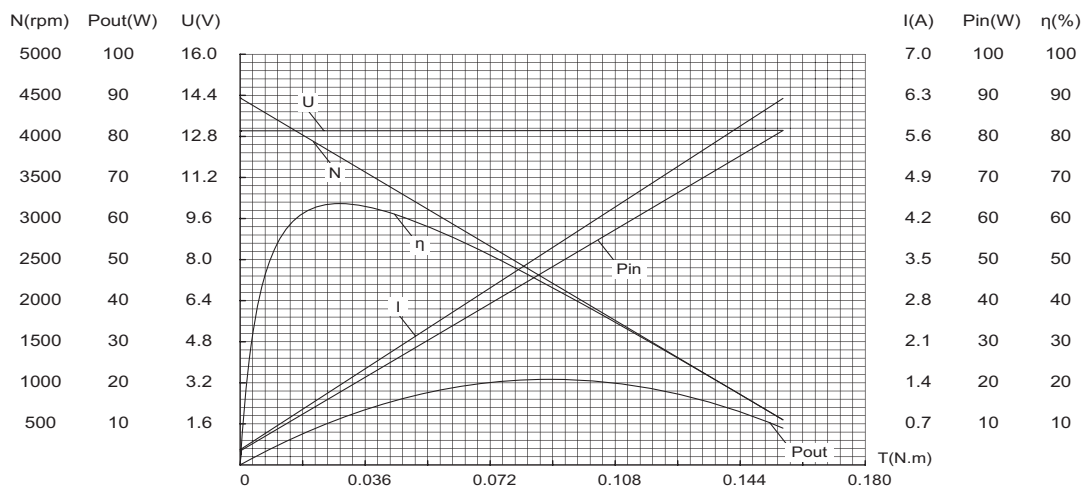
Model	Voltage (V _{DC})	No Load Current (A)	No Load Speed (rpm)	Max Efficiency (%)	Max Torque (N.M)	Max Output (W)	Length(L) (mm)	N.W. (Kg)
SL-3564	12	0.12	3700	57%	0.0564	6.32	64	0.275
	13	0.13	4500	64%	0.1563	20.84	64	0.275
	18	0.18	5000	67%	0.1546	24.70	64	0.275
	24	0.12	3000	66%	0.1699	16.39	64	0.275
	48	0.59	17500	69%	0.1735	208.7	64	0.275
controller built-in								
SL-3575	12	0.15	4500	58%	0.0468	7.01	75	0.280
	18	0.17	4200	64%	0.1567	29.31	75	0.280
	24	0.13	4000	68%	0.0586	7.10	75	0.280

* Controller is requested for motor running

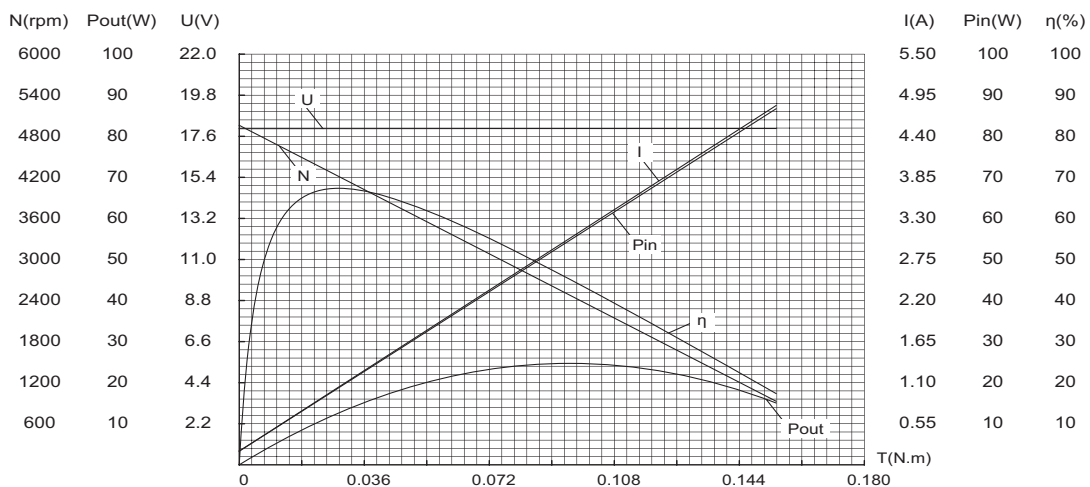
Curve (SL-3564-12V)



Curve (SL-3564-13V)

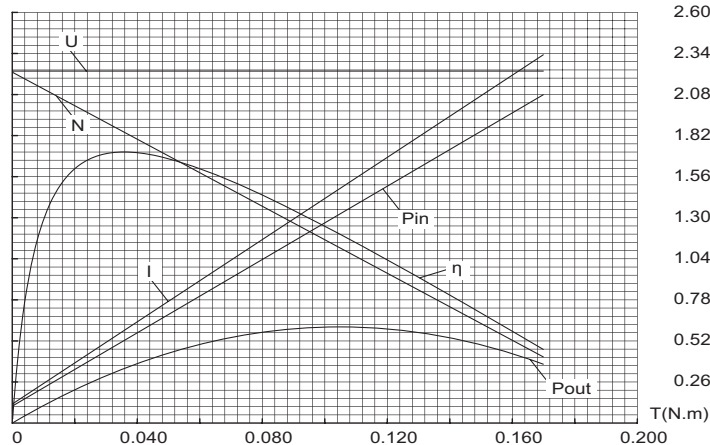


Curve (SL-3564-18V)



Curve (SL-3564-24V)

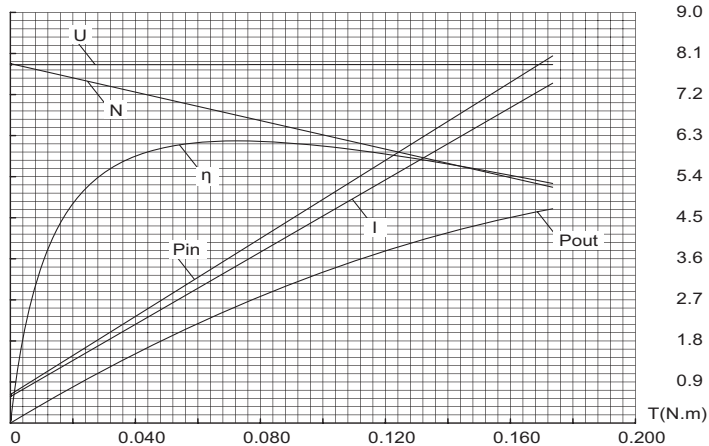
N(rpm)	Pout(W)	U(V)
3500	70	28.0
3150	63	25.2
2800	56	22.4
2450	49	19.6
2100	42	16.8
1750	35	14.0
1400	28	11.2
1050	21	8.4
700	14	5.6
350	7	2.8



I(A)	Pin(W)	η(%)
2.60	70	100
2.34	63	90
2.08	56	80
1.82	49	70
1.56	42	60
1.30	35	50
1.04	28	40
0.78	21	30
0.52	14	20
0.26	7	10

Curve (SL-3564-48V)

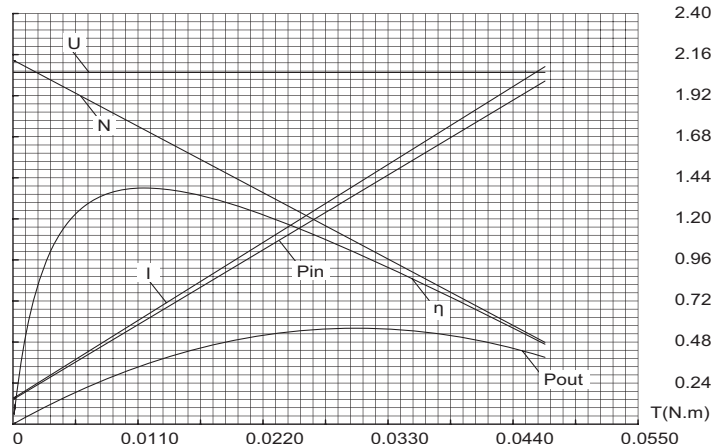
N(rpm)	Pout(W)	U(V)
20000	400	55.0
18000	360	49.5
16000	320	44.0
14000	280	38.5
12000	240	33.0
10000	200	27.5
8000	160	22.0
6000	120	16.5
4000	80	11.0
2000	40	5.5



I(A)	Pin(W)	η(%)
9.0	400	100
8.1	360	90
7.2	320	80
6.3	280	70
5.4	240	60
4.5	200	50
3.6	160	40
2.7	120	30
1.8	80	20
0.9	40	10

