



# ***NEMA STANDARD MOTORS*** **Tt**



# Resilient Base Motors

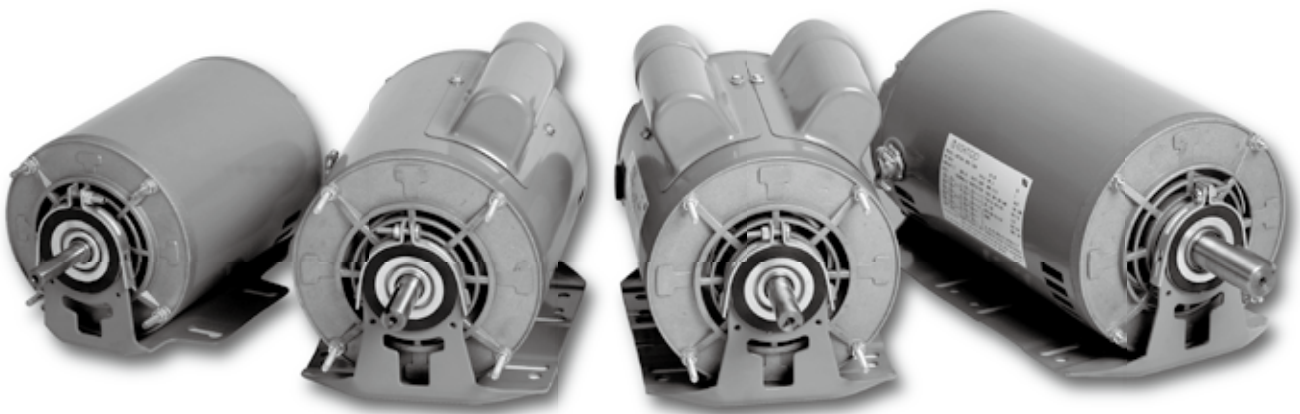
- **Split Phase-Resistive start Induction Run**
- **Capacitor Start Induction Run**
- **Capacitor Start Capacitor Run**
- **Three Phase Induction Run**

## **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

# Resilient Base Motors

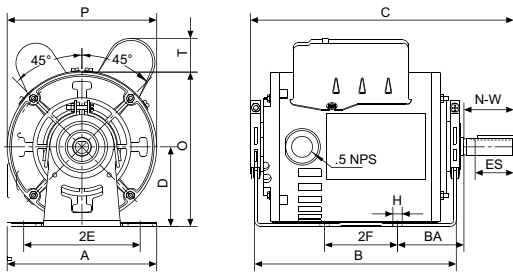


Figure1 CSCR

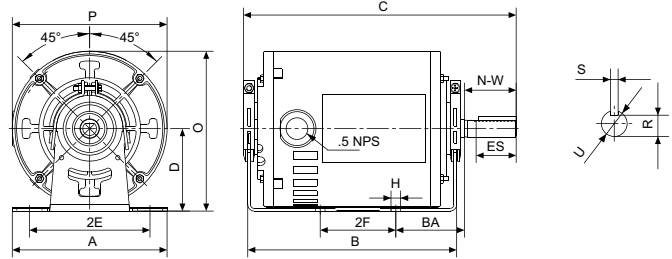


Figure2 RSIR AND TPIR

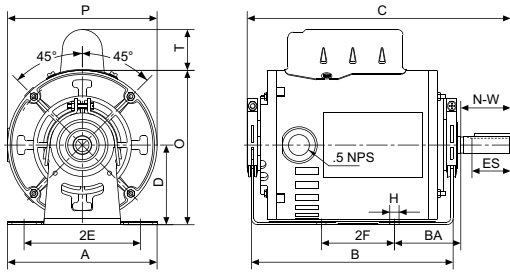


Figure3 CSIR

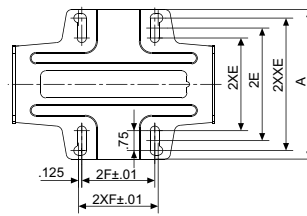


Figure4 TT140 FOOT

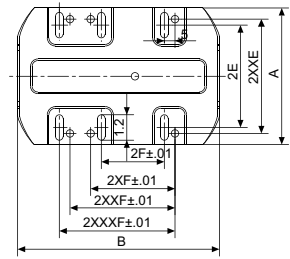


Figure5 TT160 FOOT

# 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	Wt (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

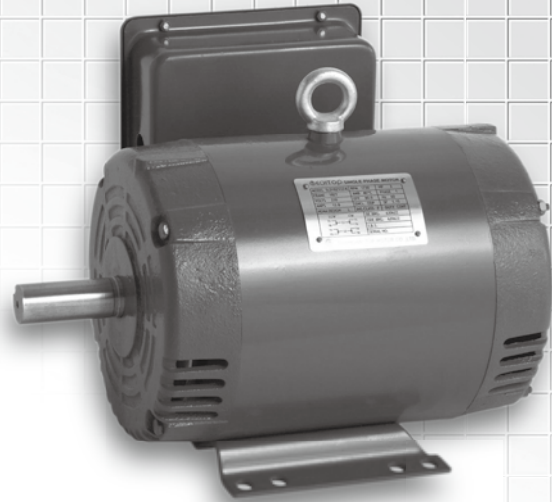
# NEMA Single Phase Rolled Steel ODP Motors

