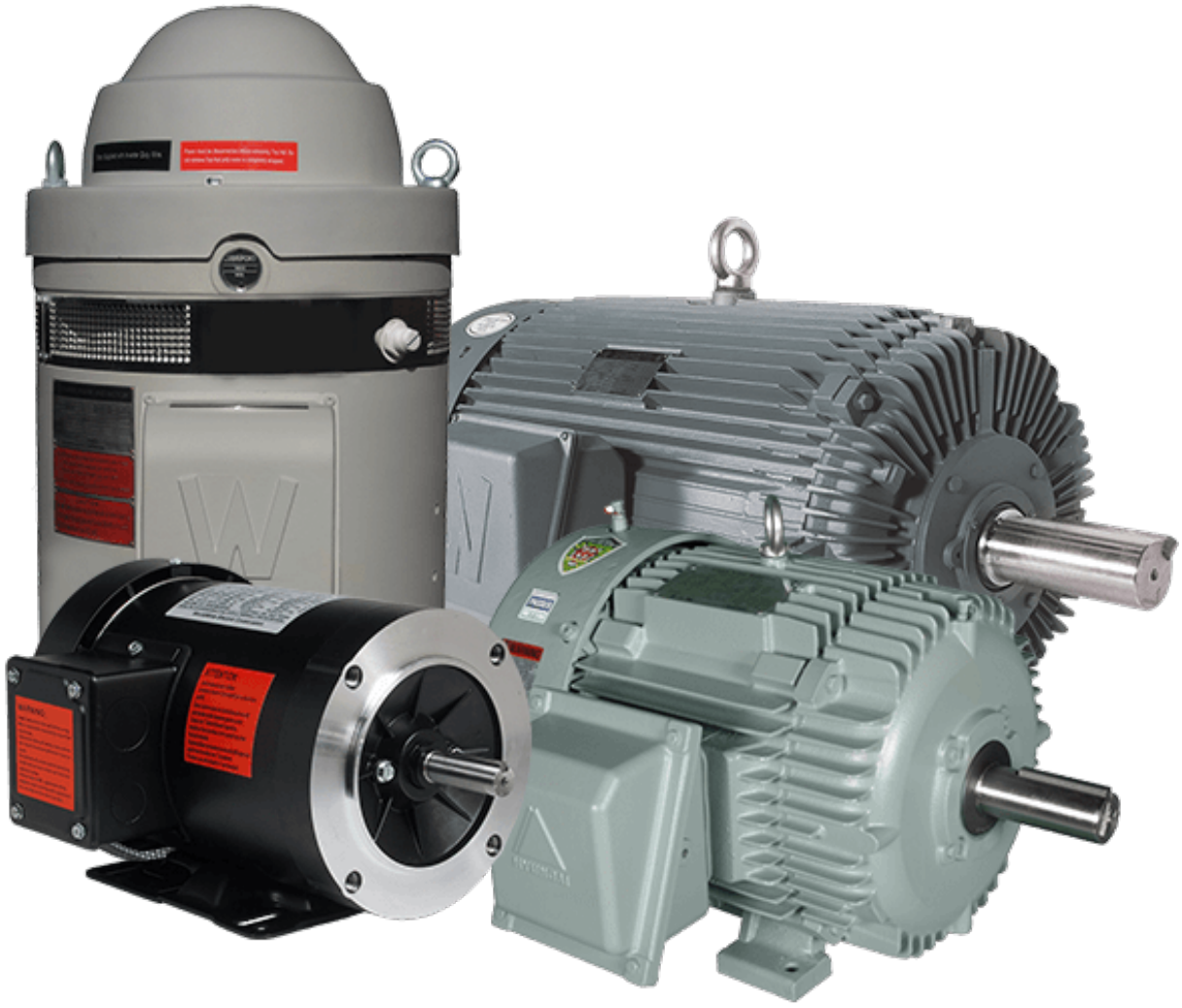
Explosion-proof
High-voltage Motors
Ex db, Ex db eb, Ex tb



Electric Motors
Stock Products Catalog

2023

WorldWide Electric's complete line of motors, including Fractional HP, Stainless, Jet Pump, Farm Duty, Premium Efficient, Explosion Proof, Rock Crusher, Oil Well Pump, Hyundai Lines and More

General Purpose Motors

TEFC Enclosure ▪ C-Face with Removable Base ▪ Single-Phase ▪ 115/230 Volt

Product Specifications

- 1/3 - 2 HP
- 3600 and 1800 RPM
- 115/230 Volt
- Totally Enclosed Fan Cooled (TEFC) Enclosure
- IP43 Protection
- 1.15 SF
- Class F Insulation
- C-Face with Removable Base
- Capacitor Start / Induction Run (1/3 - 1 HP)
- Capacitor Start / Capacitor Run (1.5 - 2 HP) for Reduced Amperage and High Torque
- Vacuum Pressure Impregnation (VPI) System
- Anti-Rust Film Applied to Rotor
- Improved Shaft Seal on Drive-End Protects Drive-End Bearing from Moisture and Contaminants

Suitable for Use with Stearns Coupler Brakes Found on Page 5

HP	RPM	Voltage	Frame	Model Number	List Price	FL Amps (A)	FL Eff. (%)	Approx. Wt. (lbs.)	Notes
1/3	3600	115/230	56C	NT13-36-56CB	$363.18	2.7	59.5	21	
	1800	115/230	56C	NT13-18-56CB	$373.21	2.6	63.0	22	
1/2	3600	115/230	56C	NT12-36-56CB	$383.34	3.3	63.0	23	
	1800	115/230	56C	NT12-18-56CB	$393.21	3.6	64.5	25	
3/4	3600	115/230	56C	NT34-36-56CB	$394.15	4.6	66.5	27	
	1800	115/230	56C	NT34-18-56CB	$427.98	5.0	67.0	29	
1	3600	115/230	56C	NT1-36-56CB	$431.24	5.8	69.5	30	
	1800	115/230	56C	NT1-18-56CB	$477.50	6.5	70.0	36	
1.5	3600	115/230	56C	NT1.5-36-56CB	$539.07	6.5	77.0	31	
	1800	115/230	56C	NT1.5-18-56CB	$603.03	7.3	77.0	37	
2	3600	115/230	56C	NT2-36-56CB	$594.18	8.5	79.5	37	
	1800	115/230	56C	NT2-18-56CB	$733.70	9.8	79.0	44	

General Purpose Motors
TEFC Enclosure ▪ Rigid Base and C-Face ▪ Three-Phase ▪ 230/460 Volt

Product Specifications

- Rigid Base: 1/2 - 2 HP; 1800 RPM
- C-Face: 1/3 - 3 HP; 3600 and 1800 RPM
- 230/460 Volt
- Totally Enclosed Fan Cooled (TEFC) Enclosure
- IP43 Protection
- 1.15 SF
- Class F Insulation
- Premium Efficiency (1-3 HP)
- Vacuum Pressure Impregnation (VPI) System
- Anti-Rust Film Applied to Rotor
- Improved Shaft Seal on Drive-End Protects Drive-End Bearing from Moisture and Contaminants
- Inverter Rated, 4:1 CT / 10:1 VT
- Suitable for 50 Hz at 1.0 SF (Derate in HP)

Suitable for Use with Stearns Coupler Brakes Found on Page 5

NEMA Premium

Only the NATE models meet the NEMA Premium Efficiency specifications.

HP	RPM	Voltage	Frame	Model Number	List Price	FL Amps (A)	FL Eff. (%)	Approx. Wt. (lbs.)	Notes
Rigid Base									
1/2	1800	230/460	56	NAT12-18-56	$352.01	0.95	70.0	19	
3/4	1800	230/460	56	NAT34-18-56	$376.65	1.3	73.0	22	
1	1800	230/460	56	NATE1-18-56	$466.58	1.61	85.5	35	P
1.5	1800	230/460	56	NATE1.5-18-56	$550.87	2.26	86.5	43	P
2	1800	230/460	56	NATE2-18-56	$656.41	2.96	86.5	49	P
C-Face ▪ Removable Base									
1/3	3600	230/460	56C	NAT13-36-56CB	$312.75	0.65	60.0	18	
	1800	230/460	56C	NAT13-18-56CB	$340.49	0.72	67.0	18	
1/2	3600	230/460	56C	NAT12-36-56CB	$326.43	0.85	67.5	19	
	1800	230/460	56C	NAT12-18-56CB	$361.60	0.95	70.0	19	
3/4	3600	230/460	56C	NAT34-36-56CB	$339.99	1.2	71.5	21	
	1800	230/460	56C	NAT34-18-56CB	$392.10	1.3	73.0	22	
1	3600	230/460	56C	NATE1-36-56CB	$475.04	1.5	77.0	23	P
	1800	230/460	56C	NATE1-18-56CB	$514.70	1.61	85.5	35	P
1.5	3600	230/460	56C	NATE1.5-36-56CB	$537.90	1.98	84.0	31	P
	1800	230/460	56C	NATE1.5-18-56CB	$652.37	2.26	86.5	43	P
2	3600	230/460	56C	NATE2-36-56CB	$594.46	2.61	85.5	34	P
	1800	230/460	56C	NATE2-18-56CB	$727.14	2.96	86.5	59	P
3	3600	230/460	56C	NATE3-36-56CB	$687.65	3.69	86.5	52	P
C-Face ▪ Round Body									
1/3	1800	230/460	56C	NAT13-18-56CRD	$340.49	0.72	67.0	18	
1/2	1800	230/460	56C	NAT12-18-56CRD	$361.60	0.95	70.0	19	
3/4	1800	230/460	56C	NAT34-18-56CRD	$392.10	1.3	73.0	22	
1	3600	230/460	56C	NATE1-36-56CRD	$475.04	1.5	77.0	23	P
	1800	230/460	56C	NATE1-18-56CRD	$514.70	1.61	85.5	35	P
1.5	3600	230/460	56C	NATE1.5-36-56CRD	$537.90	1.98	84.0	31	P
	1800	230/460	56C	NATE1.5-18-56CRD	$652.37	2.26	86.5	43	P
2	3600	230/460	56C	NATE2-36-56CRD	$594.46	2.61	85.5	34	P
	1800	230/460	56C	NATE2-18-56CRD	$727.14	2.96	86.5	59	P
3	3600	230/460	56C	NATE3-36-56CRD	$687.65	3.69	86.5	52	P

P NATE models are premium efficiency

When using any motor with a variable frequency drive, take precautions to eliminate or reduce shaft currents in order to prolong bearing life.

Stearns Double C-Face Coupler Brakes
For Drive-End of Motor

Product Specifications

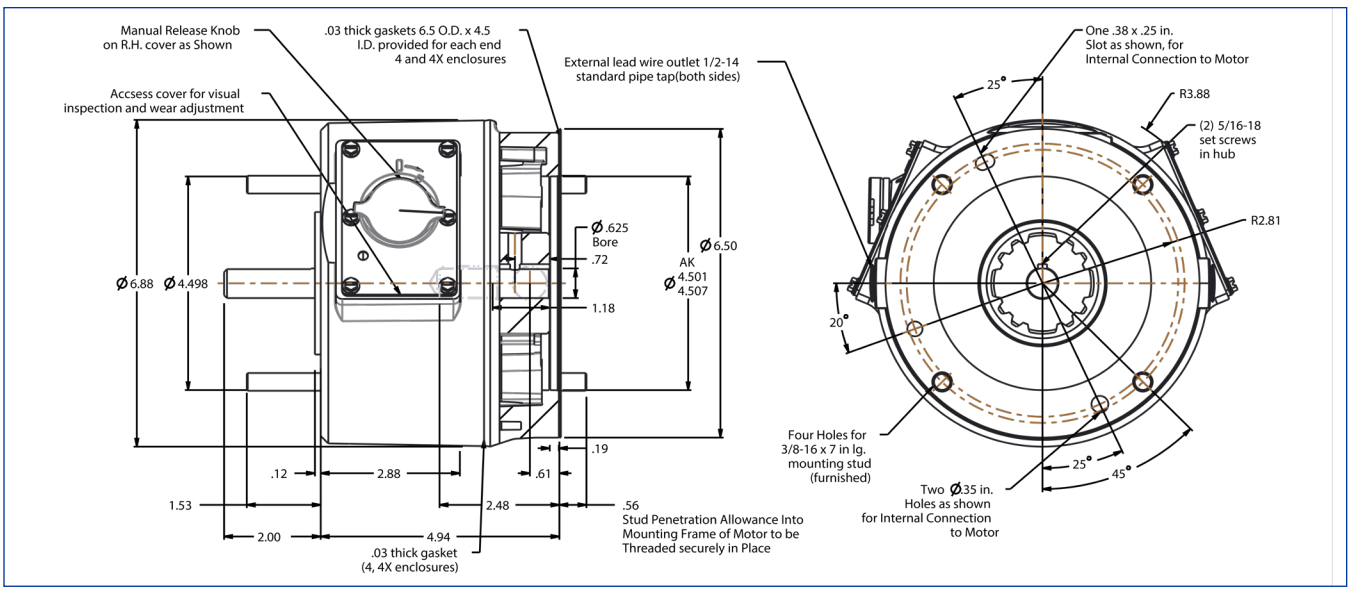
- NEMA C-Frame: 56C
- Torque lb-ft : 1.5, 3, 6, 10
- IP54 Protection
- Coil Voltage: 115/230 (VAC 60Hz), 230/460 (VAC 60Hz)
- Manual Release Knob
- CSA Certified File LR6254
- RoHS3 Compliant
- Self-Adjusting
- AC Operated Coil
- Solenoid Actuated Brake (SAB)
- Designed for industrial applications that fit between a standard C-Face motor and quill input C-Flange

Suitable for Use with our Full-Line of Fractional HP Motors:

- General Purpose Motors: Page 3-4
- Stainless Steel Motors: Page 9-10
- Permanent Magnet DC Motors: Page 11
- Fractional Farm Duty Motors: Page 13

Single-Phase Input	Brand	Description	Voltage	List Price
230/460 Volt				
S-105670205 QF	Stearns	1.5 lb-ft, 56C, IP54	230/460	$1,313.66
S-105671205 QF	Stearns	3 lb-ft, 56C, IP54	230/460	$1,239.33
S-105672205 QF	Stearns	6 lb-ft, 56C, IP54	230/460	$1,365.69
S-105673205 QF	Stearns	10 lb-ft, 56C, IP54	230/460	$1,555.20
115/230 Volt				
S-105670205 PF	Stearns	1.5 lb-ft, 56C, IP54	115/230	$1,200.34
S-105671205 PF	Stearns	3 lb-ft, 56C, IP54	115/230	$1,239.33
S-105672205 PF	Stearns	6 lb-ft, 56C, IP54	115/230	$1,352.69
S-105673205 PF	Stearns	10 lb-ft, 56C, IP54	115/230	$1,570.08

Dimensions



Jet Pump Motors

ODP Enclosure ▪ C-Face with Removable Base and Round Body

Product Specifications

- 3600 RPM
- Open Drip Proof (ODP) Enclosure
- IP23 Protection
- Class F Insulation
- C-Face with Removable Base (CB / JB) and C-Face Round Body Footless (CRD / JRD)
- 56J - Threaded Shaft, ODE Shaft Supplied with Slot for Installation
- 56C - Keyed Shaft
- 304 Stainless Steel Shaft End
- Vacuum Pressure Impregnation (VPI) System
- Anti-Rust Film Applied to Rotor
- Drive-End Shaft Slinger
- Double Shielded Ball Bearings

Single-Phase

- 1/3 - 3 HP
- 115/230 Volt, Usable at 208 Volt
- Capacitor Start / Capacitor Run
- Automatic Thermal Overload Protection
- Terminal Board with Spade Connectors
- Premium Efficiency in Accordance with NEMA Table 12-20

Three-Phase

- 1/3 - 5 HP
- 230/460 Volt, Usable at 208 Volt (Preconfigured for 460 Volt from Factory)
- Stud Terminals for Use with Ring or Fork Terminals
- Supplied with Terminal Plug in Terminal Box for Switching from 230 to 460 Volt and Vice-Versa
- Premium Efficiency in Accordance with NEMA Table 12-20 and 12-21

HP	RPM	Voltage	Frame	Model Number	List Price	FL Amps (A)	FL Eff. (%)	Approx. Wt. (lbs.)	Service Factor
Single-Phase ▪ 115/230 Volt ▪ C-Face Removable Base									
1/3	3600	115/230	56C	OJ13-36-56CB	$404.64	1.584	70.5	23.8	1.75
	3600	115/230	56J	OJ13-36-56JB	$404.64	1.6	70.5	23.8	1.75
1/2	3600	115/230	56C	OJ12-36-56CB	$434.59	2.4	72.4	25	1.6
	3600	115/230	56J	OJ12-36-56JB	$434.59	2.4	72.4	25	1.6
3/4	3600	115/230	56C	OJ34-36-56CB	$456.66	3.2	76.2	26.6	1.5
	3600	115/230	56J	OJ34-36-56JB	$456.66	3.2	76.2	26.6	1.5
1	3600	115/230	56C	OJ1-36-56CB	$494.06	4.1	80.4	30.2	1.4
	3600	115/230	56J	OJ1-36-56JB	$494.06	4.1	80.4	30.2	1.4
1.5	3600	115/230	56C	OJ1.5-36-56CB	$554.51	6.7	81.5	33.1	1.3
	3600	115/230	56J	OJ1.5-36-56JB	$554.51	6.7	81.5	33.1	1.3
2	3600	115/230	56C	OJ2-36-56CB	$607.07	8.1	82.9	37.8	1.2
	3600	115/230	56J	OJ2-36-56JB	$607.07	8.1	82.9	37.8	1.2
3	3600	115/230	56C	OJ3-36-56CB	$708.48	11.4	84.1	46.8	1.15
	3600	115/230	56J	OJ3-36-56JB	$708.48	11.4	84.1	46.8	1.15
Single-Phase ▪ 115/230 Volt ▪ C-Face ▪ Round Body (Footless)									
1/3	3600	115/230	56C	OJ13-36-56CRD	$385.37	1.6	70.5	21.6	1.75
	3600	115/230	56J	OJ13-36-56JRD	$385.37	1.6	70.5	21.6	1.75
1/2	3600	115/230	56C	OJ12-36-56CRD	$413.89	2.4	72.4	22.8	1.6
	3600	115/230	56J	OJ12-36-56JRD	$413.89	2.4	72.4	22.8	1.6
3/4	3600	115/230	56C	OJ34-36-56CRD	$434.92	3.2	76.2	24.4	1.5
	3600	115/230	56J	OJ34-36-56JRD	$434.92	3.2	76.2	24.4	1.5
1	3600	115/230	56C	OJ1-36-56CRD	$470.51	4.1	80.4	28	1.4
	3600	115/230	56J	OJ1-36-56JRD	$470.51	4.1	80.4	28	1.4
1.5	3600	115/230	56C	OJ1.5-36-56CRD	$528.11	6.7	81.5	30.9	1.3
	3600	115/230	56J	OJ1.5-36-56JRD	$528.11	6.7	81.5	30.9	1.3
2	3600	115/230	56C	OJ2-36-56CRD	$578.16	8.1	82.9	35.6	1.2
	3600	115/230	56J	OJ2-36-56JRD	$578.16	8.1	82.9	35.6	1.2
3	3600	115/230	56C	OJ3-36-56CRD	$674.80	11.4	84.1	44.6	1.15
	3600	115/230	56J	OJ3-36-56JRD	$674.80	11.4	84.1	44.6	1.15

Document No: MD-CAT-04.2023 | For more information, please contact customerservice@worldwideelectric.com

Section 1: WORLDWIDE Fractional HP Motors

HP	RPM	Voltage	Frame	Model Number	List Price	FL Amps (A)	FL Eff. (%)	Approx. Wt. (lbs.)	Service Factor
Three-Phase ▪ 230/460 Volt ▪ C-Face Removable Base									
1/3	3600	230/460	56C	ODPJ13-36-56CB	$396.65	0.6	69.5	20.5	1.75
	3600	230/460	56J	ODPJ13-36-56JB	$396.65	0.6	69.5	20.5	1.75
1/2	3600	230/460	56C	ODPJ12-36-56CB	$438.92	0.9	73.4	21.6	1.6
	3600	230/460	56J	ODPJ12-36-56JB	$438.92	0.9	73.4	21.6	1.6
3/4	3600	230/460	56C	ODPJ34-36-56CB	$479.87	1.0	76.8	23.6	1.5
	3600	230/460	56J	ODPJ34-36-56JB	$479.87	1.0	76.8	23.6	1.5
1	3600	230/460	56C	ODPJ1-36-56CB	$505.66	1.4	77.0	27.5	1.4
	3600	230/460	56J	ODPJ1-36-56JB	$505.66	1.4	77.0	27.5	1.4
1.5	3600	230/460	56C	ODPJ1.5-36-56CB	$582.32	2.0	84.0	30.5	1.3
	3600	230/460	56J	ODPJ1.5-36-56JB	$582.32	2.0	84.0	30.5	1.3
2	3600	230/460	56C	ODPJ2-36-56CB	$607.29	2.5	85.5	34.2	1.2
	3600	230/460	56J	ODPJ2-36-56JB	$607.29	2.5	85.5	34.2	1.2
3	3600	230/460	56C	ODPJ3-36-56CB	$679.51	3.7	85.5	40.1	1.15
	3600	230/460	56J	ODPJ3-36-56JB	$679.51	3.7	85.5	40.1	1.15
5	3600	230/460	56C	ODPJ5-36-56CB	$784.48	5.8	86.5	51.7	1.15
	3600	230/460	56J	ODPJ5-36-56JB	$784.48	5.8	86.5	51.7	1.15
Three-Phase ▪ 230/460 Volt ▪ C-Face ▪ Round Body (Footless)									
1/3	3600	230/460	56C	ODPJ13-36-56CRD	$377.81	0.6	69.5	18.3	1.75
	3600	230/460	56J	ODPJ13-36-56JRD	$377.81	0.6	69.5	18.3	1.75
1/2	3600	230/460	56C	ODPJ12-36-56CRD	$418.00	0.9	73.4	19.4	1.6
	3600	230/460	56J	ODPJ12-36-56JRD	$418.00	0.9	73.4	19.4	1.6
3/4	3600	230/460	56C	ODPJ34-36-56CRD	$456.99	1.0	76.8	21.4	1.5
	3600	230/460	56J	ODPJ34-36-56JRD	$456.99	1.0	76.8	21.4	1.5
1	3600	230/460	56C	ODPJ1-36-56CRD	$510.48	1.4	77.0	25.3	1.4
	3600	230/460	56J	ODPJ1-36-56JRD	$510.48	1.4	77.0	25.3	1.4
1.5	3600	230/460	56C	ODPJ1.5-36-56CRD	$554.56	2.0	84.0	28.3	1.3
	3600	230/460	56J	ODPJ1.5-36-56JRD	$554.56	2.0	84.0	28.3	1.3
2	3600	230/460	56C	ODPJ2-36-56CRD	$578.38	2.5	85.5	32	1.2
	3600	230/460	56J	ODPJ2-36-56JRD	$578.38	2.5	85.5	32	1.2
3	3600	230/460	56C	ODPJ3-36-56CRD	$647.15	3.7	85.5	37.9	1.15
	3600	230/460	56J	ODPJ3-36-56JRD	$647.15	3.7	85.5	37.9	1.15
5	3600	230/460	56C	ODPJ5-36-56CRD	$747.08	5.8	86.5	49.5	1.15
	3600	230/460	56J	ODPJ5-36-56JRD	$747.08	5.8	86.5	49.5	1.15

When using any motor with a variable frequency drive, take precautions to eliminate or reduce shaft currents in order to prolong bearing life.

Jet Pump Motors

TEFC Enclosure ▪ C-Face with Removable Base

Product Specifications

- 1/3 - 3 HP
- 3600 RPM
- Totally Enclosed Fan Cooled (TEFC) Enclosure
- IP43 Protection
- 1.15 SF
- Class F Insulation
- C-Face with Removable Base
- 56J - Threaded Shaft
- 56C - Keyed Shaft
- Vacuum Pressure Impregnation (VPI) System
- Anti-Rust Film Applied to Rotor
- Improved Shaft Seal on Drive-End Protects Drive-End Bearing from Moisture and Contaminants
- Inverter rated, 4:1 CT / 10:1 VT

Single-Phase

- 115/230 Volt
- Capacitor Start / Induction Run (1/3 - 1 HP)
- Capacitor Start / Capacitor Run (1.5 - 2 HP) for Reduced Amperage and High Torque

Three-Phase

- 230/460 Volt
- Premium Efficiency (1-3 HP)
- Suitable for 50 Hz at 1.0 SF (Derate in HP)

NEMA Premium

**Only the NATJE models meet the NEMA Premium Efficiency specifications.*

HP	RPM	Voltage	Frame	Model Number	List Price	FL Amps (A)	FL Eff. (%)	Approx. Wt. (lbs.)	Notes
Single-Phase ▪ 115/230 Volt									
1/3	3600	115/230	56C	NTJ13-36-56CB	$346.89	2.5	58.0	20	
	3600	115/230	56J	NTJ13-36-56JB	$355.13	2.5	58.0	20	
1/2	3600	115/230	56C	NTJ12-36-56CB	$361.99	3.3	61.0	21	
	3600	115/230	56J	NTJ12-36-56JB	$370.17	3.3	61.0	21	
3/4	3600	115/230	56C	NTJ34-36-56CB	$393.02	4.5	64.0	26	
	3600	115/230	56J	NTJ34-36-56JB	$401.13	4.5	64.0	26	
1	3600	115/230	56C	NTJ1-36-56CB	$416.44	5.7	69.0	29	
	3600	115/230	56J	NTJ1-36-56JB	$424.64	5.7	69.0	29	
1.5	3600	115/230	56C	NTJ1.5-36-56CB	$503.90	6.5	72.0	31	
	3600	115/230	56J	NTJ1.5-36-56JB	$512.02	6.5	72.0	31	
2	3600	115/230	56C	NTJ2-36-56CB	$546.23	8.6	75.0	37	
	3600	115/230	56J	NTJ2-36-56JB	$554.37	8.6	75.0	37	
Three-Phase ▪ 230/460 Volt									
1/3	3600	230/460	56C	NATJ13-36-56CB	$307.60	0.65	57.0	18	
	3600	230/460	56J	NATJ13-36-56JB	$316.71	0.65	57.0	18	
1/2	3600	230/460	56C	NATJ12-36-56CB	$317.99	0.85	62.0	19	
	3600	230/460	56J	NATJ12-36-56JB	$327.01	0.85	62.0	19	
3/4	3600	230/460	56C	NATJ34-36-56CB	$349.15	1.2	67.0	22	
	3600	230/460	56J	NATJ34-36-56JB	$358.17	1.2	67.0	22	
1	3600	230/460	56C	NATJE1-36-56CB	$380.01	1.5	77.0	23	P
	3600	230/460	56J	NATJE1-36-56JB	$389.04	1.5	77.0	23	P
1.5	3600	230/460	56C	NATJE1.5-36-56CB	$482.08	1.98	84.0	31	P
	3600	230/460	56J	NATJE1.5-36-56JB	$491.17	1.98	84.0	31	P
2	3600	230/460	56C	NATJE2-36-56CB	$505.02	2.61	85.5	34	P
	3600	230/460	56J	NATJE2-36-56JB	$514.03	2.61	85.5	34	P
3	3600	230/460	56J	NATJE3-36-56JB	$655.29	3.69	86.5	39	P

P NATJE models are premium efficiency

When using any motor with a variable frequency drive, take precautions to eliminate or reduce shaft currents in order to prolong bearing life.

Document No: MD-CAT-04.2023 | For more information, please contact customerservice@worldwideelectric.com

Stainless Steel / Washdown Duty Motors

TENV Enclosure ▪ C-Face with Feet and Round Body ▪ Three-Phase ▪ 230/460 Volt

Product Specifications

- 1/3 - 3/4 HP
- 1800 RPM
- 230/460 Volt
- Totally Enclosed Non-Ventilated (TENV) Enclosure
- IP56 Protection
- 1.15 SF
- Class F Insulation
- C-Face with Feet and Round Body (Footless)
- 304 Stainless Steel Frame, End Bracket and Junction Box
- Stainless Steel Shaft
- Anti-Rust Film Applied to Rotor
- Double Lip Seals with an Additional Shaft Slinger on the Drive-End
- O-Ring Installed on Endbells to Prevent Moisture Intrusion
- Stainless Steel Cord Connector Included

HP	RPM	Voltage	Frame	Model Number	List Price	FL Amps (A)	FL Eff. (%)	Approx. Wt. (lbs.)	Notes
C-Face with Feet									
1/3	1800	230/460	56C	WSSNV13-18-56CB	$582.23	0.7	82.5	28	
1/2	1800	230/460	56C	WSSNV12-18-56CB	$606.83	0.8	82.5	31	
3/4	1800	230/460	56C	WSSNV34-18-56CB	$647.46	1.2	82.5	33	
Round Body									
1/3	1800	230/460	56C	WSSNV13-18-56CRD	$553.12	0.7	82.5	28	
1/2	1800	230/460	56C	WSSNV12-18-56CRD	$576.49	0.8	82.5	31	
3/4	1800	230/460	56C	WSSNV34-18-56CRD	$615.08	1.2	82.5	33	

When using any motor with a variable frequency drive, take precautions to eliminate or reduce shaft currents in order to prolong bearing life.

Stainless Steel / Washdown Duty Motors

TEFC Enclosure ▪ C-Face with Feet and Round Body ▪ Three-Phase ▪ 230/460 Volt

Product Specifications

- 1/3 - 2 HP
- 3600 and 1800 RPM
- 230/460 Volt
- Totally Enclosed Fan Cooled (TEFC) Enclosure
- IP56 Protection
- 1.15 SF
- Class F Insulation
- Premium Efficiency (1-2 HP)
- C-Face with Feet and Round Body (Footless)
- 304 Stainless Steel Frame, End Bracket and Junction Box
- Stainless Steel Shaft
- Anti-Rust Film Applied to Rotor
- Double Lip Seals on Both Ends of the Motor with an Additional Shaft Slinger on the Drive-End
- O-Ring Installed on Endbells to Prevent Moisture Intrusion
- Stainless Steel Cord Connector Included

NEMA® Premium

*Only the NAWSSE models meet the NEMA Premium Efficiency specifications.

HP	RPM	Voltage	Frame	Model Number	List Price	FL Amps (A)	FL Eff. (%)	Approx. Wt. (lbs.)	Notes
C-Face with Feet									
1/3	1800	230/460	56C	WSS13-18-56CB	$547.30	0.7	82.5	28	
1/2	3600	230/460	56C	WSS12-36-56CB	$564.38	0.9	77.0	29	
	1800	230/460	56C	NAWSS12-18-56C	$935.63	0.8	82.5	31	
3/4	3600	230/460	56C	WSS34-36-56CB	$584.50	1.2	73.0	33	
	1800	230/460	56C	NAWSS34-18-56C	$962.58	1.2	82.5	33	
1	1800	230/460	56C	NAWSSE1-18-56C	$1,137.62	1.56	85.5	44	P
1.5	1800	230/460	56C	NAWSSE1.5-18-56C	$1,259.73	2.27	86.5	58	P
2	1800	230/460	56C	NAWSSE2-18-56C	$1,310.06	2.97	86.5	64	P
Round Body									
1/3	1800	230/460	56C	WSS13-18-56CRD	$519.94	0.7	82.5	28	
1/2	1800	230/460	56C	WSS12-18-56CRD	$541.90	0.8	82.5	31	
3/4	1800	230/460	56C	WSS34-18-56CRD	$578.18	1.2	82.5	33	
1	1800	230/460	56C	NAWSSE1-18-56CRD	$1,186.27	1.56	85.5	44	P
1.5	1800	230/460	56C	NAWSSE1.5-18-56CRD	$1,316.95	2.27	86.5	58	P
2	1800	230/460	56C	NAWSSE2-18-56CRD	$1,370.74	2.97	86.5	64	P

P NAWSSE models are premium efficiency

When using any motor with a variable frequency drive, take precautions to eliminate or reduce shaft currents in order to prolong bearing life.