Curve (SL-3575-12V)

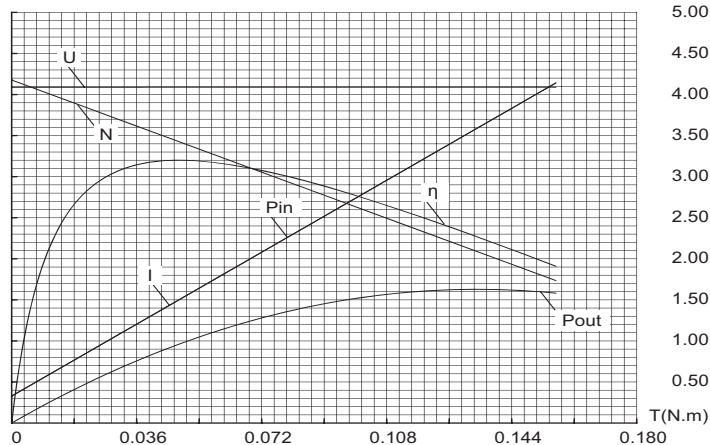
N(rpm)	Pout(W)	U(V)
5000	30.0	14.0
4500	27.0	12.6
4000	24.0	11.2
3500	21.0	9.8
3000	18.0	8.4
2500	15.0	7.0
2000	12.0	5.6
1500	9.0	4.2
1000	6.0	2.8
500	3.0	1.4



I(A)	Pin(W)	η(%)
2.40	30.0	100
2.16	27.0	90
1.92	24.0	80
1.68	21.0	70
1.44	18.0	60
1.20	15.0	50
0.96	12.0	40
0.72	9.0	30
0.48	6.0	20
0.24	3.0	10

Curve (SL-3575-18V)

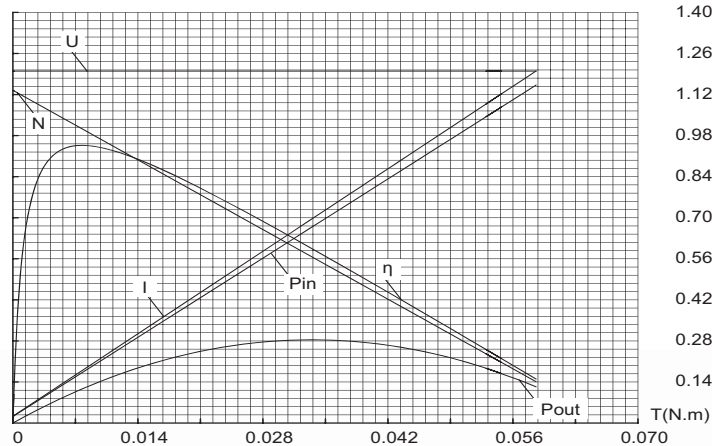
N(rpm)	Pout(W)	U(V)
5000	90	22.0
4500	81	19.8
4000	72	17.6
3500	63	15.4
3000	54	13.2
2500	45	11.0
2000	36	8.8
1500	27	6.6
1000	18	4.4
500	9	2.2



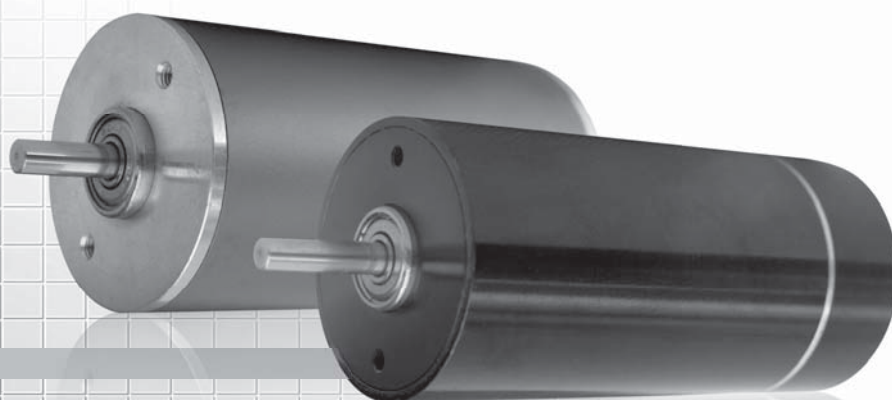
I(A)	Pin(W)	η(%)
5.00	90	100
4.50	81	90
4.00	72	80
3.50	63	70
3.00	54	60
2.50	45	50
2.00	36	40
1.50	27	30
1.00	18	20
0.50	9	10

Curve (SL-3575-24V)

N(rpm)	Pout(W)	U(V)
5000	35.0	28.0
4500	31.5	25.2
4000	28.0	22.4
3500	24.5	19.6
3000	21.0	16.8
2500	17.5	14.0
2000	14.0	11.2
1500	10.5	8.4
1000	7.0	5.6
500	3.5	2.8



I(A)	Pin(W)	η(%)
1.40	35.0	100
1.26	31.5	90
1.12	28.0	80
0.98	24.5	70
0.84	21.0	60
0.70	17.5	50
0.56	14.0	40
0.42	10.5	30
0.28	7.0	20
0.14	3.5	10



SL-36 Series

Brushless & Slotless DC Motors

IEC MOTOR

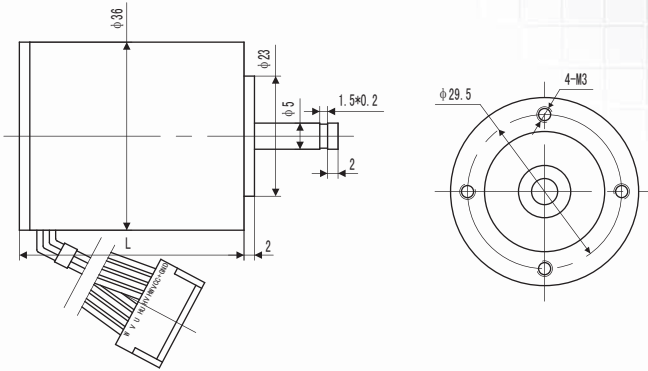
GOST MOTOR

NEMA MOTOR

PUMP

GENERATOR

D.C. MOTOR



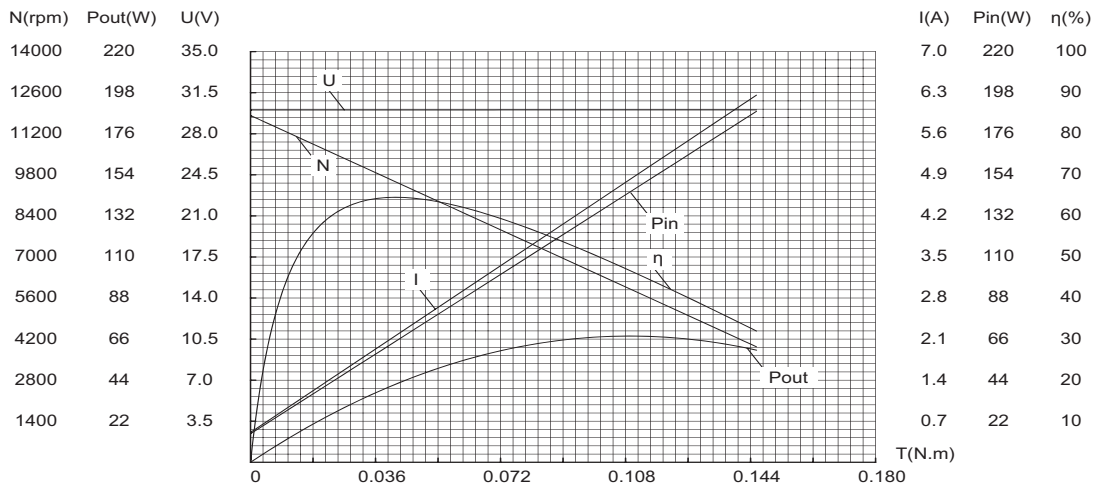
Dimension SL-3643

Specification

Model	Voltage (V _{DC})	No Load Current (A)	No Load Speed (rpm)	Max Efficiency (%)	Max Torque (N.M)	Max Output (W)	Length(L) (mm)	N.W. (Kg)
SL-3643	30	0.51	12000	65%	0.1457	67.62	43	0.20