## 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

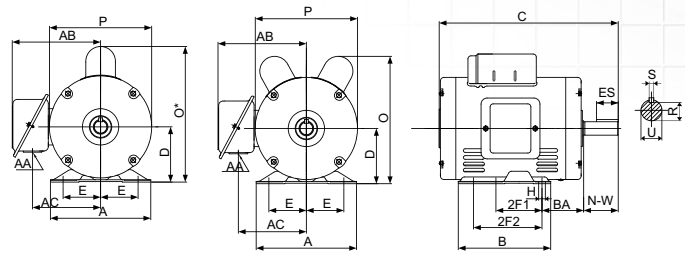


Figure 1 48 56 56H 143T 145T

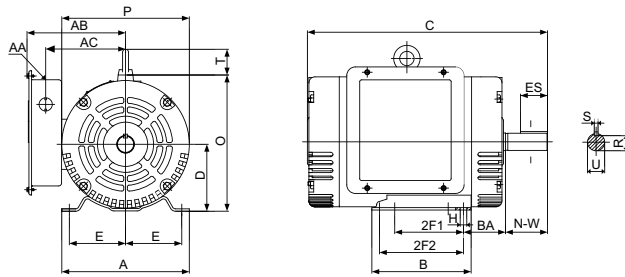


Figure 2 182T 184T 213T 215T

## 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		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	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

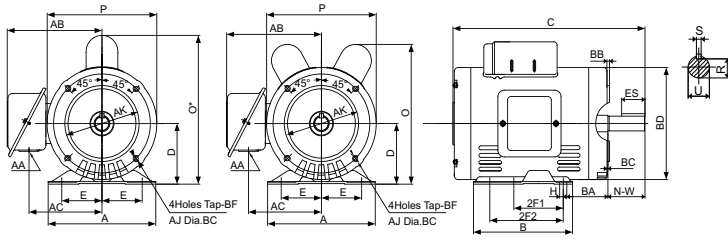


Figure 3 48C 56C 56HC 143TC 145TC

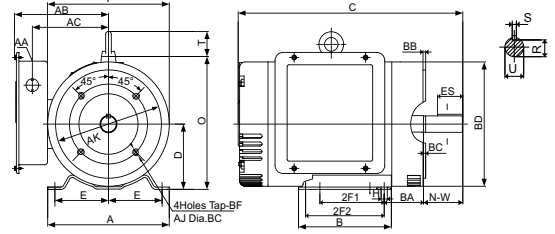


Figure 4 182TC 184TC 213TC 215TC

## 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

## 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

## Psc (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

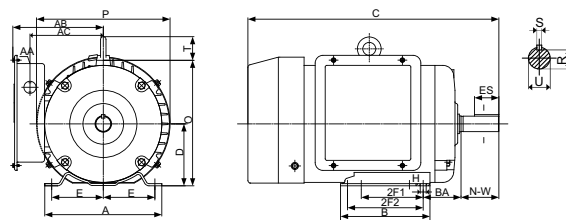
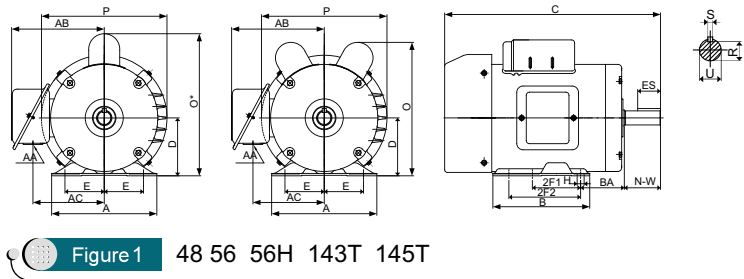