Permanent Magnet DC Motors

TENV / TEFC Enclosure ▪ C-Face with Removable Base ▪ 90, 180, 12 and 24 Volt

Product Specifications

- 1/4 - 2 HP
- 1800 RPM
- 90, 180, 12 and 24 Volt
- Totally Enclosed Non-Ventilated (TENV) Enclosure (1/4 - 1/2 HP)
- Totally Enclosed Fan Cooled (TEFC) Enclosure (3/4 - 2 HP)
- IP54 Protection
- 1.0 SF
- Class F Insulation
- C-Face with Removable Base
- 20:1 Speed Range at Constant Torque
- High Starting Torque
- 12 Volt and 24 Volt Models Used in Applications Where Low Voltage DC Power is Supplied by Batteries or Generators

Suitable for Use with Stearns Coupler Brakes Found on Page 5

HP	RPM	Voltage	Frame	Model Number	List Price	FL Amps (A)	FL Eff. (%)	Approx. Wt. (lbs.)	Notes
90 Volt and 180 Volt									
1/4	1800	90	56C	WPMDC14-18-90V-56CB	$393.20	2.9	80.0	17	X
1/3	1800	90	56C	WPMDC13-18-90V-56CB	$420.33	3.5	82.0	19	X
	1800	180	56C	WPMDC13-18-180V-56CB	$415.81	1.8	82.0	19	X
1/2	1800	90	56C	WPMDC12-18-90V-56CB	$537.83	5.2	82.0	22	X
	1800	180	56C	WPMDC12-18-180V-56CB	$533.38	2.6	82.0	22	X
3/4	1800	90	56C	WPMDC34-18-90V-56CB	$611.10	7.8	82.0	28	X
	1800	180	56C	WPMDC34-18-180V-56CB	$605.64	3.9	82.0	28	X
1	1800	90	56C	WPMDC1-18-90V-56CB	$683.37	10.4	82.0	32	X
	1800	180	56C	WPMDC1-18-180V-56CB	$678.00	5.2	82.0	32	X
1.5	1800	90	56C	WPMDC1.5-18-90V-56CB	$738.45	15.4	83.0	38	X
	1800	180	56C	WPMDC1.5-18-180V-56CB	$732.14	7.7	83.0	38	X
	1800	180	145TC	WPMDC1.5-18-180V-145TCB	$1,095.55	7.7	80.0	47	X
2	1800	180	56C	WPMDC2-18-180V-56CB	$1,171.45	9.8	85.0	65	X
	1800	180	145TC	WPMDC2-18-180V-145TCB	$1,534.87	9.8	80.0	65	X
12 Volt and 24 Volt									
1/3	1800	12	56C	WPMDC13-18-12V-56CB	$501.72	26.4	78.0	19	
	1800	24	56C	WPMDC13-18-24V-56CB	$497.22	13.2	78.0	19	
1/2	1800	12	56C	WPMDC12-18-12V-56CB	$592.13	40.0	78.0	22	
	1800	24	56C	WPMDC12-18-24V-56CB	$588.46	20.0	78.0	22	
3/4	1800	12	56C	WPMDC34-18-12V-56CB	$670.71	61.2	75.0	28	
	1800	24	56C	WPMDC34-18-24V-56CB	$667.04	30.6	75.0	28	
1	3600	12	56C	WPMDC1-36-12V-56CB	$740.31	82.2	75.0	26	
	1800	12	56C	WPMDC1-18-12V-56CB	$746.64	82.2	75.0	33	
	1800	24	56C	WPMDC1-18-24V-56CB	$742.98	41.1	75.0	33	
1.5	1800	24	56C	WPMDC1.5-18-24V-56CB	$824.39	62.5	76.0	39	

X Extra set of brushes and brush springs included

Permanent Magnet DC Motors
Variable Speed DC Controls

Product Specifications

- Dual Voltage - 120/240 VAC, 50/60 Hz
- Adjustable Horsepower Settings
- Barrier Terminal Strip
- Packaged Bridge Supply (Fullwave)
- 1% Speed Regulation with Armature Voltage Feedback; ± 1/2% with Tach Feedback
- Adjustable Minimum Speed (0-30% of max.)
- Adjustable Maximum Speed (66-110% of base)
- Adjustable IR Compensation
- Adjustable Linear Acceleration (0.5-8 sec.)
- Adjustable Current Limit to 15 Amps
- Line Voltage Compensation
- 5K Ohm Speed Potentiometer with Leads, Knob and Dial Included
- Power On / Off Switch
- 50:1 Speed Range
- Overload Capacity: 150% for One Minute
- Transient Voltage Protection
- Voltage Following Mode or DC Tachometer Follower by Supplying Underground Analog Input Signal (0-12 VDC)
- DC Tachometer Feedback (6 V at Base Speed)
- Inhibit Circuit - Permits Start and Stop Without Breaking AC Lines
- Remote Start/Stop via Pot Circuit or Inhibit Circuit
- Shunt Field Supply Provided (1 Amp Max.; 100 V for 120 VAC; 200 V for 240 VAC Input)
- AC Line Fuse
- Rated NEMA 4/12 with Threaded Conduit Holes

Single-Phase Input	Output	HP Range	Model Number	List Price
Non-Reversing (ON / OFF)				
120 VAC	0-90 VDC	1/8 - 1.0	WDCCONT	$585.29
240 VAC	0-180 VDC	1/4 - 2.0	WDCCONT	$585.29
Reversing (FORWARD / OFF / REVERSE)				
120 VAC	0-90 VDC	1/8 - 1.0	WDCCONTREV	$888.44
240 VAC	0-180 VDC	1/4 - 2.0	WDCCONTREV	$888.44

Fractional Farm Duty Motors

TEFC Enclosure ▪ Rigid Base ▪ Single-Phase ▪ 115/230 Volt

Product Specifications

- 1/3-2 HP
- 1800 RPM
- 115/230 Volt
- Totally Enclosed Fan Cooled (TEFC) Enclosure
- IP54 Protection
- High Torque
- 1.15 SF
- Class F Insulation
- Rigid Base
- 56H Frame Motors Have Double Punched Feet
- Vacuum Pressure Impregnation (VPI) System
- Anti-Rust Film Applied to Rotor
- Capacitor Start / Induction Run (1/3-1 HP)
- Capacitor Start / Capacitor Run (1.5-2 HP) for Reduced Amperage and High Torque
- With Manual Overload
- Improved Shaft Seal on Drive-End Protects Drive-End Bearing from Moisture and Contaminants

Suitable for Use with Stearns Coupler Brakes Found on Page 5

HP	RPM	Voltage	Frame	Model Number	List Price	FL Amps (A)	FL Eff. (%)	Approx. Wt. (lbs.)	Notes
Rigid Base									
1/3	1800	115/230	56	FM13-18-56	$412.25	5.2	63.0	22	
1/2	1800	115/230	56	FM12-18-56	$424.38	7.2	64.5	25	
3/4	1800	115/230	56	FM34-18-56	$496.69	10.0	67.0	29	
1	1800	115/230	56	FM1-18-56	$518.66	13.0	70.0	36	
1.5	1800	115/230	56H	FM1.5-18-56H	$615.37	14.5	77.0	37	H
2	1800	115/230	56HZ	FM2-18-56HZ	$742.83	19.6	79.0	45	H Z
C-Face									
1/3	1800	115/230	56C	FM13-18-56C	$472.96	5.2	63.0	22	
1/2	1800	115/230	56C	FM12-18-56C	$485.82	7.2	64.5	25	
3/4	1800	115/230	56C	FM34-18-56C	$568.24	10.0	67.0	29	
1	1800	115/230	56C	FM1-18-56C	$592.59	13.0	70.0	36	
1.5	1800	115/230	56HC	FM1.5-18-56HC	$701.59	14.5	77.0	37	H
2	1800	115/230	56HZC	FM2-18-56HZC	$845.16	19.6	79.0	45	H Z

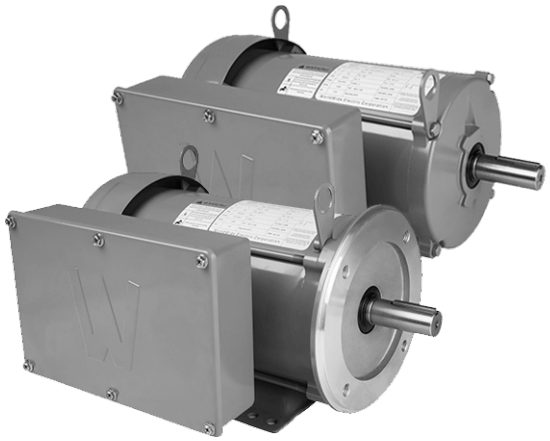
H Suitable for mounting in either 56, 143T or 145T mounting dimensions
Z Motor has 7/8" diameter shaft

Integral Farm Duty Motors

TEFC Enclosure ▪ Rigid Base and C-Face ▪ Single-Phase ▪ 230 Volt

Product Specifications

- 2-10 HP
- 1800 RPM
- 230 Volt
- Totally Enclosed Fan Cooled (TEFC) Enclosure
- IP55 Protection
- 1.15 SF
- Class F Insulation
- Rigid Base and C-Face with Feet
- Dual-Drilled Feet
- With Manual Overload
- Capacitor Start / Capacitor Run for Reduced Amperage and High Torque
- Shaft Seals on Both Ends of the Motor
- Cast Aluminum Endbells



HP	RPM	Voltage	Frame	Model Number	List Price	FL Amps (A)	FL Eff. (%)	Approx. Wt. (lbs.)	Notes
Rigid Base									
2	1800	230	145T	FD2-18-145T	$679.90	7.8	85.6	54	
	1800	230	182T	FD2-18-182T	$754.04	8.5	84.0	54	
3	1800	230	184T	FD3-18-184T	$897.24	12.5	84.4	76	
5	1800	230	184T	FD5-18-184T	$1,057.97	20.2	86.4	101	
7.5	1800	230	215T	FD7.5-18-215T	$1,628.74	28.7	86.6	134	
	1800	230	215TZ	FD7.5-18-215TZ	$1,628.74	28.7	86.6	134	Z
10	1800	230	215T	FD10-18-215T	$1,898.38	38.8	87.5	149	
C-Face									
2	1800	230	145TC	FD2-18-182TC	$853.00	8.5	84.0	54	
3	1800	230	184TC	FD3-18-184TC	$934.63	12.5	84.4	76	
5	1800	230	184TC	FD5-18-184TC	$1,102.06	20.2	86.4	101	
7.5	1800	230	215TC	FD7.5-18-215TC	$1,696.60	28.7	86.6	134	
10	1800	230	215TC	FD10-18-215TC	$1,977.47	38.8	87.5	149	

FD Motor C-Flange Kits

Frame Size	Model Number	List Price
145T	FD140TC	$130.14
182T / 184T	FD180TC	$168.44
215T	FD210TC	$232.59

Z Motor has 1-1/8" diameter shaft

Premium Efficient Stainless Steel Motors

TEFC Enclosure ▪ C-Face ▪ Three-Phase ▪ 230/460 Volt

Product Specifications

- 1/3-20 HP, 3600 and 1800 RPM
- 1/2-5 HP, 1200 RPM
- 230/460 volt, 60 Hz
- Totally Enclosed Fan Cooled (TEFC) Enclosure
- IP69K Protection
- BISSC Certified
- 1.15 SF
- Class F Insulation with Class B Temperature Rise
- C-Face with Feet and Round Body (Footless)
- Premium Efficiency (EISA Compliant)
- Suitable for 50 Hz , 190/380V, 1.15 SF (Derate in HP)
- NEMA Design B
- Continuous Duty
- 304 Stainless Steel Frame, End Bracket, Junction Box, and Hardware
- Stainless Steel Shaft and Key
- F1 Junction Box Location
- Lip Seal on DE and ODE
- Round Welded Junction Box with Epoxy Potted Leads
- Double Sealed Bearings Pre-Packed with Mobil Polyrex EM Grease
- Inverter Duty – 10:1 Constant Torque (CT) / 20:1 Variable Torque (VT)
- CSA Class 1 Division 2 Groups A, B, C, D – Temperature Code T2B
- Ambient -20°C to +40°C, Altitude up to 3300 Feet Above Sea Level (FASL)
- Bi-directional Rotation
- In Accordance with NEMA, CSA, UL, and CE

HP	RPM	Voltage	Frame	Model Number	List Price	FL Amps (A)	FL Eff. (%)	Approx. Wt. (lbs.)	Notes
C-Face with Feet									
1/3	3600	230/460	56C	SSPE13-36-56C	$865.43	0.55	72.0	26	
	1800	230/460	56C	SSPE13-18-56C	$898.37	0.6	74.0	28	
1/2	3600	230/460	56C	SSPE12-36-56C	$893.80	0.75	74.0	29	
	1800	230/460	56C	SSPE12-18-56C	$918.23	0.8	78.5	30	
	1200	230/460	56C	SSPE12-12-56C	$1,046.62	0.9	75.5	30	
3/4	3600	230/460	56C	SSPE34-36-56C	$1,028.60	1.1	77.0	33	
	1800	230/460	56C	SSPE34-18-56C	$993.12	1.2	81.5	33	
	1200	230/460	56C	SSPE34-12-56C	$1,133.82	1.85	81.5	35	
	1200	230/460	143TC	SSPE34-12-143TC	$1,191.75	1.85	81.5	35	
1	3600	230/460	56C	SSPE1-36-56C	$1,135.00	1.4	77.0	35	
	3600	230/460	143TC	SSPE1-36-143TC	$1,183.55	1.4	80.0	39	
	1800	230/460	56C	SSPE1-18-56C	$1,135.00	1.45	85.5	36	
	1800	230/460	143TC	SSPE1-18-143TC	$1,170.46	1.45	85.5	36	
	1200	230/460	145TC	SSPE1-12-145TC	$1,342.61	2.0	82.5	42	
1.5	3600	230/460	56C	SSPE1.5-36-56C	$1,241.39	2.0	84.0	39	
	3600	230/460	143TC	SSPE1.5-36-143TC	$1,276.87	2.0	84.0	39	
	1800	230/460	56C	SSPE1.5-18-56C	$1,276.87	2.0	86.5	42	
	1800	230/460	145TC	SSPE1.5-18-145TC	$1,312.33	2.0	86.5	42	
	1200	230/460	182TC	SSPE1.5-12-182TC	$2,279.87	2.45	87.5	82	
2	3600	230/460	56C	SSPE2-36-56C	$1,347.80	2.4	85.5	46	
	3600	230/460	145TC	SSPE2-36-145TC	$1,390.37	2.4	85.5	46	
	1800	230/460	56C	SSPE2-18-56C	$1,383.28	3.0	86.5	51	
	1800	230/460	145TC	SSPE2-18-145TC	$1,418.74	3.0	86.5	51	
	1200	230/460	184TC	SSPE2-12-184TC	$2,483.83	3.05	88.5	98	
3	3600	230/460	145TC	SSPE3-36-145TC	$2,283.23	3.6	86.5	60	
	3600	230/460	182TC	SSPE3-36-182TC	$2,763.00	4.05	86.5	81	
	1800	230/460	145TC	SSPE3-18-145TC	$2,543.51	4.1	89.5	65	
	1800	230/460	182TC	SSPE3-18-182TC	$2,796.70	4.0	89.5	81	
	1200	230/460	213TC	SSPE3-12-213TC	$3,887.27	4.6	89.5	170	
5	3600	230/460	184TC	SSPE5-36-184TC	$3,032.57	6.1	88.5	95	
	1800	230/460	184TC	SSPE5-18-184TC	$3,133.65	6.25	89.5	100	
	1200	230/460	215TC	SSPE5-12-215TC	$4,574.24	7.0	89.5	200	

Premium Efficient Stainless Steel Motors (Continued)

TEFC Enclosure ▪ C-Face ▪ Three-Phase ▪ 230/460 Volt

HP	RPM	Voltage	Frame	Model Number	List Price	FL Amps (A)	FL Eff. (%)	Approx. Wt. (lbs.)	Notes
7.5	3600	230/460	213TC	SSPE7.5-36-213TC	$4,582.55	9.5	89.5	155	
	1800	230/460	213TC	SSPE7.5-18-213TC	$4,447.76	9.3	91.7	180	
10	3600	230/460	215TC	SSPE10-36-215TC	$4,852.09	12.2	90.2	170	
	1800	230/460	215TC	SSPE10-18-215TC	$4,852.09	12.2	91.7	210	
15	3600	230/460	254TC	SSPE15-36-254TC	$10,553.58	18.5	91.0	363	
	1800	230/460	254TC	SSPE15-18-254TC	$10,553.58	18.5	92.4	370	
20	3600	230/460	256TC	SSPE20-36-256TC	$11,513.02	23.0	91.0	422	
	1800	230/460	256TC	SSPE20-18-256TC	$11,491.83	24.5	93.0	436	
C-Face Round Body (Footless)									
1/3	3600	230/460	56CRD	SSPE13-36-56CRD	$829.97	0.55	74.0	25	
	1800	230/460	56CRD	SSPE13-18-56CRD	$858.68	0.6	82.5	27	
1/2	3600	230/460	56CRD	SSPE12-36-56CRD	$858.34	0.75	77.0	28	
	1800	230/460	56CRD	SSPE12-18-56CRD	$882.55	0.8	82.5	29	
	1200	230/460	56CRD	SSPE12-12-56CRD	$972.17	0.9	80.0	29	
3/4	3600	230/460	56CRD	SSPE34-36-56CRD	$993.12	1.1	80.0	32	
	1800	230/460	56CRD	SSPE34-18-56CRD	$950.57	1.2	82.5	32	
	1200	230/460	56CRD	SSPE34-12-56CRD	$1,090.27	1.85	81.5	34	
	1200	230/460	143TCRD	SSPE34-12-143TCRD	$1,149.18	1.85	81.5	34	
1	3600	230/460	56CRD	SSPE1-36-56CRD	$1,099.53	1.4	80.0	34	
	3600	230/460	143TCRD	SSPE1-36-143TCRD	$1,147.65	1.4	80.0	39	
	1800	230/460	56CRD	SSPE1-18-56CRD	$1,092.43	1.45	85.5	35	
	1800	230/460	143TCRD	SSPE1-18-143TCRD	$1,127.90	1.45	85.5	35	
	1200	230/460	145TCRD	SSPE1-12-145TCRD	$1,296.37	2.0	82.5	41	
1.5	3600	230/460	56CRD	SSPE1.5-36-56CRD	$1,205.95	2.0	84.0	38	
	3600	230/460	143TCRD	SSPE1.5-36-143TCRD	$1,241.39	2.0	86.5	38	
	1800	230/460	56CRD	SSPE1.5-18-56CRD	$1,234.31	2.0	86.5	41	
	1800	230/460	145TCRD	SSPE1.5-18-145TCRD	$1,262.69	2.0	86.5	41	
	1200	230/460	182TCRD	SSPE1.5-12-182TCRD	$2,189.52	2.45	87.5	81	
2	3600	230/460	56CRD	SSPE2-36-56CRD	$1,305.24	2.4	85.5	45	
	3600	230/460	145TCRD	SSPE2-36-145TCRD	$1,347.80	2.4	85.5	45	
	1800	230/460	56CRD	SSPE2-18-56CRD	$1,340.72	3.0	86.5	50	
	1800	230/460	145TCRD	SSPE2-18-145TCRD	$1,376.18	3.0	86.5	50	
	1200	230/460	184TCRD	SSPE2-12-184TCRD	$2,393.49	3.05	88.5	97	
3	3600	230/460	145TCRD	SSPE3-36-145TCRD	$1,970.18	3.6	86.5	60	
	3600	230/460	182TCRD	SSPE3-36-182TCRD	$2,661.91	4.05	86.5	80	
	1800	230/460	145TCRD	SSPE3-18-145TCRD	$2,207.73	4.1	89.5	65	
	1800	230/460	182TCRD	SSPE3-18-182TCRD	$2,695.61	4.0	89.5	80	
	1200	230/460	213TCRD	SSPE3-12-213TCRD	$3,749.76	4.6	89.5	169	
5	3600	230/460	184TCRD	SSPE5-36-184TCRD	$2,931.48	6.1	88.5	94	
	1800	230/460	184TCRD	SSPE5-18-184TCRD	$3,032.57	6.25	89.5	99	
	1200	230/460	215TCRD	SSPE5-12-215TCRD	$4,442.26	7.0	89.5	199	
7.5	3600	230/460	213TCRD	SSPE7.5-36-213TCRD	$4,447.76	9.5	89.5	154	
	1800	230/460	213TCRD	SSPE7.5-18-213TCRD	$4,447.76	9.3	91.7	179	
10	3600	230/460	215TCRD	SSPE10-36-215TCRD	$4,717.32	12.2	90.2	169	
	1800	230/460	215TCRD	SSPE10-18-215TCRD	$4,717.32	12.2	91.7	209	
15	3600	230/460	254TCRD	SSPE15-36-254TCRD	$10,073.87	18.5	91.0	361	
	1800	230/460	254TCRD	SSPE15-18-254TCRD	$10,073.87	18.5	92.4	368	
20	3600	230/460	256TCRD	SSPE20-36-256TCRD	$11,033.31	23.0	91.0	420	
	1800	230/460	256TCRD	SSPE20-18-256TCRD	$11,033.31	24.5	93.0	434	

When using any motor with a variable frequency drive, take precautions to eliminate or reduce shaft currents in order to prolong bearing life.

Premium Efficient Stainless Steel Motors

TENV Enclosure ▪ C-Face ▪ Three-Phase ▪ 230/460 Volt

Product Specifications

- 1/3-3 HP, 3600 and 1800 RPM
- 230/460 volt, 60 Hz
- Totally Enclosed Non-Ventillated (TENV) Enclosure
- IP69K Protection
- 1.15 SF
- Class F Insulation with Class B Temperature Rise
- C-Face with Feet and Round Body (Footless)
- Premium Efficiency (EISA Compliant), at 60 Hz, IE3 Premium Efficiency at 50 Hz
- Suitable for 50 Hz, 190/380V, with 1.15 SF (Derate in HP)
- NEMA Design B
- Continuous Duty
- 304 Stainless Steel Frame, End Bracket, Junction Box, and Hardware
- Stainless Steel Shaft and Key
- F1 Junction Box Location
- Lip Seal on DE and ODE
- Round Welded Junction Box with Epoxy Potted Leads
- Double Sealed Bearings Pre-Packed with Mobil Polyrex EM Grease
- Inverter Duty – 10:1 Constant Torque (CT) / 20:1 Variable Torque (VT)
- CSA Class 1 Division 2 Groups A, B, C, D – Temperature Code T2B
- Ambient -20°C to +40°C, Altitude up to 3300 Feet Above Sea Level (FASL)
- Bi-directional Rotation
- In Accordance with NEMA, CSA, UL, and CE

NEMA Premium

HP	RPM	Voltage	Frame	Model Number	List Price	FL Amps (A)	FL Eff. (%)	Approx. Wt. (lbs.)	Notes
C-Face with Feet									
1/3	3600	230/460	56C	SSPENV13-36-56C	$864.73	0.55	72.0	26	
	1800	230/460	56C	SSPENV13-18-56C	$898.07	0.7	74.0	28	
1/2	3600	230/460	56C	SSPENV12-36-56C	$893.59	0.75	74.0	29	
	1800	230/460	56C	SSPENV12-18-56C	$918.14	0.8	78.5	30	
3/4	3600	230/460	56C	SSPENV34-36-56C	$1,029.70	1.1	77.0	33	
	1800	230/460	56C	SSPENV34-18-56C	$993.95	1.2	81.5	33	
1	3600	230/460	56C	SSPENV1-36-56C	$1,244.86	1.4	80.0	39	
	3600	230/460	143TC	SSPENV1-36-143TC	$1,280.59	1.4	80.0	39	
	1800	230/460	56C	SSPENV1-18-56C	$1,280.80	1.55	85.5	42	
	1800	230/460	143TC	SSPENV1-18-143TC	$1,316.69	1.55	85.5	42	
1.5	3600	230/460	56C	SSPENV1.5-36-56C	$1,365.70	1.85	84.0	46	
	3600	230/460	143TC	SSPENV1.5-36-143TC	$1,408.72	1.85	84.0	46	
	1800	230/460	56C	SSPENV1.5-18-56C	$1,401.78	2.2	86.5	51	
	1800	230/460	145TC	SSPENV1.5-18-145TC	$1,437.87	2.2	86.5	51	
2	3600	230/460	56C	SSPENV2-36-56C	$2,151.24	2.5	85.5	60	
	3600	230/460	145TC	SSPENV2-36-145TC	$2,179.01	2.5	85.5	60	
	1800	230/460	56C	SSPENV2-18-56C	$2,401.08	2.7	86.5	65	
	1800	230/460	145TC	SSPENV2-18-145TC	$2,428.83	2.7	86.5	65	
3	3600	230/460	182TC	SSPENV3-36-182TC	$3,244.91	3.60	86.5	95	
	1800	230/460	182TC	SSPENV3-18-182TC	$3,353.30	3.8	89.5	99	

Premium Efficient Stainless Steel Motors (Continued)

TENV Enclosure ▪ C-Face ▪ Three-Phase ▪ 230/460 Volt

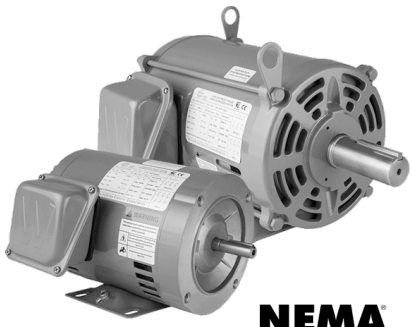
HP	RPM	Voltage	Frame	Model Number	List Price	FL Amps (A)	FL Eff. (%)	Approx. Wt. (lbs.)	Notes
C-Face Round Body (Footless)									
1/3	3600	230/460	56CRD	SSPENV13-36-56CRD	$830.36	0.55	72.0	26	
	1800	230/460	56CRD	SSPENV13-18-56CRD	$863.70	0.7	74.0	28	
1/2	3600	230/460	56CRD	SSPENV12-36-56CRD	$859.24	0.75	74.0	29	
	1800	230/460	56CRD	SSPENV12-18-56CRD	$883.76	0.8	78.5	30	
3/4	3600	230/460	56CRD	SSPENV34-36-56CRD	$995.33	1.1	77.0	33	
	1800	230/460	56CRD	SSPENV34-18-56CRD	$959.60	1.2	81.5	33	
1	3600	230/460	56CRD	SSPENV1-36-56CRD	$1,210.48	1.4	80.0	39	
	3600	230/460	143TCRD	SSPENV1-36-143TCRD	$1,246.23	1.4	80.0	39	
	1800	230/460	56CRD	SSPENV1-18-56CRD	$1,246.43	1.55	85.5	42	
	1800	230/460	143TCRD	SSPENV1-18-143TCRD	$1,282.31	1.55	85.5	42	
1.5	3600	230/460	56CRD	SSPENV1.5-36-56CRD	$1,331.00	1.9	84.0	46	
	3600	230/460	143TCRD	SSPENV1.5-36-143TCRD	$1,374.03	1.9	84.0	46	
	1800	230/460	56CRD	SSPENV1.5-18-56CRD	$1,367.09	2.2	86.5	51	
	1800	230/460	145TCRD	SSPENV1.5-18-145TCRD	$1,403.17	2.2	86.5	51	
2	3600	230/460	56CRD	SSPENV2-36-56CRD	$2,070.75	2.5	85.5	60	
	3600	230/460	145TCRD	SSPENV2-36-145TCRD	$2,105.45	2.5	85.5	60	
	1800	230/460	56CRD	SSPENV2-18-56CRD	$2,331.68	2.7	86.5	65	
	1800	230/460	145TCRD	SSPENV2-18-145TCRD	$2,359.43	2.7	86.5	65	
3	3600	230/460	182TCRD	SSPENV3-36-182TCRD	$3,140.82	3.6	86.5	95	
	1800	230/460	182TCRD	SSPENV3-18-182TCRD	$3,249.21	3.8	89.5	99	

Open Drip (ODP) Proof Motors

ODP Enclosure ▪ Rigid Base ▪ Three-Phase ▪ 230/460 Volt

Product Specifications

- 1/2-200 HP
- 3600, 1800, 1200 RPM
- 230/460 Volt, 60 Hz
- 190/380 Volt, 50 Hz
- Open Drip Proof (ODP) Enclosure
  - Rolled Steel Frame (56-324/6T)
  - Cast Iron Frame (364/5-444/5T)
- IP23 Protection
- 1.15 SF (1.0 SF at 50 Hz)
- Class F Insulation
- NEMA Premium Efficiency
- Rigid Base (Exception: 56 Frame has C-Face with Removable Base)
- Class B Temperature Rise
- Inverter Duty, 10:1 CT / 20:1 VT (1.0 SF)
- Inverter Grade Magnet Wire Meets or Exceeds NEMA MG-1 Part 31
- Pre-Drilled and Tapped Drive Endbells on 143T Frame and Up to Accept Inpro® Current Diverter Rings and WWE Grounding Rings; No Machining Required, Simple and Easy Installation
- 254T and larger are suitable for F1 to F2 conversion
- Exclusive Double Vacuum Pressure Impregnation (VPI) Insulation System
- Double Drilled Feet to Accommodate Mounting Flexibility (143T-445T)



NEMA Premium

HP	RPM	Voltage	Frame	Model Number	List Price	FL Amps (A)	FL Eff. (%)	Approx. Wt. (lbs.)	Notes
1/2	3600	230/460	56C	ODP12-36-56CB	$393.00	0.73	73.4	22	1
	1800	230/460	56C	ODP12-18-56CB	$425.25	0.95	78.2	27	1
3/4	3600	230/460	56C	ODP34-36-56CB	$418.37	0.98	76.8	27	1
	1800	230/460	56C	ODP34-18-56CB	$451.45	1.1	81.1	27	1
1	3600	230/460	143T	ODP1-36-143T	$525.75	1.35	77.0	29	
	1800	230/460	143T	ODP1-18-143T	$464.99	1.3	85.5	34	
	1800	230/460	143T	ODP1-18-143T-F2	$464.99	1.3	85.5	34	F2
	1800	230/460	143T	ODP1-18-143T-GR	$647.37	1.3	85.5	34	GR
	1200	230/460	145T	ODP1-12-145T	$598.97	1.7	82.5	41	
1.5	3600	230/460	143T	ODP1.5-36-143T	$614.73	1.9	84.0	32	
	1800	230/460	145T	ODP1.5-18-145T	$578.48	2.1	86.5	35	
	1800	230/460	145T	ODP1.5-18-145T-F2	$578.48	2.1	86.5	35	F2
	1800	230/460	145T	ODP1.5-18-145T-GR	$760.85	2.1	86.5	35	GR
	1200	230/460	182T	ODP1.5-12-182T	$752.56	1.8	86.5	65	
2	3600	230/460	145T	ODP2-36-145T	$692.65	2.5	85.5	35	
	1800	230/460	145T	ODP2-18-145T	$613.57	2.7	86.5	39	
	1800	230/460	145T	ODP2-18-145T-F2	$613.57	2.7	86.5	39	F2
	1800	230/460	145T	ODP2-18-145T-GR	$795.94	2.7	86.5	39	GR
	1200	230/460	184T	ODP2-12-184T	$927.31	3.5	87.5	76	
3	3600	230/460	145T	ODP3-36-145T	$740.85	3.6	85.5	40	
	1800	230/460	182T	ODP3-18-182T	$738.78	3.8	89.5	69	
	1800	230/460	182T	ODP3-18-182T-F2	$738.78	3.8	89.5	69	F2
	1800	230/460	182T	ODP3-18-182T-GR	$957.63	3.8	89.5	69	GR
	1200	230/460	213T	ODP3-12-213T	$1,529.90	4.3	88.5	120	
5	3600	230/460	182T	ODP5-36-182T	$852.23	5.9	86.5	65	
	1800	230/460	184T	ODP5-18-184T	$881.71	6.2	89.5	92	
	1800	230/460	184T	ODP5-18-184T-F2	$881.71	6.2	89.5	92	F2
	1800	230/460	184T	ODP5-18-184T-GR	$1,100.56	6.2	89.5	92	GR
	1200	230/460	215T	ODP5-12-215T	$1,727.39	6.5	89.5	145	
7.5	3600	230/460	184T	ODP7.5-36-184T	$1,204.13	8.6	88.5	79	
	1800	230/460	213T	ODP7.5-18-213T	$1,197.78	9.4	91.0	141	
	1800	230/460	213T	ODP7.5-18-213T-F2	$1,197.78	9.4	91.0	141	F2
	1800	230/460	213T	ODP7.5-18-213T-GR	$1,455.62	9.4	91.0	141	GR
	1200	230/460	254T	ODP7.5-12-254T	$2,146.43	9.7	90.2	185	FC
10	3600	230/460	213T	ODP10-36-213T	$1,395.95	11.8	89.5	151	
	1800	230/460	215T	ODP10-18-215T	$1,429.47	12.2	91.7	156	
	1800	230/460	215T	ODP10-18-215T-F2	$1,429.47	12.2	91.7	156	F2
	1800	230/460	215T	ODP10-18-215T-GR	$1,687.31	12.2	91.7	156	GR
	1200	230/460	256T	ODP10-12-256T	$2,454.71	13.1	91.7	240	
15	3600	230/460	215T	ODP15-36-215T	$1,822.10	16.9	90.2	142	
	1800	230/460	254T	ODP15-18-254T	$1,955.76	17.1	93.0	215	FC
	1800	230/460	254T	ODP15-18-254T-GR	$2,252.60	17.1	93.0	215	FC GR
	1200	230/460	284T	ODP15-12-284T	$3,315.38	18.3	91.7	331	FC

Open Drip Proof (ODP) Motors (Continued)

ODP Enclosure ▪ Rigid Base ▪ Three-Phase ▪ 230/460 Volt

HP	RPM	Voltage	Frame	Model Number	List Price	FL Amps (A)	FL Eff. (%)	Approx. Wt. (lbs.)	Notes
20	3600	230/460	254T	ODP20-36-254T	$2,312.88	22.1	91.0	247	FC
	1800	230/460	256T	ODP20-18-256T	$2,396.72	22.5	93.0	261	FC
	1800	230/460	256T	ODP20-18-256T-GR	$2,693.54	22.5	93.0	261	FC GR
	1200	230/460	286T	ODP20-12-286T	$3,905.67	25.5	92.4	330	FC
25	3600	230/460	256T	ODP25-36-256T	$2,815.32	27.0	91.7	270	FC
	1800	230/460	284T	ODP25-18-284T	$2,915.66	30.0	93.6	300	FC
	1800	230/460	284T	ODP25-18-284T-GR	$3,272.85	30.0	93.6	300	FC GR
	1200	230/460	324T	ODP25-12-324T	$4,955.78	30.8	93.0	440	FC
30	3600	230/460	284TS	ODP30-36-284TS	$3,362.81	33.2	91.7	329	FC
	1800	230/460	286T	ODP30-18-286T	$3,324.88	35.9	94.1	330	FC
	1800	230/460	286T	ODP30-18-286T-GR	$3,682.08	35.9	94.1	330	FC GR
	1200	230/460	326T	ODP30-12-326T	$5,205.21	37.0	93.6	470	FC
40	3600	230/460	286TS	ODP40-36-286TS	$4,288.65	45.4	92.4	340	FC
	1800	230/460	324T	ODP40-18-324T	$4,344.95	47.9	94.1	440	FC
	1800	230/460	324T	ODP40-18-324T-GR	$4,749.96	47.9	94.1	440	FC GR
	1200	230/460	364T	ODP40-12-364T	$6,200.91	46.7	94.1	706	FC
50	3600	230/460	324TS	ODP50-36-324TS	$5,186.42	56.1	93.0	418	FC
	1800	230/460	326T	ODP50-18-326T	$5,011.00	58.8	94.5	470	FC
	1800	230/460	326T	ODP50-18-326T-GR	$5,415.99	58.8	94.5	470	FC GR
	1200	230/460	365T	ODP50-12-365T	$7,056.58	57.6	94.1	744	FC
60	3600	230/460	326TS	ODP60-36-326TS	$6,037.66	67.6	93.6	455	FC
	1800	230/460	364T	ODP60-18-364T	$6,144.21	70.9	95.0	718	FC
	1800	230/460	364TS	ODP60-18-364TS	$6,144.21	70.9	95.0	718	FC
75	3600	230/460	364TS	ODP75-36-364TS	$6,717.15	83.3	93.6	724	FC
	1800	230/460	365T	ODP75-18-365T	$7,162.65	86.3	95.0	773	FC
	1800	230/460	365TS	ODP75-18-365TS	$7,162.65	86.3	95.0	773	FC
100	3600	230/460	365TS	ODP100-36-365TS	$7,933.31	111.5	93.6	817	FC
	1800	230/460	404T	ODP100-18-404T	$9,335.36	115.3	95.4	1043	FC
	1800	230/460	404TS	ODP100-18-404TS	$9,335.36	115.3	95.4	1043	FC
125	3600	230/460	404TS	ODP125-36-404TS	$11,256.89	128.8	94.1	1089	FC
	1800	230/460	405T	ODP125-18-405T	$11,615.35	136.2	95.4	1085	FC
	1800	230/460	405TS	ODP125-18-405TS	$11,615.35	136.2	95.4	1085	FC
150	3600	230/460	405TS	ODP150-36-405TS	$12,851.11	160.5	94.1	1165	FC
	1800	230/460	444T	ODP150-18-444T	$13,505.96	165.4	95.8	1504	FC
	1800	230/460	444TS	ODP150-18-444TS	$13,505.96	165.4	95.8	1504	FC
200	3600	230/460	444TS	ODP200-36-444TS	$16,723.37	219.4	95.0	1654	FC
	1800	230/460	445T	ODP200-18-445T	$16,470.09	224.4	95.8	1733	FC

Inpro® Current Diverter Rings

For use on WorldWide Electric Motors

Model Number	Frame Size	List Price
CDR-180T	182T / 184T	$429.66
CDR-210T	213T / 215T	$531.96
CDR-250T/280TS	254T / 256T / 284TS / 286TS	$624.05
CDR-280T/320TS/360TS	284T / 286T / 324TS / 326TS / 364TS / 365TS	$716.12
CDR-320T/400TS	324T / 326T / 404TS	$818.42
CDR-360T/440TS	364T / 365T	$910.49
CDR-400T	404T	$1,104.86

WorldWide Electric Grounding Rings

Model Number	Frame Size	List Price
GR-140	143/145T	$139.61
GR-180	182/184T	$176.09
GR-210	213/215T	$203.75
GR-250/280TS	254/256T/284/286T	$240.22
GR-280/320TS/360TS	284/286T/324/326TS/364/365TS	$276.70
GR-320/400TS	324/326T/404/405TS	$320.72
GR-360/440TS	364/365T/444/445TS	$383.61

ODP Motor C-Flange Kits

Model Number	Frame Size	List Price
ODP56C	56	$34.78
ODP140TC	143T / 145T	$87.84
ODP180TC	182T / 184T	$94.59
ODP210TC	213T / 215T	$214.25
ODP250TC	254T / 256T	$236.51
ODP280TC	284T / 286T	$286.62
ODP320TC	324T / 326T	$349.21
ODP360TC	364T/365T	$484.01
ODP400TC	404T/405T	$665.35

1 56C-face removable base
F2 Factory F2 mount
FC F1/F2 convertible
GR Factory installed grounding rings (WWE brand)

When using any motor with a variable frequency drive, take precautions to eliminate or reduce shaft currents in order to prolong bearing life.