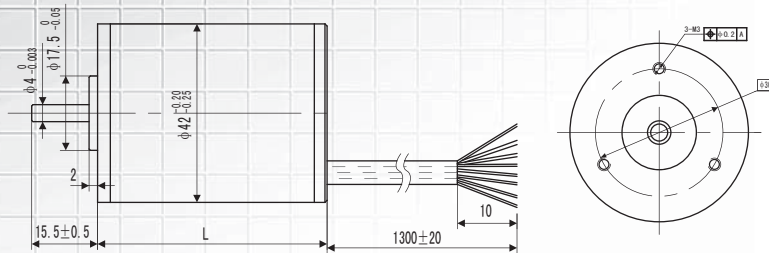
※ Controller is requested for motor running

Curve (SL-3643-30V)



SL-42 Series

Brushless & Slotless DC Motors



Dimension SL-4254

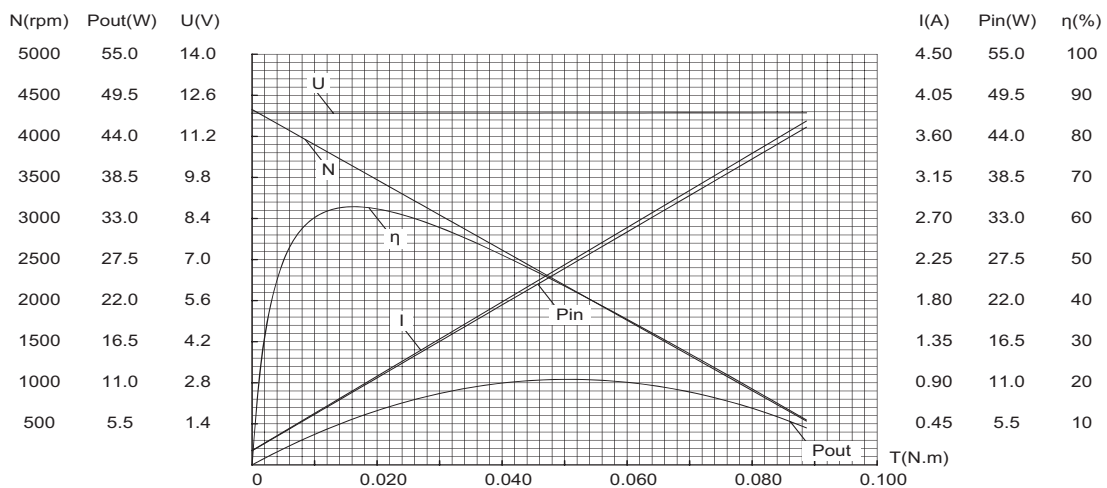


Specification

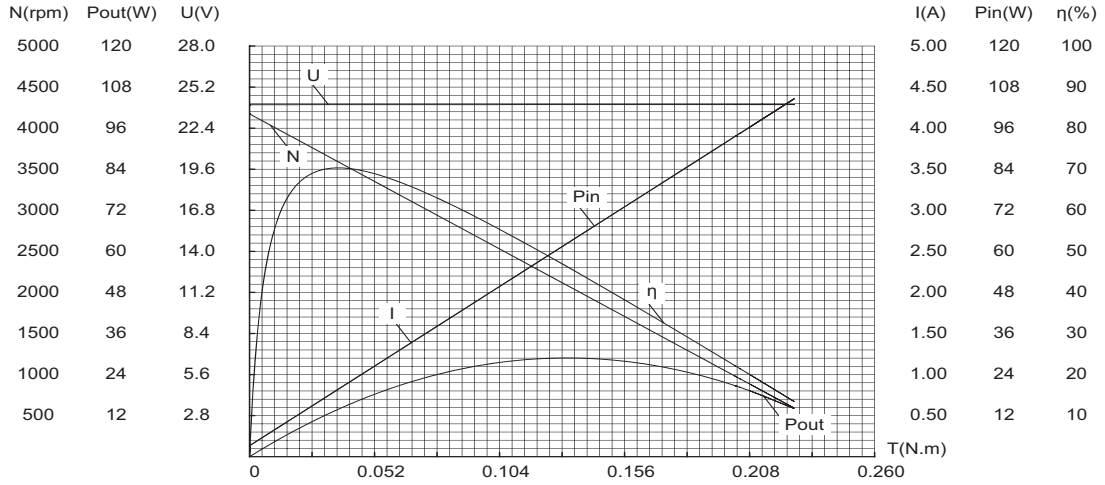
Model	Voltage (V _{DC})	No Load Current (A)	No Load Speed (rpm)	Max Efficiency (%)	Max Torque (N.M)	Max Output (W)	Length(L) (mm)	N.W. (Kg)
SL-4254	12	0.15	4500	63%	0.0887	11.46	54	0.30
	24	0.14	4200	70%	0.2265	28.84	54	0.30

※ Controller is requested for motor running

Curve (SL-4254-12V)



Curve (SL-4235-24V)