Figure 2

## 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

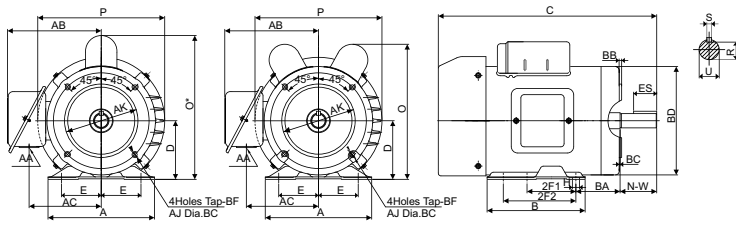


Figure 3 48C 56C 56HC 143TC 145TC

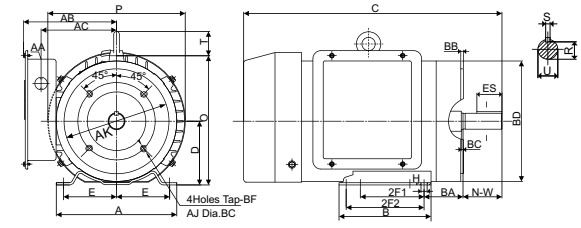


Figure 4 182TC 184TC 213TC 215TC

## 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

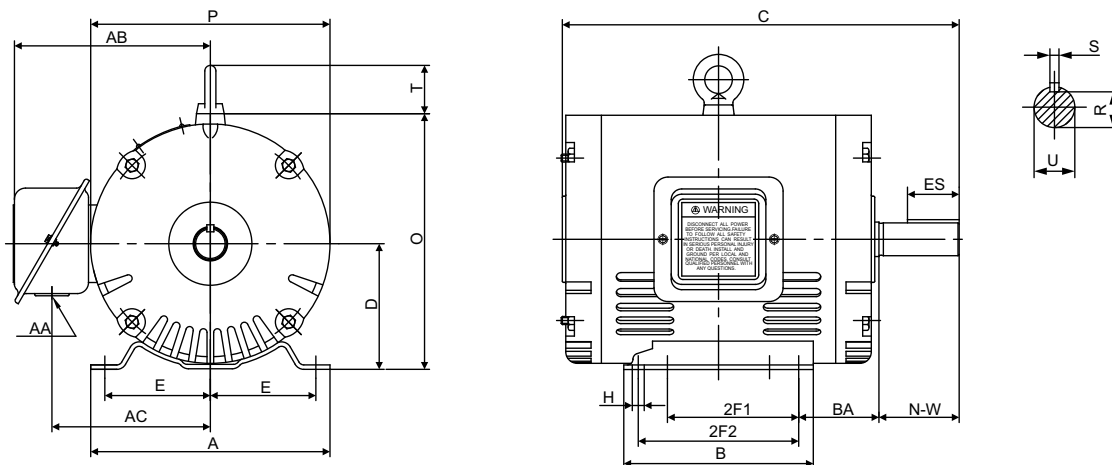
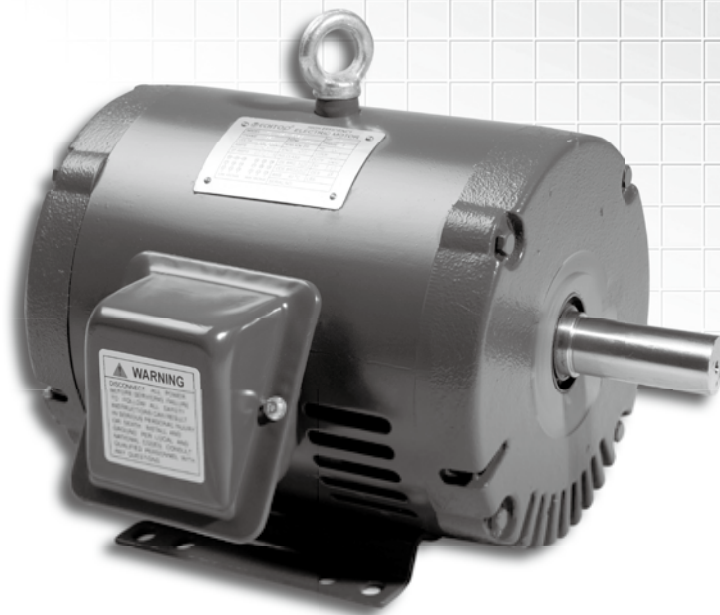
- 48 thru 215T
- 48C thru 215TC

### 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

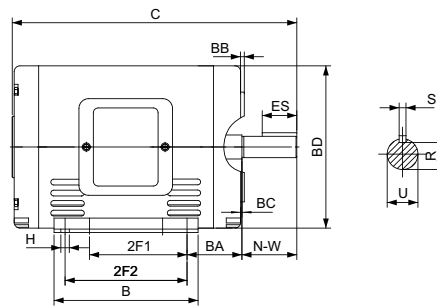
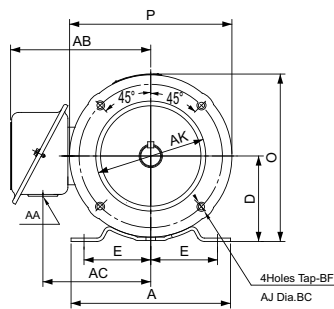


48 thru 215T  Figure 1

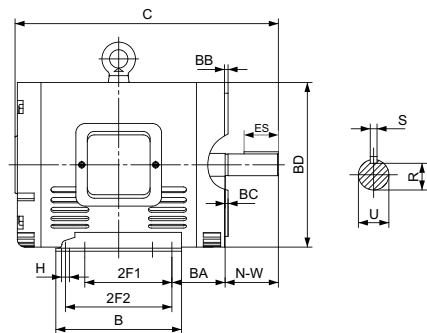
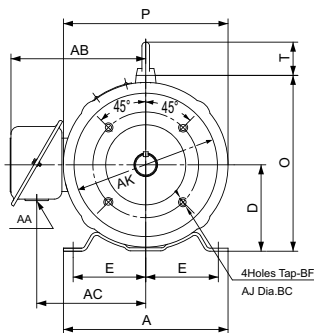
# NEMA EPACT & Premium Efficiency Rolled Steel 3-Phase ODP Motors