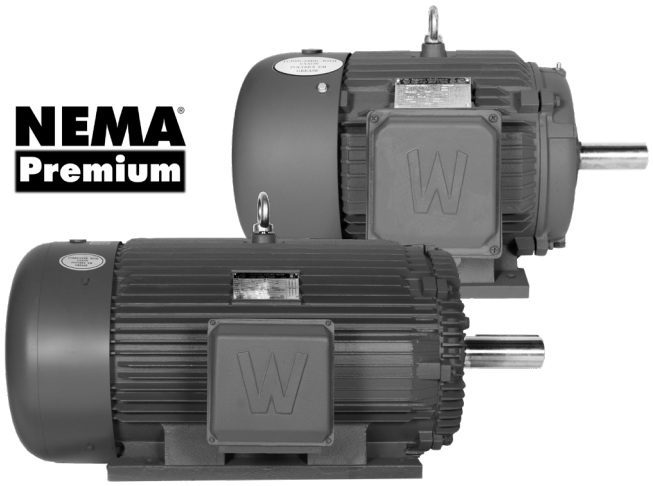
Document No: MD-CAT-04.2023 | For more information, please contact customerservice@worldwideelectric.com

Premium Efficient Severe Duty Motors

TEFC Enclosure ▪ Rigid Base ▪ Three-Phase ▪ 230/460 and 460 Volt

Product Specifications

- 1-500 HP
- 3600, 1800, 1200 and 900 RPM
- 230/460 Volt, 60 Hz
- 460 Volt, 60 Hz (449T-586/7 Frame)
- Totally Enclosed Fan Cooled (TEFC) Enclosure
- IP55 Protection
- 1.25 SF (1-200 HP)
- 1.15 SF (250-500 HP)
- Class F Insulation
- Rigid Base
- Premium Efficiency
- Inverter Duty, 10:1 CT / 20:1 VT at 1.0 SF (1-400 HP)
- Inverter Ready, 3:1 CT / 6:1 VT at 1.0 SF (450-500 HP)
- Class 1, Division 2, Groups A, B, C, D (1-400 HP)
- Suitable for 50 Hz, 200/400V with 1.0 SF (1-200 HP)
- Suitable for 50 Hz, 400V with 1.0 SF (250-400 HP)



HP	RPM	Voltage	Frame	Model Number	List Price	FL Amps (A)	FL Eff. (%)	Approx. Wt. (lbs.)	Notes
1	1800	230/460	143T	PEWWE1-18-143T	$478.88	1.5	85.5	41	FC
	1200	230/460	145T	PEWWE1-12-145T	$666.17	1.7	82.5	53	DD FC
1.5	3600	230/460	143T	PEWWE1.5-36-143T	$650.35	2.0	84.0	46	FC
	1800	230/460	145T	PEWWE1.5-18-145T	$590.97	2.2	86.5	56	DD FC
	1200	230/460	182T	PEWWE1.5-12-182T	$761.09	2.4	87.5	92	FC
2	3600	230/460	145T	PEWWE2-36-145T	$707.11	2.6	85.5	51	DD FC
	1800	230/460	145T	PEWWE2-18-145T	$626.14	2.9	86.5	59	DD FC
	1200	230/460	184T	PEWWE2-12-184T	$999.64	3.0	88.5	100	DD FC
3	3600	230/460	182T	PEWWE3-36-182T	$853.88	3.8	86.5	57	
	1800	230/460	182T	PEWWE3-18-182T	$881.60	4.0	89.5	86	FC
	1200	230/460	213T	PEWWE3-12-213T	$1,345.77	4.4	89.5	166	FC
	900	230/460	215T	PEWWE3-9-215T	$2,018.09	4.8	85.5	154	DD FC
5	3600	230/460	184T	PEWWE5-36-184T	$1,056.44	6.0	88.5	96	DD
	1800	230/460	184T	PEWWE5-18-184T	$1,033.03	6.3	89.9	104	DD
	1200	230/460	215T	PEWWE5-12-215T	$1,669.10	7.0	89.5	179	DD FC
	900	230/460	254T	PEWWE5-9-254T	$3,121.37	7.3	86.5	219	FC
7.5	3600	230/460	213T	PEWWE7.5-36-213T	$1,595.22	8.8	89.5	105	FC
	1800	230/460	213T	PEWWE7.5-18-213T	$1,365.88	9.1	91.7	172	FC
	1200	230/460	254T	PEWWE7.5-12-254T	$2,193.47	9.4	91.0	247	FC
	900	230/460	256T	PEWWE7.5-9-256T	$3,459.84	10.8	86.5	249	DD FC
10	3600	230/460	215T	PEWWE10-36-215T	$1,655.91	11.7	90.2	180	DD FC
	1800	230/460	215T	PEWWE10-18-215T	$1,654.66	12.0	91.7	193	DD FC
	1200	230/460	256T	PEWWE10-12-256T	$2,752.75	12.5	91.0	258	DD FC
	900	230/460	284T	PEWWE10-9-284T	$4,394.72	13.8	89.5	347	FC
15	3600	230/460	254T	PEWWE15-36-254T	$2,682.39	17.3	91.0	190	FC
	1800	230/460	254T	PEWWE15-18-254T	$2,378.12	18.1	92.4	265	FC
	1200	230/460	284T	PEWWE15-12-284T	$3,456.57	18.7	91.7	366	FC
	900	230/460	286T	PEWWE15-9-286T	$5,114.34	20.4	89.5	390	DD FC
20	3600	230/460	256T	PEWWE20-36-256T	$3,269.51	23.1	91.0	297	DD FC
	1800	230/460	256T	PEWWE20-18-256T	$2,732.43	23.7	93.0	304	DD FC
	1200	230/460	286T	PEWWE20-12-286T	$4,311.26	24.6	91.7	419	DD FC
	900	230/460	324T	PEWWE20-9-324T	$6,076.75	26.3	90.2	501	FC
25	3600	230/460	284TS	PEWWE25-36-284TS	$4,035.14	29.0	91.7	358	FC
	1800	230/460	284T	PEWWE25-18-284T	$3,564.24	29.1	93.6	385	FC
	1800	230/460	284TS	PEWWE25-18-284TS	$3,564.24	29.1	93.6	385	
	1200	230/460	324T	PEWWE25-12-324T	$4,903.34	32.7	93.0	522	FC
	900	230/460	326T	PEWWE25-9-326T	$6,854.25	32.9	90.2	552	DD FC

When using any motor with a variable frequency drive, take precautions to eliminate or reduce shaft currents in order to prolong bearing life.

Premium Efficient Severe Duty Motors (Continued)

TEFC Enclosure ▪ Rigid Base ▪ Three-Phase ▪ 230/460 and 460 Volt

HP	RPM	Voltage	Frame	Model Number	List Price	FL Amps (A)	FL Eff. (%)	Approx. Wt. (lbs.)	Notes
30	3600	230/460	286T	PEWWE30-36-286T	$4,127.88	34.4	91.7	394	DD FC
	3600	230/460	286TS	PEWWE30-36-286TS	$4,127.88	34.4	91.7	394	DD FC
	1800	230/460	286T	PEWWE30-18-286T	$4,037.63	34.5	93.6	430	DD FC
	1200	230/460	326T	PEWWE30-12-326T	$5,756.09	38.7	93.0	562	DD FC
	900	230/460	364T	PEWWE30-9-364T	$10,368.94	40.8	91.7	731	FC
40	3600	230/460	324TS	PEWWE40-36-324TS	$5,316.09	46.1	92.4	485	FC
	1800	230/460	324T	PEWWE40-18-324T	$5,131.19	46.3	94.1	531	FC
	1200	230/460	364T	PEWWE40-12-364T	$7,153.71	49.1	94.1	780	FC
	900	230/460	365T	PEWWE40-9-365T	$11,454.77	54.5	91.7	796	DD FC
50	3600	230/460	326TS	PEWWE50-36-326TS	$6,679.20	56.6	93.0	534	DD FC
	1800	230/460	326T	PEWWE50-18-326T	$5,831.02	57.6	94.5	578	DD FC
	1200	230/460	365T	PEWWE50-12-365T	$9,380.36	60.7	94.1	844	DD
	900	230/460	404T	PEWWE50-9-404T	$16,582.65	66.7	92.4	968	R FC
60	3600	230/460	364TS	PEWWE60-36-364TS	$9,159.35	70.6	93.6	743	
	1800	230/460	364T	PEWWE60-18-364T	$7,702.51	72.0	95.0	769	
	1200	230/460	404T	PEWWE60-12-404T	$10,371.19	70.8	94.5	1012	R FC
	900	230/460	405T	PEWWE60-9-405T	$19,321.97	80.0	92.4	1058	R DD FC
75	3600	230/460	365TS	PEWWE75-36-365TS	$10,968.34	88.3	93.6	787	DD
	3600	230/460	365TS	PEWWE75-36-365TS-IB	$15,252.22	88.3	93.6	787	IB DD
	1800	230/460	365T	PEWWE75-18-365T	$9,277.68	88.7	95.4	858	DD
	1200	230/460	405T	PEWWE75-12-405T	$10,869.61	87.4	94.5	1129	R DD FC
	900	230/460	444T	PEWWE75-9-444T	$22,205.07	101	93.6	1325	R FC
100	3600	230/460	405TS	PEWWE100-36-405TS	$13,205.70	111	94.1	1054	DD
	3600	230/460	405TS	PEWWE100-36-405TS-IB	$17,208.22	111	94.1	1054	DD
	1800	230/460	405T	PEWWE100-18-405T	$10,999.62	113	95.4	1131	R DD
	1800	230/460	405T	PEWWE100-18-405TBB	$10,999.62	113	95.4	1131	BB DD
	1800	230/460	405T	PEWWE100-18-405TBB-IB	$11,819.77	113	95.4	1131	BB IB DD
	1800	230/460	405TS	PEWWE100-18-405TSBB	$10,999.62	113	95.4	1131	BB DD
	1200	230/460	444T	PEWWE100-12-444T	$15,729.72	120	95.0	1477	R FC
	1200	230/460	444T	PEWWE100-12-444T-IB	$17,307.01	120	95.0	1477	IB R DD FC
	900	230/460	445T	PEWWE100-9-445T	$25,502.52	135	93.6	1546	R DD FC
125	3600	230/460	444TS	PEWWE125-36-444TS	$17,250.56	137	95.0	1338	FC
	3600	230/460	444TS	PEWWE125-36-444TS-IB	$21,102.05	137	95.0	1338	IB FC
	1800	230/460	444T	PEWWE125-18-444T	$14,764.32	146	95.4	1429	R FC
	1800	230/460	444T	PEWWE125-18-444TBB	$14,764.32	146	95.4	1429	BB FC
	1800	230/460	444T	PEWWE125-18-444TBB-IB	$17,815.52	146	95.4	1429	BB IB FC
	1200	230/460	445T	PEWWE125-12-445T	$18,327.48	145	95.0	1632	R DD FC
	900	230/460	445/7T	PEWWE125-9-445/7T	$26,449.87	168	94.1	1782	R DD FC
150	3600	230/460	445TS	PEWWE150-36-445TS	$19,850.19	164	95.0	1517	DD FC
	3600	230/460	445TS	PEWWE150-36-445TS-IB	$23,660.73	164	95.0	1517	IB DD FC
	1800	230/460	445T	PEWWE150-18-445T	$16,213.19	172	95.8	1625	R DD FC
	1800	230/460	445T	PEWWE150-18-445T-IB	$19,571.97	172	95.8	1625	IB R DD FC
	1800	230/460	445T	PEWWE150-18-445TBB	$16,213.19	172	95.8	1625	BB DD FC
	1200	230/460	445/7T	PEWWE150-12-445/7T	$23,410.56	179	95.8	2013	R DD FC
	1200	230/460	445/7T	PEWWE150-12-445/7T-IB	$27,623.24	179	95.8	2013	IB R DD FC
	900	230/460	449T	PEWWE150-9-449T	$28,957.93	194	94.1	2486	R DD** FC
200	3600	230/460	445/7TS	PEWWE200-36-445/7TS	$26,829.74	216	96.2	1797	DD FC
	3600	230/460	445/7TS	PEWWE200-36-445/7TS-IB	$28,765.12	216	96.2	1797	IB DD FC
	1800	230/460	445/7T	PEWWE200-18-445/7T	$21,547.79	226	96.2	2033	R DD FC
	1800	230/460	445/7T	PEWWE200-18-445/7T-IB	$24,960.48	226	96.2	2033	IB R DD FC
	1800	230/460	445/7T	PEWWE200-18-445/7TBB	$21,547.79	226	96.2	2033	BB DD FC
	1800	230/460	445/7T	PEWWE200-18-445/7TBB-IB	$25,257.25	226	96.2	2033	BB IB DD FC

BB Ball bearing on drive-end for direct coupled applications
IB Insulated opposite drive-end bearing installed
R Roller bearing on drive-end for belted applications
DD Double drilled feet
FC F1/F2 convertible

* Double drilled feet with 6 holes
** Double drilled feet with 12 holes

When using any motor with a variable frequency drive, take precautions to eliminate or reduce shaft currents in order to prolong bearing life.

Document No: MD-CAT-04.2023 | For more information, please contact customerservice@worldwideelectric.com

Premium Efficient Severe Duty Motors (Continued)

TEFC Enclosure ▪ Rigid Base ▪ Three-Phase ▪ 230/460 and 460 Volt

HP	RPM	Voltage	Frame	Model Number	List Price	FL Amps (A)	FL Eff. (%)	Approx. Wt. (lbs.)	Notes
200	1200	460	449T	PEWWE200-12-449T	$27,699.88	236	95.8	2664	R DD** FC
	1200	460	449T	PEWWE200-12-449T-IB	$31,180.73	236	95.8	2664	IB R DD** FC
	1200	460	449T	PEWWE200-12-449TBB	$27,699.88	236	95.8	2664	BB DD** FC
	1200	460	505Z	PEWWE200-12-505Z	$38,646.24	225	95.8	2470	R DD*
	1200	460	505UZ	PEWWE200-12-505UZ	$38,646.24	225	95.8	2470	R DD*
	900	230/460	449T	PEWWE200-9-449T	$46,853.25	254	94.5	2971	R DD** FC
250	3600	460	449TS	PEWWE250-36-449TS	$29,193.43	269	95.8	2200	DD** FC
	3600	460	449TS	PEWWE250-36-449TS-IB	$31,128.81	269	95.8	2200	IB DD** FC
	1800	460	449T	PEWWE250-18-449T	$30,506.18	280	96.2	2508	R DD** FC
	1800	460	449T	PEWWE250-18-449T-IB	$33,732.12	280	96.2	2508	IB R DD** FC
	1800	460	449T	PEWWE250-18-449TBB	$30,506.18	280	96.2	2508	BB DD** FC
	1800	460	449T	PEWWE250-18-449TBB-IB	$33,732.12	280	96.2	2508	BB IB DD**FC
	1800	460	449TS	PEWWE250-18-449TSBB	$30,506.18	280	96.2	2508	BB DD** FC
	1800	460	505Z	PEWWE250-18-505Z	$31,368.31	280	96.2	2360	R DD*
	1800	460	505UZ	PEWWE250-18-505UZ	$31,368.31	280	96.2	2360	R DD*
	1800	460	505UZ	PEWWE250-18-505UZ-IB	$34,133.28	280	96.2	2360	IB R DD*
	1200	460	449T	PEWWE250-12-449T	$33,395.40	298	95.8	2750	R DD** FC
	1200	460	449T	PEWWE250-12-449T-IB	$36,621.34	298	95.8	2750	IB R DD** FC
	1200	460	449T	PEWWE250-12-449TBB	$33,395.40	298	95.8	2750	BB DD** FC
	1200	460	586/7	PEWWE250-12-586/7	$46,869.52	287	95.8	3737	R DD** FC
	1200	460	586/7	PEWWE250-12-586/7-IB	$51,938.85	287	95.8	3737	IB R DD** FC
	1200	460	586/7UZ	PEWWE250-12-586/7UZ	$46,869.52	287	95.8	3737	R DD** FC
	900	460	586/7	PEWWE250-9-586/7	$49,750.52	312	95.0	4030	R DD** FC
300	1800	460	449T	PEWWE300-18-449T	$34,171.63	336	96.2	2728	R DD** FC
	1800	460	449T	PEWWE300-18-449T-IB	$37,397.50	336	96.2	2728	IB R DD** FC
	1800	460	449T	PEWWE300-18-449TBB	$34,171.63	336	96.2	2728	BB DD** FC
	1800	460	449T	PEWWE300-18-449TBB-IB	$37,397.50	336	96.2	2728	BB IB DD**FC
	1800	460	449TS	PEWWE300-18-449TSBB	$34,171.63	336	96.2	2728	BB DD** FC
	1800	460	586/7	PEWWE300-18-586/7	$50,422.60	324	96.2	3873	R DD** FC
	1800	460	586/7	PEWWE300-18-586/7-IB	$55,491.85	324	96.2	3873	IB R DD** FC
	1800	460	586/7	PEWWE300-18-586/7BB	$50,422.60	324	96.2	3873	BB DD** FC
	1800	460	586/7UZ	PEWWE300-18-586/7UZ	$50,422.60	324	96.2	3873	R DD** FC
	1200	460	449T	PEWWE300-12-449T	$37,192.12	353	95.8	2977	R DD** FC
	1200	460	449T	PEWWE300-12-449T-IB	$40,418.00	353	95.8	2977	IB R DD** FC
	1200	460	449T	PEWWE300-12-449TBB	$37,192.12	353	95.8	2977	BB DD** FC
	1200	460	449T	PEWWE300-12-449TBB-IB	$40,418.00	353	95.8	2977	BB IB DD**FC
	1200	460	586/7	PEWWE300-12-586/7	$53,446.88	341	95.8	4136	R DD** FC
	1200	460	586/7	PEWWE300-12-586/7-IB	$58,516.13	341	95.8	4136	IB R DD** FC
	1200	460	586/7	PEWWE300-12-586/7BB	$53,446.88	341	95.8	4136	BB DD** FC
	1200	460	586/7UZ	PEWWE300-12-586/7UZ	$53,446.88	341	95.8	4136	R DD** FC
	1200	460	586/7UZ	PEWWE300-12-586/7UZ-IB	$58,516.13	341	95.8	4136	IB R DD** FC
	900	460	586/7	PEWWE300-9-586/7	$54,888.03	374	95.0	4440	R DD** FC
	900	460	586/7UZ	PEWWE300-9-586/7UZ	$54,888.03	374	95.0	4440	R DD** FC
350	1800	460	449T	PEWWE350-18-449T-IB	$42,574.13	392	96.2	2870	IB R DD** FC
	1800	460	449T	PEWWE350-18-449TBB-IB	$42,574.13	392	96.2	2870	IB DD** FC
	1800	460	586/7	PEWWE350-18-586/7	$53,640.95	374	96.2	4070	R DD** FC
	1800	460	586/7	PEWWE350-18-586/7-IB	$58,710.28	374	96.2	4070	IB R DD** FC
	1800	460	586/7UZ	PEWWE350-18-586/7UZ-IB	$58,710.28	374	96.2	4070	IB R DD** FC
	1200	460	449T	PEWWE350-12-449T	$45,209.48	407	95.8	2930	R DD** FC
	1200	460	449T	PEWWE350-12-449T-IB	$48,435.06	407	95.8	2930	IB R DD** FC
	1200	460	586/7	PEWWE350-12-586/7	$56,373.30	398	95.8	4145	R DD** FC
	1200	460	586/7	PEWWE350-12-586/7-IB	$61,442.49	398	95.8	4145	IB R DD** FC
	1200	460	586/7UZ	PEWWE350-12-586/7UZ	$56,373.30	398	95.8	4145	R DD** FC

BB Ball bearing on drive-end for direct coupled applications
IB Insulated opposite drive-end bearing installed
R Roller bearing on drive-end for belted applications
DD Double drilled feet
FC F1/F2 convertible

* Double drilled feet with 6 holes
** Double drilled feet with 12 holes

When using any motor with a variable frequency drive, take precautions to eliminate or reduce shaft currents in order to prolong bearing life.

Premium Efficient Severe Duty Motors (Continued)

TEFC Enclosure ▪ Rigid Base ▪ Three-Phase ▪ 230/460 and 460 Volt

HP	RPM	Voltage	Frame	Model Number	List Price	FL Amps (A)	FL Eff. (%)	Approx. Wt. (lbs.)	Notes
400	1800	460	586/7	PEWWE400-18-586/7	$56,006.54	428.0	96.2	4374	R DD** FC
	1800	460	586/7	PEWWE400-18-586/7-IB	$61,075.80	428.0	96.2	4374	IB R DD** FC
	1800	460	586/7	PEWWE400-18-586/7BB	$56,006.54	428.0	96.2	4374	BB DD** FC
	1800	460	586/7	PEWWE400-18-586/7BB-IB	$61,075.80	428.0	96.2	4374	BB IB DD** FC
	1800	460	586/7UZ	PEWWE400-18-586/7UZ	$56,006.54	428.0	96.2	4374	R DD** FC
	1800	460	586/7UZ	PEWWE400-18-586/7UZ-IB	$61,075.80	428.0	96.2	4374	IB R DD** FC
	1200	460	586/7	PEWWE400-12-586/7	$58,515.27	449.0	95.8	4707	R DD** FC
	1200	460	586/7	PEWWE400-12-586/7-IB	$63,584.31	449.0	95.8	4707	IB R DD** FC
	1200	460	586/7	PEWWE400-12-586/7BB	$58,515.27	449.0	95.8	4707	BB DD** FC
	1200	460	586/7	PEWWE400-12-586/7BB-IB	$63,584.31	449.0	95.8	4707	BB IB DD** FC
	1200	460	586/7UZ	PEWWE400-12-586/7UZ	$58,515.27	449.0	95.8	4707	R DD** FC
	1200	460	586/7UZ	PEWWE400-12-586/7UZ-IB	$63,584.31	449.0	95.8	4707	IB R DD** FC
450	1800	460	586/7	PEWWE450-18-586/7	$58,542.81	481.0	96.2	4500	R DD**
	1800	460	586/7	PEWWE450-18-586/7-IB	$62,229.02	481.0	96.2	4500	IB R DD**
	1200	460	586/7	PEWWE450-12-586/7-IB	$65,518.98	506.0	95.8	4850	IB R ▲ DD**
500	1800	460	586/7	PEWWE500-18-586/7-IB	$66,876.00	535	96.2	4630	IB R DD**
	1800	460	586/7	PEWWE500-18-586/7BB	$61,806.89	535	96.2	4630	BB DD**
	1800	460	586/7	PEWWE500-18-586/7BB-IB	$66,876.00	535	96.2	4630	BB IB DD**
	1800	460	586/7UZ	PEWWE500-18-586/7UZ	$61,806.89	535	96.2	4630	R DD**
	1200	460	586/7	PEWWE500-12-586/7	$62,384.39	562	95.8	4740	R ▲ DD**
	1200	460	586/7	PEWWE500-12-586/7-IB	$67,453.43	562	95.8	4740	IB R ▲ DD**
	1200	460	586/7UZ	PEWWE500-12-586/7UZ	$62,384.39	562	95.8	4740	R ▲ DD**
	1200	460	586/7UZ	PEWWE500-12-586/7UZ-IB	$67,453.43	562	95.8	4740	IB R ▲ DD**
600	1800	460	586/7	WWE600-18-586/7	$66,570.86	661	95.0	4630	R ▲ DD**
	1800	460	586/7	WWE600-18-586/7BB	$66,570.86	661	95.0	4630	BB ▲ DD**

PEWWE Motor C-Flange and D-Flange Kits

Frame Size	C-Flange Kits		D-Flange Kits	
	Model Number	List Price	Model Number	List Price
143T / 145T	PEW140TC (≤ 2016)	$46.07	PEW140TD (≤ 2016)	$46.07
	PEW140TCN (≥ 2017)	$46.07	PEW140TDN (≥ 2017)	$46.07
182T / 184T	PEW180TC (≤ 2016)	$64.02	PEW180TD (≤ 2016)	$64.02
	PEW180TCN (≥ 2017)	$64.02	PEW180TDN (≥ 2017)	$64.02
213T / 215T	PEW210TC	$89.60	PEW210TD	$89.60
254T / 256T	PEW250TC (≤ 2016)	$153.64	PEW250TD (≤ 2016)	$153.64
	PEW250TCN (≥ 2017)	$153.64	PEW250TDN (≥ 2017)	$153.64
284T / 286T	PEW280TC	$192.09	PEW280TD	$192.09
324T / 326T	PEW320TC	$268.92	PEW320TD	$268.92
364T / 365T	PEW360TC (≤ 2016)	$384.12	PEW360TD (≤ 2016)	$384.12
	PEW360TCN (≥ 2017)	$384.12	PEW360TDN (≥ 2017)	$384.12
404T / 405T (2 Pole)	PEW400TC-2	$570.22	PEW400TD-2	$570.22
404T / 405T (4/6 Pole)	PEW400TC	$570.22	PEW400TD	$570.22
444T / 445T (2 Pole)	PEW444/5TC-2	$603.76	PEW444/5TD-2	$603.76
444T / 445T (4/6 Pole)	PEW444/5TC	$603.76	PEW444/5TD	$603.76
447T (2 Pole)	PEW447TC-2	$603.76	PEW447TD-2	$603.76
447T (4/6 Pole)	PEW447TC	$603.76	PEW447TD	$603.76
449T	PEW449TC	$852.38	PEW449TC	$852.38
586/7	PEW580TC	$1,509.44	PEW580TD	$1,509.44

▲ 1.0 SF
BB Ball bearing on drive-end for direct coupled applications
IB Insulated opposite drive-end bearing installed
R Roller bearing on drive-end for belted applications
DD Double drilled feet
FC F1/F2 convertible

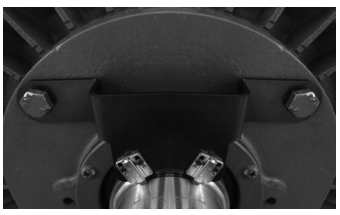
Helwig Carbon® The Bearing Protector™

- For use on WorldWide Electric Severe Duty Motors *
- Divert current from motor shaft
- Provides lowest resistant path to ground
- Easy to install - Simply remove top two bearing cap bolts
- Includes integral bracket for easy mounting

Frame Size	Model Number	List Price
364T / 365T	SGK-PEWWE-364/5T	$1,739.14
404T / 405T	SGK-PEWWE-404/5T/TS	$1,739.14
444T / 445T	SGK-PEWWE-444/5T	$1,739.14
445/7TS	SGK-PEWWE-445/7TS	$1,739.14
445/7T	SGK-PEWWE-445/7T	$1,739.14
449T **	SGK-PEWWE-449T **	$1,739.14
586/7 / 586/7UZ	SGK-PEWWE-586/7T-UZ	$1,739.14

* Installation of this product will result in loss of Class I Division 2 Classification from motor - please contact WorldWide for new motor nameplate at a cost of $25 net.

** Not suitable for use with PEWWE350-18-449T or PEWWE350-12-449T.



When using any motor with a variable frequency drive, take precautions to eliminate or reduce shaft currents in order to prolong bearing life.

Document No: MD-CAT-04.2023 | For more information, please contact customerservice@worldwideelectric.com

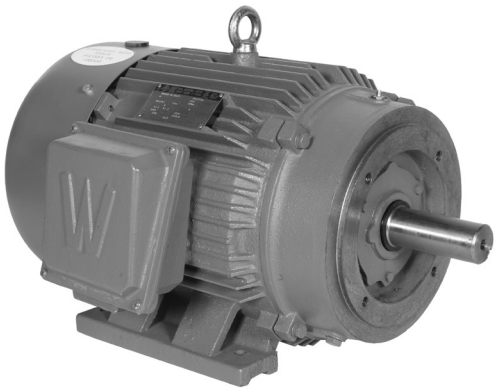
Premium Efficient Severe Duty Motors

TEFC Enclosure ▪ C-Face with Feet ▪ Three-Phase ▪ 230/460 and 460 Volt

Product Specifications

- 1-300 HP
- 3600, 1800 and 1200 RPM
- 230/460 Volt, 60 Hz
- 460 Volt, 60 Hz (449TC Frame)
- Totally Enclosed Fan Cooled (TEFC) Enclosure
- IP55 Protection
- 1.25 SF (1-200 HP)
- 1.15 SF (250-300 HP)
- Class F Insulation
- C-Face with Feet
- Premium Efficiency
- Inverter Duty, 10:1 CT / 20:1 VT at 1.0 SF
- Class 1, Division 2, Groups A, B, C, D
- Suitable for 50 Hz, 200/400V with 1.0 SF (1-200 HP)
- Suitable for 50 Hz, 400V with 1.0 SF (250-300 HP)

NEMA Premium



HP	RPM	Voltage	Frame	Model Number	List Price	FL Amps (A)	FL Eff. (%)	Approx. Wt. (lbs.)	Notes
1	1800	230/460	143TC	PEWWE1-18-143TC	$498.84	1.6	86.3	49	
	1200	230/460	145TC	PEWWE1-12-145TC	$693.91	1.6	82.5	51	
1.5	3600	230/460	143TC	PEWWE1.5-36-143TC	$677.46	2.0	85.5	48	
	1800	230/460	145TC	PEWWE1.5-18-145TC	$615.60	2.3	87.3	55	
2	3600	230/460	145TC	PEWWE2-36-145TC	$736.59	2.7	86.6	56	
	1800	230/460	145TC	PEWWE2-18-145TC	$652.23	3.0	87.3	58	
3	3600	230/460	145TC	PEWWE3-36-145TC	$889.47	3.8	87.4	57	
	3600	230/460	182TC	PEWWE3-36-182TC	$889.47	3.9	88.0	79	
	1800	230/460	182TC	PEWWE3-18-182TC	$918.33	4.0	90.3	98	
	1200	230/460	213TC	PEWWE3-12-213TC	$1,401.86	4.2	89.5	165	
5	3600	230/460	184TC	PEWWE5-36-184TC	$1,100.45	6.3	89.0	95	
	1800	230/460	184TC	PEWWE5-18-184TC	$1,076.07	6.7	90.3	115	
	1200	230/460	215TC	PEWWE5-12-215TC	$1,738.63	6.9	89.5	171	
7.5	3600	230/460	184TC	PEWWE7.5-36-184TC	$1,661.68	8.8	90.8	105	
	3600	230/460	213TC	PEWWE7.5-36-213TC	$1,661.68	9.2	89.7	176	
	1800	230/460	213TC	PEWWE7.5-18-213TC	$1,422.80	9.3	91.8	158	
	1200	230/460	254TC	PEWWE7.5-12-254TC	$2,284.88	10.4	91.1	251	
10	3600	230/460	215TC	PEWWE10-36-215TC	$1,724.92	12.2	90.3	180	
	1800	230/460	215TC	PEWWE10-18-215TC	$1,723.61	12.5	91.8	175	
	1200	230/460	256TC	PEWWE10-12-256TC	$2,867.46	13.9	91.0	251	
15	3600	230/460	215TC	PEWWE15-36-215TC	$2,794.16	17.3	91.8	190	
	3600	230/460	254TC	PEWWE15-36-254TC	$2,794.16	18.2	91.2	276	
	1800	230/460	254TC	PEWWE15-18-254TC	$2,477.22	17.1	92.5	294	
	1200	230/460	284TC	PEWWE15-12-284TC	$3,600.60	20.2	91.7	419	
20	3600	230/460	256TC	PEWWE20-36-256TC	$3,405.76	24.2	91.2	298	
	1800	230/460	256TC	PEWWE20-18-256TC	$2,846.29	24.0	93.8	436	
	1200	230/460	286TC	PEWWE20-12-286TC	$4,490.91	26.2	91.7	449	

When using any motor with a variable frequency drive, take precautions to eliminate or reduce shaft currents in order to prolong bearing life.

Premium Efficient Severe Duty Motors (Continued)

TEFC Enclosure ▪ C-Face with Feet ▪ Three-Phase ▪ 230/460 and 460 Volt

HP	RPM	Voltage	Frame	Model Number	List Price	FL Amps (A)	FL Eff. (%)	Approx. Wt. (lbs.)	Notes
25	3600	230/460	256TC	PEWWE25-36-256TC	$4,203.28	28.7	92.1	309	
	3600	230/460	256TSC	PEWWE25-36-256TSC	$4,203.28	28.7	92.1	309	
	3600	230/460	284TC	PEWWE25-36-284TC	$4,203.28	29.3	91.7	358	
	3600	230/460	284TCS	PEWWE25-36-284TSC	$4,203.28	29.4	91.9	350	
	1800	230/460	284TC	PEWWE25-18-284TC	$3,712.74	29.8	93.6	406	
	1200	230/460	324TC	PEWWE25-12-324TC	$5,107.65	32.3	93.0	629	
30	3600	230/460	286TC	PEWWE30-36-286TC	$4,299.87	34.8	91.7	394	
	3600	230/460	286TCS	PEWWE30-36-286TSC	$4,299.87	35.2	91.9	384	
	1800	230/460	286TC	PEWWE30-18-286TC	$4,205.87	35.7	93.7	448	
	1200	230/460	326TC	PEWWE30-12-326TC	$5,995.92	38.8	93.0	660	
40	3600	230/460	324TC	PEWWE40-36-324TC	$5,537.57	46.1	92.4	485	
	3600	230/460	324TSC	PEWWE40-36-324TSC	$5,537.57	46.6	92.7	560	
	1800	230/460	324TC	PEWWE40-18-324TC	$5,344.98	47.4	94.4	684	
	1200	230/460	364TC	PEWWE40-12-364TC	$7,451.79	49.8	94.1	933	
50	3600	230/460	326TC	PEWWE50-36-326TC	$6,957.50	56.6	93.0	534	
	3600	230/460	326TSC	PEWWE50-36-326TSC	$6,957.50	57.2	93.2	598	
	1800	230/460	326TC	PEWWE50-18-326TC	$6,074.00	60.4	94.5	580	
	1200	230/460	365TC	PEWWE50-12-365TC	$9,771.21	62.3	94.1	968	
60	3600	230/460	364TSC	PEWWE60-36-364TSC	$9,540.99	68.3	93.6	710	
	1800	230/460	364TC	PEWWE60-18-364TC	$8,023.44	68.8	95.1	805	
	1200	230/460	404TC	PEWWE60-12-404TC	$10,803.32	72.6	94.5	1020	
75	3600	230/460	365TCS	PEWWE75-36-365TSC	$11,322.53	85.3	93.6	849	
	1800	230/460	365TC	PEWWE75-18-365TC	$9,664.27	83.8	95.4	891	
	1200	230/460	405TC	PEWWE75-12-405TC	$11,322.53	90.7	94.5	1180	
100	3600	230/460	405TSC	PEWWE100-36-405TSC	$13,755.93	111	94.2	1007	
	1800	230/460	405TC	PEWWE100-18-405TC	$11,457.96	114	95.4	1198	
	1800	230/460	405TSC	PEWWE100-18-405TSC	$11,457.96	114	95.4	1198	
125	3600	230/460	444TSC	PEWWE125-36-444TSC	$17,969.32	137	95.0	1366	
	1800	230/460	444TC	PEWWE125-18-444TC	$15,379.52	143	95.4	1609	
150	3600	230/460	445TSC	PEWWE150-36-445TSC	$20,677.25	165	95.0	1496	
	1800	230/460	445TC	PEWWE150-18-445TC	$16,888.74	171	95.8	2062	
200	1800	230/460	445/7TC	PEWWE200-18-445/7TC	$22,445.62	227	96.3	2124	
	1200	460	449TC	PEWWE200-12-449TC	$28,854.03	232	95.8	2678	
250	1800	460	449TC	PEWWE250-18-449TC	$31,777.26	283	96.2	2498	
300	1800	460	449TC	PEWWE300-18-449TC	$35,595.45	336.0	96.2	2728	

When using any motor with a variable frequency drive, take precautions to eliminate or reduce shaft currents in order to prolong bearing life.

Explosion Proof Motors

TEXP Enclosure ▪ Rigid Base ▪ Three-Phase ▪ 230/460 and 460 Volt

Product Specifications

- 1-300 HP
- 3600, 1800 and 1200 RPM
- 230/460 Volt (1-100 HP)
- 460 Volt (125-300 HP)
- Totally Enclosed Fan Cooled Explosion Proof (TEXP) Enclosure
- IP55 Protection
- 1.15 SF
- Class F Insulation
- Rigid Base
- Premium Efficiency (1-200 HP)
- High Efficiency (250-300 HP)
- Inverter Duty, 5:1 CT / 10:1 VT (1-200 HP only)
- Normally Closed Winding Thermostats Provided
- UL Listed Class 1, Div. 1, Groups C and D; Class 2, Div. 1, Groups F and G; T3C; Inverter Duty (1-200 HP), 40°C amb. temp. as standard
  - 143T-215T: Class 1, Div. 1, Groups C and D; T3C; Inverter Duty (1-200 HP); 55°C amb. temp.
  - 254T-449T: Class 1, Div. 1, Groups C and D; T2C; Inverter Duty (1-200 HP); 55°C amb. temp.