IEC MOTOR

GOST MOTOR

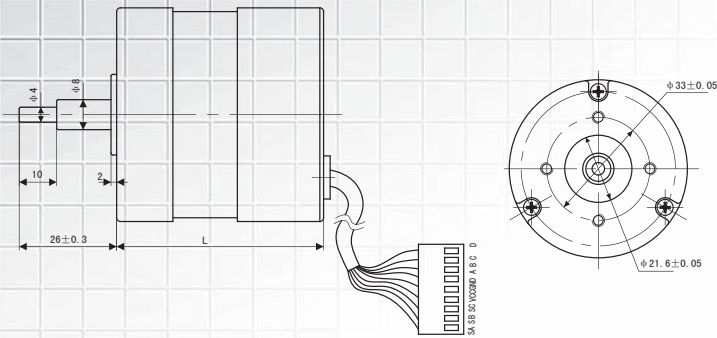
NEMA MOTOR

PUMP

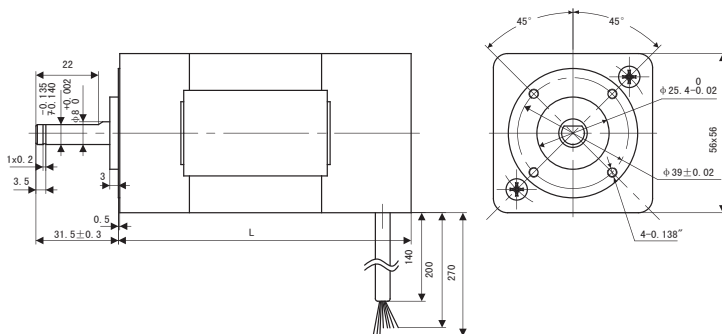
GENERATOR

D.C. MOTOR

BL-56 Series Brushless DC Motors



Dimension BL-5656 BL-5660 BL-5667



Dimension BL-5676 BL-56101

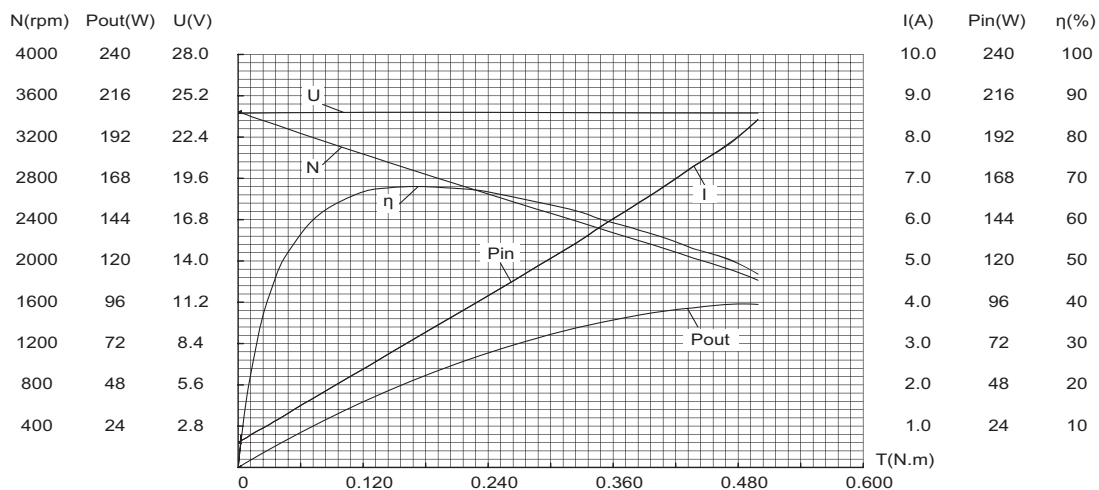


Specification

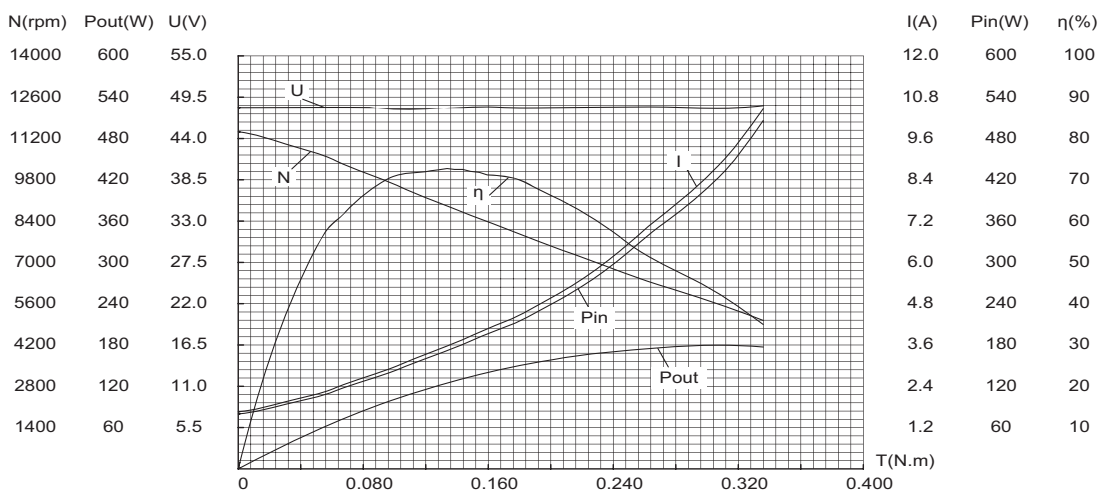
Model	Voltage (V _{DC})	No Load Current (A)	No Load Speed (rpm)	Max Efficiency (%)	Max Torque (N.M)	Max Output (W)	Length(L) (mm)	N.W. (Kg)
BL-5656	24	0.58	3500	68%	0.499	94.99	56	0.48
	48	1.5	11500	73%	0.336	179.81	56	0.48
BL-5660	24	0.77	3700	72%	0.367	104.50	60	0.54
BL-5667	24	0.84	3300	67%	0.300	84.95	67	0.62
BL-5676	24	0.58	8000	58%	0.0429	35.62	76	0.9
	160	0.55	9500	72%	0.803	408.86	76	0.9
BL-56101	160	0.52	6200	64%	0.217	139.19	101	1.2
	220	0.33	6200	77%	0.692	272.19	101	1.2

※ Controller is requested for motor running

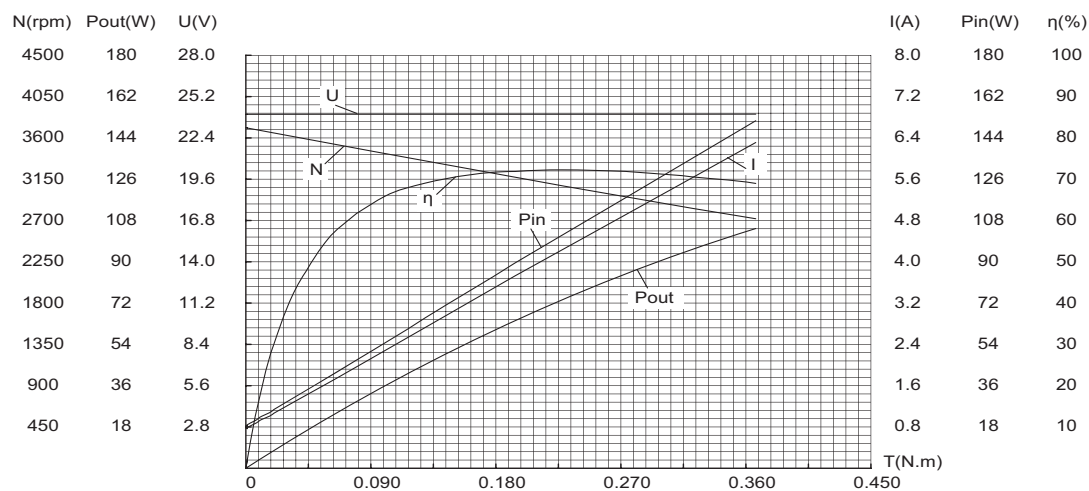
Curve (BL-5656-24V)



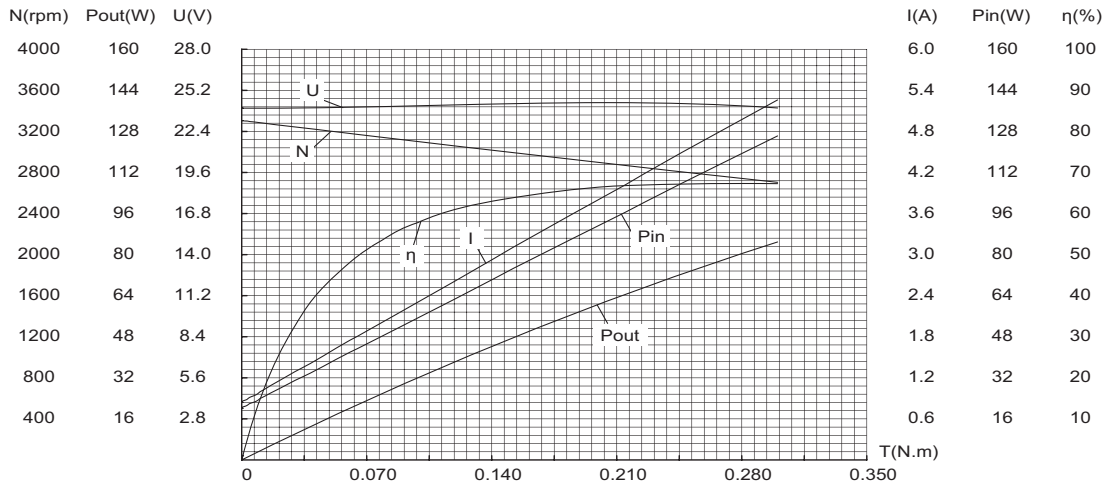
Curve (BL-5656-48V)



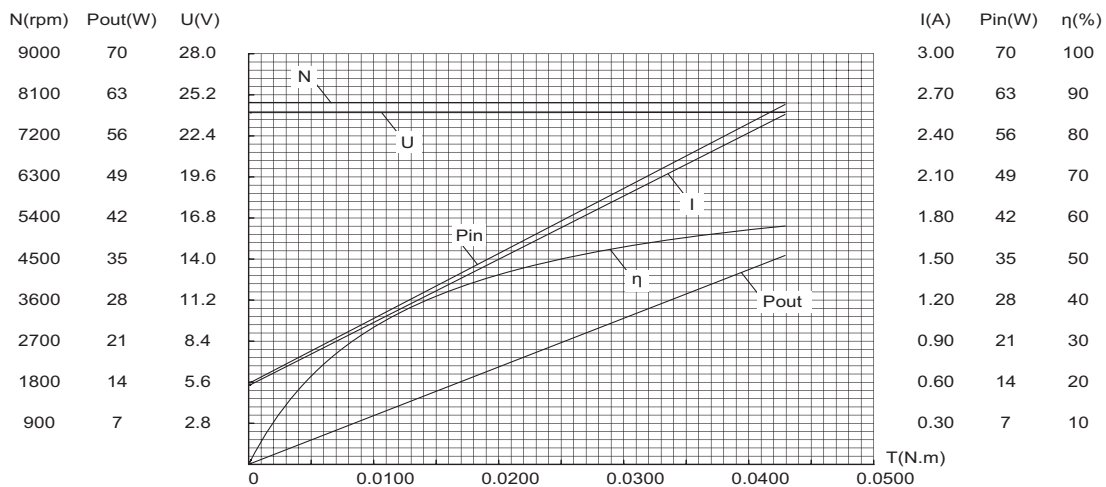
Curve (BL-5660-24V)