## 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																	
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 <sub>st</sub> /T <sub>n</sub> (%)	T <sub>max</sub> /T <sub>n</sub> (%)	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 <sub>st</sub> /T <sub>n</sub> (%)	T <sub>max</sub> /T <sub>n</sub> (%)	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	213T	YY/Y	H	3540	14.9	90.2	11.22	81	135	200	16.85	17.60
	1800	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

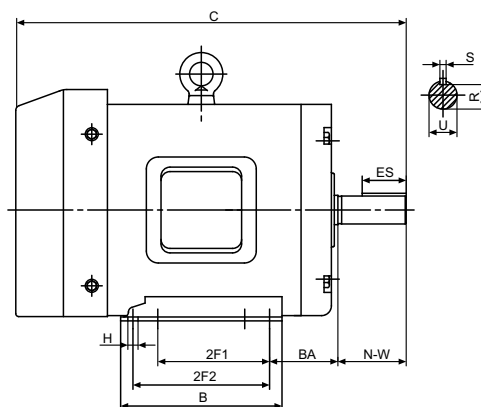
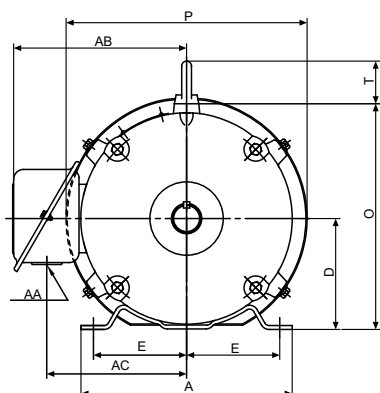
### FEATURES

- 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



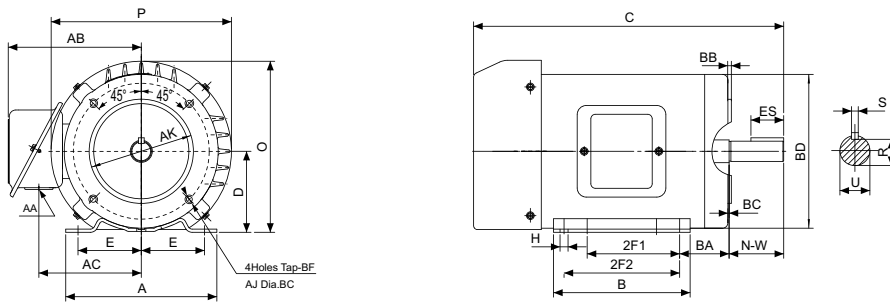
48 thru 215T

Figure 1

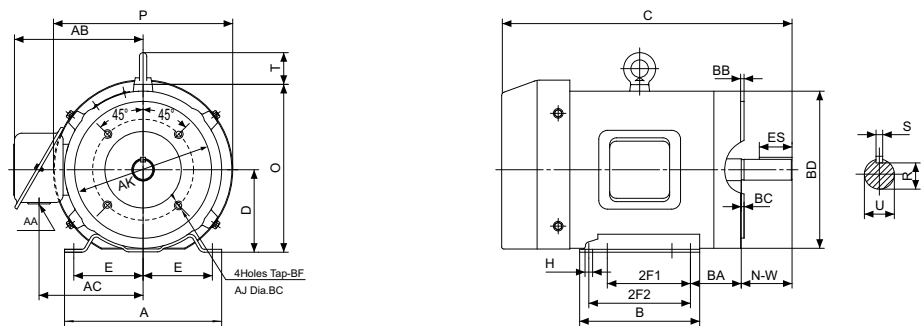
# NEMA EPACT & Premium Efficiency Rolled Steel 3-Phase TEFC Motors

## 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		6.00	13.75					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																				
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		6.00	13.75					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 <sub>s</sub> /T <sub>n</sub> (%)	T <sub>max</sub> /T <sub>n</sub> (%)	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	3600	215T	YYY	H	1766	29.8	89.5	12.5	81	165	200	19.50	20.25

# 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 <sub>s</sub> /T <sub>n</sub> (%)	T <sub>max</sub> /T <sub>n</sub> (%)	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	3600	215T	YYY	H	1766	29.8	91.7	12.52	81	165	200	19.50	20.25



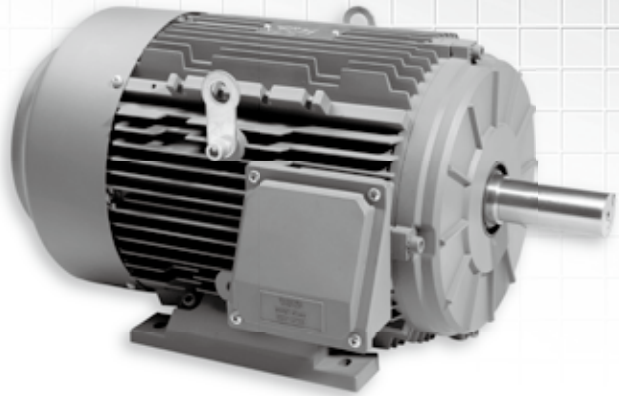
# TFA Series NEMA EPACT & Premium Efficiency 3-Phase Motors