HP	RPM	Voltage	Frame	Model Number	List Price	FL Amps (A)	FL Eff. (%)	Approx. Wt. (lbs.)	Notes
1	1800	230/460	143T	IXPEWWE1-18-143T	$985.40	1.4	85.5	62	
	1200	230/460	145T	IXPEWWE1-12-145T	$1,080.56	1.7	82.5	79	
1.5	3600	230/460	143T	IXPEWWE1.5-36-143T	$1,001.82	1.9	84.0	73	
	1800	230/460	145T	IXPEWWE1.5-18-145T	$1,053.21	2.0	86.5	88	
	1200	230/460	182T	IXPEWWE1.5-12-182T	$1,208.52	2.1	87.5	115	
2	3600	230/460	145T	IXPEWWE2-36-145T	$1,022.60	2.5	85.5	75	
	1800	230/460	145T	IXPEWWE2-18-145T	$1,088.21	2.6	86.5	88	
	1200	230/460	184T	IXPEWWE2-12-184T	$1,361.81	2.8	88.5	130	
3	3600	230/460	182T	IXPEWWE3-36-182T	$1,303.67	3.5	86.5	115	
	1800	230/460	182T	IXPEWWE3-18-182T	$1,419.60	3.8	89.5	130	
	1200	230/460	213T	IXPEWWE3-12-213T	$1,959.88	4.0	89.5	238	
5	3600	230/460	184T	IXPEWWE5-36-184T	$1,475.88	6.0	88.5	128	
	1800	230/460	184T	IXPEWWE5-18-184T	$1,434.72	7.0	89.5	183	
	1200	230/460	215T	IXPEWWE5-12-215T	$2,076.90	7.5	89.5	295	
7.5	3600	230/460	213T	IXPEWWE7.5-36-213T	$1,935.70	8.3	89.5	253	
	1800	230/460	213T	IXPEWWE7.5-18-213T	$2,074.72	8.9	91.7	254	
	1200	230/460	254T	IXPEWWE7.5-12-254T	$2,715.60	12.5	91.0	386	
10	3600	230/460	215T	IXPEWWE10-36-215T	$2,030.95	11.5	90.2	262	
	1800	230/460	215T	IXPEWWE10-18-215T	$2,184.08	12.2	91.7	262	
	1200	230/460	256T	IXPEWWE10-12-256T	$3,171.67	12.5	91.0	384	
15	3600	230/460	254T	IXPEWWE15-36-254T	$2,610.62	16.5	91.0	401	
	1800	230/460	254T	IXPEWWE15-18-254T	$2,901.53	17.5	92.4	403	
	1200	230/460	284T	IXPEWWE15-12-284T	$4,427.22	22.8	91.7	476	
20	3600	230/460	256T	IXPEWWE20-36-256T	$3,371.81	22.8	91.0	434	
	1800	230/460	256T	IXPEWWE20-18-256T	$3,289.79	23.0	93.0	428	
	1200	230/460	286T	IXPEWWE20-12-286T	$4,860.31	23.5	91.7	520	
25	3600	230/460	284TS	IXPEWWE25-36-284TS	$4,580.33	27.5	91.7	506	
	1800	230/460	284T	IXPEWWE25-18-284T	$4,250.04	27.5	93.6	558	
	1200	230/460	324T	IXPEWWE25-12-324T	$5,878.53	29.0	93.0	657	

When using any motor with a variable frequency drive, take precautions to eliminate or reduce shaft currents in order to prolong bearing life.

Explosion Proof Motors (Continued)

TEXP Enclosure ▪ Rigid Base ▪ Three-Phase ▪ 230/460 and 460 Volt

HP	RPM	Voltage	Frame	Model Number	List Price	FL Amps (A)	FL Eff. (%)	Approx. Wt. (lbs.)	Notes
	3600	230/460	286TS	IXPEWWE30-36-286TS	$4,661.27	32.5	91.7	528	
30	1800	230/460	286T	IXPEWWE30-18-286T	$4,698.45	32.5	93.6	580	
	1200	230/460	326T	IXPEWWE30-12-326T	$6,776.44	34.5	93.0	739	
	3600	230/460	324TS	IXPEWWE40-36-324TS	$6,106.01	44.5	92.4	710	
40	1800	230/460	324T	IXPEWWE40-18-324T	$5,884.00	44.5	94.1	734	
	1200	230/460	364T	IXPEWWE40-12-364T	$11,566.76	46.0	94.1	911	
	3600	230/460	326TS	IXPEWWE50-36-326TS	$7,198.60	54.0	93.0	743	
50	1800	230/460	326T	IXPEWWE50-18-326T	$7,158.13	55.0	94.5	763	
	1200	230/460	365T	IXPEWWE50-12-365T	$11,589.73	56.5	94.1	899	
	3600	230/460	364TS	IXPEWWE60-36-364TS	$10,923.68	65.5	93.6	860	
60	1800	230/460	364T	IXPEWWE60-18-364T	$11,439.90	66.5	95.0	891	
	1200	230/460	404T	IXPEWWE60-12-404T	$14,432.20	69.0	94.5	1188	
	3600	230/460	365TS	IXPEWWE75-36-365TS	$12,342.18	84.5	93.6	946	
75	1800	230/460	365T	IXPEWWE75-18-365T	$12,167.19	86.5	95.4	957	
	1200	230/460	405T	IXPEWWE75-12-405T	$15,132.16	84.0	94.5	1349	
	3600	230/460	405TS	IXPEWWE100-36-405TS	$14,369.62	109	94.1	1393	
100	1800	230/460	405T	IXPEWWE100-18-405TBB	$15,703.88	110	95.4	1426	BB
	1200	230/460	444/5T	IXPEWWE100-12-444/5T	$23,249.61	117	95.0	1642	
	1200	230/460	444/5T	IXPEWWE100-12-444/5TBB	$23,249.61	117	95.0	1642	BB
	3600	460	444/5TS	IXPEWWE125-36-444/5TS	$23,074.96	130	95.0	1638	
125	1800	460	444/5T	IXPEWWE125-18-444/5TBB	$22,065.69	133	95.4	1640	BB
	1200	460	444/5T	IXPEWWE125-12-444/5TBB	$23,807.86	135	95.0	1779	BB
	3600	460	444/5TS	IXPEWWE150-36-444/5TS	$23,567.99	160	95.0	1830	
150	1800	460	444/5T	IXPEWWE150-18-444/5TBB	$23,829.97	163	95.8	1898	BB
	1200	460	447/9T	IXPEWWE150-12-447/9TBB	$35,783.10	166	95.8	2174	BB
	3600	460	444/5TS	IXPEWWE200-36-447/9TS	$32,550.79	214	95.4	2370	
200	1800	460	447/9T	IXPEWWE200-18-447/9TBB	$32,386.07	217	96.2	2348	BB
	1200	460	447/9T	IXPEWWE200-12-447/9TBB	$37,157.16	228	95.8	2368	BB
250	1800	460	447/9T	IXPEWWE250-18-447/9TBB	$36,331.39	275	95.2	2560	BB

BB Ball bearing on drive-end for direct coupled applications
X High efficiency - not suitable for inverter duty applications

When using any motor with a variable frequency drive, take precautions to eliminate or reduce shaft currents in order to prolong bearing life.

Explosion Proof Motors

TEXP Enclosure ▪ C-Face with Feet ▪ Three-Phase ▪ 230/460 and 460 Volt

Product Specifications

- 2-300 HP
- 3600, 1800 and 1200 RPM
- 230/460 Volt (2-100 HP)
- 460 Volt (125-300 HP)
- Totally Enclosed Fan Cooled Explosion Proof (TEXP) Enclosure
- IP55 Protection
- 1.15 SF
- Class F Insulation
- C-Face with Feet
- Premium Efficiency (2-200 HP)
- High Efficiency (250-300 HP)
- Inverter Duty, 5:1 CT / 10:1 VT (2-200 HP only)
- Normally Closed Winding Thermostats Provided
- UL Listed Class 1, Div. 1, Groups C and D; Class 2, Div. 1, Groups F and G; T3C; Inverter Duty (2-200 HP), 40°C amb. temp. as standard
  - 143T-215T: Class 1, Div. 1, Groups C and D; T3C; Inverter Duty (2-200 HP); 55°C amb. temp.
  - 254T-449T: Class 1, Div. 1, Groups C and D; T2C; Inverter Duty (2-200 HP); 55°C amb. temp.

HP	RPM	Voltage	Frame	Model Number	List Price	FL Amps (A)	FL Eff. (%)	Approx. Wt. (lbs.)	Notes
2	1800	230/460	145TC	IXPEWWE2-18-145TC	$1,255.55	2.6	86.5	88	
3	1800	230/460	182TC	IXPEWWE3-18-182TC	$1,501.63	3.8	89.5	130	
	1200	230/460	213TC	IXPEWWE3-12-213TC	$2,043.00	4.0	89.5	238	
5	1800	230/460	184TC	IXPEWWE5-18-184TC	$1,628.76	7.0	89.5	183	
7.5	3600	230/460	213TC	IXPEWWE7.5-36-213TC	$2,025.07	8.3	89.5	253	
	1800	230/460	213TC	IXPEWWE7.5-18-213TC	$2,274.86	8.9	91.7	254	
10	3600	230/460	215TC	IXPEWWE10-36-215TC	$2,120.33	11.5	90.2	262	
	1800	230/460	215TC	IXPEWWE10-18-215TC	$2,120.33	12.2	91.7	262	
	1200	230/460	256TC	IXPEWWE10-12-256TC	$3,488.84	12.5	91.0	384	
15	3600	230/460	254TC	IXPEWWE15-36-254TC	$2,723.26	16.5	91.0	401	
	1800	230/460	254TC	IXPEWWE15-18-254TC	$3,254.79	17.5	92.4	403	
	1200	230/460	284TC	IXPEWWE15-12-284TC	$4,869.93	22.8	91.7	476	
20	3600	230/460	256TC	IXPEWWE20-36-256TC	$3,709.00	22.8	91.0	434	
	1800	230/460	256TC	IXPEWWE20-18-256TC	$3,402.44	23.0	93.0	428	
25	3600	230/460	284TSC	IXPEWWE25-36-284TSC	$5,038.36	27.5	91.7	506	
	1800	230/460	284TC	IXPEWWE25-18-284TC	$4,661.27	27.5	93.6	558	
30	3600	230/460	286TSC	IXPEWWE30-36-286TSC	$5,127.39	32.5	91.7	528	
	1800	230/460	286TC	IXPEWWE30-18-286TC	$5,168.30	32.5	93.6	580	
40	3600	230/460	324TSC	IXPEWWE40-36-324TSC	$6,716.62	44.5	92.4	710	
	1800	230/460	324TC	IXPEWWE40-18-324TC	$6,472.40	44.5	94.1	734	
50	1800	230/460	326TC	IXPEWWE50-18-326TC	$7,873.95	55.0	94.5	763	
60	3600	230/460	364TSC	IXPEWWE60-36-364TSC	$12,016.04	65.5	93.6	860	
	1800	230/460	364TC	IXPEWWE60-18-364TC	$12,583.88	66.5	95.0	891	
75	1800	230/460	365TC	IXPEWWE75-18-365TC	$13,992.27	86.5	94.5	957	
100	3600	230/460	405TSC	IXPEWWE100-36-405TSC	$16,525.06	109	94.1	1393	
	1800	230/460	405TC	IXPEWWE100-18-405TC	$17,274.26	110	95.4	1426	
125	1800	460	444/5TC	IXPEWWE125-18-444/5TC	$24,272.25	133	95.4	1640	
150	1800	460	444/5TC	IXPEWWE150-18-444/5TC	$26,212.97	163	95.8	1898	
200	1800	460	445/7/9TC	IXPEWWE200-18-445/7/9TC	$35,624.68	217	96.2	2348	

X High efficiency - not suitable for inverter duty applications

When using any motor with a variable frequency drive, take precautions to eliminate or reduce shaft currents in order to prolong bearing life.

Advanced Design Rock Crusher Motors

TEFC Enclosure ▪ Rigid Base ▪ Three-Phase ▪ 230/460 and 460 Volt

Product Specifications

NEMA Premium

- 250-500 HP
- 1800 and 1200 RPM
- 230/460 Volt (100-200 HP)
- 460 Volt (250-600 HP)
- Totally Enclosed Fan Cooled (TEFC) Enclosure
- IP55 Protection
- 1.15 SF
- Class F Insulation
- Rigid Base
- 4140 High Tensile Strength Steel Shaft
- Premium Efficiency
- Inverter Duty, 10:1 CT / 20:1 VT at 1.0 SF (200-400 HP)
- Inverter Ready, 3:1 CT / 6:1 VT at 1.0 SF (450-500 HP)
- Please Consult WorldWide Electric for 50 Hz Operation

HP	RPM	Voltage	Frame	Model Number	List Price	FL Amps (A)	FL Eff. (%)	Approx. Wt. (lbs.)	Notes
200	1800	230/460	445/7T	PEWWE200-18-445/7T	$21,547.79	226	96.2	2033	R DD FC
	1800	230/460	445/7T	PEWWE200-18-445/7T-IB	$24,960.48	226	96.2	2033	IB R DD FC
	1200	460	449T	PEWWE200-12-449T	$27,699.88	236	95.8	2664	R DD** FC
	1200	460	449T	PEWWE200-12-449T-IB	$31,180.73	236	95.8	2664	IB R DD** FC
	1200	460	505Z	PEWWE200-12-505Z	$38,646.24	225	95.8	2470	R DD*
	1200	460	505UZ	PEWWE200-12-505UZ	$38,646.24	225	95.8	2470	R DD*
250	1800	460	449T	PEWWE250-18-449T	$30,506.18	280	96.2	2508	R DD** FC
	1800	460	449T	PEWWE250-18-449T-IB	$33,732.12	280	96.2	2508	IB R DD** FC
	1800	460	505Z	PEWWE250-18-505Z	$31,368.31	280	96.2	2360	R DD*
	1800	460	505UZ	PEWWE250-18-505UZ	$31,368.31	280	96.2	2360	R DD*
	1800	460	505UZ	PEWWE250-18-505UZ-IB	$34,133.28	280	96.2	2360	IB R DD*
	1200	460	449T	PEWWE250-12-449T	$33,395.40	298	95.8	2750	R DD** FC
	1200	460	449T	PEWWE250-12-449T-IB	$36,621.34	298	95.8	2750	IB R DD** FC
	1200	460	586/7	PEWWE250-12-586/7	$46,869.52	287	95.8	3737	R DD** FC
	1200	460	586/7	PEWWE250-12-586/7-IB	$51,938.85	287	95.8	3737	IB R DD** FC
	1200	460	586/7UZ	PEWWE250-12-586/7UZ	$46,869.52	287	95.8	3737	R DD** FC
300	1800	460	449T	PEWWE300-18-449T	$34,171.63	336	96.2	2728	R DD** FC
	1800	460	449T	PEWWE300-18-449T-IB	$37,397.50	336	96.2	2728	IB R DD** FC
	1800	460	586/7	PEWWE300-18-586/7	$50,422.60	324	96.2	3873	R DD** FC
	1800	460	586/7	PEWWE300-18-586/7-IB	$55,491.85	324	96.2	3873	IB R DD** FC
	1800	460	586/7UZ	PEWWE300-18-586/7UZ	$50,422.60	324	96.2	3873	R DD** FC
	1200	460	449T	PEWWE300-12-449T	$37,192.12	353	95.8	2977	R DD** FC
	1200	460	449T	PEWWE300-12-449T-IB	$40,418.00	353	95.8	2977	IB R DD** FC
	1200	460	586/7	PEWWE300-12-586/7	$53,446.88	341	95.8	4136	R DD** FC
	1200	460	586/7	PEWWE300-12-586/7-IB	$58,516.13	341	95.8	4136	IB R DD** FC
	1200	460	586/7UZ	PEWWE300-12-586/7UZ	$53,446.88	341	95.8	4136	R DD** FC
	1200	460	586/7UZ	PEWWE300-12-586/7UZ-IB	$58,516.13	341	95.8	4136	IB R DD** FC
350	1800	460	449T	PEWWE350-18-449T-IB	$42,574.13	392	96.2	2870	IB R DD** FC
	1800	460	586/7	PEWWE350-18-586/7	$53,640.95	374	96.2	4070	R DD** FC
	1800	460	586/7	PEWWE350-18-586/7-IB	$58,710.28	374	96.2	4070	IB R DD** FC
	1800	460	586/7UZ	PEWWE350-18-586/7UZ-IB	$58,710.28	374	96.2	4070	IB R DD** FC
	1200	460	449T	PEWWE350-12-449T	$45,209.48	407	95.8	2930	R DD** FC
	1200	460	449T	PEWWE350-12-449T-IB	$48,435.06	407	95.8	2930	IB R DD** FC
	1200	460	586/7	PEWWE350-12-586/7	$56,373.30	398	95.8	4145	R DD** FC
	1200	460	586/7	PEWWE350-12-586/7-IB	$61,442.49	398	95.8	4145	IB R DD** FC
	1200	460	586/7UZ	PEWWE350-12-586/7UZ	$56,373.30	398	95.8	4145	R DD** FC
400	1800	460	586/7	PEWWE400-18-586/7	$56,006.54	428.0	96.2	4374	R DD** FC
	1800	460	586/7	PEWWE400-18-586/7-IB	$61,075.80	428.0	96.2	4374	IB R DD** FC
	1800	460	586/7UZ	PEWWE400-18-586/7UZ	$56,006.54	428.0	96.2	4374	R DD** FC
	1800	460	586/7UZ	PEWWE400-18-586/7UZ-IB	$61,075.80	428.0	96.2	4374	IB R DD** FC
	1200	460	586/7	PEWWE400-12-586/7	$58,515.27	449.0	95.8	4707	R DD** FC
	1200	460	586/7	PEWWE400-12-586/7-IB	$63,584.31	449.0	95.8	4707	IB R DD** FC
	1200	460	586/7UZ	PEWWE400-12-586/7UZ	$58,515.27	449.0	95.8	4707	R DD** FC
	1200	460	586/7UZ	PEWWE400-12-586/7UZ-IB	$63,584.31	449.0	95.8	4707	IB R DD** FC
450	1800	460	586/7	PEWWE450-18-586/7	$58,542.81	481.0	96.2	4500	R DD**
	1800	460	586/7	PEWWE450-18-586/7-IB	$62,229.02	481.0	96.2	4500	IB R DD**
	1200	460	586/7	PEWWE450-12-586/7-IB	$65,518.98	506.0	95.8	4850	IB R ▲ DD**
500	1800	460	586/7	PEWWE500-18-586/7-IB	$66,876.00	535	96.2	4630	IB R DD**
	1800	460	586/7UZ	PEWWE500-18-586/7UZ	$61,806.89	535	96.2	4630	R DD**
	1200	460	586/7	PEWWE500-12-586/7	$62,384.39	562	95.8	4740	R ▲ DD**
	1200	460	586/7	PEWWE500-12-586/7-IB	$67,453.43	562	95.8	4740	IB R ▲ DD**
	1200	460	586/7UZ	PEWWE500-12-586/7UZ	$62,384.39	562	95.8	4740	R ▲ DD**
	1200	460	586/7UZ	PEWWE500-12-586/7UZ-IB	$67,453.43	562	95.8	4740	IB R ▲ DD**

▲ 1.0 SF
BB Ball bearing on drive-end for direct coupled applications
IB Insulated opposite drive-end bearing installed
R Roller bearing on drive-end for belted applications
DD Double drilled feet
FC F1/F2 convertible

Document No: MD-CAT-04.2023 | For more information, please contact customerservice@worldwideelectric.com

Oil Well Pump Motors

TEFC Enclosure ▪ Rigid Base ▪ Three-Phase ▪ 230/460/796 Volt

Product Specifications

- 3-150 HP
- 1200 and 900 RPM
- 230/460/796 Volt
- Totally Enclosed Fan Cooled (TEFC) Enclosure
- IP55 Protection
- 1.15 SF
- Class F Insulation
- Rigid Base
- Inverter Duty, 10:1 CT / 20:1 VT
- 3000 Volt Spike Resistant, Inverter Duty Wire
- Motors Meet NEMA MG-1, Part 31
- Three Winding Thermostats Provided (One Per Phase)
- NEMA Design D - High Slip 5-8%
- Cast Iron Construction/Steel Fan Cover
- F2 Mount
- Suitable for 50 Hz with 1.0 SF

HP	RPM	Voltage	Frame	Model Number	List Price	FL Amps (A)	FL Eff. (%)	Approx. Wt. (lbs.)	Notes
3	1200	230/460/796	213T	OW3-12-213T	$1,283.52	4.0	84.9	143	
	900	230/460/796	215T	OW3-9-215T	$1,634.37	4.9	84.0	153	
5	1200	230/460/796	215T	OW5-12-215T	$1,519.95	7.5	87.5	158	
	900	230/460/796	254T	OW5-9-254T	$2,611.33	7.9	85.6	248	
7.5	1200	230/460/796	254T	OW7.5-12-254T	$1,902.84	10.7	85.0	251	
	900	230/460/796	256T	OW7.5-9-256T	$2,757.43	12.4	87.4	272	
10	1200	230/460/796	256T	OW10-12-256T	$2,589.57	13.9	86.5	286	
	900	230/460/796	284T	OW10-9-284T	$3,752.65	16.7	87.0	410	
15	1200	230/460/796	284T	OW15-12-284T	$3,253.87	19.5	87.7	409	
	900	230/460/796	286T	OW15-9-286T	$4,209.17	22.1	88.0	321	
20	1200	230/460/796	286T	OW20-12-286T	$3,995.55	25.5	89.9	451	
	900	230/460/796	324T	OW20-9-324T	$5,067.45	26.3	89.1	631	
25	1200	230/460/796	324T	OW25-12-324T	$4,672.13	34.6	90.3	550	
	900	230/460/796	326T	OW25-9-326T	$5,514.84	34.0	89.4	689	
30	1200	230/460/796	326T	OW30-12-326T	$5,537.28	35.4	91.7	622	
	900	230/460/796	364T	OW30-9-364T	$6,811.39	39.2	91.1	801	
40	1200	230/460/796	365T	OW40-12-365T	$7,486.25	47.9	87.4	714	
	900	230/460/796	404T	OW40-9-404T	$8,071.39	53.6	90.5	989	R
50	1200	230/460/796	404T	OW50-12-404T	$8,399.20	57.8	91.3	957	R
	900	230/460/796	405T	OW50-9-405T	$10,993.16	64.2	91.5	1107	R
60	1200	230/460/796	405T	OW60-12-405T	$8,925.45	78.0	82.4	1058	R
	900	230/460/796	444T	OW60-9-444T	$12,070.58	80.7	93.3	1257	R
75	1200	230/460/796	444T	OW75-12-444T	$12,910.30	88.2	93.5	1185	R
	900	230/460/796	445T	OW75-9-445T	$16,361.92	94.0	93.9	1385	R
100	1200	230/460/796	445T	OW100-12-445T	$14,596.60	118	92.2	1370	R
	900	230/460/796	447T	OW100-9-447T	$18,891.09	130	94.9	2033	R
125	1200	230/460/796	447T	OW125-12-447T	$15,961.52	138	93.5	1766	R
150	1200	230/460/796	449T	OW150-12-449T	$18,311.28	174	94.5	2064	R

R Roller bearing on drive-end for belted applications

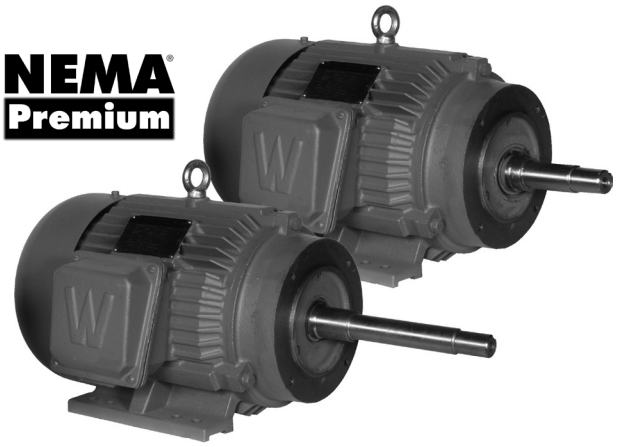
When using any motor with a variable frequency drive, take precautions to eliminate or reduce shaft currents in order to prolong bearing life.

Close Coupled Pump Motors

TEFC Enclosure ▪ C-Face with Feet ▪ Three-Phase ▪ 230/460 Volt

Product Specifications

- 1-50 HP
- 3600 and 1800 RPM
- 230/460 Volt
- Totally Enclosed Fan Cooled (TEFC) Enclosure
- IP55 Protection
- 1.15 SF
- Class F Insulation
- C-Face with Feet
- Premium Efficiency
- Inverter Duty, 10:1 CT / 20:1 VT (1.0 SF)
- Spike Resistant Wire, per NEMA MG-1, Part 31
- Class 1, Division 2, Groups A, B, C, D
- Suitable for 50 Hz, 200/400V with 1.0 SF



HP	RPM	Voltage	Frame	Model Number	List Price	FL Amps (A)	FL Eff. (%)	Approx. Wt. (lbs.)	Notes
1	1800	230/460	143JM	PEWWE1-18-143JM	$554.02	1.5	85.5	41	
	1800	230/460	143JP	PEWWE1-18-143JP	$554.02	1.5	85.5	41	
1.5	3600	230/460	143JM	PEWWE1.5-36-143JM	$601.91	2.0	84.0	46	
	3600	230/460	143JP	PEWWE1.5-36-143JP	$601.91	2.0	84.0	46	
	1800	230/460	145JM	PEWWE1.5-18-145JM	$621.00	2.2	86.5	56	
	1800	230/460	145JP	PEWWE1.5-18-145JP	$621.00	2.2	86.5	56	
2	3600	230/460	145JM	PEWWE2-36-145JM	$647.68	2.6	85.5	51	
	3600	230/460	145JP	PEWWE2-36-145JP	$647.68	2.6	85.5	51	
	1800	230/460	145JM	PEWWE2-18-145JM	$645.73	2.9	86.5	59	
	1800	230/460	145JP	PEWWE2-18-145JP	$645.73	2.9	86.5	59	
3	3600	230/460	145JM	PEWWE3-36-145JM	$845.57	3.8	86.5	57	
	3600	230/460	145JP	PEWWE3-36-145JP	$845.57	3.8	86.5	57	
	3600	230/460	182JM	PEWWE3-36-182JM	$845.57	3.8	86.5	81	
	3600	230/460	182JP	PEWWE3-36-182JP	$845.57	3.8	86.5	81	
	1800	230/460	182JM	PEWWE3-18-182JM	$1,045.63	4.0	89.5	86	
	1800	230/460	182JP	PEWWE3-18-182JP	$1,045.63	4.0	89.5	86	
5	3600	230/460	184JM	PEWWE5-36-184JM	$986.86	6.0	88.5	96	
	3600	230/460	184JP	PEWWE5-36-184JP	$986.86	6.0	88.5	96	
	1800	230/460	184JM	PEWWE5-18-184JM	$1,116.81	6.3	89.5	104	
	1800	230/460	184JP	PEWWE5-18-184JP	$1,116.81	6.3	89.5	104	
7.5	3600	230/460	184JM	PEWWE7.5-36-184JM	$1,703.52	8.8	89.5	105	
	3600	230/460	184JP	PEWWE7.5-36-184JP	$1,703.52	8.8	89.5	105	
	3600	230/460	213JM	PEWWE7.5-36-213JM	$1,703.52	9.0	89.5	160	
	3600	230/460	213JP	PEWWE7.5-36-213JP	$1,703.52	9.0	89.5	160	
	1800	230/460	213JM	PEWWE7.5-18-213JM	$1,652.31	9.1	91.7	172	
	1800	230/460	213JP	PEWWE7.5-18-213JP	$1,652.31	9.1	91.7	172	

When using any motor with a variable frequency drive, take precautions to eliminate or reduce shaft currents in order to prolong bearing life.

Close Coupled Pump Motors (Continued)

TEFC Enclosure ▪ C-Face with Feet ▪ Three-Phase ▪ 230/460 Volt

HP	RPM	Voltage	Frame	Model Number	List Price	FL Amps (A)	FL Eff. (%)	Approx. Wt. (lbs.)	Notes
10	3600	230/460	215JM	PEWWE10-36-215JM	$1,805.02	11.7	90.2	180	
	3600	230/460	215JP	PEWWE10-36-215JP	$1,805.02	11.7	90.2	180	
	1800	230/460	215JM	PEWWE10-18-215JM	$1,808.78	12.0	91.7	193	
	1800	230/460	215JP	PEWWE10-18-215JP	$1,808.78	12.0	91.7	193	
15	3600	230/460	215JM	PEWWE15-36-215JM	$2,641.14	17.3	91.0	190	
	3600	230/460	215JP	PEWWE15-36-215JP	$2,641.14	17.3	91.0	190	
	3600	230/460	254JM	PEWWE15-36-254JM	$2,641.14	17.5	91.0	261	
	3600	230/460	254JP	PEWWE15-36-254JP	$2,641.14	17.5	91.0	261	
	1800	230/460	254JM	PEWWE15-18-254JM	$2,588.07	18.1	92.4	265	
	1800	230/460	254JP	PEWWE15-18-254JP	$2,588.07	18.1	92.4	265	
20	3600	230/460	256JM	PEWWE20-36-256JM	$2,850.56	23.1	91.0	297	
	3600	230/460	256JP	PEWWE20-36-256JP	$2,850.56	23.1	91.0	297	
	1800	230/460	256JM	PEWWE20-18-256JM	$2,923.58	23.7	93.0	304	
	1800	230/460	256JP	PEWWE20-18-256JP	$2,923.58	23.7	93.0	304	
25	3600	230/460	256JM	PEWWE25-36-256JM	$3,426.10	28.7	91.7	309	
	3600	230/460	256JP	PEWWE25-36-256JP	$3,426.10	28.7	91.7	309	
	3600	230/460	284JM	PEWWE25-36-284JM	$3,426.10	29.0	91.7	358	
	3600	230/460	284JP	PEWWE25-36-284JP	$3,426.10	29.0	91.7	358	
	1800	230/460	284JM	PEWWE25-18-284JM	$3,635.67	29.1	93.6	385	
	1800	230/460	284JP	PEWWE25-18-284JP	$3,635.67	29.1	93.6	385	
30	3600	230/460	286JM	PEWWE30-36-286JM	$3,637.57	34.4	91.7	394	
	3600	230/460	286JP	PEWWE30-36-286JP	$3,637.57	34.4	91.7	394	
	1800	230/460	286JM	PEWWE30-18-286JM	$3,911.75	34.5	93.6	430	
	1800	230/460	286JP	PEWWE30-18-286JP	$3,911.75	34.5	93.6	430	
40	3600	230/460	286JM	PEWWE40-36-286JM	$4,916.37	45.5	92.4	419	
	3600	230/460	286JP	PEWWE40-36-286JP	$4,916.37	45.5	92.4	419	
	3600	230/460	324JM	PEWWE40-36-324JM	$4,916.37	46.1	92.4	485	
	3600	230/460	324JP	PEWWE40-36-324JP	$4,916.37	46.1	92.4	485	
	1800	230/460	324JM	PEWWE40-18-324JM	$4,916.37	46.3	94.1	531	
	1800	230/460	324JP	PEWWE40-18-324JP	$4,916.37	46.3	94.1	531	
50	3600	230/460	326JM	PEWWE50-36-326JM	$5,784.26	56.6	93.0	534	
	3600	230/460	326JP	PEWWE50-36-326JP	$5,784.26	56.6	93.0	534	
	1800	230/460	326JM	PEWWE50-18-326JM	$5,837.59	57.6	94.5	578	
	1800	230/460	326JP	PEWWE50-18-326JP	$5,837.59	57.6	94.5	578	

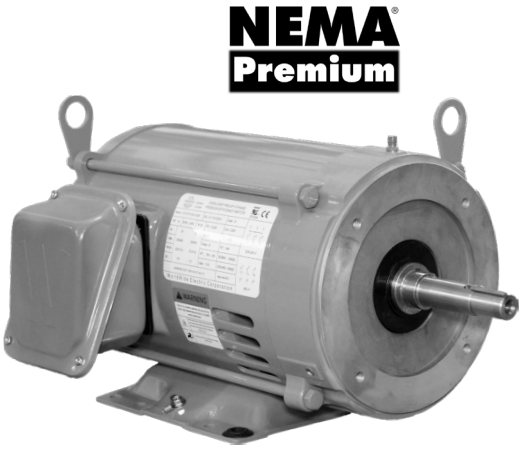
When using any motor with a variable frequency drive, take precautions to eliminate or reduce shaft currents in order to prolong bearing life.

Close Coupled Pump Motors

ODP Enclosure ▪ C-Face with Feet ▪ Three-Phase ▪ 230/460 Volt

Product Specifications

- 1-50 HP
- 3600 and 1800 RPM
- 230/460 Volt
- Open Drip Proof (ODP) Enclosure
- Rolled Steel Frame
- IP23 Protection
- 1.15 SF
- Class F Insulation
- C-Face with Feet
- Premium Efficiency
- Inverter Duty, 10:1 VT
- Spike Resistant Wire, per NEMA MG-1, Part 31
- Suitable for 50 Hz with 1.0 SF



HP	RPM	Voltage	Frame	Model Number	List Price	FL Amps (A)	FL Eff. (%)	Approx. Wt. (lbs.)	Notes
1	1800	230/460	143JM	OCCP1-18-143JM	$523.36	1.3	85.5	33.1	
	1800	230/460	143JP	OCCP1-18-143JP	$523.36	1.3	85.5	33.1	
1.5	3600	230/460	143JM	OCCP1.5-36-143JM	$541.72	1.9	84.0	34	
	3600	230/460	143JP	OCCP1.5-36-143JP	$541.72	1.9	84.0	34	
	1800	230/460	145JM	OCCP1.5-18-145JM	$562.20	2.1	86.5	34.2	
	1800	230/460	145JP	OCCP1.5-18-145JP	$562.20	2.1	86.5	34.2	
2	3600	230/460	145JM	OCCP2-36-145JM	$588.23	2.5	85.5	35	
	3600	230/460	145JP	OCCP2-36-145JP	$588.23	2.5	85.5	35	
	1800	230/460	145JM	OCCP2-18-145JM	$596.62	2.7	86.5	38.6	
	1800	230/460	145JP	OCCP2-18-145JP	$596.62	2.7	86.5	38.6	
3	3600	230/460	145JM	OCCP3-36-145JM	$728.43	3.6	85.5	42	
	3600	230/460	145JP	OCCP3-36-145JP	$728.43	3.6	85.5	42	
	1800	230/460	182JM	OCCP3-18-182JM	$757.50	3.8	89.5	68.3	
	1800	230/460	182JP	OCCP3-18-182JP	$757.50	3.8	89.5	68.3	
5	3600	230/460	182JM	OCCP5-36-182JM	$863.39	5.9	86.5	66	
	3600	230/460	182JP	OCCP5-36-182JP	$863.39	5.9	86.5	66	
	1800	230/460	184JM	OCCP5-18-184JM	$861.60	6.2	89.5	96.8	
	1800	230/460	184JP	OCCP5-18-184JP	$861.60	6.2	89.5	96.8	
7.5	3600	230/460	184JM	OCCP7.5-36-184JM	$1,345.50	8.6	88.5	99	
	3600	230/460	184JP	OCCP7.5-36-184JP	$1,345.50	8.6	88.5	99	
	1800	230/460	213JM	OCCP7.5-18-213JM	$1,362.28	9.4	91.0	140.2	
	1800	230/460	213JP	OCCP7.5-18-213JP	$1,362.28	9.4	91.0	140.2	
10	3600	230/460	213JM	OCCP10-36-213JM	$1,560.63	11.8	89.5	143	
	3600	230/460	213JP	OCCP10-36-213JP	$1,560.63	11.8	89.5	143	
	1800	230/460	215JM	OCCP10-18-215JM	$1,475.11	12.2	91.7	160.6	
	1800	230/460	215JP	OCCP10-18-215JP	$1,475.11	12.2	91.7	160.6	

When using any motor with a variable frequency drive, take precautions to eliminate or reduce shaft currents in order to prolong bearing life.