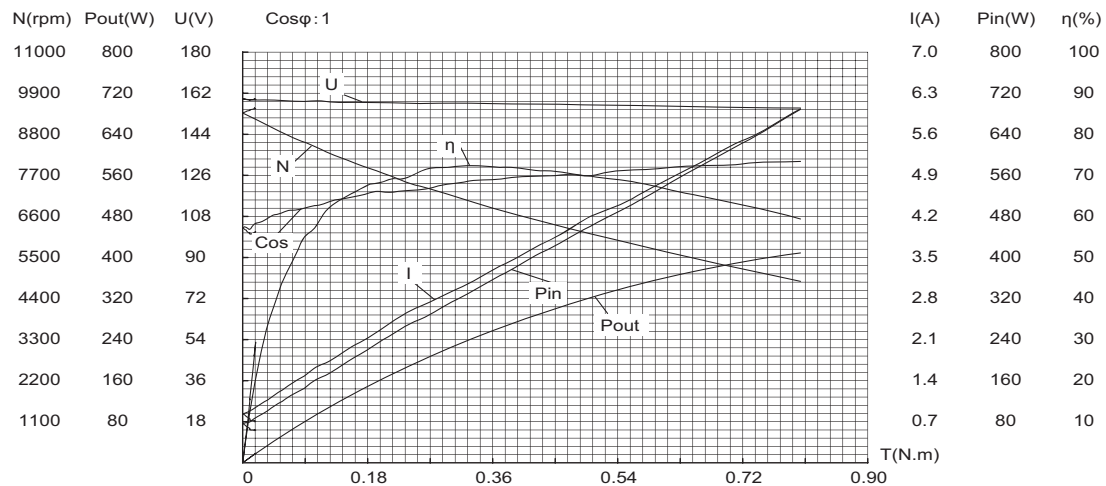
Curve (BL-5667-24V)



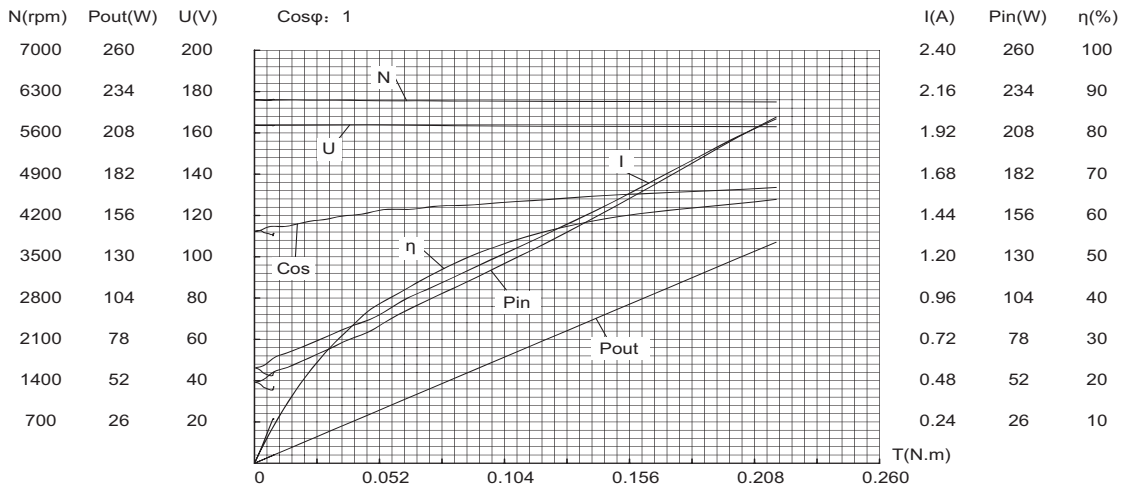
Curve (BL-5676-24V)



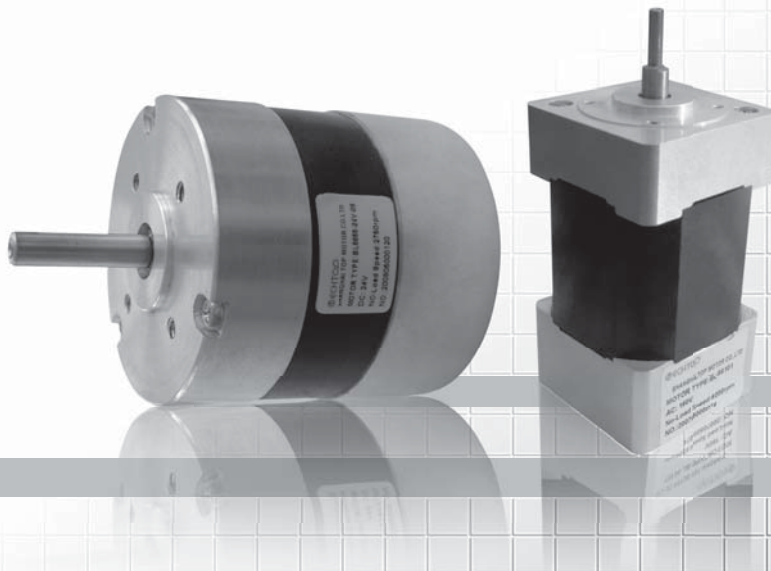
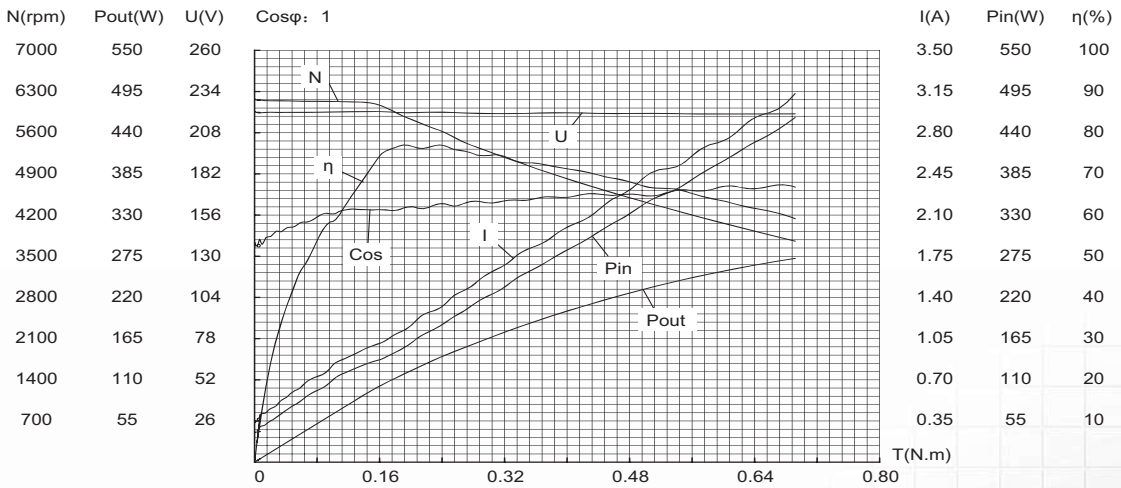
Curve (BL-5676-160V)



Curve (BL-56101-160V)



Curve (BL-56101-220V)



IEC MOTOR

GOST MOTOR

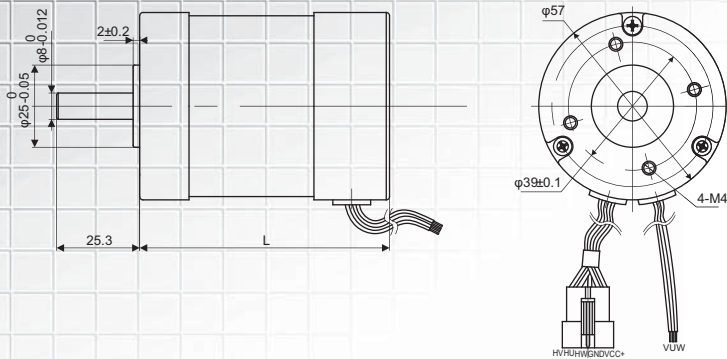
NEMA MOTOR

PUMP

GENERATOR

D.C. MOTOR

BL-57 Series Brushless DC Motors



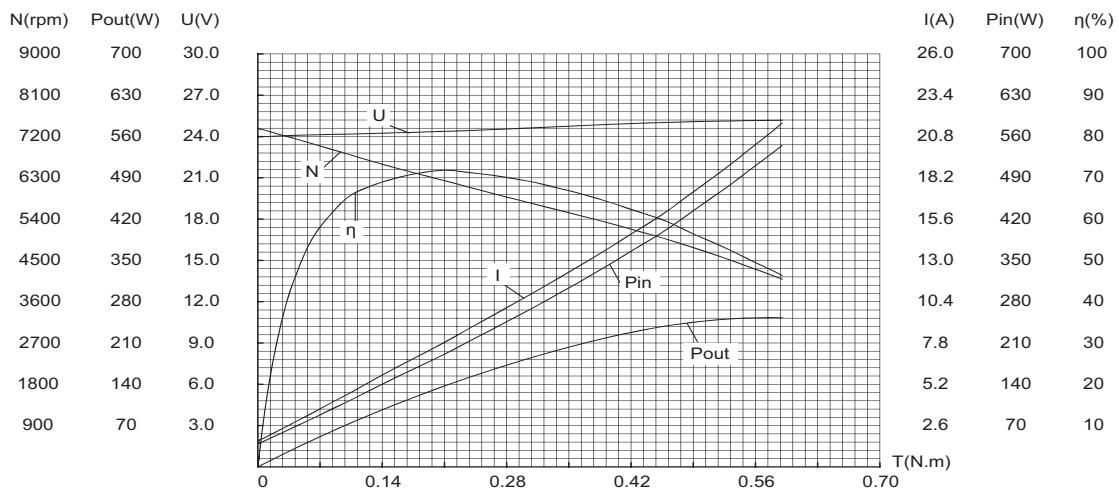
Dimension BL-5756 BL-5776 BL-5796

Specification

Model	Voltage (V _{DC})	No Load Current (A)	No Load Speed (rpm)	Max Efficiency (%)	Max Torque (N.M)	Max Output (W)	Length(L) (mm)	N.W. (Kg)
BL-5756	24	0.4	7500	72%	0.59	253	56	0.48
BL-5776	24	0.45	5800	80%	0.783	166.74	76	0.75
BL-5796	24	0.5	5300	76%	0.603	107.88	96	1.09