## 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

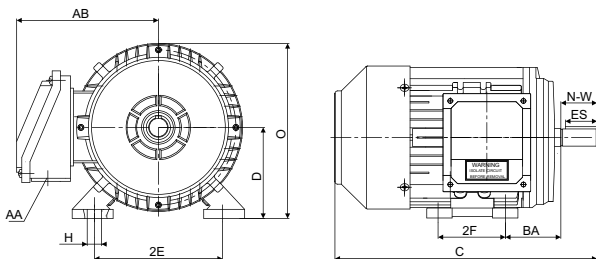
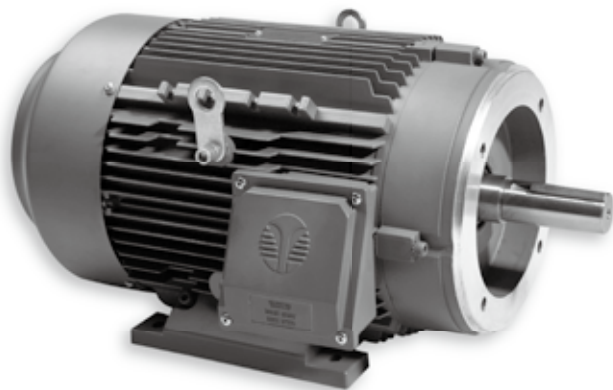


Figure 1 Foot Mounted

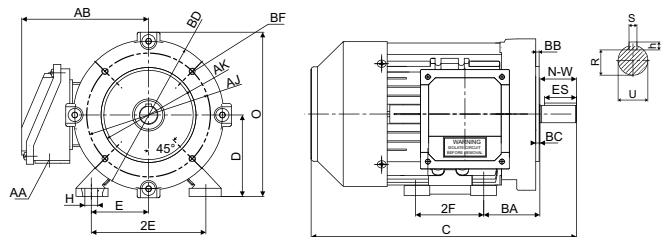


Figure 2 C-Face, Foot Mounted

### 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
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
2	1150	182T	2Δ/Δ	M	2.5	20	6.9	165	250	85.5
	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 <sub>st</sub> /T <sub>n</sub> (Times)	T <sub>min</sub> /T <sub>n</sub> (Times)	T <sub>max</sub> /T <sub>n</sub> (Times)	Service Factor
			I <sub>n</sub> 460V (A)	I <sub>n</sub> 230V (A)	I <sub>n</sub> 460V (A)				KVA Code	I <sub>sc</sub> /I <sub>n</sub> (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

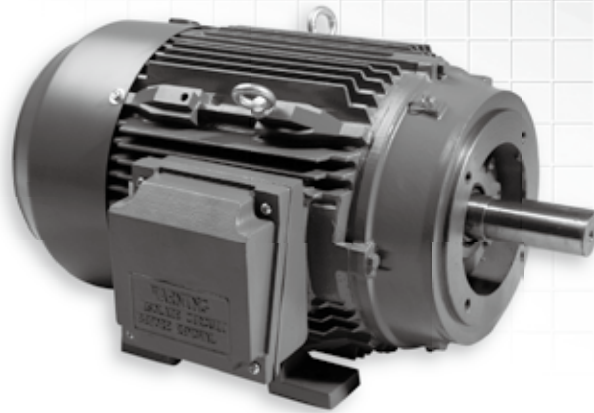
# TFC Series NEMA EPACT & Premium Efficiency 3-Phase Motors

## 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

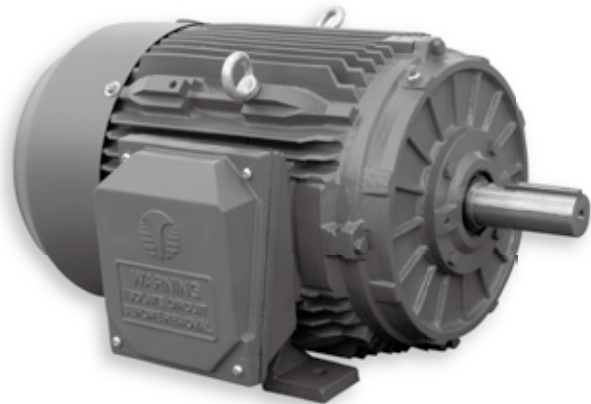


### APPLICATIONS

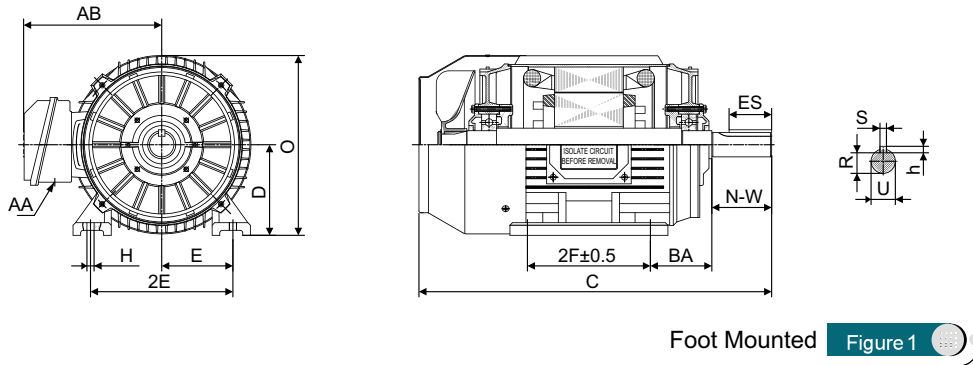
- Pumps
- Compressors
- Fans
- Machine Tools
- Energy saving applications
- Other General Purpose Three Phase Applications