Close Coupled Pump Motors (Continued)

ODP Enclosure ▪ C-Face with Feet ▪ Three-Phase ▪ 230/460 Volt

HP	RPM	Voltage	Frame	Model Number	List Price	FL Amps (A)	FL Eff. (%)	Approx. Wt. (lbs.)	Notes
15	3600	230/460	215JM	OCCP15-36-215JM	$1,996.59	16.9	90.2	144	
	3600	230/460	215JP	OCCP15-36-215JP	$1,996.59	16.9	90.2	144	
	1800	230/460	254JM	OCCP15-18-254JM	$2,216.90	17.1	93.0	214.9	
	1800	230/460	254JP	OCCP15-18-254JP	$2,216.90	17.1	93.0	214.9	
20	3600	230/460	254JM	OCCP20-36-254JM	$2,339.67	22.1	91.0	247	
	3600	230/460	254JP	OCCP20-36-254JP	$2,339.67	22.1	91.0	247	
	1800	230/460	256JM	OCCP20-18-256JM	$2,474.31	22.5	93.0	260.1	
	1800	230/460	256JP	OCCP20-18-256JP	$2,474.31	22.5	93.0	260.1	
25	3600	230/460	256JM	OCCP25-36-256JM	$3,009.52	27.0	91.7	270	
	3600	230/460	256JP	OCCP25-36-256JP	$3,009.52	27.0	91.7	270	
	1800	230/460	284JM	OCCP25-18-284JM	$3,211.59	30.0	93.6	305	
	1800	230/460	284JP	OCCP25-18-284JP	$3,211.59	30.0	93.6	305	
30	3600	230/460	284JM	OCCP30-36-284JM	$3,191.59	33.2	92.5	330	
	3600	230/460	284JP	OCCP30-36-284JP	$3,191.59	33.2	92.5	330	
	1800	230/460	286JM	OCCP30-18-286JM	$3,563.86	35.9	94.1	335	
	1800	230/460	286JP	OCCP30-18-286JP	$3,563.86	35.9	94.1	335	
40	3600	230/460	286JM	OCCP40-36-286JM	$4,206.65	45.4	92.4	340	
	3600	230/460	286JP	OCCP40-36-286JP	$4,206.65	45.4	92.4	340	
	1800	230/460	324JM	OCCP40-18-324JM	$4,591.56	47.9	94.1	445	
	1800	230/460	324JP	OCCP40-18-324JP	$4,591.56	47.9	94.1	445	
50	3600	230/460	324JM	OCCP50-36-324JM	$4,795.82	56.1	93.0	407	
	3600	230/460	324JP	OCCP50-36-324JP	$4,795.82	56.1	93.0	407	
	1800	230/460	326JM	OCCP50-18-326JM	$4,873.77	58.8	94.5	475	
	1800	230/460	326JP	OCCP50-18-326JP	$4,873.77	58.8	94.5	475	

When using any motor with a variable frequency drive, take precautions to eliminate or reduce shaft currents in order to prolong bearing life.

Vertical Hollow Shaft Motors

WPI Enclosure ▪ Vertical P Base ▪ Three-Phase ▪ 230/460 Volt

Product Specifications

- 10 - 500 HP
- 1800 RPM
- 230/460 Volt (10 - 100 HP)
- 460 Volt Only Motors (50 - 500 HP) are Suitable for Part Winding Start (PWS)
- Weather Protected (WPI) Enclosure with Rodent Screens
- IP23 Protection
- 1.15 SF
- Class F Insulation
- Vertical P Base
- Premium Efficiency
- Inverter Duty, 10:1 Variable Torque
- Spike Resistant Wiring per NEMA MG-1 Part 31
- 120 Volt Space Heaters
- Double Thrust Bearing Design (100-500 HP) for Deeper Well Applications
- Winding RTDs (125-500 HP)
- Gray Epoxy Paint for Cooler Surface Temperature
- Standard Coupling Size Included

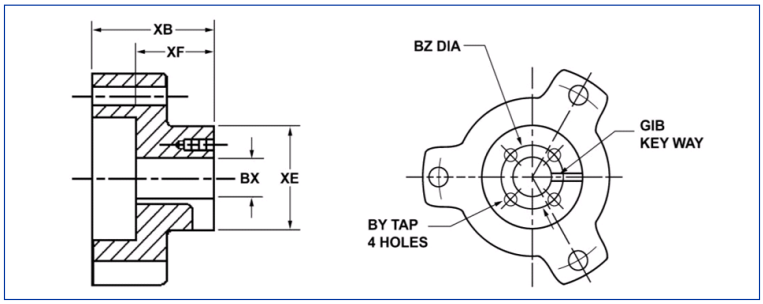
NEMA Premium

HP	RPM	Voltage	Frame	Base Size	Model Number	List Price	Down Thrust	FL Amps (A)	FL Eff. (%)	Approx. Wt. (lbs.)	Included Coupling
10	1800	230/460	215TP	10	WPEVHS10-18-215TP-10	$3,181.95	2500	12.2	91.7	366	MC210-1
15	1800	230/460	254TP	10	WPEVHS15-18-254TP-10	$3,970.83	3200	17.3	93.0	514	MC250-1
20	1800	230/460	256TP	10	WPEVHS20-18-256TP-10	$4,521.78	3200	23.5	93.0	527	MC250-1
25	1800	230/460	284TP	12	WPEVHS25-18-284TP-12	$5,423.38	3200	28.8	93.6	571	MC280-1
30	1800	230/460	286TP	12	WPEVHS30-18-286TP-12	$5,729.45	3200	34.1	94.1	591	MC280-1
40	1800	230/460	324TP	16.5	WPEVHS40-18-324TP-16.5	$7,147.21	5500	46.0	94.1	761	MC320-1.25-.25
50	1800	230/460	326TP	16.5	WPEVHS50-18-326TP-16.5	$7,739.92	5500	56.4	94.5	825	MC320-1.25-.25
	1800	460	326TP	16.5	WPEVHS50-18-460-326TP-16.5	$7,739.92	5500	56.4	94.5	825	MC320-1.25-.25
60	1800	230/460	364TP	16.5	WPEVHS60-18-364TP-16.5	$8,827.93	5600	68.3	95.0	983	MC360-1.25-.25
	1800	460	364TP	16.5	WPEVHS60-18-460-364TP-16.5	$8,827.93	5600	68.3	95.0	983	MC360-1.25-.25
75	1800	230/460	365TP	16.5	WPEVHS75-18-365TP-16.5	$10,939.95	5600	85.0	95.0	1034	MC360-1.25-.25
	1800	460	365TP	16.5	WPEVHS75-18-460-365TP-16.5	$10,939.95	5600	85.0	95.0	1034	MC360-1.25-.25
100	1800	230/460	404TP	16.5	WPEVHS100-18-404TP-16.5	$13,708.68	13400	112	95.4	1455	MC400-1.5
	1800	460	404TP	16.5	WPEVHS100-18-460-404TP-DB-16.5	$15,090.26	13400	112	95.4	1455	MC400-1.5
125	1800	460	405TP	16.5	WPEVHS125-18-460-405TP-16.5	$14,832.87	13400	139	95.4	1505	MC400-1.5
	1800	460	405TP	16.5	WPEVHS125-18-460-405TP-DB-16.5	$16,214.44	13400	139	95.4	1505	MC400-1.5
150	1800	460	444TP	16.5	WPEVHS150-18-460-444TP-DB-16.5	$19,443.70	14400	165	95.8	1984	MC440-1.6875
200	1800	460	445TP	16.5	WPEVHS200-18-460-445TP-DB-16.5	$27,052.83	14400	221	95.8	2099	MC440-1.6875
	1800	460	445TP	20	WPEVHS200-18-460-445TP-DB-20	$27,052.83	14400	221	95.8	2099	MC440-1.6875
250	1800	460	445TP	20	WPEVHS250-18-460-445TP-DB-20	$28,690.42	14400	276	95.8	2206	MC440-1.6875
300	1800	460	5006P	20	WPEVHS300-18-460-5006P-DB-20	$47,210.30	24000	328	95.8	3609	MC5006/8P-1.6875
350	1800	460	5006P	20	WPEVHS350-18-460-5006P-DB-20	$50,785.56	24000	379	95.8	3774	MC5006/8P-1.6875
	1800	460	5006P	24.5	WPEVHS350-18-460-5006P-DB-24.5	$50,785.56	24000	379	95.8	3774	MC5006/8P-1.6875
400	1800	460	5008P	20	WPEVHS400-18-460-5008P-DB-20	$58,682.40	24000	437	95.8	4149	MC5006/8P-1.9375
	1800	460	5008P	24.5	WPEVHS400-18-460-5008P-DB-24.5	$58,682.40	24000	437	95.8	4149	MC5006/8P-1.9375
450	1800	460	5008P	20	WPEVHS450-18-460-5008P-DB-20	$63,133.56	24000	489	96.2	4266	MC5006/8P-2.1875
	1800	460	5008P	24.5	WPEVHS450-18-460-5008P-DB-24.5	$63,133.56	24000	489	96.2	4266	MC5006/8P-2.1875
500	1800	460	5008P	20	WPEVHS500-18-460-5008P-DB-20	$67,326.00	24000	544	96.2	4449	MC5006/8P-2.1875
	1800	460	5008P	24.5	WPEVHS500-18-460-5008P-DB-24.5	$67,326.00	24000	544	96.2	4449	MC5006/8P-2.1875

When using any motor with a variable frequency drive, take precautions to eliminate or reduce shaft currents in order to prolong bearing life.

Document No: MD-CAT-04.2023 | For more information, please contact customerservice@worldwideelectric.com

Vertical Hollow Shaft Motors (Continued)
WVHS Couplings



HP	Frame	Model Number	BX	BY	BZ	XB	XE	XF	SQ (EW)	List Price
10	215TP	MC210-.75 MC210-.875 MC210-1 *	3/4 7/8 1	10-32 10-32 10-32	1-3/8 1-3/8 1-3/8	1-3/4 1-3/4 1-3/4	2 2 2	1-1/8 1-1/8 1-1/8	3/16 3/16 1/4	$151.66
15-20	254TP-256TP	MC250-.75 MC250-.875 MC250-1 * MC250-1.1875 MC250-1.25 MC250-1.25-.375	3/4 7/8 1 1-3/16 1-1/4 1-1/4	10-32 10-32 10-32 1/4-20 1/4-20 1/4-20	1-3/8 1-3/8 1-3/8 1-3/4 1-3/4 1-3/4	2-9/16 2-9/16 2-9/16 2-9/16 2-9/16 2-9/16	2-1/4 2-1/4 2-1/4 2-1/4 2-1/4 2-1/4	1-5/8 1-5/8 1-5/8 1-5/8 1-5/8 1-5/8	3/16 3/16 1/4 1/4 1/4 3/8	$180.87
25-30	284TP-286TP	MC280-.75 MC280-.875 MC280-1 * MC280-1.1875 MC280-1.25-.25 MC280-1.25-.375	3/4 7/8 1 1-3/16 1-1/4 1-1/4	10-32 10-32 10-32 1/4-20 1/4-20 1/4-20	1-3/8 1-3/8 1-3/8 1-3/4 1-3/4 1-3/4	2-9/16 2-9/16 2-9/16 2-9/16 2-9/16 2-9/16	2-1/4 2-1/4 2-1/4 2-1/4 2-1/4 2-1/4	1-5/8 1-5/8 1-5/8 1-5/8 1-5/8 1-5/8	3/16 3/16 1/4 1/4 1/4 3/8	$180.87
40-50	324TP-326TP	MC320-1 MC320-1.1875 MC320-1.25-.375 MC320-1.25-.25 * MC320-1.4375 MC320-1.5	1 1-3/16 1-1/4 1-1/4 1-7/16 1-1/2	10-32 1/4-20 1/4-20 1/4-20 1/4-20 1/4-20	1-3/8 1-3/4 1-3/4 1-3/4 2-1/8 2-1/8	2-15/16 2-15/16 2-15/16 2-15/16 2-15/16 2-15/16	2-7/8 2-7/8 2-7/8 2-7/8 2-7/8 2-7/8	1-15/16 1-15/16 1-15/16 1-15/16 1-15/16 1-15/16	1/4 1/4 3/8 1/4 3/8 3/8	$210.09
60-75	364TP-365TP	MC360-1 MC360-1.1875 MC360-1.25-25 * MC360-1.25-.375 MC360-1.4375 MC360-1.5	1 1-3/16 1-1/4 1-1/4 1-7/16 1-1/2	10-32 1/4-20 1/4-20 1/4-20 1/4-20 1/4-20	1-3/8 1-3/4 1-3/4 1-3/4 2-1/8 2-1/8	2-15/16 2-15/16 2-15/16 2-15/16 2-15/16 2-15/16	2-7/8 2-7/8 2-7/8 2-7/8 2-7/8 2-7/8	1-15/16 1-15/16 1-15/16 1-15/16 1-15/16 1-15/16	1/4 1/4 1/4 3/8 3/8 3/8	$240.69
100-125	404TP-405TP	MC400-1.1875 MC400-1.25-.25 MC400-1.25-.375 MC400-1.4375 MC400-1.5 * MC400-1.5625 MC400-1.6875 MC400-1.8125	1-3/16 1-1/4 1-1/4 1-7/16 1-1/2 1-9/16 1-11/16 1-13/16	1/4-20 1/4-20 1/4-20 1/4-20 1/4-20 1/4-20 1/4-20 1/4-20	1-3/4 1-3/4 1-3/4 2-1/8 2-1/8 2-1/2 2-1/2 2-1/2	3-13/32 3-13/32 3-13/32 3-13/32 3-13/32 3-13/32 3-13/32 3-13/32	3-1/8 3-1/8 3-1/8 3-1/8 3-1/8 3-1/8 3-1/8 3-1/8	2-13/32 2-13/32 2-13/32 2-13/32 2-13/32 2-13/32 2-13/32 2-13/32	1/4 1/4 3/8 3/8 3/8 3/8 3/8 3/8	$360.34
150-250	444TP-445TP	MC440-1.4375 MC440-1.5 MC440-1.6875 * MC440-1.75 MC440-1.9375 MC440-2.1875	1-7/16 1-1/2 1-11/16 1-3/4 1-15/16 2-3/16	1/4-20 1/4-20 1/4-20 1/4-20 1/4-20 3/8-16	2-1/8 2-1/8 2-1/2 2-1/2 2-1/2 2-1/4	4.2 4.2 4.2 4.2 4.2 4.2	3-11/16 3-11/16 3-11/16 3-11/16 3-11/16 3-11/16	2.95 2.95 2.95 2.95 2.95 2.95	3/8 3/8 3/8 3/8 1/2 1/2	$510.60
300-350	5006P	MC5006/8P-1.5 MC5006/8P-1.6875 * MC5006/8P-1.75 MC5006/8P-1.8125	1-1/2 1-11/16 1-3/4 1-13/16	1/4-20 1/4-20 1/4-20 1/4-20	2-1/2 2-1/2 2-1/2 2-1/2	4.37 4.37 4.37 4.37	4-3/4 4-3/4 4-3/4 4-3/4	3.07 3.07 3.07 3.07	3/8 3/8 3/8 3/8	$886.27
400 450-500	5008P 5008P	MC5006/8P-1.9375 * MC5006/8P-2.1875 *	1-15/16 2-3/16	1/4-20 3/8-16	2-1/2 3-1/4	4.37 4.37	4-3/4 4-3/4	3.07 3.07	1/2 1/2	$886.27
400-500	5008P	MC5006/8P-2.001 MC5006/8P-2.251 MC5006/8P-2.5	2 2-1/4 2-1/2	3/8-16 3/8-16 3/8-16	3-1/4 3-1/4 3-1/4	4.37 4.37 4.37	4-3/4 4-3/4 4-3/4	3.07 3.07 3.07	1/4 1/2 5/8	$886.27

* Standard coupling size included with each motor

Louis Allis LAM Series Motors - IEEE 45 Marine-Duty

TEFC Enclosure ▪ Rigid Base ▪ Three-Phase ▪ 230/460 and 460 Volt

Product Specifications

- 1-450 HP
- 3600, 1800, 1200 and 900 RPM
- 60 Hz, 230/460V - Suitable for 208V (1-200 HP)
- 60 Hz, 460V (250-450 HP)
- Totally Enclosed Fan Cooled (TEFC) Enclosure
- IP55 Protection
- 1.25 SF (1-200 HP)
- 1.15 SF (250-450 HP)
- Class F insulation
- Rigid Base
- NEMA Design B
- NEMA Premium Efficiency
- Inverter Duty, 10:1 CT / 20:1 VT (1.0 SF)
- Class 1 Division 2 Groups A,B,C,D in Accordance with NEC
- UR, CE, IEEE 45, CC306B
- Double Vacuum Pressure Impregnation (VPI) Treatment
- Heavy Gauge Rolled Steel Fan Cover
- All Frames Double Punched
- Metal Clad V-Ring on DE, Oil Seal on ODE
- Suitable for 50 Hz, 190/380V with 1.0 SF (250-450 HP)
- Suitable for 50 Hz, 380V with 1.0 SF (250-450 HP)

NEMA Premium

HP	RPM	Voltage	Frame	Model Number	List Price	FL Amps (A)	FL Eff. (%)	Approx. Wt. (lbs.)	Notes
1	1800	230/460	143T	LAM1-18-143T	$509.46	1.4	85.5	54	
	1200	230/460	145T	LAM1-12-145T	$708.68	1.7	82.5	57	
1.5	3600	230/460	143T	LAM1.5-36-143T	$691.88	1.9	84.0	51	
	1800	230/460	145T	LAM1.5-18-145T	$628.69	2.1	86.5	55	
	1200	230/460	182T	LAM1.5-12-182T	$809.69	2.4	87.5	89	
2	3600	230/460	145T	LAM2-36-145T	$752.25	2.5	85.5	55	
	1800	230/460	145T	LAM2-18-145T	$666.11	2.7	86.5	58	
	1200	230/460	184T	LAM2-12-184T	$1,063.44	3.4	88.5	100	
3	3600	230/460	145T	LAM3-36-145T	$908.38	3.8	86.5	62	
	3600	230/460	182T	LAM3-36-182T	$908.38	3.7	86.5	87	
	1800	230/460	182T	LAM3-18-182T	$937.88	3.8	89.5	95	
	1200	230/460	213T	LAM3-12-213T	$1,431.69	4.1	89.5	145	
	900	230/460	215T	LAM3-9-215T	$2,139.18	4.3	85.5	---	
5	3600	230/460	184T	LAM5-36-184T	$1,123.87	5.9	88.5	104	
	1800	230/460	184T	LAM5-18-184T	$1,098.97	6.2	89.5	113	
	1200	230/460	215T	LAM5-12-215T	$1,775.63	6.7	89.5	196	
	900	230/460	254T	LAM5-9-254T	$3,308.65	8.1	86.5	---	
7.5	3600	230/460	213T	LAM7.5-36-213T	$1,697.03	8.6	89.5	180	
	1800	230/460	213T	LAM7.5-18-213T	$1,453.06	8.9	91.7	147	
	1200	230/460	254T	LAM7.5-12-254T	$2,333.49	9.7	91.0	273	
	900	230/460	256T	LAM7.5-9-256T	$3,667.43	11.6	86.5	---	
10	3600	230/460	215T	LAM10-36-215T	$1,761.62	11.6	90.2	192	
	1800	230/460	215T	LAM10-18-215T	$1,760.28	11.6	91.7	198	
	1200	230/460	256T	LAM10-12-256T	$2,928.46	13.0	91.0	311	
	900	230/460	284T	LAM10-9-284T	$4,658.40	14.3	89.5	---	
15	3600	230/460	254T	LAM15-36-254T	$2,853.61	16.6	91.0	291	
	1800	230/460	254T	LAM15-18-254T	$2,529.91	17.3	92.4	304	
	1200	230/460	284T	LAM15-12-284T	$3,677.19	18.4	91.7	449	
	900	230/460	286T	LAM15-9-286T	$5,421.20	22.4	89.5	---	
20	3600	230/460	256T	LAM20-36-256T	$3,478.21	22.3	91.0	320	
	1800	230/460	256T	LAM20-18-256T	$2,906.84	23.2	93.0	332	
	1200	230/460	286T	LAM20-12-286T	$4,586.46	26.3	91.7	486	
	900	230/460	324T	LAM20-9-324T	$6,441.36	32.6	90.2	---	
25	3600	230/460	284TS	LAM25-36-284TS	$4,292.69	28.0	91.7	430	
	1800	230/460	284T	LAM25-18-284T	$3,791.73	29.8	93.6	420	
	1200	230/460	324T	LAM25-12-324T	$5,216.32	30.2	93.0	649	
	900	230/460	326T	LAM25-9-326T	$7,265.51	33.1	90.2	---	
30	3600	230/460	286TS	LAM30-36-286TS	$4,391.37	33.2	91.7	434	
	1800	230/460	286T	LAM30-18-286T	$4,295.36	35.7	93.6	449	
	1200	230/460	326T	LAM30-12-326T	$6,123.50	34.6	93.0	688	
	900	230/460	364T	LAM30-9-364T	$10,991.08	40.2	91.7	---	

Louis Allis offers common modifications on LAM Series motors.
See LAM Modifications on Page 43.

When using any motor with a variable frequency drive, take precautions to eliminate or reduce shaft currents in order to prolong bearing life.

Louis Allis LAM Series Motors - IEEE 45 Marine-Duty (Continued)

TEFC Enclosure ▪ Rigid Base ▪ Three-Phase ▪ 230/460 Volt

HP	RPM	Voltage	Frame	Model Number	List Price	FL Amps (A)	FL Eff. (%)	Approx. Wt. (lbs.)	Notes
40	3600	230/460	324TS	LAM40-36-324TS	$5,655.41	46.4	92.4	552	
	1800	230/460	324T	LAM40-18-324T	$5,458.70	47.6	94.1	596	
	1200	230/460	364T	LAM40-12-364T	$7,610.32	46.2	94.1	825	
	900	230/460	365T	LAM40-9-365T	$12,142.06	52.8	91.7	---	
50	3600	230/460	326TS	LAM50-36-326TS	$7,105.52	55.3	93.0	572	
	1800	230/460	326T	LAM50-18-326T	$6,203.21	58.2	94.5	633	
	1200	230/460	365T	LAM50-12-365T	$9,979.11	58.3	94.1	1038	
	900	230/460	404T	LAM50-9-404T	$17,577.61	60.5	92.4	---	R
60	3600	230/460	364TS	LAM60-36-364TS	$9,743.98	65.7	93.6	790	
	1800	230/460	364T	LAM60-18-364T	$8,194.15	67.7	95.0	824	
	1200	230/460	404T	LAM60-12-404T	$11,033.17	70.6	94.5	1126	R
	900	230/460	405T	LAM60-9-405T	$20,481.29	77.6	92.4	---	R
75	3600	230/460	365TS	LAM75-36-365TS	$11,668.44	80.8	93.6	949	
	1800	230/460	365T	LAM75-18-365T	$9,475.10	85.7	95.4	946	
	1200	230/460	405T	LAM75-12-405T	$11,563.43	83.7	94.5	1212	R
	900	230/460	444T	LAM75-9-444T	$23,537.37	94.0	93.6	---	R
100	3600	230/460	405TS	LAM100-36-405TS	$14,048.61	109	94.1	1122	
	1800	230/460	405T	LAM100-18-405T	$11,701.71	113	95.4	1151	R
	1800	230/460	405T	LAM100-18-405TBB	$11,701.71	113	95.4	1151	
	1200	230/460	444T	LAM100-12-444T	$16,366.40	115	95.0	1353	R
	900	230/460	445T	LAM100-9-445T	$27,032.67	131.0	93.6	---	R
125	3600	230/460	444TS	LAM125-36-444TS	$18,351.66	129	95.0	1371	
	1800	230/460	444T	LAM125-18-444T	$16,254.97	136	95.4	1298	R
	1800	230/460	444T	LAM125-18-444TBB	$16,254.97	136	95.4	1298	
	1200	230/460	445T	LAM125-12-445T	$19,497.31	141	95.0	1488	R
	900	230/460	445/7T	LAM125-9-445/7T	$28,036.86	152.3	94.1	---	R
150	3600	230/460	445TS	LAM150-36-445TS	$21,117.21	161	95.0	1455	
	1800	230/460	445T	LAM150-18-445T	$17,248.06	164	95.8	1410	R
	1800	230/460	445T	LAM150-18-445TBB	$17,248.06	164	95.8	1410	
	1200	230/460	447T	LAM150-12-447T	$24,904.85	170	95.8	1975	R
	900	460	449T	LAM150-9-449T	$30,695.41	189.8	94.1	---	R
200	3600	230/460	447TS	LAM200-36-447TS	$28,542.28	217	95.4	1907	
	1800	230/460	445/7T	LAM200-18-445/7T	$22,923.18	221	96.2	2203	R
	1800	230/460	445/7T	LAM200-18-445/7TBB	$22,923.18	221	96.2	2203	
	1200	460	449T	LAM200-12-449T	$29,467.95	231	95.8	2552	R
	900	460	449T	LAM200-9-449T	$49,664.45	256.0	94.5	---	R
250	3600	460	449TS	LAM250-36-449TS	$31,657.92	276	95.8	2368	
	1800	460	449T	LAM250-18-449T	$31,285.43	271	96.2	2530	R
	1800	460	449T	LAM250-18-449TBB	$31,285.43	271	96.2	2530	
	1200	460	449T	LAM250-12-449T	$37,076.68	279	95.8	2552	R
	900	460	586/7	LAM250-9-586/7	$52,735.56	298.6	95.0	---	R
300	3600	460	449TS	LAM300-36-449TS	$34,030.74	326.7	95.8	2458	
	1800	460	449T	LAM300-18-449T	$39,725.98	313.0	96.2	2697	R
	1800	460	449T	LAM300-18-449TBB	$39,725.98	313.0	96.2	2697	
	1800	460	586/7	LAM300-18-586/7	$52,747.75	338.2	96.2	---	R
	1200	460	449T	LAM300-12-449T	$42,235.39	337.0	95.8	---	R
	1200	460	586/7	LAM300-12-586/7	$55,401.42	333.5	95.8	---	R
	900	460	586/7	LAM300-9-586/7	$58,181.31	370.3	95.0	---	R
350	3600	460	449TS	LAM350-36-449TS	$35,476.37	383.0	95.8	---	
	3600	460	586/7	LAM350-18-586/7	$56,034.51	376.0	96.2	---	R
	3600	460	586/7	LAM350-12-586/7	$57,915.43	374.0	95.8	---	R
400	3600	460	586/7	LAM400-36-586/7	$58,094.80	425.3	95.9	---	
	1800	460	586/7	LAM400-18-586/7	$58,757.98	445.0	96.2	4127	R
	1200	460	586/7	LAM400-12-586/7	$61,139.38	445.0	95.8	---	R
450	3600	460	586/7	LAM450-36-586/7	$58,094.80	479.5	95.8	---	
	1800	460	586/7	LAM450-18-586/7	$62,384.75	500.0	96.2	---	R
	1200	460	586/7	LAM450-12-586/7	$64,247.01	---	---	---	R

R Roller bearing on drive-end for belted applications

Louis Allis offers common modifications on LAM Series motors.
See LAM Modifications on Page 43.

When using any motor with a variable frequency drive, take precautions to eliminate or reduce shaft currents in order to prolong bearing life.

Louis Allis LAM Series Motors - IEEE 45 Marine-Duty
TEFC Enclosure ▪ C-Face with Feet ▪ Three-Phase ▪ 230/460 Volt

Product Specification

- 1-200 HP
- 3600, 1800, 1200 RPM
- 230/460V, 60 Hz - Suitable for 208V
- Totally Enclosed Fan Cooled (TEFC) Enclosure
- IP55 Protection
- 1.25 SF
- Class F insulation
- C-Face with Feet
- NEMA Design B
- NEMA Premium Efficiency
- Inverter Duty, 10:1 CT / 20:1 VT (1.0 SF)
- Class 1 Division 2 Groups A,B,C,D in Accordance with NEC UR, CE, IEEE 45, CC306B
- Double Vacuum Pressure Impregnation (VPI) Treatment
- Heavy Gauge Rolled Steel Fan Cover
- All Frames Double Punched
- Metal Clad V-Ring on DE, Oil Seal on ODE
- Suitable for 50 Hz, 190/380V with 1.0 SF

NEMA Premium

HP	RPM	Voltage	Frame	Model Number	List Price	FL Amps (A)	FL Eff. (%)	Approx. Wt. (lbs.)	Notes
1	1800	230/460	143TC	LAM1-18-143TC	$530.69	1.4	85.5	54	
	1200	230/460	145TC	LAM1-12-145TC	$738.22	1.7	82.5	57	
1.5	3600	230/460	143TC	LAM1.5-36-143TC	$720.70	1.9	84.0	51	
	1800	230/460	145TC	LAM1.5-18-145TC	$654.90	2.1	86.5	55	
	1200	230/460	182TC	LAM1.5-12-182TC	$843.41	2.4	87.5	89	
2	3600	230/460	145TC	LAM2-36-145TC	$783.60	2.5	85.5	55	
	1800	230/460	145TC	LAM2-18-145TC	$693.86	2.7	86.5	58	
3	3600	230/460	145TC	LAM3-36-145TC	$946.25	3.7	86.5	87	
	3600	230/460	182TC	LAM3-36-182TC	$946.25	3.8	89.5	95	
	1800	230/460	182TC	LAM3-18-182TC	$976.95	4.1	89.5	145	
5	3600	230/460	184TC	LAM5-36-184TC	$1,170.70	5.9	88.5	104	
	1800	230/460	184TC	LAM5-18-184TC	$1,144.76	6.2	89.5	113	
	1200	230/460	215TC	LAM5-12-215TC	$1,849.63	6.7	89.5	196	
7.5	3600	230/460	213TC	LAM7.5-36-213TC	$1,767.75	8.6	89.5	180	
	1800	230/460	213TC	LAM7.5-18-213TC	$1,513.62	8.9	91.7	147	
	1200	230/460	254TC	LAM7.5-12-254TC	$2,430.72	9.7	91.0	273	
10	3600	230/460	215TC	LAM10-36-215TC	$1,835.02	11.6	90.2	192	
	1800	230/460	215TC	LAM10-18-215TC	$1,833.64	11.6	91.7	198	
	1200	230/460	256TC	LAM10-12-256TC	$3,050.47	13.0	91.0	311	
15	3600	230/460	254TC	LAM15-36-254TC	$2,972.51	16.6	91.0	291	
	1800	230/460	254TC	LAM15-18-254TC	$2,635.34	17.3	92.4	304	
	1200	230/460	284TC	LAM15-12-284TC	$3,830.41	18.4	91.7	449	
20	3600	230/460	256TC	LAM20-36-256TC	$3,623.13	22.3	91.0	320	
	1800	230/460	256TC	LAM20-18-256TC	$3,027.95	23.2	93.0	332	
	1200	230/460	286TC	LAM20-12-286TC	$4,777.54	26.3	91.7	486	

Louis Allis offers common modifications on LAM Series motors.
See LAM Modifications on Page 43.

When using any motor with a variable frequency drive, take precautions to eliminate or reduce shaft currents in order to prolong bearing life.

Louis Allis LAM Series Motors - IEEE 45 Marine-Duty (Continued)

TEFC Enclosure ▪ C-Face with Feet ▪ Three-Phase ▪ 230/460 Volt

HP	RPM	Voltage	Frame	Model Number	List Price	FL Amps (A)	FL Eff. (%)	Approx. Wt. (lbs.)	Notes
	3600	230/460	284TSC	LAM25-36-284TSC	$4,471.56	28.0	91.7	430	
25	1800	230/460	284TC	LAM25-18-284TC	$3,949.71	29.8	93.6	420	
	1200	230/460	324TC	LAM25-12-324TC	$5,433.68	30.2	93.0	649	
	3600	230/460	286TSC	LAM30-36-286TSC	$4,574.34	33.2	91.7	434	
30	1800	230/460	286TC	LAM30-18-286TC	$4,474.32	35.7	93.6	449	
	1200	230/460	326TC	LAM30-12-326TC	$6,378.63	34.6	93.0	688	
	3600	230/460	324TSC	LAM40-36-324TSC	$5,891.05	46.4	92.4	552	
40	1800	230/460	324TC	LAM40-18-324TC	$5,686.15	47.6	94.1	596	
	1200	230/460	364TC	LAM40-12-364TC	$7,927.42	46.2	94.1	825	
	3600	230/460	326TSC	LAM50-36-326TSC	$7,401.61	55.3	93.0	572	
50	1800	230/460	326TC	LAM50-18-326TC	$6,461.69	58.2	94.5	633	
	1200	230/460	365TC	LAM50-12-365TC	$10,394.90	58.3	94.1	1038	
	3600	230/460	364TSC	LAM60-36-364TSC	$10,149.98	65.7	93.6	790	
60	1800	230/460	364TC	LAM60-18-364TC	$8,535.57	67.7	95.0	824	
	1200	230/460	404TC	LAM60-12-404TC	$11,492.89	70.6	94.5	1126	
	3600	230/460	365TSC	LAM75-36-365TSC	$12,154.63	80.8	93.6	949	
75	1800	230/460	365TC	LAM75-18-365TC	$9,869.91	85.7	95.4	946	
	1200	230/460	405TC	LAM75-12-405TC	$12,045.22	83.7	94.5	1212	
	3600	230/460	405TSC	LAM100-36-405TSC	$14,633.98	109	94.1	1122	
100	1800	230/460	405TC	LAM100-18-405TC	$12,189.30	113	95.4	1151	
	1200	230/460	444TC	LAM100-12-444TC	$17,048.34	115	95.0	1353	
	3600	230/460	444TSC	LAM125-36-444TSC	$19,116.29	129	95.0	1371	
125	1800	230/460	444TC	LAM125-18-444TC	$16,361.17	136	95.4	1298	
	1200	230/460	445TC	LAM125-12-445TC	$20,309.71	141	95.0	1488	
	3600	230/460	445TSC	LAM150-36-445TSC	$21,997.09	161	95.0	1455	
150	1800	230/460	445TC	LAM150-18-445TC	$17,966.73	164	95.8	1410	
	1200	230/460	447TC	LAM150-12-447TC	$25,942.54	170	95.8	1975	
	3600	230/460	447TSC	LAM200-36-447TSC	$29,731.54	217	95.4	1907	
200	1800	230/460	445/7TC	LAM200-18-445/7TC	$23,878.30	221	96.2	2203	
	1200	460	449TC	LAM200-12-449TC	$30,695.78	231	95.8	2552	

LAM Motor C-Flange Kits

Frame Size	Model Number *	List Price
143T / 145T	LAM140TC	$62.90
182T / 184T	LAM180TC	$113.75
213T / 215T	LAM210TC	$136.27
254T / 256T	LAM250TC	$282.14
284T / 286T	LAM280TC	$303.80
324T / 326T	LAM320TC	$353.65
	LAM320TC-L	$353.65
364T / 365T	LAM360TC	$462.50
	LAM360TC-L	$462.50

Frame Size	Model Number *	List Price
404T / 405T	LAM400TC	$700.55
	LAM400TC-L	$700.55
444T / 445T	LAM444/5TC	$865.66
	LAM444/5TC-A	$865.66
445T / 447T	LAM445/7TC	$1,029.43
447T / 449T	LAM447/9TC-L	$1,029.43
	LAM447/9TC-S	$1,029.43

* Please consult WWE for correct Model Number

Louis Allis offers common modifications on LAM Series motors.
See LAM Modifications on Page 43.

When using any motor with a variable frequency drive, take precautions to eliminate or reduce shaft currents in order to prolong bearing life.