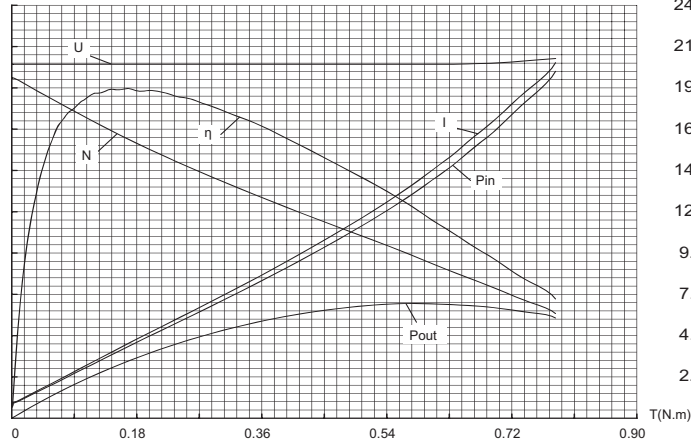
※ Controller is requested for motor running

Curve (BL-5756-24V)



Curve (BL-5776-24V)

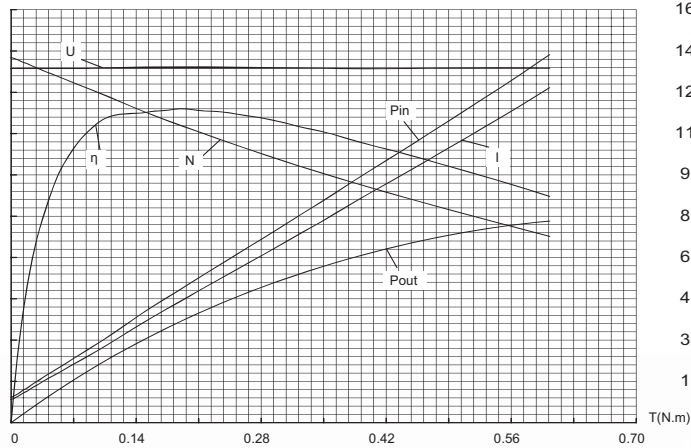
N(rpm)	Pout(W)	U(V)
7000	600	28.0
6300	540	25.2
5600	480	22.4
4900	420	19.6
4200	360	16.8
3500	300	14.0
2800	240	11.2
2100	180	8.4
1400	120	5.6
700	60	2.8



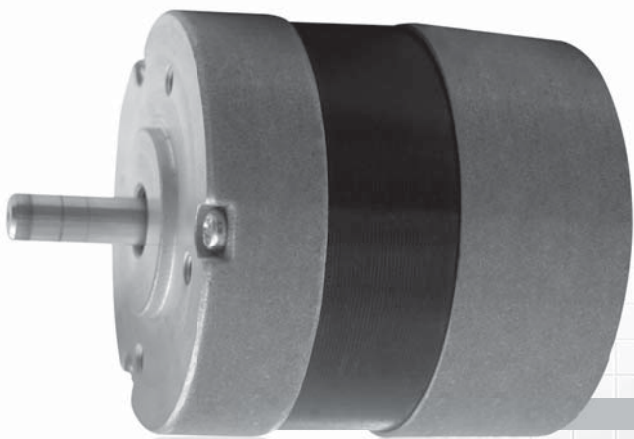
I(A)	Pin(W)	η(%)
24.0	600	100
21.6	540	90
19.2	480	80
16.8	420	70
14.4	360	60
12.0	300	50
9.6	240	40
7.2	180	30
4.8	120	20
2.4	60	10

Curve (BL-5796-24V)

N(rpm)	Pout(W)	U(V)
6000	350	28.0
5400	315	25.2
4800	280	22.4
4200	245	19.6
3600	210	16.8
3000	175	14.0
2400	140	11.2
1800	105	8.4
1200	70	5.6
600	35	2.8



I(A)	Pin(W)	η(%)
16.0	350	100
14.4	315	90
12.8	280	80
11.2	245	70
9.6	210	60
8.0	175	50
6.4	140	40
4.8	105	30
3.2	70	20
1.6	35	10