### APPLICATIONS(Design C)

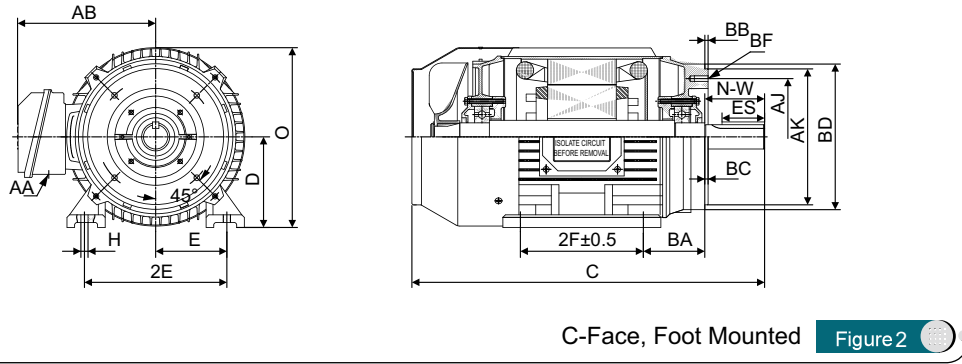
- Conveyors
- Gear Reducers
- Applications Requiring Design C Torque



# 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

# 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 <sub>st</sub> /T <sub>n</sub> (Times)	T <sub>min</sub> /T <sub>n</sub> (Times)	T <sub>max</sub> /T <sub>n</sub> (Times)	Service Factor
			I <sub>n1</sub> 460V (A)	I <sub>n</sub> 230V (A)	I <sub>n</sub> 460V (A)				KVA Code	I <sub>sc</sub> /I <sub>n</sub> (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

# 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 <sub>st</sub> /T <sub>n</sub> (Times)	T <sub>min</sub> /T <sub>n</sub> (Times)	T <sub>max</sub> /T <sub>n</sub> (Times)	Service Factor
			Output (KW)	I <sub>a</sub> 575V (A)	I <sub>b</sub> 575V (A)				KVA Code	I <sub>sr</sub> /I <sub>n</sub> (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 <sub>st</sub> /T <sub>n</sub> (Times)	T <sub>min</sub> /T <sub>n</sub> (Times)	T <sub>max</sub> /T <sub>n</sub> (Times)	Service Factor
			Output (KW)	I <sub>in</sub> 575V (A)	I <sub>e</sub> 575V (A)				KVA Code	I <sub>sc</sub> /I <sub>n</sub> (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

# TOC Series Oil Well Pump Motors

## 3HP thru 125HP Design D foot mounted

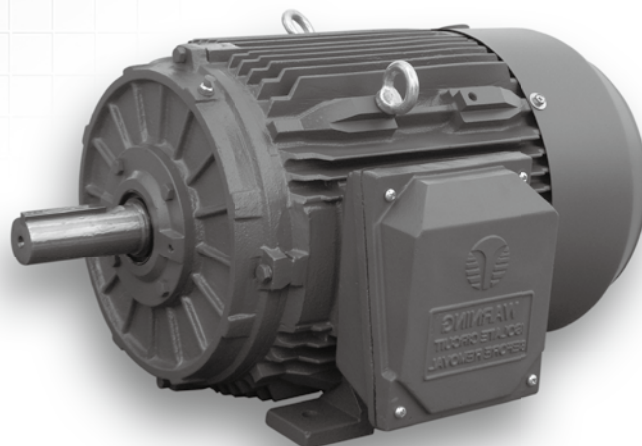
- **213T thru 445T**
- **Cast Iron TEFC**

### Application

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

### Feature

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



## 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

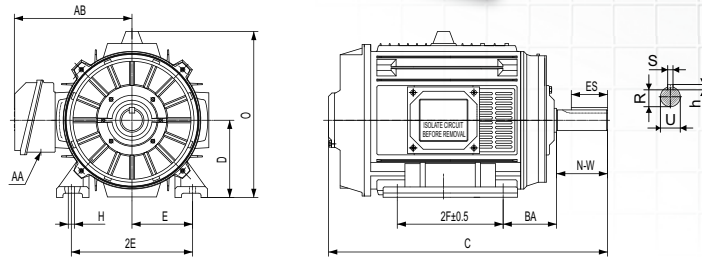
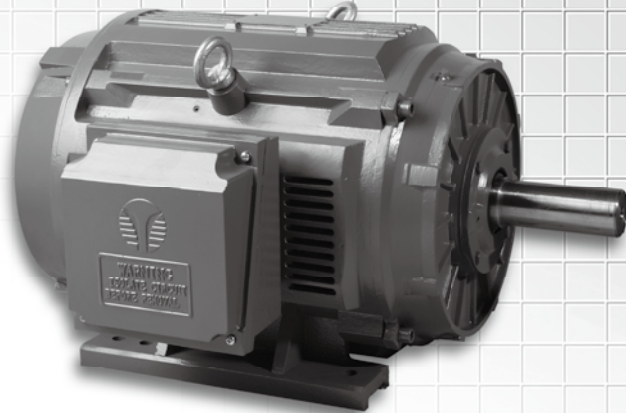
- 254T thru 445T
- Cast Iron ODP