Louis Allis LAM Series Motors - IEEE 45 Marine-Duty
TEFC Enclosure ▪ C-Face Round Body ▪ Three-Phase ▪ 230/460 Volt

Product Specifications

- 1-200 HP
- 1800 RPM
- 230/460V, 60 Hz - Suitable for 208V
- Totally Enclosed Fan Cooled (TEFC) Enclosure
- IP55 Protection
- 1.25 SF
- Class F insulation
- C-Face Round Body
- NEMA Design B
- NEMA Premium Efficiency
- Inverter Duty, 10:1 CT / 20:1 VT (1.0 SF)
- Class 1 Division 2 Groups A,B,C,D
  in Accordance with NEC UR, CE, IEEE 45, CC306B
- Double Vacuum Pressure Impregnation (VPI) Treatment
- Heavy Gauge Rolled Steel Fan Cover
- Metal Clad V-Ring on DE, Oil Seal on ODE
- Suitable for 50 Hz, 190/380V with 1.0 SF

NEMA Premium

HP	RPM	Voltage	Frame	Model Number	List Price	FL Amps (A)	FL Eff. (%)	Approx. Wt. (lbs.)	Notes
1	1800	230/460	143TCRD	LAM1-18-143TCRD	$586.65	1.4	85.5	54	
1.5	1800	230/460	145TCRD	LAM1.5-18-145TCRD	$674.82	2.1	86.5	55	
2	1800	230/460	145TCRD	LAM2-18-145TCRD	$724.13	2.7	86.5	58	
3	1800	230/460	182TCRD	LAM3-18-182TCRD	$1,032.75	4.1	89.5	145	
5	1800	230/460	184TCRD	LAM5-18-184TCRD	$1,205.25	6.2	89.5	113	
7.5	1800	230/460	213TCRD	LAM7.5-18-213TCRD	$1,609.63	8.9	91.7	147	
10	1800	230/460	215TCRD	LAM10-18-215TCRD	$1,917.90	11.6	91.7	198	
15	1800	230/460	254TCRD	LAM15-18-254TCRD	$2,716.96	17.3	92.4	304	
20	1800	230/460	256TCRD	LAM20-18-256TCRD	$3,148.18	23.2	93.0	332	
25	1800	230/460	284TCRD	LAM25-18-284TCRD	$4,131.24	29.8	93.6	420	
30	1800	230/460	286TCRD	LAM30-18-286TCRD	$4,656.31	35.7	93.6	449	
40	1800	230/460	324TCRD	LAM40-18-324TCRD	$5,774.82	47.6	94.1	596	
50	1800	230/460	326TCRD	LAM50-18-326TCRD	$6,693.54	58.2	94.5	633	
60	1800	230/460	364TCRD	LAM60-18-364TCRD	$8,837.83	67.7	95.0	824	
75	1800	230/460	365TCRD	LAM75-18-365TCRD	$10,278.52	85.7	95.4	946	
100	1800	230/460	405TCRD	LAM100-18-405TCRD	$12,789.68	113	95.4	1151	
125	1800	230/460	444TCRD	LAM125-18-444TCRD	$16,915.82	136	95.4	1298	
150	1800	230/460	445TCRD	LAM150-18-445TCRD	$18,684.59	164	95.8	1410	
200	1800	230/460	447TCRD	LAM200-18-447TCRD	$24,653.10	221	96.2	2203	

Louis Allis offers common modifications on LAM Series motors.
See LAM Modifications on Page 43.

When using any motor with a variable frequency drive, take precautions to eliminate or reduce shaft currents in order to prolong bearing life.

Document No: MD-CAT-04.2023 | For more information, please contact customerservice@worldwideelectric.com

LAM Modification Program
LAM IEEE 45 Marine-Duty Motor Modification Services

Modification Services

- The common modifications listed below are available on LAM IEEE 45 Marine-Duty Motors.
- Modifications are completed by expert craftsmen at Louis Allis' ISO 9001:2015 certified facility in Warrior, Alabama.

Modification Description	Suffix	143T 145T	182T 184T	213T 215T	254T 256T	284T 286T	324T 326T	364T 365T	404T 405T	444T 445T	447T 449T	586/7
C-Flange Install/Remove	C	$621	$621	$621	$875	$875	$875	$1,242	$1,242	$1,580	$1,580	$1,806
D-Flange Install/Remove	D	$621	$621	$621	$875	$875	$875	$1,242	$1,242	$1,580	$1,580	$1,806
F2 Conversion	F2	$706	$706	$706	$931	$931	$931	$1,242	$1,242	$1,919	$1,919	$2,117
Fungus Protection	FP	$706	$706	$706	$931	$931	$931	$1,242	$1,242	$1,919	$1,919	$2,117
Roller Bearing To Ball Bearing	BB	$1,694	$1,694	$1,694	$1,694	$1,694	$1,694	$1,694	$2,117	$2,399	$2,822	$4,234
Ball Bearing To Roller Bearing	RB	$2,088	$2,258	$2,428	$2,597	$2,766	$2,936	$3,105	$3,387	$4,234	$5,419	$7,056
Insulated ODE Bearing	IO	$3,105	$3,528	$3,810	$4,234	$4,799	$5,222	$5,362	$5,362	$5,927	$7,056	$7,762
Convert TEFC to TEAO/TENV	TE	$791	$791	$791	$791	$791	$791	$791	$1,298	$1,298	$1,298	$1,298
Add Drip Cover (TEFC)	DC	$610	$610	$610	$791	$791	$791	$791	$1,062	$1,062	$1,062	$1,062
Install Dynapar HS35 Encoder	EN	$3,189	$3,189	$3,189	$3,189	$3,189	$3,189	$3,189	$4,347	$4,347	$4,347	$4,347
Install Aegis Grounding Rings*	AGR	$582	$610	$632	$729	$774	$846	$891	$1,338	$1,620	$1,620	$1,931
TS Short Shaft Turn-Down	TS	$1,045	$1,045	$1,045	$1,045	$1,045	$1,045	$1,298	$1,298	$1,552	$1,552	$1,552
Machine Custom New Shaft (Single Extension)	NS	$2,428	$2,428	$2,428	$2,428	$4,065	$4,065	$8,581	$8,581	$12,870	$12,870	$20,547
Machine Double Extension Shaft**	DS	$2,682	$2,682	$2,682	$2,682	$4,600	$4,600	$9,370	$9,370	$13,378	$13,378	$21,055
Install Seal in DE (Brand is a Protec Seal)	SDE	$1,045	$1,045	$1,045	$1,045	$1,045	$1,580	$1,580	$1,580	$1,834	$1,834	$1,834
Increase Ingress Protection (TEFC IP65)	IP	$2,371	$2,371	$2,371	$2,653	$2,653	$2,653	$2,653	$3,162	$3,162	$3,162	$3,725
Mill Feet for IEEE841 Flatness	FF	$508	$508	$508	$508	$762	$762	$762	$1,525	$1,525	$1,525	$1,778
Provisions for Jack Bolts/ Dowel Pins	JB	NA	NA	NA	$762	$762	$762	$762	$1,525	$1,525	$1,525	$1,525
Zinc-Epoxy Marine Duty Paint	ZEP	$1,016	$1,016	$1,016	$1,016	$1,016	$1,016	$1,016	$1,525	$1,525	$1,525	$1,637
Epoxy Chemical Duty Paint	ECP	$960	$960	$960	$960	$960	$960	$960	$1,468	$1,468	$1,468	$1,580
Install (2) 100 Ohm Bearing RTDs	BR	NA	NA	NA	$960	$960	$960	$1,084	$1,084	$2,371	$2,371	$2,371
Install (3) 100 Ohm Winding RTDs	WR	NA	NA	NA	$1,214	$1,214	$1,214	$1,343	$1,343	$1,525	$1,525	$1,525
Install (1) 120V Heater	SH	NA	NA	NA	$791	$791	$791	$948	$948	$1,129	$1,129	$1,129
Install (1) 240V Heater	SH1	NA	NA	NA	$791	$791	$791	$948	$948	$1,129	$1,129	$1,129
Install (1) Winding Thermostat (NC)	T1	NA	NA	NA	$1,214	$1,214	$1,214	$1,343	$1,343	$1,525	$1,525	$1,525
Install Auxiliary Terminal Box	ATB	NA	NA	NA	$2,117	$2,117	$2,117	$2,117	$2,653	$2,653	$2,653	$3,162
Custom Lead Length	CL	$1,298	$1,298	$1,298	$1,694	$1,694	$1,694	$1,694	$1,976	$1,976	$1,976	$1,976
Replace Terminal Box with Lead Support Gasket	TBG	$537	$537	$537	$537	$537	$537	$537	$819	$819	$819	$819

Modification prices do not include the price of the motor.

** Shaft grounding ring installed on drive end shaft, not suitable for Class I or Class II, Division I or Division II locations.*

*** Assumes no change to NDE Bearing Size*

IEC Aluminum Frame Motors

TEFC Enclosure ▪ Multi-Mount ▪ Three-Phase ▪ 230/460 Volt

Product Specifications

- 1/4-25 HP
- 3600 and 1800 RPM
- 230/460 Volt, 60 Hz
- 190/380 Volt, 50 Hz
- Totally Enclosed Fan Cooled (TEFC) Enclosure
- IP55 Protection
- 1.15 SF (1.0 SF at 50 Hz)
- IEC60034-1
- CE Certified
- IE3 Efficiency at 50 Hz Operation
- Aluminum Frame
- Multi-Mounting Frame Design
  F3 Configuration from Stock
- Oil Seal on DE and ODE
- Vacuum Pressure Impregnation (VPI) System
- RAL 6007 Finish Color

HP	kW	RPM	Voltage*	Frame	Model Number	List Price	FL Amps (A)	FL Eff. (%)	Approx. Wt. (kg.)	Notes
1/4	0.19	3600	230/460	63	IEC14-36-63	$394.81	0.42	65.6	4.5	
		1800	230/460	63	IEC14-18-63	$407.56	0.55	69.5	5	
1/3	0.25	3600	230/460	63	IEC13-36-63	$420.30	0.61	69.5	4.5	
		1800	230/460	63	IEC13-18-63	$443.94	0.77	73.4	5.75	
1/2	0.37	3600	230/460	71	IEC12-36-71	$462.83	0.80	73.4	6.5	
		1800	230/460	71	IEC12-18-71	$481.70	0.99	78.2	7.7	
3/4	0.56	3600	230/460	80	IEC34-36-80	$510.02	1.10	76.8	8.9	
		1800	230/460	80	IEC34-18-80	$534.17	1.23	81.1	10.3	
1	0.75	3600	230/460	80	IEC1-36-80	$554.88	1.50	77.0	9.6	
		1800	230/460	80	IEC1-18-80	$566.76	1.58	83.5	12	
1.5	1.1	3600	230/460	80	IEC1.5-36-80	$598.40	1.97	84.0	11.7	
		1800	230/460	90S	IEC1.5-18-90	$577.49	2.11	86.5	15.7	
2	1.5	3600	230/460	90S	IEC2-36-90	$572.21	2.64	85.5	15.4	
		1800	230/460	90L	IEC2-18-90	$607.37	3.11	86.5	17.3	
3	2.2	3600	230/460	90L	IEC3-36-90	$650.11	3.91	86.5	17.5	
		1800	230/460	100L	IEC3-18-100	$781.92	3.98	89.5	23.8	
4	3.0	3600	230/460	100L	IEC4-36-100	$859.88	4.90	88.5	25	
		1800	230/460	100L	IEC4-18-100	$863.00	5.64	89.5	26.4	
5.5	3.7	3600	230/460	112M	IEC5.5-36-112	$1,049.85	6.43	88.5	31	
		1800	230/460	112M	IEC5.5-18-112	$1,067.03	6.73	88.6	35.5	
7.5	5.6	3600	230/460	132S	IEC7.5-36-132	$1,467.08	8.77	89.5	41.7	
		1800	230/460	132S	IEC7.5-18-132	$1,490.50	9.37	91.7	45.5	
10	7.5	3600	230/460	132S	IEC10-36-132	$1,608.17	12.08	90.2	46.2	
		1800	230/460	132M	IEC10-18-132	$1,648.67	13.10	91.7	56.5	
15	11.2	3600	230/460	160M	IEC15-36-160	$2,531.72	16.62	91.0	85	
		1800	230/460	160M	IEC15-18-160	$2,687.17	17.29	92.4	88.5	
20	15.0	3600	230/460	160M	IEC20-36-160	$2,822.10	22.09	91.0	98	
		1800	230/460	160L	IEC20-18-160	$2,998.72	24.08	93.0	105.5	
25	18.6	3600	230/460	160L	IEC25-36-160	$2,969.61	27.91	91.7	109.5	

IEC Motor FF-Flanges

Model Number	Frame Size	List Price
IEC63-FF	63	$35.27
IEC71-FF	71	$46.32
IEC80-FF	80	$72.19
IEC90-FF	90	$76.43
IEC100-FF	100	$104.11
IEC112-FF	112	$126.40
IEC132-FF	132	$166.70
IEC160-FF	160	$249.04

IEC Motor C-Flanges

Model Number	Frame Size	List Price
IEC63-C	63	$26.47
IEC71-C	71	$29.82
IEC80-C	80	$39.20
IEC90-C	90	$40.93
IEC100-C	100	$54.56
IEC112-C	112	$69.99
IEC132-C	132	$107.53

Document No: MD-CAT-04.2023 | For more information, please contact customerservice@worldwideelectric.com

HYUNDAI Crown Triton™ Series Motors - G2 Series

TEFC Enclosure ▪ Rigid Base ▪ Three-Phase ▪ 230/460 Volt

Product Specifications

- 1-50 HP
- 3600, 1800 and 1200 RPM
- 230/460 volt, 60 Hz
- 190/380 volt, 50 Hz
- Totally enclosed fan cooled (TEFC) enclosure
- IP55 Protection
- 1.15 SF (1.0 SF for 50Hz applications)
- Class F insulation with Class B temperature rise
- Rigid base
- Premium efficiency
- Inverter Duty per NEMA MG1 Part 31 10:1 CT / 20:1 VT
- Class I, Division 2, Groups A, B, C, D
- Double drilled feet to accommodate mounting flexibility (143T-184T, 324T-326T)
- Cast iron frame with solid feet for reduced vibration
- Rigid cast aluminum conduit box
- Shaft slingers
- NEMA Design B
- IEEE-45 Marine Duty rated
- ABS Type approval
- F2 field convertible

HP	RPM	Voltage	Frame	Model Number	List Price	FL Amps (A)	FL Eff. (%)	Approx. Wt. (lbs.)	Notes
1	1800	230/460	143T	HEE1-18-143T	$545.03	1.4	85.5	55	
	1200	230/460	145T	HEE1-12-145T	$662.52	1.6	82.5	55	
2	3600	230/460	145T	HEE2-36-145T	$640.44	2.6	85.5	55	
	1800	230/460	145T	HEE2-18-145T	$742.25	2.7	86.5	55	
	1200	230/460	184T	HEE2-12-184T	$873.16	3.0	88.5	105	
3	3600	230/460	182T	HEE3-36-182T	$821.18	3.8	86.5	105	
	1800	230/460	182T	HEE3-18-182T	$810.86	3.9	89.5	105	
	1200	230/460	213T	HEE3-12-213T	$1,248.30	4.5	89.5	150	
5	3600	230/460	184T	HEE5-36-184T	$963.27	6.1	88.5	105	
	1800	230/460	184T	HEE5-18-184T	$921.32	6.5	89.5	105	
	1200	230/460	215T	HEE5-12-215T	$1,463.07	7.4	89.5	175	
7.5	3600	230/460	213T	HEE7.5-36-213T	$1,290.77	9.0	89.5	150	
	1800	230/460	213T	HEE7.5-18-213T	$1,240.03	9.8	91.7	150	
	1200	230/460	254T	HEE7.5-12-254T	$2,356.20	10.3	91.0	240	
10	3600	230/460	215T	HEE10-36-215T	$1,466.51	12.0	90.2	175	
	1800	230/460	215T	HEE10-18-215T	$1,494.80	12.8	91.7	175	
	1200	230/460	256T	HEE10-12-256T	$2,790.22	13.8	91.0	290	
15	3600	230/460	254T	HEE15-36-254T	$2,556.12	17.0	91.0	240	
	1800	230/460	254T	HEE15-18-254T	$2,386.94	18.3	92.4	240	
	1200	230/460	284T	HEE15-12-284T	$3,879.39	19.8	91.7	360	
20	3600	230/460	256T	HEE20-36-256T	$2,817.96	23.2	91.0	290	
	1800	230/460	256T	HEE20-18-256T	$2,793.80	24.8	93.0	290	
	1200	230/460	286T	HEE20-12-286T	$4,812.79	26.7	91.7	410	
25	3600	230/460	284TS	HEE25-36-284TS	$4,201.97	28.5	91.7	360	
	1800	230/460	284T	HEE25-18-284T	$3,377.87	30.3	93.6	360	
	1200	230/460	324T	HEE25-12-324T	$5,708.01	31.2	93.0	550	
30	3600	230/460	286TS	HEE30-36-286TS	$4,299.66	33.8	91.7	410	
	1800	230/460	286T	HEE30-18-286T	$3,974.08	36.0	93.6	410	
	1200	230/460	326T	HEE30-12-326T	$6,446.53	37.1	93.0	550	
40	3600	230/460	324TS	HEE40-36-324TS	$5,501.75	45.5	92.4	550	
	1800	230/460	324T	HEE40-18-324T	$5,311.08	48.8	94.1	550	
50	3600	230/460	326TS	HEE50-36-326TS	$6,515.47	55.8	93.0	550	
	1800	230/460	326T	HEE50-18-326T	$6,729.40	59.9	94.5	550	

When using any motor with a variable frequency drive, take precautions to eliminate or reduce shaft currents in order to prolong bearing life.

HYUNDAI Crown Triton™ Series Motors - G2 Series

TEFC Enclosure ▪ C-Face with Feet ▪ Three-Phase ▪ 230/460 Volt

Product Specifications

- 1-50 HP
- 3600, 1800 and 1200 RPM
- 230/460 volt, 60 Hz
- 190/380 volt, 50 Hz
- Totally enclosed fan cooled (TEFC) enclosure
- IP55 Protection
- 1.15 SF (1.0 SF for 50Hz applications)
- Class F insulation with Class B temperature rise
- C-Face with Feet
- Premium efficiency
- Inverter Duty per NEMA MG1 Part 31
  10:1 CT / 20:1 VT
- Class I, Division 2, Groups A, B, C, D
- Double drilled feet to accommodate mounting flexibility (143T-184T, 324T-326T)
- Cast iron frame with solid feet for reduced vibration
- Rigid cast aluminum conduit box
- Shaft slingers
- NEMA Design B
- IEEE-45 Marine Duty rated
- ABS Type approval
- F2 field convertible

HP	RPM	Voltage	Frame	Model Number	List Price	FL Amps (A)	FL Eff. (%)	Approx. Wt. (lbs.)	Notes
1	1800	230/460	143TC	HEE1-18-143TC	$567.33	1.4	85.5	55	
	1200	230/460	145TC	HEE1-12-145TC	$689.81	1.6	82.5	55	
2	3600	230/460	145TC	HEE2-36-145TC	$667.58	2.6	85.5	55	
	1800	230/460	145TC	HEE2-18-145TC	$773.22	2.7	86.5	55	
3	3600	230/460	182TC	HEE3-36-182TC	$855.83	3.8	86.5	105	
	1800	230/460	182TC	HEE3-18-182TC	$844.35	3.9	89.5	105	
5	3600	230/460	184TC	HEE5-36-184TC	$1,003.00	6.1	88.5	105	
	1800	230/460	184TC	HEE5-18-184TC	$959.75	6.5	89.5	105	
	1200	230/460	215TC	HEE5-12-215TC	$1,523.68	7.4	89.5	175	
7.5	3600	230/460	213TC	HEE7.5-36-213TC	$1,345.14	9.0	89.5	150	
	1800	230/460	213TC	HEE7.5-18-213TC	$1,291.97	9.8	91.7	150	
	1200	230/460	254TC	HEE7.5-12-254TC	$2,454.43	10.3	91.0	240	
10	3600	230/460	215TC	HEE10-36-215TC	$1,527.26	12.0	90.2	175	
	1800	230/460	215TC	HEE10-18-215TC	$1,556.61	12.8	91.7	175	
	1200	230/460	256TC	HEE10-12-256TC	$2,906.64	13.8	91.0	290	
15	3600	230/460	254TC	HEE15-36-254TC	$2,662.01	17.0	91.0	240	
	1800	230/460	254TC	HEE15-18-254TC	$2,486.49	18.3	92.4	240	
	1200	230/460	284TC	HEE15-12-284TC	$4,041.69	19.8	91.7	360	
20	3600	230/460	256TC	HEE20-36-256TC	$2,935.57	23.2	91.0	290	
	1800	230/460	256TC	HEE20-18-256TC	$2,910.21	24.8	93.0	290	
	1200	230/460	286TC	HEE20-12-286TC	$5,014.01	26.7	91.7	410	
25	3600	230/460	284TSC	HEE25-36-284TSC	$3,623.85	28.5	91.7	360	
	1800	230/460	284TC	HEE25-18-284TC	$3,518.72	30.3	93.6	360	
	1200	230/460	324TC	HEE25-12-324TC	$5,945.60	31.2	93.0	550	
30	3600	230/460	286TSC	HEE30-36-286TSC	$4,475.23	33.8	91.7	410	
	1800	230/460	286TC	HEE30-18-286TC	$4,140.31	36.0	93.6	410	
	1200	230/460	326TC	HEE30-12-326TC	$6,715.58	37.1	93.0	550	
40	3600	230/460	324TSC	HEE40-36-324TSC	$5,733.38	45.5	92.4	550	
	1800	230/460	324TC	HEE40-18-324TC	$5,532.20	48.8	94.1	550	
50	3600	230/460	326TSC	HEE50-36-326TSC	$6,787.29	55.8	93.0	550	
	1800	230/460	326TC	HEE50-18-326TC	$7,009.52	59.9	94.5	550	

When using any motor with a variable frequency drive, take precautions to eliminate or reduce shaft currents in order to prolong bearing life.

HYUNDAI Crown Triton™ Series Motors - G2 Series

TEFC Enclosure ▪ C-Face Round Body ▪ Three-Phase ▪ 230/460 Volt

Product Specifications

- 1-50 HP
- 1800 RPM
- 230/460 volt, 60 Hz
- 190/380 volt, 50 Hz
- Totally enclosed fan cooled (TEFC) enclosure
- IP55 Protection
- 1.15 SF (1.0 SF for 50Hz applications)
- Class F insulation with Class B temperature rise
- C-Face Round Body
- Premium efficiency
- Inverter Duty per NEMA MG1 Part 31
  10:1 CT / 20:1 VT
- Class I, Division 2, Groups A, B, C, D
- Cast iron frame
- Rigid cast aluminum conduit box
- Shaft slingers
- NEMA Design B
- IEEE-45 Marine Duty rated
- ABS Type approval

HP	RPM	Voltage	Frame	Model Number	List Price	FL Amps (A)	FL Eff. (%)	Approx. Wt. (lbs.)	Notes
1	1800	230/460	143TC	HEE1-18-143TCRD	$567.33	1.4	85.5	55	
1.5	1800	230/460	145TC	HEE1.5-18-145TCRD	$624.08	1.6	82.5	55	
2	1800	230/460	145TC	HEE2-18-145TCRD	$773.22	2.7	86.5	55	
3	1800	230/460	182TC	HEE3-18-182TCRD	$844.35	3.9	89.5	105	
5	1800	230/460	184TC	HEE5-18-184TCRD	$959.75	6.5	89.5	105	
7.5	1800	230/460	213TC	HEE7.5-18-213TCRD	$1,291.97	9.8	91.7	150	
10	1800	230/460	215TC	HEE10-18-215TCRD	$1,556.61	12.8	91.7	175	
15	1800	230/460	254TC	HEE15-18-254TCRD	$2,486.49	18.3	92.4	240	
20	1800	230/460	256TC	HEE20-18-256TCRD	$2,910.21	24.8	93.0	290	
25	1800	230/460	284TC	HEE25-18-284TCRD	$3,518.72	30.3	93.6	360	
30	1800	230/460	286TC	HEE30-18-286TCRD	$4,140.31	36.0	93.6	410	
40	1800	230/460	324TC	HEE40-18-324TCRD	$5,532.20	48.8	94.1	550	
50	1800	230/460	326TC	HEE50-18-326TCRD	$7,009.52	59.9	94.5	550	

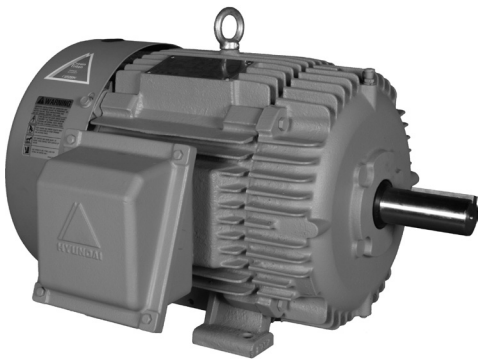
When using any motor with a variable frequency drive, take precautions to eliminate or reduce shaft currents in order to prolong bearing life.

HYUNDAI Crown Triton™ Series Motors - Severe Duty

TEFC Enclosure ▪ Rigid Base ▪ Three-Phase ▪ 230/460 and 460 Volt

Product Specifications

- 1-250 HP
- 3600, 1800 and 1200 RPM
- 230/460 Volt (1-125 HP)
- 460 Volt (150-600 HP)
- Totally Enclosed Fan Cooled (TEFC) Enclosure
- IP55 Protection
- Dual Rated SF
  1.15 for 40°C / 1.0 for 65°C
- Class F Insulation
  with Class N Varnish
- Rigid Base
- Premium Efficiency
- NEMA Design B
- Inverter Ready, 10:1 CT / 20:1 VT
- Inverter Shield Insulation and Inverter Grade Magnet Wire Meets or Exceeds NEMA MG-1 Part 31 for Exceptional Corona and Transient Protection
- Cast Iron Frame and Conduit Box
- Suitable for Part Winding Start on Low Voltage (1-125 HP)
- Suitable for Wye-Delta Start (15-250 HP)
- Double Drilled Feet to Accommodate Mounting Flexibility (324T-445T)
- F2 Field Convertible (HHI Models Only)
- Suitable for 50 Hz Operation with 1.0 SF
- Class 1, Division 2, Groups A, B, C, D
- All Motors Carry ABS Type Approval



HP	RPM	Voltage	Frame	Model Number	List Price	FL Amps (A)	FL Eff. (%)	Approx. Wt. (lbs.)	Notes
60	3600	230/460	364T	HHI60-36-364T	$10,430.72	65.6	94.1	780	
	3600	230/460	364TS	HHI60-36-364TS	$8,635.10	65.6	94.1	780	
	1800	230/460	364T	HHI60-18-364T	$8,901.82	69.9	95.0	780	
	1800	230/460	364TS	HHI60-18-364TS	$8,901.82	69.9	95.0	780	
	1200	230/460	404T	HHI60-12-404T	$11,709.18	71.2	94.5	1120	R
75	3600	230/460	365T	HHI75-36-365T	$12,098.64	79.8	94.5	820	
	3600	230/460	365TS	HHI75-36-365TS	$10,016.25	79.8	94.5	820	
	1800	230/460	365T	HHI75-18-365T	$10,341.82	85.1	95.4	820	
	1800	230/460	365TS	HHI75-18-365TS	$10,341.82	85.1	95.4	820	
	1200	230/460	405T	HHI75-12-405T	$14,120.93	87.0	94.5	1220	R
	1200	230/460	405T	HHI75-12-405T-F2	$14,120.93	87.0	94.5	1220	F2 R
100	3600	230/460	405TS	HHI100-36-405TS	$13,437.24	110.1	94.5	1110	
	1800	230/460	405T	HHI100-18-405T	$13,598.76	114.1	95.4	1110	R
	1800	230/460	405T	HHI100-18-405TBB	$13,598.76	114.1	95.4	1110	BB
	1800	230/460	405TS	HHI100-18-405TSBB	$13,598.76	114.1	95.4	1110	BB
	1800	230/460	405T	HHI100-18-405T-F2	$13,598.76	114.1	95.4	1110	F2 R
	1200	230/460	444T	HHI100-12-444T	$16,972.16	116.6	95.0	1530	R
125	3600	230/460	444TS	HHI125-36-444TS	$18,486.05	139.5	95.0	1610	
	1800	230/460	444T	HHI125-18-444T	$17,569.46	142.0	95.4	1530	R
	1800	230/460	444T	HHI125-18-444TBB	$17,569.46	142.0	95.4	1530	BB
	1800	230/460	444TS	HHI125-18-444TSBB	$17,569.46	142.0	95.4	1530	BB
	1200	230/460	445T	HHI125-12-445T	$20,007.47	147.7	95.0	1700	R
150	3600	460	445TS	HHI150-36-445TS	$20,986.68	161.5	95.0	1770	
	1800	460	445T	HHI150-18-445T	$20,314.25	163.8	95.8	1700	R
	1800	460	445T	HHI150-18-445TBB	$20,314.25	163.8	95.8	1700	BB
	1800	460	445TS	HHI150-18-445TSBB	$20,314.25	163.8	95.8	1700	BB
	1800	460	445T	HHI150-18-445T-F2	$20,314.25	163.8	95.8	1700	F2 R
	1200	460	447T	HHI150-12-447T	$23,339.55	169.5	95.8	1860	R
	1200	460	447T	HHI150-12-447T-IB	$25,817.62	169.5	95.8	1860	IB R
	1200	460	447TS	HHI150-12-447TSBB	$23,339.55	169.5	95.8	1860	BB

BB Ball bearing on drive-end for direct coupled applications
F2 Factory F2 mount
IB Insulated opposite drive-end bearing installed
R Roller bearing on drive end for belted applications

When using any motor with a variable frequency drive, take precautions to eliminate or reduce shaft currents in order to prolong bearing life.

HYUNDAI Crown Triton™ Series Motors - Severe Duty (Continued)

TEFC Enclosure ▪ Rigid Base ▪ Three-Phase ▪ 230/460 and 460 Volt

HP	RPM	Voltage	Frame	Model Number	List Price	FL Amps (A)	FL Eff. (%)	Approx. Wt. (lbs.)	Notes
200	3600	460	447TS	HHI200-36-447TS	$26,116.89	219.3	95.4	1900	
	1800	460	447T	HHI200-18-447T	$23,519.85	222.4	96.2	1860	R
	1800	460	447T	HHI200-18-447T-IB	$28,046.52	222.4	96.2	1860	IB R
	1800	460	447T	HHI200-18-447TBB	$23,519.85	222.4	96.2	1860	BB
	1800	460	447T	HHI200-18-447TBB-IB	$28,046.52	222.4	96.2	1860	BB IB
	1800	460	447TS	HHI200-18-447TSBB	$23,519.85	222.4	96.2	1860	BB
	1200	460	449T	HHI200-12-449T	$28,041.51	231.2	95.8	2430	R
	1200	460	449T	HHI200-12-449T-IB	$32,787.31	231.2	95.8	2430	IB R
	1200	460	449TS	HHI200-12-449TSBB	$28,041.51	231.2	95.8	2430	BB
	1200	460	449T	HHI200-12-449T-F2	$28,041.51	231.2	95.8	2430	F2 R
250	3600	460	449TS	HHI250-36-449TS	$35,202.77	276.6	95.8	2430	
	1800	460	449T	HHI250-18-449T	$30,284.18	281.7	96.2	2430	R
	1800	460	449T	HHI250-18-449TBB	$30,284.18	281.7	96.2	2430	BB
	1800	460	449TS	HHI250-18-449TSBB	$30,284.18	281.7	96.2	2430	BB

HHI Motor C-Flange Kits

Frame Size	Model Number	List Price
143T / 145T	H140TC	$340.66
182T / 184T	H180TC	$371.68
213T / 215T	H210TC	$465.35
254T / 256T	H250TC	$1,032.72
284T / 286T	H280TC	$1,092.98
324T / 326T	H320TC	$1,341.15
364T / 365T (2 Pole)	H3602PTC	$1,940.87
364T / 365T (4/6 Pole)	H360TC	$1,664.95
404T / 405T (2 Pole)	H4002PTC	$1,586.12
404T / 405T (4/6 Pole)	H400TC	$2,641.20
444T / 445T (2 Pole)	H4402PTC	$2,947.28
444T / 445T (4/6 Pole)	H440TC	$1,940.87
447T (2 Pole)	H4402PTC	$2,947.28
447T (4/6 Pole)	H447TC	$1,940.87
449T (2 Pole)	H4402PTC	$2,947.28
449T (4/6 Pole)	H449TC	$1,940.87

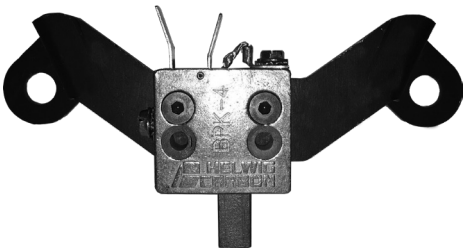
HHI Motor D-Flange Kits

Frame Size	Model Number	List Price
143T / 145T	---	---
182T / 184T	---	---
213T / 215T	---	---
254T / 256T	H250TD	$1,126.98
284T / 286T	H280TD	$1,205.73
324T / 326T	H320TD	$1,458.09
364T / 365T (2 Pole)	H3602PTD	$1,743.77
364T / 365T (4/6 Pole)	H360TD	$1,834.22
404T / 405T (2 Pole)	H4002PTD	$2,138.00
404T / 405T (4/6 Pole)	H400TD	$2,138.00
444T / 445T (2 Pole)	H4402PTD	$3,241.77
444T / 445T (4/6 Pole)	H445TD	$2,907.85
447T (2 Pole)	H4402PTD	$3,241.77
447T (4/6 Pole)	H449TD	$2,907.85
449T (2 Pole)	H4402PTD	$3,241.77
449T (4/6 Pole)	H449TD	$2,907.85

Helwig Carbon® The Bearing Protector™

- For use on Hyundai Crown Triton™ Series Motors
- Divert current from motor shaft
- Provides lowest resistant path to ground
- Easy to install - Simply remove top two bearing cap bolts
- Includes integral bracket for easy mounting

Frame Size	Model Number	List Price
364T / 365T / 444/5TS / 445/7TS / 449TS	SGK-HHI-364/5T-440TS	$1,739.14
404 / 405T	SGK-HHI-404/5T	$1,739.14
444T / 445T / 447T / 449T	SGK-HHI-440T	$1,739.14



* Installation of this product will result in loss of Class I Division 2 Classification from motor - please contact WWE for new motor nameplate at a cost of $25 net.

BB Ball bearing on drive-end for direct coupled applications
F2 Factory F2 mount
IB Insulated opposite drive-end bearing installed
R Roller bearing on drive end for belted applications

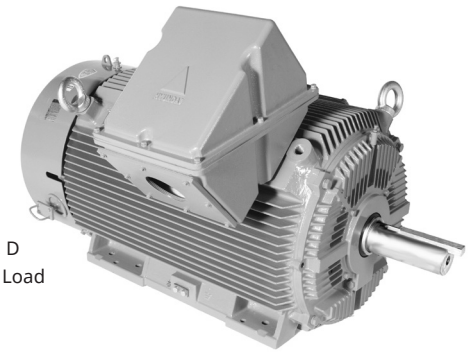
When using any motor with a variable frequency drive, take precautions to eliminate or reduce shaft currents in order to prolong bearing life.