IEC MOTOR

GOST MOTOR

NEMA MOTOR

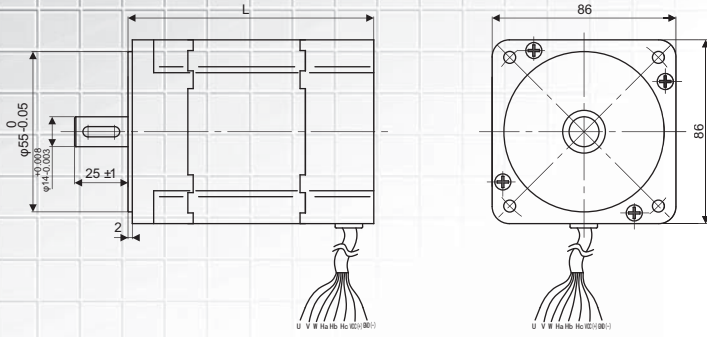
PUMP

GENERATOR

D.C. MOTOR

BL-86 Series

Brushless DC Motors



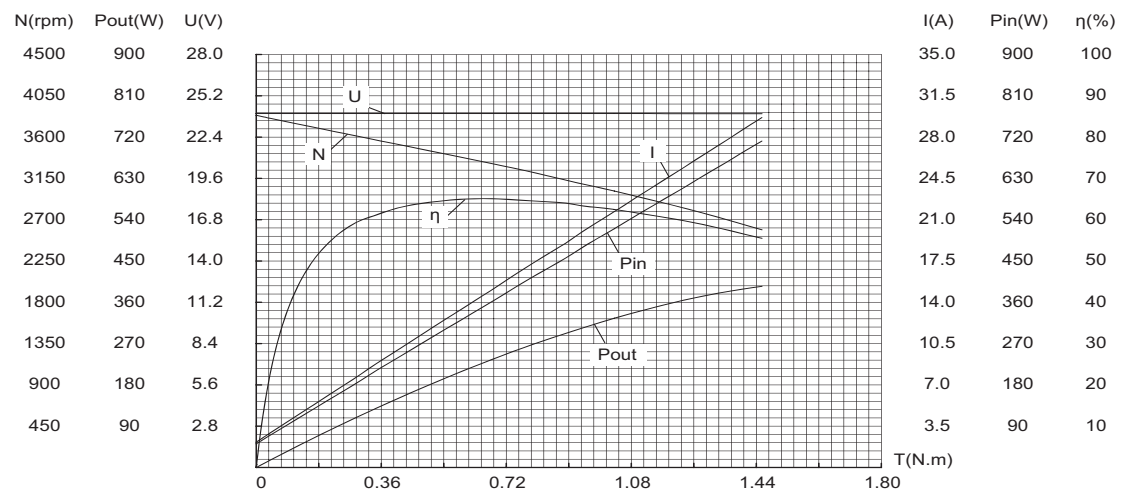
Dimension BL 86115

Specification

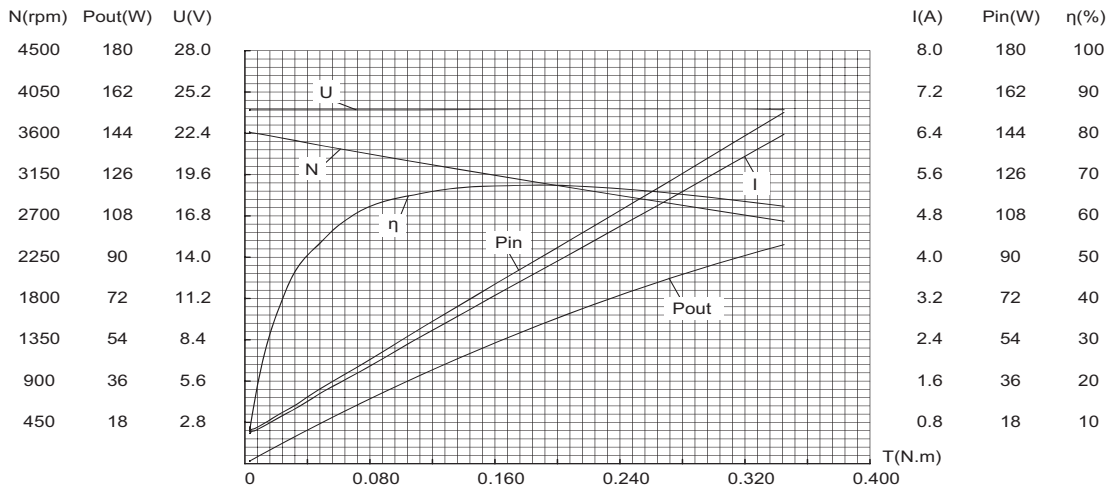
Model	Voltage (V _{DC})	No Load Current (A)	No Load Speed (rpm)	Max Efficiency (%)	Max Torque (N.M)	Max Output (W)	Length(L) (mm)	N.W. (Kg)
BL-86115	24	0.9	3800	65%	1.456	394.91	115	3.36
	36	0.8	3600	67%	0.345	95.45	115	3.36
	48	0.7	3600	69%	0.486	141.30	115	3.36

※ Controller is requested for motor running

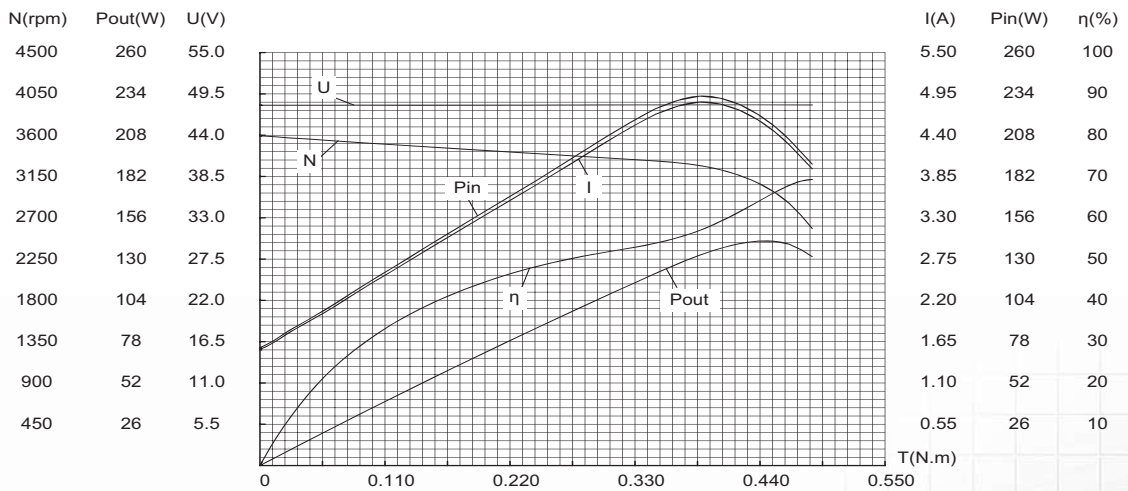
Curve (BL-86115-24V)



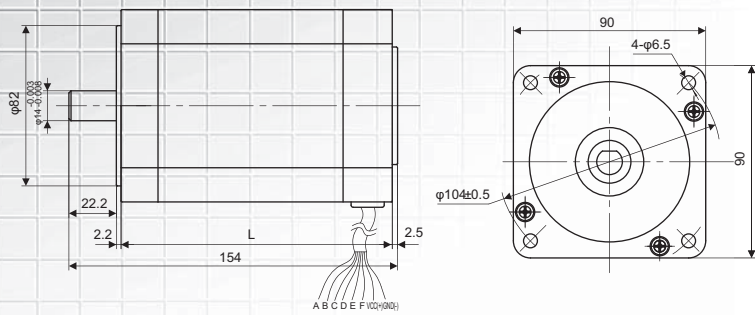
Curve (BL-86115-36V)



Curve (BL-86115-48V)



BL-90 Series Brushless DC Motors



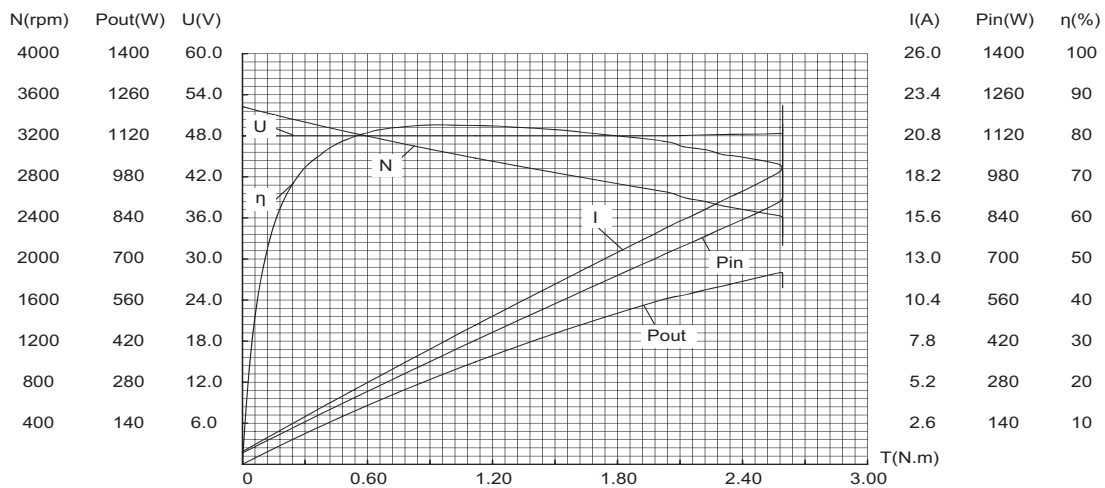
Dimension BL-9077 BL-90107

Specification

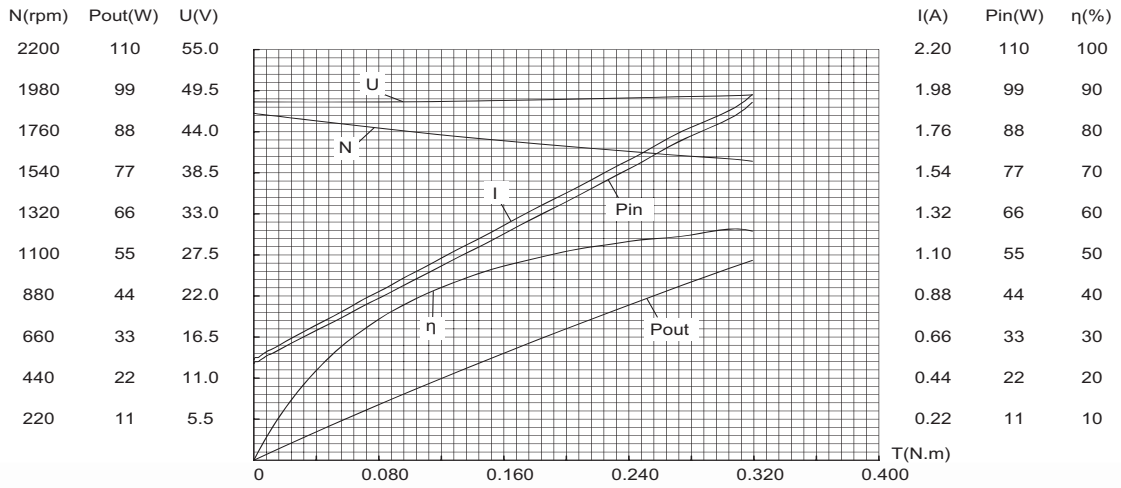
Model	Voltage (V _{DC})	No Load Current (A)	No Load Speed (rpm)	Max Efficiency (%)	Max Torque (N.M)	Max Output (W)	Length(L) (mm)	N.W. (Kg)
BL-9077	48	0.82	3500	83%	2.592	654.13	77	2.80
BL-90107	48	0.54	1900	56%	0.319	53.52	107	3.9

※ Controller is requested for motor running

Curve (BL-9077-48V)



Curve (BL-90107-48V)