### FEATURES

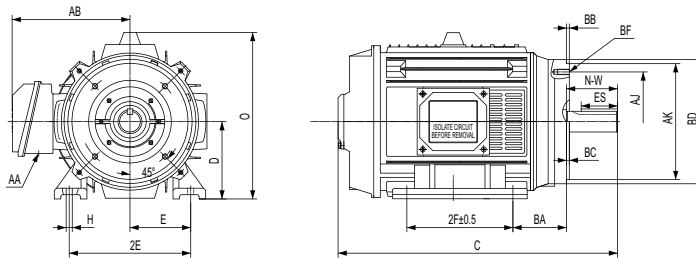
- Continuous Duty 40°C Ambient
- Cast Iron frames
- Ball Bearings
- IP23 Protection

### 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									25.75										
254TC		8.25		24.00																	
256TC		10		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									25.5										
284TS		9.5		25.5																	
286TS		11		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									27.8										
324TS		10.5		27.8																	
326TS		12		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									30.2										
364TS		11.25		30.2																	
365TS		12.25		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									33.9										
404TS		12.25		33.9																	
405TS		13.75		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									39.9										
444TS		14.5		39.9																	
445TS		16.5		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 <sub>st</sub> /T <sub>n</sub> (Times)	T <sub>min</sub> /T <sub>n</sub> (Times)	T <sub>max</sub> /T <sub>n</sub> (Times)	Service Factor
			I <sub>l</sub> 460V (A)	I <sub>l</sub> 230V (A)	I <sub>l</sub> 460V (A)				KVA Code	I <sub>st</sub> /I <sub>n</sub> (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

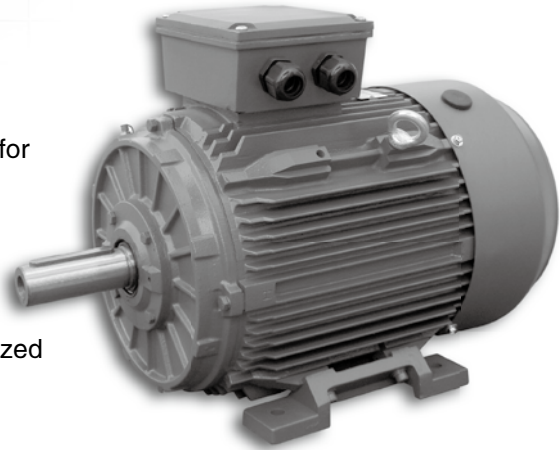
**NEMA Premium Efficiency ODP Motors Technical Data (575V)—Design B**

HP	Full Load Speed (r/min)	NEMA Frame	Current		Eff. 100% FL (%)	Power Factor (CosΦ)	Full Load Torque LB-FT	Locked Rotor		T <sub>st</sub> /T <sub>n</sub> (Times)	T <sub>min</sub> /T <sub>n</sub> (Times)	T <sub>max</sub> /T <sub>n</sub> (Times)	Service Factor
			I <sub>m</sub> 575V (A)	I <sub>L</sub> 575V (A)				KVA Code	I <sub>gr</sub> /I <sub>n</sub> (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

# “ECOL” Motors

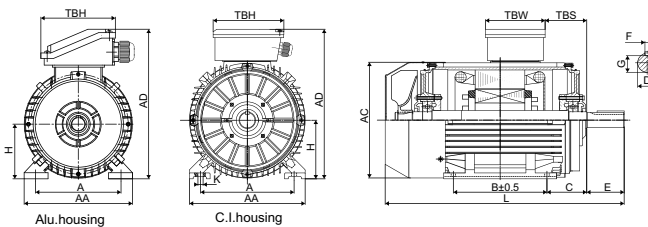
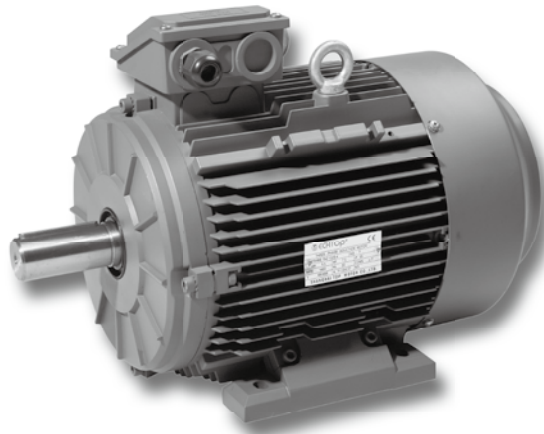
## FEATURES