HYUNDAI Crown Triton™ Series Motors - Severe Duty Large Frame

TEFC Enclosure ▪ Rigid Base ▪ Three-Phase ▪ 460 Volt

Product Specifications

- 250-800 HP
- 3600, 1800 and 1200 RPM
- Single Voltage, 460 Volt
- Dual Frequency Rated 50/60 Hz Nameplate
- Totally Enclosed Fan Cooled (TEFC) Enclosure
- IP55 Protection
- 1.15 SF, 40°C Ambient
- Class F Insulation with Class N Varnish
- Class B Temperature Rise
- Rigid Base
- Premium Efficiency
- Cast Iron Frame and Conduit Box
- Heavy Gauge Rolled Steel Fan Cover
- Ground Lug in Terminal Box
- Cast Iron Inner Bearing Caps
- Double Drilled Feet
- Bi-Directional for 1800 and 1200 RPM Ratings
- Uni-Directional (CCW) for 3600 RPM Ratings, Each Motor Shipped with Extra Fan for Directional Change
- CSA Certified for Class 1, Division 2, Groups A, B, C, D
- Inverter Duty, 10:1 VT at Full Load / 20:1 VT at 50% Load 4:1 CT at Full Load / 10:1 CT for 1 Hour Cycle
- Inverter Shield Insulation and Inverter Grade Magnet Wire Meets or Exceeds NEMA MG-1 Part 31 for Exceptional Corona and Transient Protection



HP	RPM	Voltage	Frame	Model Number	List Price	FL Amps (A)	FL Eff. (%)	Approx. Wt. (lbs.)	Notes
250	1200	460	L449T	HSDE250-12-L449T	$39,018.20	296.3	95.8	2890	R
	1200	460	L449T	HSDE250-12-L449T-IB	$42,748.47	296.3	95.8	2890	IB R
300	3600	460	L449TS	HSDE300-36-L449TS-IB	$52,696.77	327.5	95.8	2890	IB
	1800	460	L449T	HSDE300-18-L449TBB-IB	$42,405.36	333.6	96.2	2890	BB IB
	1200	460	L449T	HSDE300-12-L449T-IB	$45,727.42	353.9	95.8	3090	IB R
350	3600	460	L449TS	HSDE350-36-L449TS-IBSH	$53,114.36	378.5	95.8	3090	IB SH
	3600	460	L449TS	HSDE350-36-L449TS-IBBRSRSHSP	$64,674.30	378.5	95.8	3090	IB BR SR SH SP
	1800	460	L449T	HSDE350-18-L449T	$44,866.87	385.5	96.2	3090	R
	1800	460	L449T	HSDE350-18-L449TBB-IB	$50,529.56	385.5	96.2	3090	BB IB
	1200	460	5008	HSDE350-12-5008-IB	$68,314.41	405.5	95.8	3880	IB R
400	3600	460	L449TS	HSDE400-36-L449TS	$61,505.00	436.7	95.8	3770	
	3600	460	L449TS	HSDE400-36-L449TS-IBSH	$61,505.00	436.7	95.8	3770	IB SH
	1800	460	L449T	HSDE400-18-L449TBB-IB	$59,598.71	444.8	96.2	3570	BB IB
450	3600	460	5009S	HSDE450-36-5009S-IBBRSRSHSP	$80,877.62	487.7	95.8	3860	IB BR SR SH SP
	1800	460	5009	HSDE450-18-5009BB-IB	$70,371.76	491.1	96.2	3970	BB IB
	1800	460	5009	HSDE450-18-5009BB-IBSH	$71,358.48	491.1	96.2	3970	BB IB SH
	1200	460	5011	HSDE450-12-5011-IB	$84,436.33	522.5	95.8	4850	IB R
500	3600	460	5010S	HSDE500-36-5010S	$73,468.40	545.9	95.8	4740	W
	3600	460	5010S	HSDE500-36-5010S-IBH	$75,771.20	545.9	95.8	4740	IB W
	3600	460	5010S	HSDE500-36-5010S-IBBRSRSHSP	$85,587.09	545.9	95.8	4740	IB BR SR SH SP
	1800	460	5010	HSDE500-18-5010	$70,653.01	549.7	96.2	4760	R
	1800	460	5010	HSDE500-18-5010BB-IB	$74,994.84	549.7	96.2	4760	BB IB W
600	3600	460	5812	HSDE600-36-5812-IB	$83,095.62	657.8	95.4	6340	IB
700	3600	460	5812	HSDE700-36-5812-IBBRSRSHSP	$88,760.15	768.4	95.8	6730	IB BR SR SH SP
800	3600	460	5812	HSDE800-36-5812-2IBBRSRSHSPVP	$103,110.49	883.2	95.8	6730	2IB BR SR SH SP VP

Helwig Carbon® The Bearing Protector™

- For use on Hyundai Crown Triton™ Series Motors
- Divert current from motor shaft
- Provides lowest resistant path to ground
- Easy to install - Simply remove top two bearing cap bolts
- Includes integral bracket for easy mounting

Frame Size	Model Number	List Price
L449T	SGK-HSD-L449T	$1,739.14
L449TS	SGK-HSD-L449TS	$1,739.14
5008 / 5009 / 5010 / 5011	SGK-HSD-5000T	$1,739.14
5008S / 5009S / 5010S / 5011S	SGK-HSD-5000TS	$1,739.14

* Installation of this product will result in loss of Class I Division 2 Classification from motor - please contact WWE for new motor nameplate at a cost of $25 net.

BB	Ball bearing on drive-end for direct coupled applications
IB	Insulated opposite drive-end bearing installed
R	Roller bearing on drive-end for belted applications
SH	Space heater installed (120 Volt)
W	Winding RTDs provided (two per phase)
2IB	Insulated bearings on drive-end and opposite drive-end
BR	Bearing RTDs, 1 per bearing
SR	Winding RTDs, 2 per phase
SP	Special paint color
VP	Vibration provisions

When using any motor with a variable frequency drive, take precautions to eliminate or reduce shaft currents in order to prolong bearing life.

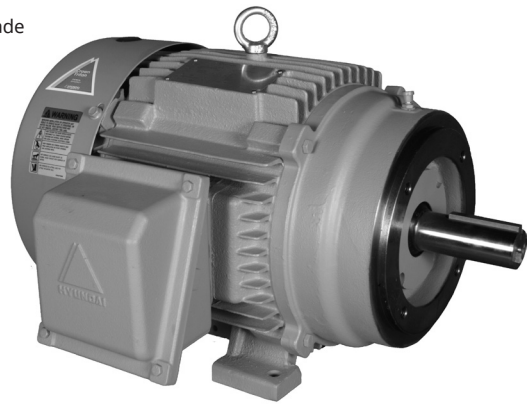
Document No: MD-CAT-04.2023 | For more information, please contact customerservice@worldwideelectric.com

HYUNDAI Crown Triton™ Series Motors - Severe Duty

TEFC Enclosure ▪ C-Face with Feet ▪ Three-Phase ▪ 230/460 and 460 Volt

Product Specifications

- 60-200 HP
- 3600, 1800 and 1200 RPM
- 230/460 Volt (60-125 HP)
- 460 Volt (150-200 HP)
- Totally Enclosed Fan Cooled (TEFC) Enclosure
- IP55 Protection
- Dual Rated SF
  1.15 for 40°C / 1.0 for 65°C
- Class F Insulation
  with Class N Varnish
- C-Face with Feet
- Premium Efficiency
- NEMA Design B
- Inverter Ready, 10:1 CT / 20:1 VT
- Inverter Shield Insulation and Inverter Grade Magnet Wire Meets or Exceeds NEMA MG-1 Part 31 for Exceptional Corona and Transient Protection (364TC and up)
- Cast Iron Frame and Conduit Box
- Suitable for Part Winding Start on Low Voltage (60-125 HP)
- Suitable for Wye-Delta Start (60-200 HP)
- Double Drilled Feet to Accommodate Mounting Flexibility (364TC-445TC)
- F2 Field Convertible
- Suitable for 50 Hz Operation with 1.0 SF
- Class 1, Division 2, Groups A, B, C, D
- All Motors Carry ABS Type Approval



HP	RPM	Voltage	Frame	Model Number	List Price	FL Amps (A)	FL Eff. (%)	Approx. Wt. (lbs.)	Notes
60	1800	230/460	364TC	HHI60-18-364TC	$9,272.46	69.9	95.0	780	
	1200	230/460	404TC	HHI60-12-404TC	$12,197.56	71.2	94.5	1120	
75	1800	230/460	365TC	HHI75-18-365TC	$10,772.58	85.1	95.4	820	
	1800	230/460	365TSC	HHI75-18-365TSC	$10,772.58	85.1	95.4	820	
	1200	230/460	405TC	HHI75-12-405TC	$14,709.46	87.0	94.5	1220	
100	3600	230/460	405TSC	HHI100-36-405TSC	$13,996.96	110.1	94.5	1110	
	1800	230/460	405TC	HHI100-18-405TC	$14,166.00	114.1	95.4	1110	
	1800	230/460	405TC	HHI100-18-405TC-F2	$14,166.00	114.1	95.4	1110	F2
	1800	230/460	405TSC	HHI100-18-405TSC	$14,166.00	114.1	95.4	1110	
	1200	230/460	444TC	HHI100-12-444TC	$17,679.64	116.6	95.0	1530	
125	1800	230/460	444TC	HHI125-18-444TC	$18,301.98	142.0	95.4	1530	
	1800	230/460	444TSC	HHI125-18-444TSC	$18,301.98	142.0	95.4	1530	
	1200	230/460	445TC	HHI125-12-445TC	$20,841.42	147.7	95.0	1700	
150	1800	460	445TC	HHI150-18-445TC	$21,160.74	163.8	95.8	1700	
	1800	460	445TC	HHI150-18-445TC-F2	$21,160.74	163.8	95.8	1700	F2
	1800	460	445TSC	HHI150-18-445TSC	$21,160.74	163.8	95.8	1700	
	1200	460	447TC	HHI150-12-447TC	$24,312.50	169.5	95.8	1860	
200	1800	460	447TC	HHI200-18-447TC	$24,500.31	222.4	96.2	1860	
	1800	460	447TSC	HHI200-18-447TSC	$24,500.31	222.4	96.2	1860	
	1200	460	449TC	HHI200-12-449TC	$29,209.80	231.2	95.8	2430	

F2 Factory F2 mount

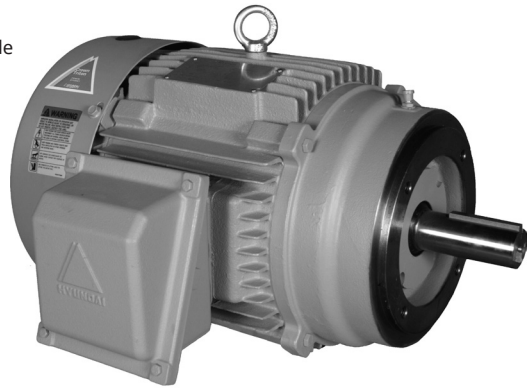
When using any motor with a variable frequency drive, take precautions to eliminate or reduce shaft currents in order to prolong bearing life.

HYUNDAI Crown Triton™ Series Motors - Severe Duty

TEFC Enclosure ▪ C-Face Round Body (Footless) ▪ Three-Phase ▪ 230/460 Volt

Product Specifications

- 1-200 HP
- 1800 RPM
- 230/460 Volt
- Totally Enclosed Fan Cooled (TEFC) Enclosure
- IP55 Protection
- Dual Rated SF
  1.15 for 40°C / 1.0 for 65°C
- Class F Insulation
  with Class N Varnish
- C-Face Round Body (Footless)
- Premium Efficiency
- NEMA Design B
- Inverter Ready, 10:1 CT / 20:1 VT
- Inverter Shield Insulation and Inverter Grade Magnet Wire Meets or Exceeds NEMA MG-1 Part 31 for Exceptional Corona and Transient Protection (254TC and up)
- Cast Iron Frame and Conduit Box
- Suitable for Part Winding Start on Low Voltage (1-125 HP)
- Suitable for Wye-Delta Start (15-200 HP)
- Suitable for 50 Hz Operation with 1.0 SF
- Class 1, Division 2, Groups A, B, C, D
- All Motors Carry ABS Type Approval



HP	RPM	Voltage	Frame	Model Number	List Price	FL Amps (A)	FL Eff. (%)	Approx. Wt. (lbs.)	Notes
1	1800	230/460	143TC	HHI1-18-143TCRD	$573.50	1.6	85.5	53	
1.5	1800	230/460	145TC	HHI1.5-18-145TCRD	$631.09	2.2	86.5	55	
2	1800	230/460	145TC	HHI2-18-145TCRD	$781.36	3.0	86.5	55	
3	1800	230/460	182TC	HHI3-18-182TCRD	$852.73	3.9	89.5	90	
5	1800	230/460	184TC	HHI5-18-184TCRD	$969.19	6.5	89.5	105	
7.5	1800	230/460	213TC	HHI7.5-18-213TCRD	$1,308.53	9.5	91.7	150	
10	1800	230/460	215TC	HHI10-18-215TCRD	$1,576.49	12.8	91.7	165	
15	1800	230/460	254TC	HHI15-18-254TCRD	$2,376.65	18.3	92.4	260	
20	1800	230/460	256TC	HHI20-18-256TCRD	$2,786.11	24.8	93.0	300	
25	1800	230/460	284TC	HHI25-18-284TCRD	$3,378.39	30.3	93.6	380	
30	1800	230/460	286TC	HHI30-18-286TCRD	$3,774.10	36.0	93.6	410	
40	1800	230/460	324TC	HHI40-18-324TCRD	$5,043.81	48.8	94.1	626	
50	1800	230/460	326TC	HHI50-18-326TCRD	$6,392.41	59.9	94.5	620	
60	1800	230/460	364TC	HHI60-18-364TCRD	$9,272.46	69.9	95.0	780	
75	1800	230/460	365TC	HHI75-18-365TCRD	$10,772.58	85.1	95.4	820	
100	1800	230/460	405TC	HHI100-18-405TCRD	$14,166.00	114.1	95.4	1110	
125	1800	230/460	444TC	HHI125-18-444TCRD	$18,301.98	142.0	95.4	1530	
150	1800	230/460	445TC	HHI150-18-445TCRD	$21,160.74	163.8	95.8	1700	
200	1800	230/460	447TC	HHI200-18-447TCRD	$24,500.31	222.4	96.2	1860	

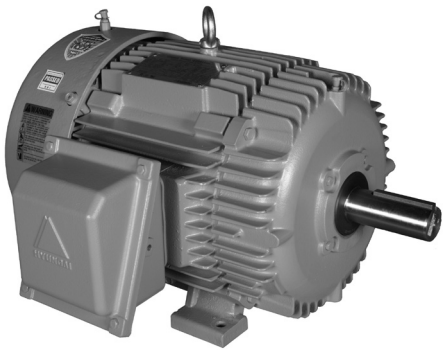
When using any motor with a variable frequency drive, take precautions to eliminate or reduce shaft currents in order to prolong bearing life.

HYUNDAI Crown Triton™ Series Motors - IEEE-841

TEFC Enclosure ▪ Rigid Base ▪ Three-Phase ▪ 460 Volt

Product Specifications

- 1-250 HP
- 3600, 1800 and 1200 RPM
- Single Voltage, 460 Volt
- Totally Enclosed Fan Cooled (TEFC) Enclosure
- IP55 rating with ABS Type approval
- Suitable for IP56 without ABS approval
- Dual Rated SF 1.15 for 40°C / 1.0 for 65°C
- Class F Insulation with Class N Varnish
- Rigid Base
- Full Compliance with IEEE-841 Standard
- Premium Efficiency
- Class B Temperature Rise
- NEMA Design B
- Parker Hannifin ProTech IP66 Labyrinth Seals on Both Drive-End and Opposite Drive-End Bearings
- Inverter Duty, 10:1 CT / 20:1 VT
- Inverter Shield Insulation and Inverter Grade Magnet Wire Meets or Exceeds NEMA MG-1 Part 31 for Exceptional Corona and Transient Protection
- IEEE-841 Motor Test Report Supplied with Each Motor
- Suitable for 50 Hz Operation with 1.0 SF
- Class 1, Division 2, Groups A, B, C, D
- All Motors Carry ABS Type Approval



HP	RPM	Voltage	Frame	Model Number	List Price	FL Amps (A)	FL Eff. (%)	Approx. Wt. (lbs.)	Notes
1	1800	460	143T	IEEE1-18-143T	$1,108.17	1.6	85.5	53	
	1200	460	145T	IEEE1-12-145T	$1,321.07	1.8	82.5	55	
1.5	3600	460	143T	IEEE1.5-36-143T	$1,214.62	2.0	84.0	53	
	1800	460	145T	IEEE1.5-18-145T	$1,184.56	2.2	86.5	55	
	1200	460	182T	IEEE1.5-12-182T	$1,440.01	2.3	87.5	90	
2	3600	460	145T	IEEE2-36-145T	$1,272.21	2.6	85.5	55	
	1800	460	145T	IEEE2-18-145T	$1,279.73	3.0	86.5	55	
	1200	460	184T	IEEE2-12-184T	$1,690.44	3.0	88.5	105	
3	3600	460	182T	IEEE3-36-182T	$1,571.49	3.8	86.5	90	
	1800	460	182T	IEEE3-18-182T	$1,567.75	3.9	89.5	90	
	1200	460	213T	IEEE3-12-213T	$2,162.52	4.5	89.5	150	
5	3600	460	184T	IEEE5-36-184T	$1,759.32	6.1	88.5	105	
	1800	460	184T	IEEE5-18-184T	$1,781.87	6.5	89.5	105	
	1200	460	215T	IEEE5-12-215T	$2,479.33	7.4	89.5	165	
7.5	3600	460	213T	IEEE7.5-36-213T	$2,177.55	9.0	89.5	150	
	1800	460	213T	IEEE7.5-18-213T	$2,193.83	9.5	91.7	150	
	1200	460	254T	IEEE7.5-12-254T	$3,507.38	10.3	91.0	260	
10	3600	460	215T	IEEE10-36-215T	$2,384.15	12.0	90.2	165	
	1800	460	215T	IEEE10-18-215T	$2,421.72	12.8	91.7	165	
	1200	460	256T	IEEE10-12-256T	$4,013.25	13.8	91.0	300	
15	3600	460	254T	IEEE15-36-254T	$3,556.21	16.9	91.7	260	
	1800	460	254T	IEEE15-18-254T	$3,293.25	18.3	92.4	260	
	1200	460	284T	IEEE15-12-284T	$5,053.83	19.8	91.7	380	
20	3600	460	256T	IEEE20-36-256T	$3,959.42	23.1	91.7	300	
	1800	460	256T	IEEE20-18-256T	$3,849.22	24.8	93.0	300	
	1200	460	286T	IEEE20-12-286T	$5,353.10	26.7	91.7	390	
25	3600	460	284TS	IEEE25-36-284TS	$4,417.70	28.5	91.7	380	
	1800	460	284T	IEEE25-18-284T	$4,561.72	30.3	93.6	380	
	1200	460	324T	IEEE25-12-324T	$6,199.58	31.2	93.0	550	
30	3600	460	286TS	IEEE30-36-286TS	$4,668.15	33.8	91.7	410	
	1800	460	286T	IEEE30-18-286T	$5,121.45	36.0	93.6	410	
	1200	460	326T	IEEE30-12-326T	$7,223.88	37.1	93.0	560	

When using any motor with a variable frequency drive, take precautions to eliminate or reduce shaft currents in order to prolong bearing life.

HYUNDAI Crown Triton™ Series Motors - IEEE-841 (Continued)

TEFC Enclosure ▪ Rigid Base ▪ Three-Phase ▪ 460 Volt

HP	RPM	Voltage	Frame	Model Number	List Price	FL Amps (A)	FL Eff. (%)	Approx. Wt. (lbs.)	Notes
	3600	460	324TS	IEEE40-36-324TS	$6,587.76	45.5	92.4	530	
40	1800	460	324T	IEEE40-18-324T	$6,434.99	48.8	94.1	550	
	1200	460	364T	IEEE40-12-364T	$12,127.44	48.8	94.1	780	
	3600	460	326TS	IEEE50-36-326TS	$7,425.47	55.8	93.0	540	
50	1800	460	326T	IEEE50-18-326T	$7,550.69	59.9	94.5	560	
	1200	460	365T	IEEE50-12-365T	$13,149.23	60.2	94.1	840	
	3600	460	364TS	IEEE60-36-364TS	$11,095.64	65.6	94.1	780	
60	1800	460	364T	IEEE60-18-364T	$12,584.49	69.9	95.0	780	
	1200	460	404T	IEEE60-12-404T	$15,627.30	71.2	94.5	1120	R
	3600	460	365TS	IEEE75-36-365TS	$12,675.91	79.8	94.5	820	
75	1800	460	365T	IEEE75-18-365T	$12,995.22	85.1	95.4	820	
	1200	460	405T	IEEE75-12-405T	$17,096.14	87.0	94.5	1220	R
	3600	460	405TS	IEEE100-36-405TS	$15,896.54	110.1	94.5	1110	
100	1800	460	405T	IEEE100-18-405T	$19,368.85	114.1	95.4	1110	R
	1800	460	405T	IEEE100-18-405TBB	$19,368.85	114.1	95.4	1110	BB
	1200	460	444T	IEEE100-12-444T	$21,247.14	116.6	95.0	1530	R
	3600	460	444TS	IEEE125-36-444TS	$24,172.25	139.5	95.0	1610	
125	1800	460	444T	IEEE125-18-444T	$23,523.62	142.0	95.4	1530	R
	1800	460	444T	IEEE125-18-444TBB	$23,523.62	142.0	95.4	1530	BB
	1200	460	445T	IEEE125-12-445T	$24,655.59	147.7	95.0	1700	R
	3600	460	445TS	IEEE150-36-445TS	$26,577.69	161.5	95.0	1770	
150	1800	460	445T	IEEE150-18-445T	$26,627.79	163.8	95.8	1770	R
	1800	460	445T	IEEE150-18-445TBB	$26,627.79	163.8	95.8	1770	BB
	1200	460	447T	IEEE150-12-447T	$28,747.74	169.5	95.8	1860	R
	3600	460	447TS	IEEE200-36-447TS	$34,764.50	219.3	95.4	1900	
200	1800	460	447T	IEEE200-18-447T	$30,023.73	222.4	96.2	1860	R
	1800	460	447T	IEEE200-18-447TBB	$30,023.73	222.4	96.2	1860	BB
	1200	460	449T	IEEE200-12-449T	$34,159.70	231.2	95.8	2430	R
	3600	460	449TS	IEEE250-36-449TS	$41,218.29	276.6	95.8	2430	
250	1800	460	449T	IEEE250-18-449T	$37,127.39	281.7	96.2	2430	R
	1800	460	449T	IEEE250-18-449TBB	$37,127.39	281.7	96.2	2430	BB

IEEE Motor C-Flange Kits

Frame Size	Model Number	List Price
143T / 145T	IH140TC	$173.91
182T / 184T	IH180TC	$218.43
213T / 215T	IH210TC	$301.91
254T / 256T	IH250TC	$669.22
284T / 286T	IH280TC	$800.00
324T / 326T	IH320TC	$1,036.54
364T / 365T	IH360TC	$1,463.67
364TS / 365TS	IH3602PTC	$1,463.67
404T / 405T	IH400TC	$1,732.19
404TS / 405TS	IH4002PTC	$1,732.19
444T / 445T / 447T / 449T	IH440TC	$2,369.42
444TS / 445TS / 447TS / 449TS	IH4402PTC	$2,369.42

BB Ball bearing on drive-end for direct coupled applications
R Roller bearing on drive end for belted applications

When using any motor with a variable frequency drive, take precautions to eliminate or reduce shaft currents in order to prolong bearing life.

WorldWide Electric Motor Stock Products Catalog | Current as of April 2023

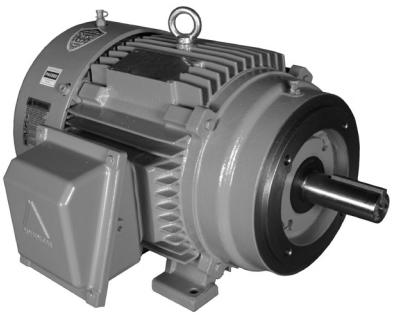
Document No: MD-CAT-04.2023 | For more information, please contact customerservice@worldwideelectric.com

HYUNDAI Crown Triton™ Series Motors - IEEE-841

TEFC Enclosure ▪ C-Face with Feet ▪ Three-Phase ▪ 460 Volt

Product Specifications

- 1-100 HP
- 3600 and 1800 RPM
- Single Voltage, 460 Volt
- Totally Enclosed Fan Cooled (TEFC) Enclosure
- IP55 rating with ABS Type approval
- Suitable for IP56 without ABS approval
- Dual Rated SF
  1.15 for 40°C / 1.0 for 65°C
- Class F Insulation with Class N Varnish
- C-Face with Feet
- Full Compliance with IEEE-841 Standard
- Premium Efficiency
- Class B Temperature Rise
- NEMA Design B
- Parker Hannifin ProTech IP66 Labyrinth Seals on Both Drive-End and Opposite Drive-End Bearings
- Inverter Duty, 10:1 CT / 20:1 VT
- Inverter Shield Insulation and Inverter Grade Magnet Wire Meets or Exceeds NEMA MG-1 Part 31 for Exceptional Corona and Transient Protection
- IEEE-841 Motor Test Report Supplied with Each Motor
- Suitable for 50 Hz Operation with 1.0 SF
- Class 1, Division 2, Groups A, B, C, D
- All Motors Carry ABS Type Approval



HP	RPM	Voltage	Frame	Model Number	List Price	FL Amps (A)	FL Eff. (%)	Approx. Wt. (lbs.)	Notes
1	1800	460	143TC	IEEE1-18-143TC	$1,154.52	1.6	85.5	53	
1.5	3600	460	143TC	IEEE1.5-36-143TC	$1,264.72	2.0	84.0	53	
	1800	460	145TC	IEEE1.5-18-145TC	$1,233.40	2.2	86.5	55	
2	3600	460	145TC	IEEE2-36-145TC	$1,324.82	2.6	85.5	55	
	1800	460	145TC	IEEE2-18-145TC	$1,333.58	3.0	86.5	55	
3	3600	460	182TC	IEEE3-36-182TC	$1,636.61	3.8	86.5	90	
	1800	460	182TC	IEEE3-18-182TC	$1,632.84	3.9	89.5	90	
5	3600	460	184TC	IEEE5-36-184TC	$1,833.21	6.1	88.5	105	
	1800	460	184TC	IEEE5-18-184TC	$1,855.74	6.5	89.5	105	
	1200	460	215TC	IEEE5-12-215TC	$2,583.26	7.4	89.5	165	
7.5	3600	460	213TC	IEEE7.5-36-213TC	$2,267.70	9.0	89.5	150	
	1800	460	213TC	IEEE7.5-18-213TC	$2,285.24	9.5	91.7	150	
	1200	460	254TC	IEEE7.5-12-254TC	$3,653.88	10.3	91.0	260	
10	3600	460	215TC	IEEE10-36-215TC	$2,483.08	12.0	90.2	165	
	1800	460	215TC	IEEE10-18-215TC	$2,523.15	12.8	91.7	165	
	1200	460	256TC	IEEE10-12-256TC	$4,181.05	13.8	91.0	300	
15	3600	460	254TC	IEEE15-36-254TC	$3,703.97	16.9	91.7	260	
	1800	460	254TC	IEEE15-18-254TC	$3,430.98	18.3	92.4	260	
	1200	460	284TC	IEEE15-12-284TC	$5,264.20	19.8	91.7	380	
20	3600	460	256TC	IEEE20-36-256TC	$4,124.71	23.1	91.7	300	
	1800	460	256TC	IEEE20-18-256TC	$4,009.50	24.8	93.0	300	
	1200	460	286TC	IEEE20-12-286TC	$5,576.00	26.7	91.7	390	
25	3600	460	284TSC	IEEE25-36-284TSC	$4,601.80	28.5	91.7	380	
	1800	460	284TC	IEEE25-18-284TC	$4,752.05	30.3	93.6	380	
30	3600	460	286TSC	IEEE30-36-286TSC	$4,862.23	33.8	91.7	410	
	1800	460	286TC	IEEE30-18-286TC	$5,334.32	36.0	93.6	410	
40	3600	460	324TSC	IEEE40-36-324TSC	$6,861.99	45.5	92.4	550	
	1800	460	324TC	IEEE40-18-324TC	$6,702.96	48.8	94.1	550	
50	3600	460	326TSC	IEEE50-36-326TSC	$7,734.76	55.8	93.0	560	
	1800	460	326TC	IEEE50-18-326TC	$7,864.99	59.9	94.5	560	
60	1800	460	364TC	IEEE60-18-364TC	$13,109.16	69.9	95.0	780	
75	1800	460	365TC	IEEE75-18-365TC	$13,536.15	85.1	95.4	820	
100	1800	460	405TC	IEEE100-18-405TC	$20,176.52	114.1	95.4	1110	

When using any motor with a variable frequency drive, take precautions to eliminate or reduce shaft currents in order to prolong bearing life.

WORLDWIDE Motor Slide Bases

Product Specifications

- Bases are Provided with Washers
- Bases are Painted with an Oven-Baked Primer for Better Contact of Customer's Paint
- All "D" Bolts (Motor Mounting Bolts) are Grade 5 and Welded into Position to Prevent Spinning and "Dropping" from Slots
- All "D" Bolts are Fixed to the Exact Foot Pattern of the Motor to Aid in Easier Motor Installation
- Exact Drop-In Replacement for all Major Make Slide Bases
- Single Adjusting Screws for Frames 56-145T
- Double Adjusting Screws for Frames 182T-505T

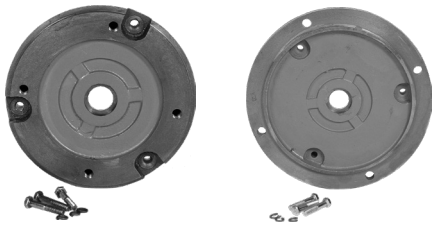
Frame	Model Number	List Price	Approx. Wt. (lbs.)
56	W56	$25.71	3
143T	W143T	$49.52	6
145T	W145T	$49.52	7
182T	W182T	$67.35	10
184T	W184T	$67.35	10
213T	W213T	$100.19	15
215T	W215T	$100.19	17
254T	W254T	$136.48	19
256T	W256T	$136.48	20
284T	W284T	$153.47	24
286T	W286T	$153.47	25
324T	W324T	$223.30	35
326T	W326T	$223.30	36
364T	W364T	$310.80	49
365T	W365T	$310.80	50
404T	W404T	$380.73	66
405T	W405T	$380.73	68
444T	W444T	$430.16	74
445T	W445T	$430.16	76
447T	W447T	$569.00	102
449T	W449T	$569.00	105
505T	W505T	$884.00	137

Document No: MD-CAT-04.2023 | For more information, please contact customerservice@worldwideelectric.com

"INSTA-MOD" Modification Program

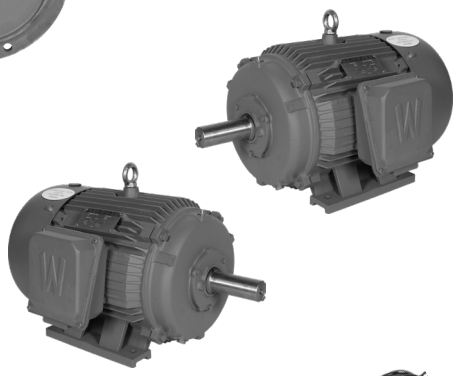
The "INSTA-MOD" Modification Program is the quickest way to get custom-built motors!

C-Flange / D-Flange Adaptation
Installation of C-Flange or D-Flange.



F1 / F2 Mount Conversion
Convert from F1 mount to F2 mount or convert from F2 mount to F1 mount.

Turn Down T to TS Short Shaft
Convert from "T" to "TS" shaft dimensions.



Space Heaters (120 or 240 Volt)
Space heaters are installed in the motor to prevent moisture or condensation from building up on the motor windings or bearings.

Winding Thermistors
Thermistors are provided and placed in the stator windings and as critical temperature is reached, the resistance of the thermistors changes radically, causing operation of the control relay.

Bearing / Winding RTDs
Resistance Temperature Detectors are installed in the windings or at the bearing journals to measure the internal temperature rise of the components to assist in preventing thermal damage to the motor windings or bearings.

Bearing Change
Change roller bearing to ball bearing or ball bearing to roller bearing.

Insulated ODE Bearing
Opposite drive-end bearing is insulated to prevent circulating current damage to the bearing.

Current Diverter Ring
Provided and installed to protect your motor bearings and coupled equipment from damaging electrical currents.

IEEE / Washdown - White Epoxy Paint
Suitable for use in USDA inspected facilities.
Conforms to AWWA D102 Outside Coating Systems: #4 (OCS-4), #5 (OCS-5) and #6 (OCS-6)

Fungus Protection / Tropicalization
Protection of windings, electrical and mechanical parts of motor from tropical environments.

Please call for additional modifications and explosion proof modifications not seen above.

Warranty Policy

Warranty Length

The warranty length for WorldWide Electric Motors is as follows:

WorldWide Fractional HP Motors

General Purpose Motors	Two (2) years from date of sale (invoice)
Jet Pump Motors	Two (2) years from date of sale (invoice)
Stainless Steel / Washdown Duty Motors	Three (3) years from date of sale (invoice)
Permanent Magnet DC Motors	One (1) year from date of sale (invoice)

WorldWide Farm Duty Motors

Two (2) years from date of sale (invoice)

WorldWide Premium Efficient Stainless Steel Motors

Two (2) years from date of sale (invoice)

WorldWide Open Drip Proof (ODP) Motors

Two (2) years from date of sale (invoice)

WorldWide Premium Efficiency Motors (PEWWE)

1-200 HP	3600 and 1800 RPM	Three (3) years from date of sale (invoice)
1-150 HP	1200 RPM	Three (3) years from date of sale (invoice)
3-300 HP	900 RPM	Two (2) years from date of sale (invoice)
200 HP	1200 RPM	Two (2) years from date of sale (invoice)
250-500 HP	3600, 1800 and 1200 RPM	Two (2) years from date of sale (invoice)

WorldWide Explosion Proof Motors

Two (2) years from date of sale (invoice)

WorldWide Advanced Design Rock Crusher Motors

Two (2) years from date of sale (invoice)

WorldWide Oil Well Pump Motors

Two (2) years from date of sale (invoice)

WorldWide Close Coupled Pump Motors

Two (2) years from date of sale (invoice)

WorldWide Vertical Hollow Shaft Motors

Two (2) years from date of sale (invoice)

LAM IEEE 45 Marine-Duty Motors

Three (3) years from date of sale (invoice)

WorldWide IEC Aluminum Frame Motors

Three (2) years from date of sale (invoice)

HYUNDAI G2 Motors (HEE Series)

Three (3) years from date of sale (invoice)

HYUNDAI Severe Duty Motors

Three (3) years from date of sale (invoice)

HYUNDAI Severe Duty Large Frame Motors

Three (3) years from date of sale (invoice)

HYUNDAI IEEE 841 Motors

Five (5) years from date of sale (invoice)

WorldWide Motor Slide Bases

Three (3) years from date of sale (invoice)

1 General specification

1.1 Standards and regulation

The motors comply with the relevant standards and regulations, especially:

Electrical

IEC-Standard	EN-Standard	Content
IEC 60034-1	EN 60034-1	Rotating electrical machines – Part 1: Rating and performance
IEC 60034-8	EN 60034-8	Rotating electrical machines – Part 8: Terminal markings and direction of rotation
IEC 60079-0	EN 60079-0	Explosive atmospheres – Part 0: Equipment - General requirements
IEC 60079-1	EN 60079-1	Explosive atmospheres – Part 1: Equipment protection by flameproof enclosures “d”
IEC 60079-7	EN 60079-7	Explosive atmospheres – Part 7: Equipment protection by increased safety “e”
IEC 60079-31	EN 60079-31	Explosive atmospheres – Part 31: Equipment dust ignition protection by enclosure “t”

Mechanical

IEC-Standard	EN-Standard	Content
IEC 60072	EN 50347	Dimensions and outputs
IEC 60034-5	EN 60034-5	Rotating electrical machines – Part 5: Degrees of protection provided by integral design of rotating electrical machines (IP code) – Classification
IEC 60034-6	EN 60034-6	Rotating electrical machines – Part 6: Methods of cooling (IC-Code)
IEC 60034-7	EN 60034-7	Rotating electrical machines – Part 7: Classification of types of construction, mounting arrangements and terminal box position (IM-code)
IEC 60034-9	EN 60034-9	Rotating electrical machines – Part 9: Noise limits
IEC 60034-14	EN 60034-14	Rotating electrical machines – Part 14: Mechanical vibration of certain machines with shaft heights 56 mm and higher – Measurement, evaluation and limits of vibration severity

1.2 Explosion protection in the hazard zones

Protection classes

The use of electrical machines in areas with explosion hazard is permissible on certain conditions. The machines must be designed in such a way that the explosion risk is eliminated to the furthest extent possible. An explosion may occur under the following conditions:

- there is an explosive atmosphere;
- there is the risk of a spreading explosion;
- there are sources of ignition.

The protection classes Ex db and Ex db eb prevent one of the three conditions if gas is present and make an explosion impossible. The ignition protection class Ex tb prevents one of the three conditions if combustible dust is present.

The protection class for gas, Ex db eb, represents a combination of:

- flameproof enclosure “d” for the motor housing;
- increased safety “e” for the terminal box.

Hazardous areas and zones

Hazardous areas are places where an explosive atmosphere may form under certain conditions.

An explosive atmosphere consists of a mixture of air and gasses, steams, mists and flammable dusts, in which a fire spreads quickly upon ignition under normal air pressure (explosion).

The user is obligated to apply the classification of the hazardous areas under own responsibility and in accordance with the European Directive 1999/92/EC.

The international standards EN / IEC 60079-10-1 and 60079-10-2 provide the criteria for the classification of the hazardous areas based on the chemical properties, physical properties, and the quantity of materials used, as well as in dependence on the frequency and duration in time when an explosive mixture may form.

Zones with explosive gas atmosphere

If the hazard is due to the presence of gas, steams or mists of flammable materials, the European Directive 1999/92/EC provides for a classification into the following three areas:

Zone 0 – areas in which an explosive atmosphere is present permanently or for long periods. In this area, the installation of electrical machines requires double protection.

Zone 1 – areas in which it is likely that an explosive atmosphere can form under normal conditions. In this zone, explosion-protected electrical motors with flameproof enclosure, overpressure enclosure, or such with increased safety may be installed if a certificate from an accredited institution in accordance with the ATEX Guideline is provided.