IEC MOTOR

GOST MOTOR

NEMA MOTOR

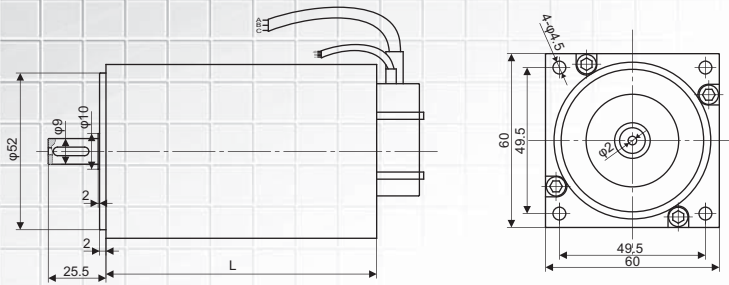
PUMP

GENERATOR

D.C. MOTOR

ZM Series

Brushless DC Motors



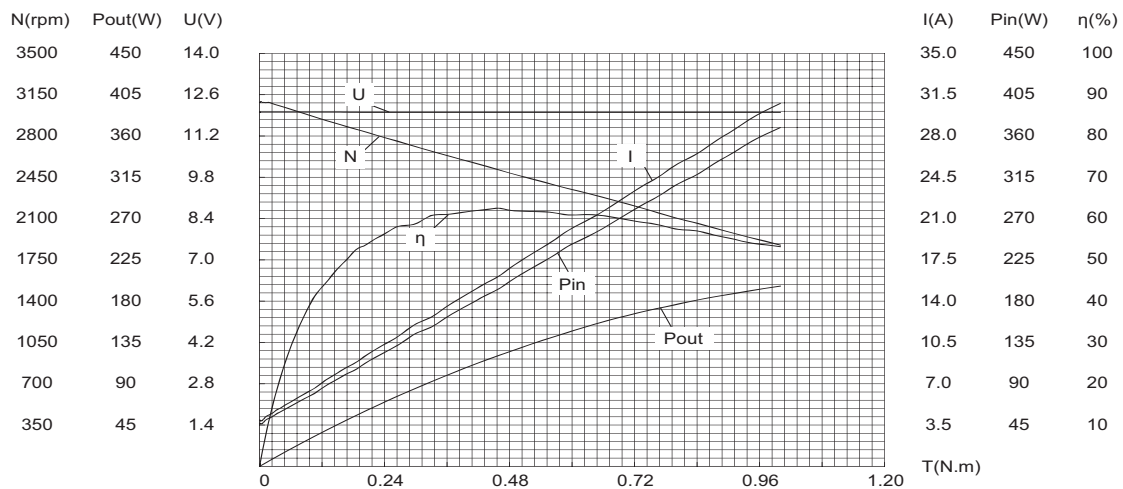
Dimension ZM-80 ZM-92 ZM-120

Specification

Model	Voltage (V _{DC})	No Load Current (A)	No Load Speed (rpm)	Max Efficiency (%)	Max Torque (N.M)	Max Output (W)	Length(L) (mm)	N.W. (Kg)
ZM-80	12	3.92	3300	63%	1.000	196.36	120	1.29
ZM-92	24	4.1	3300	59%	1.411	469.89	170	4.0
ZM-120	48	4.32	3400	68%	3.591	1134.57	220	4.9

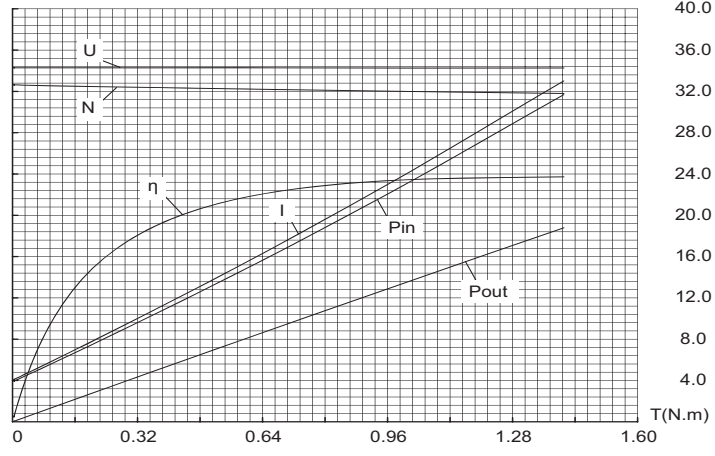
※ Controller is requested for motor running

Curve (ZM-80)



Curve (ZM-92)

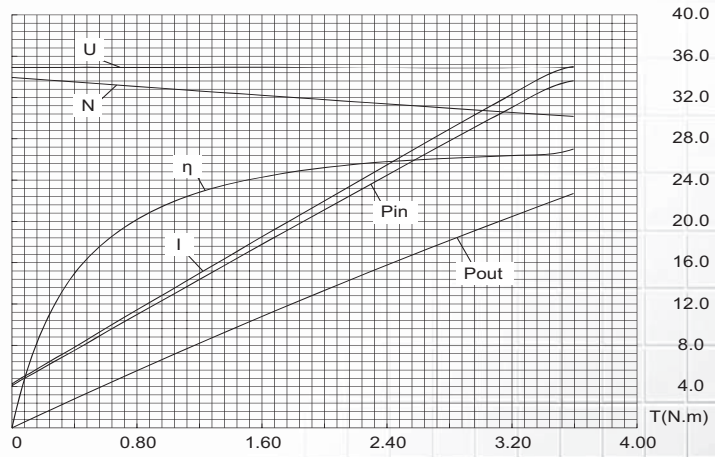
N(rpm)	Pout(W)	U(V)
4000	1000	28.0
3600	900	25.2
3200	800	22.4
2800	700	19.6
2400	600	16.8
2000	500	14.0
1600	400	11.2
1200	300	8.4
800	200	5.6
400	100	2.8



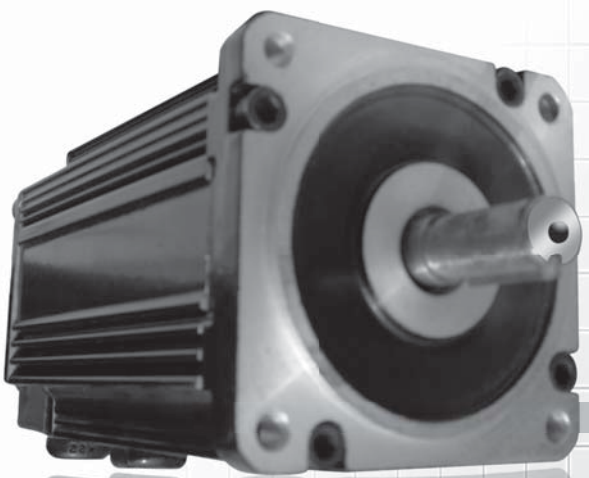
I(A)	Pin(W)	η(%)
40.0	1000	100
36.0	900	90
32.0	800	80
28.0	700	70
24.0	600	60
20.0	500	50
16.0	400	40
12.0	300	30
8.0	200	20
4.0	100	10

Curve (ZM-120)

N(rpm)	Pout(W)	U(V)
4000	2000	55.0
3600	1800	49.5
3200	1600	44.0
2800	1400	38.5
2400	1200	33.0
2000	1000	27.5
1600	800	22.0
1200	600	16.5
800	400	11.0
400	200	5.5



I(A)	Pin(W)	η(%)
40.0	2000	100
36.0	1800	90
32.0	1600	80
28.0	1400	70
24.0	1200	60
20.0	1000	50
16.0	800	40
12.0	600	30
8.0	400	20
4.0	200	10



IEC MOTOR
GOST MOTOR
NEMA MOTOR
PUMP
GENERATOR
D.C. MOTOR



Shanghai Top Motor Co., Ltd.
(TECHTOP Headquarter)



- TECHTOP Shanghai Himak Electrical Machinery Co., Ltd.
- TECHTOP Ningde Top Motor Co., Ltd.
- TECHTOP Mindong DADI Motor Co., Ltd.



Mr. Jia Qinglin the President of Chinese People's Political Consultative Conference Favored with an Inspection in the Enterprises



Meeting with WTO EU Delegation in ShangHai



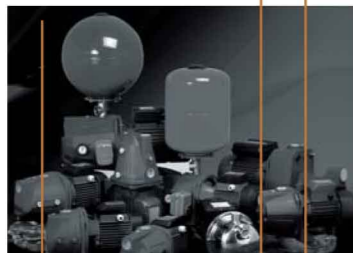
The TECHTOP Management Team in High Efficiency and Solidarity



A Friendliness Meeting with Partner in Italy-Electro ADDA SPA



A kinasness meeting with Germany Former Prime Minister Dr. Helmut Schmidt



2010



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