- 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

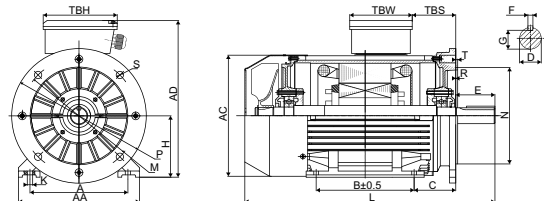


## APPLICATIONS

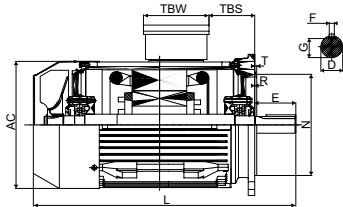
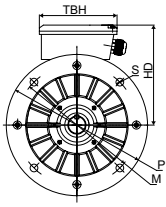
- Pumps
- Waste water treatment plants
- Air compressors, fans
- Gear reducers and power transmission
- Pulp and paper mills
- Steel mill
- Conveyors, elevators
- Should be "Material handling equipment"
- Agricultural application
- Mining equipment
- Hydraulic equipment



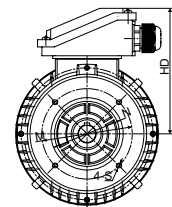
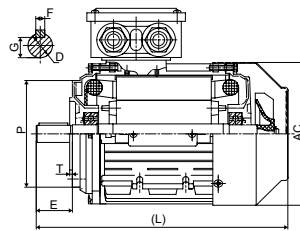
IM B3 Figure 1



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	840	525	Φ680	1160	130	350	430	
	4,6,8	315	508	406	Φ80	170	22	71	Φ28	630	840	525	Φ680	1190	130	350	430	
315M/L	2	315	508	457/508	Φ65	140	18	58	Φ28	630	840	525	Φ680	1310	130	350	430	
	4,6,8	315	508	457/508	Φ80	170	22	71	Φ28	630	840	525	Φ680	1340	130	350	430	
355M/L	2	355	610	560/630	Φ75	140	20	67.5	Φ28	740	920	565	Φ820	1770	180	350	430	
	4,6,8	355	610	560/630	Φ95	170	25	86	Φ28	740	920	565	Φ820	1840	180	350	430	

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	6314C3	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 Frame - NEMA EPACT Efficiency TEFC Motors Technical Data

Model	Power (KW)	60Hz						50Hz						I <sub>s</sub> /I <sub>n</sub> (Times)	T <sub>s</sub> /T <sub>n</sub> (Times)	T <sub>max</sub> /T <sub>n</sub> (Times)	T <sub>min</sub> /T <sub>n</sub> (Times)
		Full Load Speed (r/min)	I <sub>m</sub> 460V (A)	I <sub>a</sub> 460V (A)	Eff. 100%FL (%)	Power Factor (CosΦ)	Full Load Torque (N.M)	Full Load Speed (r/min)	I <sub>m</sub> 460V (A)	I <sub>a</sub> 460V (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 Frame - NEMA EPACT Efficiency TEFC Motors Technical Data

Model	Power (KW)	60Hz						50Hz						I <sub>s</sub> /I <sub>n</sub> (Times)	T <sub>s</sub> /T <sub>n</sub> (Times)	T <sub>min</sub> /T <sub>n</sub> (Times)	T <sub>max</sub> /T <sub>n</sub> (Times)
		Full Load Speed (r/min)	I <sub>n</sub> 460V (A)	I <sub>n</sub> 460V (A)	Eff. 100%FL (%)	Power Factor (CosΦ)	Full Load Torque (N.M)	Full Load Speed (r/min)	I <sub>n</sub> 400V (A)	I <sub>n</sub> 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	76	6.39	935	0.95	1.88	75.9	76	7.66	6.2	2.2	2	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 <sub>st</sub> /I <sub>n</sub> (Times)	T <sub>st</sub> /T <sub>n</sub> (Times)	T <sub>min</sub> /T <sub>n</sub> (Times)	T <sub>max</sub> /T <sub>n</sub> (Times)
		Full Load Speed (r/min)	I <sub>n</sub> 460V (A)	I <sub>b</sub> 460V (A)	Eff. 100% FL (%)	Power Factor (CosΦ)	Full Load Torque (N.M)	Full Load Speed (r/min)	I <sub>n</sub> 400V (A)	I <sub>b</sub> 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 <sub>s</sub> /I <sub>n</sub> (Times)	T <sub>s</sub> /T <sub>n</sub> (Times)	T <sub>min</sub> /T <sub>n</sub> (Times)	T <sub>max</sub> /T <sub>n</sub> (Times)
		Full Load Speed (r/min)	I <sub>n</sub> 460V (A)	I <sub>n</sub> 460V (A)	Eff. 100% FL (%)	Power Factor (CosΦ)	Full Load Torque (N.M)	Full Load Speed (r/min)	I <sub>n</sub> 400V (A)	I <sub>n</sub> 400V (A)	Eff. 100% FL (%)	Power Factor (CosΦ)	Full Load Torque (N.M)				
90S-6	0.75	1120	0.76	1.50	82.5	76	6.39	935	0.91	1.81	78.9	76	7.66	6.2	2.2	2	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



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