Zone 2 – areas in which an explosive atmosphere can form only in very rare cases and can remain there only for a short period. In this zone, increased safety (non-sparking) motors may also be set up besides motors with flameproof or overpressure enclosure. The certificate from a notified body is not required.

Zones with combustible dust formation

If the hazard is due to the presence of combustible dust or combustible flyings, the European Directive 1999/92/EC provides for a classification into the following three zones:

Zone 20– areas in which an explosive atmosphere is present permanently or for long periods. There are no motors installed in this zone.

Zone 21 – areas in which it is likely that an explosive atmosphere can form under normal conditions. In this zone, electrical motors may be installed if a certificate from an accredited institution in accordance with the ATEX Guideline is provided and if they are installed with protection class IP6x.

Zone 22 – areas in which an explosive atmosphere can form only in very rare cases and can remain there only for a short period. Depending on the kind of dust, protection class IP6x may also be required in Zone 22. The certificate from an accredited institution is not required.

Classification of hazard zones

Area of use with presence of **GAS**	Area of use with presence of COMBUSTIBLE DUSTS	Hazard class of the setup zone
Zone 0	Zone 20	Explosive atmosphere is **present permanently**
Zone 1	Zone 21	Explosive atmosphere is **probably present**
Zone 2	Zone 22	Explosive atmosphere is **unlikely**

Classification of equipment according to ATEX

The European ATEX Directive 2014/34/EU classifies equipment into two equipment groups, each with up to three different device categories, depending on the safety standard reached by the machine.

☞	Equipment of a higher category can also be installed at the setup sites of equipment in a lower category, due to the given redundancy.

Equipment category

DEGREE OF PROTECTION ensured by the equipment	**Pits Equipment Group I** Equipment categories	Surfaces Equipment Group II Equipment Categories **Gas**	Equipment Categories **Flammable dusts**
Very high	M1	1 G	1 D
High	M2	2 G	2 D
Normal	Not provided	3 G	3 D

Group classification of equipment according to EN / IEC 60079-0

The EN / IEC 60034-0 standard classifies the electrical equipment into three groups.

Group I: Electrical equipment intended for installation in workings with hazard of firedamp.

Group II: Electrical equipment intended for areas, other than workings, in which an explosive gas atmosphere may form.

Group III: Electrical equipment intended for areas, other than workings, in which an explosive dust atmosphere may form.

The motors and other electrical equipment are labeled with the special symbols of the ignition protection class, explosion group, temperature class and the equipment protection level.

Equipment for explosive gas atmospheres

Flammable gases and steams are classified into explosion groups and temperature classes, depending on the ignition temperature and pressure that is created in the event of an explosion.

The housings, components and additional parts of equipment that is intended for the use in gas atmospheres, are classified into three subgroups, depending on the flammable materials for which they are suited:

- Group IIA, Group IIB, Group IIC

A motor that is classified for a particular group is also suitable for the lower groups: A motor of Group IIB is also suitable for Group IIA; a motor of Group IIC is also suitable for Groups IIA and IIB.

Temperature classes are defined for the different ignition temperatures of gasses, steams and mists, from which the use and labeling is derived.

Temperature classes

Ignition temperature of the explosive mixture [°C]	Temperature class	Maximum surface temperature of the electrical equipment [°C]
above 450	T1	450
from 300 to 450	T2	300
from 200 to 300	T3	200
from 135 to 200	T4	135
from 100 to 135	T5	100
from 85 to 100	T6	85

Klassifizierung der am häufigsten vorkommenden brennbaren Stoffe, unterteilt nach Explosionsgruppe und Temperaturklasse

Group	Temperature class					
	T1	T2	T3	T4	T5	T6
I	Methane (firedamp)					
IIA	Ammonia Ethane Ethyl acetate Acetone Benzol Butanone Methylene chlorine Chloroethylene Acetic acid Carbon monoxide Methane Methanol Methyl alcohol Methyl acetate Naphthalene Propane Toluene Xylene	Amyl alcohol Ethyl alcohol Butyl acetate Natural gas Acetic acid anhydride Liquid gas Isobutyl alcohol Monoamine acetate N-butyl alcohol Propyl acetate Cyclohexane	Decane Diesel fuel Crude oil* Heptane Hexane Kerosene Naphtha Pentane Cyclohexane Cyclohexene	Ether Acetaldehyde		
IIB	Coke gas Water gas	1.3-butadien Ethylene Ethyl benzene Ethylene oxide	Crude oil* Isoprene Hydrogen sulphide	Ethyl ether		
IIC	Hydrogen	Acetylene				Ethyl nitrate Carbon disulphide

* in the function of the chemical composition

The data listed in the table serve merely as examples.

☞	The equipment manufacturer is not responsible for the classification of the materials. The user is responsible for selecting the equipment (see EN / IEC 60079-14).

Equipment for explosive dust atmospheres

The housing of the devices with ignition protection class "t", which are intended for the use in atmospheres with explosive dust, are classified into three subgroups depending on the kind of dust:

- IIIA: combustible flyings
- IIIB: non-conductive dust
- IIIC: conductive dust

☞	Group IIIC also requires at least protection class IP6x even if it is set up in Zone 22.

Temperature for environments with flammable dust

To protect against flammable dusts, the ignition temperature of the dusts must be considered both in the form of a dust cloud as well as in the form of a dust layer.

The surface temperature of the enclosure specified on the motor type plate must be lower than the reference ignition temperature.

The reference temperature is the lower value of the two values calculated according to the following method:

- T_{S1} = ⅔· T_{cl} (T_{cl} = ignition temperature of the dust cloud)
- T_{S2} = T_{5mm} – 75 K (T_{5mm} = ignition temperature of a dust layer of 5 mm).
- T_{amm} = the lower value of T_{S1} and T_{S2}.

The surface temperatures are not specified in temperature classes as is the case for explosive gases, but directly in degrees Celsius. The manufacturer determines the temperature by means of the thermal characteristics of the product. The following surface temperatures apply as a standard for HELMKE products:

T150 °C – T135 °C – T125 °C – T100 °C – T85 °C.

Beispiele für Zündtemperaturen von brennbarem Staub

	Clouds [°C]	Layer [°C]
Aluminium	590	>450
Coal dust	380	225
Meal	490	340
Wheat dust	510	300
Methyl cellulose	420	320
Phenolic resin	530	>450
Polyethylene	420	Melting point
PVC	700	>450
Soot	810	570
Starch	460	435
Sugar	490	460

The data listed in the table serve merely as examples.

☞	The equipment manufacturer is not responsible for the classification of the materials. The user is responsible for the choice of equipment.

Equipment for explosive, hybrid mixtures as a combined mixture of flammable gas or vapour with a combustible dust or combustible flyings

Exclusively for Group I equipment for mines susceptible to firedamp, the ignition of both mine gases (basically methane only) and coal dust is considered together. Combined mixtures of flammable gases or vapors with dust or flyings may form explosive, hybrid mixtures outside their individual limits. Without explicit knowledge of the mixtures, explosive parameters shall generally be assumed if in each case 25% of the lower explosive limit (LEL) of the gas / vapor or the minimum explosion concentration (MEC) of the dust is exceeded. For the selection of the equipment in industrial applications in the case of hybrid mixtures, EN / IEC 60079–14, Annex M, provides guidance.

Equipment with double marking both for explosive gas atmospheres and for explosive dust atmospheres can be used in principle. In order to determine the temperature class and surface temperature of the equipment to be used, an assessment must be made regarding the minimum ignition energy (MIE), the auto-ignition temperature for gas / vapour and the minimum ignition temperature of a dust cloud. These may be lower than the minimum of the parameters resulting from any component of the mixture. Compliance with the temperature class for gas / vapour with possible dust deposits on the device must also be observed.

Subdivision of the protection levels of a type of protection

Types of protection describe the basic method of protection against explosions or their effects. Different technical designs and the scope of the tests for a given type of protection result in different residual risks. Taking into account the zone concept, which describes the probability of an explosion, the various technical designs and the resulting residual risks are related to each other. There are defined different protection levels for the types of protection correspondingly. Taking these protection levels into account, no further risk assessment is required for use in a relevant zone.

The code letter of the type of protection is followed by another letter for the protection level:

- Type of protection with "very high" protection level has the marking "a".
- Type of protection with "high" protection level has the marking "b";
- Type of protection with "enhanced" protection level has the marking "c".

This results in, for example, markings of type of protection "d" in conjunction with the respective level of protection as "Ex da", "Ex db" or "Ex dc".

Equipment Protection Level (EPL)

In accordance with the standard EN / IEC 60079**–0**, the labelling of equipment that is intended for use in a potentially explosive atmosphere must also include the additional specification of the Equipment Protection Level (EPL).

The EPL is defined as the protection level attributed to equipment, which is based on the probability that equipment can represent a source of ignition.

The EPL labeling furthermore permits distinguishing between different explosive atmospheres.

The first letter distinguishes between the following:

- M – for mining
- G – für gas
- D – for dust

The second letter indicates the probability that equipment can represent a source of ignition:

- Equipment with "very high" protection level (guarantees safety in normal operations as well as in the case of predictable or rare errors/malfunctions) has the marking "a";
- Equipment with "high" protection level (guarantees safety in normal operations as well as in the case of predictable errors/malfunctions) has the marking "b";
- Equipment with "enhanced" protection level (there is no hazard of ignition during normal operations; the device has a few additional protection features, which ensure that there is no hazard of ignition in the case of normally predictable failures) has the marking "c".

Difference in protection level of a type of protection and equipment protection level (EPL)

The indication of the protection level for a type of protection and the equipment protection level EPL for a specific equipment must be differentiated and are accordingly independently stated in the Ex marking. The information is basically not redundant and may differ especially for devices with a combination of types of protection.

- The level of protection of a type of protection describes the technical design and testing of the type of protection of the device.
- The equipment protection level EPL describes the basic suitability of the equipment for use in a zone.

Choice of the electrical explosion-protection

The combination of hazard zones and the equipment categories to be used is defined by Directive 1999/92/EC. Notes on this topic are also provided in EN / IEC 60079-14.

The special construction standards including the level of protection for the type of protection (e. g. Ex db) also determine the motor category (e. g. 2 G) that is permissible for their use.

Examples for the choice of protection class for the ZONES with GAS atmosphere

Explosive atmosphere	Hazard zone	Protection ensured by the equipment	Equipment category	Type of protection	EPL
ALWAYS PRESENT	0	Very high	1 G	See also EN / IEC 60079-26	Ga
PROBABLE	1	High	2 G	Ex db Ex db eb Ex eb Ex pxb	Gb
NOT PROBABLE	2	Enhanced	3 G	Ex ec (Ex nA)	Gc

Examples for the choice of protection class for ZONES with COMBUSTIBLE DUST atmosphere

Explosive atmosphere	Hazard zone	Protection ensured by the equipment	Equipment category	Type of protection	EPL
ALWAYS PRESENT	20	Very high	1 D	Ex ta	Da
PROBABLE	21	High	2 D	Ex tb	Db
NOT PROBABLE	22 Conductive dust	Enhanced	3 D	Ex tc IIIC	Dc
NOT PROBABLE	22 Non-conductive dust or fibrous material	Enhanced	3 D	Ex tc IIIB Ex tc IIIA	Dc

Comment: Machines of a higher equipment category can also be installed at the setup places of machines in a lower equipment category.

1.3 Produktpalette der Motoren

The motors described in this catalogue fulfil the requirements in accordance with the European Directive 2014/34/EC dated 26.2.2014 (ATEX Directive) regarding machines and protection equipment for the use in safe areas or in areas with a potential explosion hazard.

☞	The user is responsible for the classification of the areas.

Temperature class

Frame size	T3	T5	T6
355–500	Same output as T4	Reduced output compared to T4	Reduced output compared to T4

Basic characteristics

- Explosion-proof motors, which are protected against explosion according to the standards EN / IEC 60079-0, 60079-1, 60079-7 for gaseous environments. Asynchronous alternating current motors with cage rotors.
- Asynchronous alternating current motors with cage rotors.
- Completely enclosed, self-ventilated, housing IP55 with terminal box IP65.
- The motors are air-cooled with external ventilation (standard EN / IEC 60034-6, Method IC411).
- Axial or radial fan wheel dependend or independent of rotation direction.

- Dimensions according to the standards EN 50347 / IEC 60072.
- Power supply 6000 V / 50 Hz as standard. Alternating current motors, one rotation speed, 2-4-6 poles, T4 for design sizes from 355 mm to 500 mm, power supply with multi-range voltage and frequency upon by customer's request.
- Insulation class F.
- Maximum sound pressure level 86 dB(A).
- Terminal box:
  - available both as flame proof "d" and increased safety "e" constructions,
  - in enlarged design,
  - pivotable by 90° in 4 positions.
- Motor housing and terminal boxes are separated by design to avoid the spreading of explosions.
- Type plate made of stainless steel, corrosion protected screws.
- Strong impact resistance:
  - motor housing, terminal boxes and bearing shields are steel welded constructions.
  - ventilator and ventilator hub made of steel sheet.
- The declaration of conformity is also available for special product characteristics that are different from the basic version, such as:
  - operation above 1000 m absolute altitude,
  - different voltages and frequencies,
  - supply through frequency inverter,
  - built-in temperature sensors in the motor,
  - operating modes from S1 to S9.

Electrical design variants

- Special voltages and frequencies (max. voltage 6600 V).
- Motors for tropical climatic zones.
- Motors for low ambient temperatures (-50 °C).
- Stator winding over temperature below 80 K.
- Motors of insulation class F.
- Motors with bi-metal contacts, PTC-thermistors or PT100 temperature sensors.
- Motors with stationary heating.
- Motors with electrical characteristics according to customer specifications.

Mechanical design variants

- Special flanges and shafts.
- Second shaft end (NDE).
- Terminal box with cable glands.
- Terminal box with special wire inlets.
- Motors without terminal box available with mountings for steel tubes for cable routing.
- Motors with protection class IP56 – IP65 – IP66.
- Motors with drainage valves for condensation water.
- Motors with special bearings.
- Vibration level of classes A or B, according to EN / IEC 60034-14.
- Motors with rain or sunroof, water protection panel.
- Slanted terminal box for increased safety "e" constructions
- Separate terminal box for separated auxiliary terminals or additional accessory terminals.
- Model with low sound emission.
- Higher corrosion protection for tropical climate or applications in marine environments:
  - exterior paint of mechanical components with epoxy varnish,
  - protection of interior component (coil and rotor) with protective paint,
  - rust-proof screws.

Accessories

- Motors for supply with electronic frequency inverter.
- Motors with encoder.
- Motors with external ventilation.

2 Mechanical characteristics

2.1 Setup conditions

The motors can be installed in clear and dusty, moist or chemically aggressive rooms (industry) with temperatures from –20 °C bis +40 °C.

☞	It is required to specify the respective setup conditions in the order.

Protection degrees

First numeral:
Protection against contact and ingress of foreign bodies

IP	Description
0	No special protection
1	Protection against solid foreign bodies larger than 50 mm (Example: inadvertent contact with the hand)
2	Protection against solid foreign bodies larger than 12 mm (Example: inadvertent contact with the fingers)
3	Protection against solid foreign bodies larger than 2.5 mm (Example: Wires, tools)
4	Protection against solid foreign bodies larger than 1 mm (Example: Wires, bands)
5	Protection against dust (harmful deposits of dust)
6	Total protection against dust (is not described for electrical machines according EN / IEC 60034-5)

Second numeral:
Protection against ingress of water

IP	Description
0	No special protection
1	Protection against vertically falling water drops (condensation)
2	Protection against dropping water when inclined by up to 15°
3	Protection against spray water up to 60° from vertical
4	Protection against shower water from any direction
5	Protection against water projected by a nozzle and from any direction
6	Protection against heavy seas or water projected in powerful jets
7	Protection when submerged between 0,15 and 1 m
8	Protection when continuously submerged in water at conditions agreed between the manufacturer and the user

2.2 Model for lowest temperatures with stationary heating

Motors that are to be installed in regions with extremely low temperatures must be ordered separately.

The certificates on the explosion safety apply to temperatures up to -50 °C.

The motors equipped with heating elements (electrical resistor heating) maintain a minimum temperature of -20 °C when the motor is at a standstill (see table).

☞	During the operation of the motor, the heating elements must be switched off.

The standard voltage is 230 V ± 10 %.

Stationary heating

Frame size	For the prevention of condensation water Heating element Minimum required power [W]	For use in environments with the temperatures below -20 °C (up to -50 °C) Heating element Minimum required power [W]
355M	200	400
355L	235	470
400M	250	500
400L	300	600
450	300	600
450L	350	700
500	385	770
500L	400	800

2.3 Material

	Frame size 355–500
Motor housing, bearing shield, terminal box	Steel
Ventilator hood, rain protection roof	Steel
Fan wheel	Steel
Shaft	Steel C45
Rotor r	Copper cage
Coil	Insulation class F
Screws, motor housing, bearing shield, terminal box	Steel 8.8 galvanized or A4-80, EN ISO 3506-1

2.4 Paint

	Frame size 355–500
Paint priming	Components are sand-blasted, clean and free from grease, treated with rust-protection primer
Layer thickness, colour	Top coat with enamel paint, overall 120 µm (other thicknesses on request) RAL 7030 (special colours on request)
Mechanical resistance	Abrasion-resistant, elastic, scratch and impact-resistant
Corrosion resistance	Excellent resistance against water, water steam and saline liquids
Chemical resistance, measurement conditions	Good resistance in chemically aggressive environment

2.5 Shaft ends, balancing, vibrations, noise level and coupling

Shaft ends

The shaft ends are cylinder-shaped and comply with the standards EN 50347 / IEC 60072. As a standard, they are provided with a parallel key and a threaded hole on the front side for the mounting of belt pulleys and couplings.

The parallel keys are included in the delivery of the motor. On request, motors with second shaft ends and/or special shaft end are also available.

For motors with switchable poles, with 2/4, 2/6, 2/8 and 2/12 poles, the shaft has the same dimensions as for 2-pole motors.

Balancing, vibrations

The rotors are dynamically balanced with a parallel key according to 1SO 8821.

The vibration values are within the limits prescribed by the standards EN / IEC 60034-14, Level "A" (N).
For special requirements, motors with a vibration level of "B" (R) (reduced) are available.

It must be ensured before assembly that the transmission elements, such as belt pulleys and couplings have been dynamically balanced with half key.

Noise level

The noise level values comply with the standards EN / IEC 60034-9. The nominal data include the sound pressure values "L_p" in dB(A) for each motor type.

These values apply to motors in idle run with a frequency of 50 Hz and a tolerance of +3 dB(A). For motors with 60 Hz, the sound pressure values are approx. 4 dB(A) higher than at 50 Hz.

Direct coupling

For a direct coupling of the motor with the driven machine, the shaft axes have to be aligned properly in order to avoid damages or seizing up of the bearings.

The connection with a lamellar coupling or similar coupling types is permissible for all motors but in that case, as well, the axes have to be aligned properly. Special care is required in the assembly of 2-pole motors.

Belt drive

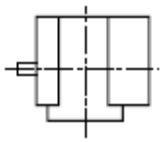
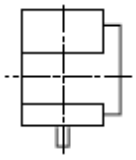
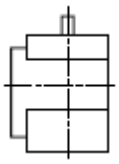
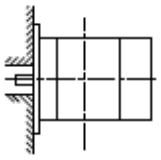
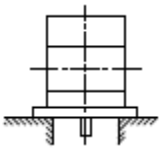
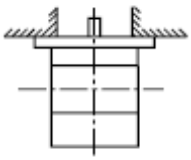
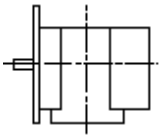
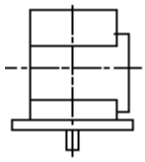
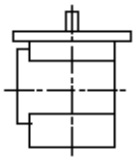
In order to simplify assembly and the adjustment of the belt tension, assembly slides are commonly used on which the motor is mounted.

It has to be checked if the maximum radial stress generated by the belt tension is less than the maximum permissible force specified in the motor data. Belt pulleys and couplings may only be mounted and removed with the tools provided for this purpose.

2.6 Mounting arrangements

Mounting arrangements for rotating electrical machines are designated according to IEC 60034-7, Code I (in brackets Code II).

Our motors are available according to the table depending on design and frame size.

		
IM B3 (IM 1001)	IM V5 (IM 1011)	IM V6 (IM 1031)
		
IM B5 (IM 3001)	IM V1 (IM 3011)	IM V3 (IM 3031)
		
IM B35 (IM 2001)	IM V15 (IM 2011)	IM V36 (IM 2031)

☞	The required model has to be specified in the order, as the design will be adjusted in part to the installation position.

2.7 Belt drive

The data refer only to the normal shaft end at the drive end of IM B3 motors with one speed.

Calculation of radial shaft load:

$$F_R = \frac{19120 \cdot P \cdot k}{D_1 \cdot n} [N]$$

F_R = radial shaft load in N
P = power in kW
n = speed in min^{-1}
D_1 = pulley diameter in m
k = belt tension factor

The belt tension factor depends on the type of belt and is assumed to be approximately:

3...4 for normal flat belt without idle pulley
2...2,5 for normal flat belt with idle pulley
2,2...2,5 for V-belt

Please enquire exact data from the belt manufacturer.

2.8 Terminal boxes

Our series offers the following models:

- Ex db eb IIC Gb
- Ex db IIC Gb
- Ex db eb IIB Gb
- Ex db IIB Gb
- Ex tb IIIC Db

Available on request:

- Motors with additional terminal box for auxiliary cables
- Motors with additional terminal box for auxiliary cables

Position of the terminal box and the terminal

The terminal boxes are arranged in the upper area of the housing, the position of the cable inlets can be turned by 90° in four positions.

On horizontally mounted motors, the cable inlets are normally arranged on the right side (viewed from the drive side).

Terminals and protective conductor connection

In the terminal box, maximally 3 power terminals can be arranged. The number of permissible accessory parts depends on the number of the terminals required for the motor and on whether an additional terminal box is provided.

Two additional terminals are required for PTC thermistors. Also, the connection of a stationary heating system requires two terminals.

For PT100 (RTD), 3 or 4 terminals are necessary depending on the chosen type.

The terminal box also contains one protective conductor terminal.

An additional protective conductor terminal is arranged on the motor housing.

Cable inlet thread

The motors are delivered in the series standard with one or two cable inlets that are suitable for explosion-protected cable glands.

For Ex db eb motors, also cable glands certified for the protection class Ex eb can be used.

The motors equipped with temperature sensors or stationary heating have an additional cable inlet for the connection of these accessory parts.

Cable inlet thread

Frame size	Cable inlet thread	
	Ex db	Ex eb
355...500	1(2) x M63 x 1.5	1 x M75 x 1.5

3 Electrical characteristics

3.1 Conditions for rated operation

Power

The output of the other rated characteristics specified in this catalogue refers to the following conditions according to the standard EN / IEC 60034-1:

- Continuous operation (S1)
- Frequency 50 Hz
- Voltage 6000 V (Standard)
- Ambient temperature of 40 °C
- Altitude of setup site max. 1000 m absolute

The motors can also be operated in an enhanced ambient temperature of up to 80 °C and be set up in absolute altitudes of up to 4000 m. In this case, the output will reduce as shown in the table. Alternatively, a bigger motor might be required.

If the full rated output is required as per the selection tables, the coolant temperature has to be reduced according to the table shown on the side.

Thermal class	Altitude of setup site		
	2000 m	3000 m	4000 m
B	32 °C	24 °C	16 °C
F	30 °C	19 °C	9 °C
H	28 °C	15 °C	3 °C

Voltage, frequency

As a standard, the motors are designed for operation with the rated voltages and frequencies, as well as the tolerances given in the standard EN / IEC 60034-1. The motors may be operated with the tolerances provided for the normal area of use (Zone A: voltage ±5 %, frequency ±2 %).

Rated torque

The motors have a squirrel-cage rotor that is suitable for the direct start-up. The values of the starting torque and tilting moment can be found in the tables of the operating data.

$$\text{Rated torque [Nm]} = 9550 \cdot \frac{\text{Rated power [kW]}}{\text{Rated speed [min}^{-1}\text{]}}$$

Rotation speed

The rotation speeds specified in the data tables refer to 50 Hz and correspond to the synchronous rotation speed less slippage.

Rotation direction

Most of the motors can be operated in both rotation directions. Motors for one rotation direction are typical at bigger motor sizes, higher rotation speed and specific demands regarding noise level. Please clarify at order and see individual technical data.

If the phases in sequences L1, L2, L3 are connected to terminals U1, V1, W1, the motor will rotate clockwise when looking at the shaft end.

If admissible, the rotation direction can be reversed by reversing two optional phases.

3.2 Tolerances

In consideration of the manufacturing tolerances and material deviations in the used raw materials, the tolerances for industrial motors according to EN / IEC 60034-1 are permitted for the assured values. The following notes in this regard are included in the standard:

- An assurance of all or any of the values according to the table is not mandatorily required. Assured values to which permissible deviations are to apply must be expressly stated in the offers. The permissible deviations have to match the table.
- If there is a permissible deviation only in one direction, the value in the other direction is not limited.

Values for	Tolerannce
Efficiency class(η) (for indirect assessment)	$-0.15 \cdot (1 - \eta)$ for $P_N \leq 50$ kW $-0.10 \cdot (1 - \eta)$ for $P_N > 50$ kW
Power factor ($\cos \varphi$)	$-\frac{1}{6} \cdot (1 - \cos \varphi)$, at least 0.02, at most 0.07
Slippage (s) (for rated load in condition at operating temperature)	±20 % of the assured slippage for $P_N \geq 1$ kW ±30 % of the assured slippage for $P_N < 1$ kW
Locked rotor current (I_A) (in the intended start switching)	+20 % of the assured locked rotor current without bottom limitation
Locked rotor torque (T_A)	–15 % and +25 % of the assured locked rotor torque (+25 % may be exceeded upon agreement)
Pull-up torque (T_S)	–15 % of the assured value
Tilting moment (T_B)	–10 % of the assured value (after application of this tolerance, T_B/T_N is at least 1.6)
Inertia moment (J)	±10 % of the assured value

3.3 Insulation and heating

The insulation of the motors corresponds to thermal classes F according to EN / IEC 60034-1:

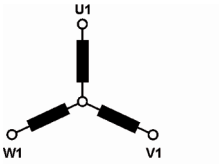
- mica isolated copper wire
- additional insulation materials on polyester or glass fiber basis
- Vacuum pressure impregnation (VPI) with resin

The table shown on the side specifies the heating (ΔT*) and maximum temperatures the hottest points of the coil (T_{max}) according to the heat classes of the standard EN / IEC 60034–1.

Class	ΔT	T_{max}
B	80 K	130° C
F	105 K	155° C
H	125 K	180° C

3.4 Circuitry

Star circuit



The stator windings star point is internally connected.

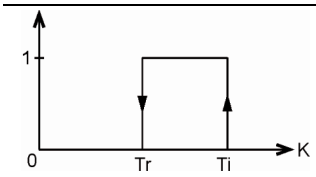
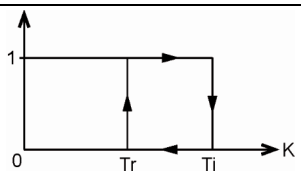
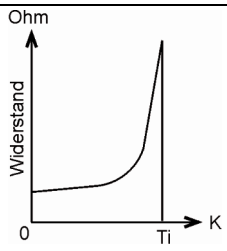
Phase current and voltage are: $I_{ph} = I_N$; $V_{ph} = V_N / \sqrt{3}$
where I_N is the rated current and V_N is the rated mains voltage.

3.5 Motor protection

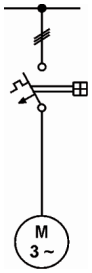
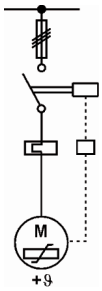
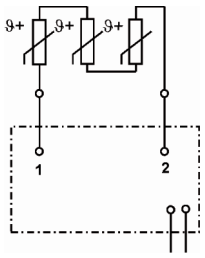
The selection of the thermal motor protection should result from the existing operating conditions. Motors may be protected by means of current-dependent motor circuit breakers or overcurrent relays and temperature sensors.

Motor protection is possible as follows:

- Motor circuit breaker with overcurrent-time-trip
- Thermistor protection with thermistor temperature sensors (PTC) in the stator winding combined with relay (if required, with additional motor circuit breaker).
- Resistance thermometer for monitoring of winding and bearing temperature (PT100).
- Bimetal temperature sensor as N.C. or N.O. in the stator winding (if required, with additional motor circuit breaker).

Mode of functioning of the bi-metal temperature sensors		Mode of functioning of the resistor temperature sensors (PTC type)
Ti Switching temperature Tr Reset temperature		Ti Switching temperature
Type N/O (normally open)	Typ N/C (normally closed)	
		

Circuitry examples

Protection measure		Protection against...
	Motor circuit breaker with thermal and electromagnetic overcurrent trip	▪ Overload in continuous operation ▪ Blocked rotor ▪ Not for use with frequency converter according to EN / IEC 60079-14
	Protection with overcurrent relay Thermistor protection and fuse	In operation, protection against: ▪ Overload in continuous operation ▪ Long start-up and braking processes ▪ High switching frequency In case of failure, protection against: ▪ Obstruction of the cooling ▪ Increased coolant temperature ▪ One-phase ru ▪ Frequency fluctuations ▪ Blocked rotor
	Resistor temperature sensor with trigger device	In operation, protection against: ▪ Overload in continuous operation ▪ Long start-up and braking processes ▪ High switching frequency In case of failure, protection against: ▪ Obstruction of the cooling ▪ Increased coolant temperature ▪ One-phase ru ▪ Frequency fluctuations ▪ Blocked rotor

☞	EN / IEC 60079-14 must be observed.

3.6 Alternating current motors with cage rotors in operation on the frequency inverter

The motors built specifically for this purpose, with ignition protection classes “db” or “db eb”, can also be operated in classified areas with supply from an electronic frequency inverter. EN / IEC 60079-14 must be observed.

If Ex db, Ex db eb or Ex tb motors with frequency inverters are used, the following factors must also be considered in addition to the common selection criteria:

- Motors operated with frequency inverters do not have a pure sine-wave voltage (or current). This fact leads to rising dissipations, vibrations and noise level of the motor.
- When using frequency inverters, the rotation speed of the motors can differ significantly from the rated rotation speed shown on the type plate. Rotation speeds exceeding the value shown on the type plate must be reconcilable with the motor and the motor-load-machine proposition.
- The operating duration with a rotation speed higher than 3600 min^{-1} must not be above 10 % of the total work cycle of the motor in order to assure an appropriate lifetime.
- Maximum initial inverter voltage 6000 V with peak voltages of $\hat{U} \leq 12{,}2$ kV und $d/dt \leq 1\ \mu s^{-1}$. For higher initial inverter voltages or loads, a special insulation is required.
- The motors non-drive bearing is insulated against shaft currents.
- Use an approved and functionally tested temperature monitoring device which disconnects the motor from the electrical supply in case of over-temperature.

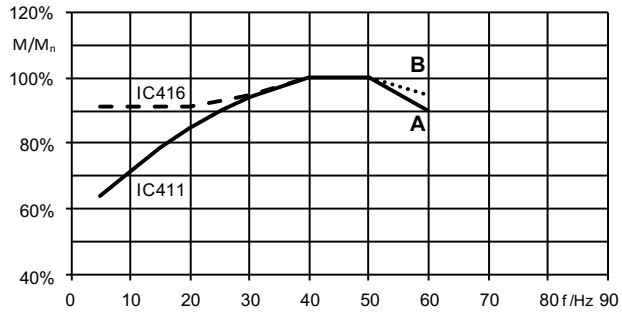
2-pole motors – Torque limits for frequency inverter operation

IC411: self ventilated; **IC416:** forced ventilated

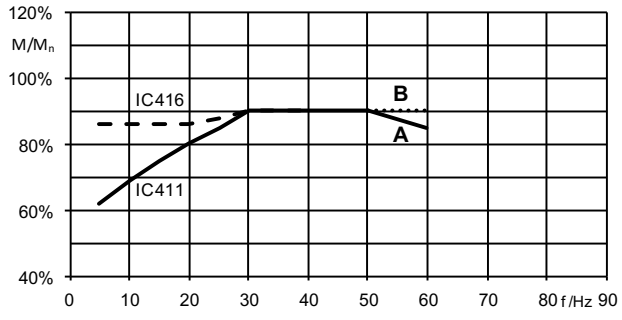
Curve A: field weakening from a frequency of 50 Hz

Curve B: no field weakening up to a frequency of 87 Hz
(motor in 6000 V/ $\sqrt{3}$ Δ: 50 Hz at 3464 V; 87 Hz at 6000 V)

Frame size 355



Frame size 400, 450, 500



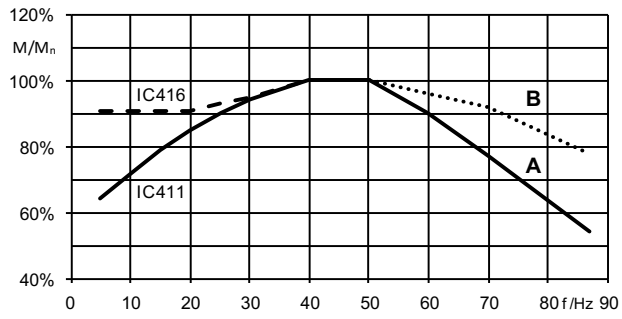
4- and 6-pole motors – Torque limits for frequency inverter operation

IC411: self ventilated; **IC416:** forced ventilated

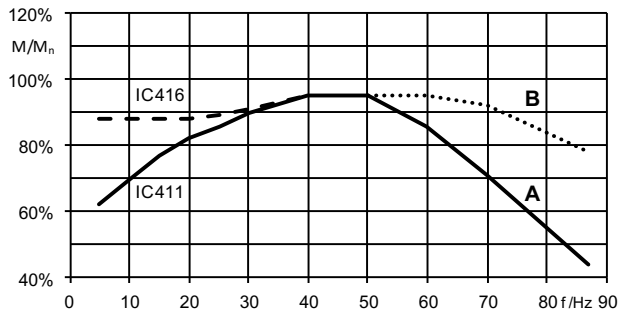
Curve A: field weakening from a frequency of 50 Hz

Curve B: no field weakening up to a frequency of 87 Hz
(motor in 6000 V/ $\sqrt{3}$ Δ: 50 Hz at 3464 V; 87 Hz at 6000 V)

Frame size 355



Frame size 400, 450, 500



4 Technical data

4.1 Overview

The technical data specified in the following apply to the models with Ex db IIC/IIB and Ex db eb IIC/IIB and Ex tb IIIC.

Type *	Frame size	Rated power [kW]		
		2-pole	4-pole	6-pole
DDOR355M	355	160	160	-
DDOR355M	355	200	200	-
DDOR355M	355	250	250	200
DDOR355L	355	315	315	250
DDOR355L	355	355	355	315
DDOR400M	400	400	400	-
DDOR400M	400	-	450	-
DDOR400L	400	450	500	355
DDOR400L	400	500	560	400
DDOR400L	400	-	-	450
DDOR450M	450	560	-	-
DDOR450L	450	630	630	500
DDOR450L	450	710	710	560
DDOR450L	450	-	800	630
DDOR500M	500	-	900	710
DDOR500M	500	800	1000	800
DDOR500L	500	900	1250	900
DDOR500L	500	1000	-	1000

***** The type designations change depending on the ignition protection class as follows:

- Ex db eb IIC Gb: CDEDOR
- Ex db eb IIB Gb: BDEDOR
- Ex db IIC Gb: CDDOR
- Ex db IIB Gb: BDDOR
- Ex tb IIIC Db : BSDOR

4.2 Bearings

Normalausführung der Lager

Bearing attribution (standard design)
Grooved ball bearing and cylindrical roller bearings according to ISO 15 (DIN 625).

Frame size	Number of poles	Drive side	Non-drive side
355	2 (hor.)	6316 C3	6316 C3
	2 (vert.)	6316 C3	7216 BM
355	4,6 (hor.)	6322 C3	6316 C3
	4,6 (vert.)	6322 C3	7216 BM
400	2 (hor.)	6317 C3	6317 C3
	2 (vert.)	6217 C3	7217 BM
400	4,6 (hor.)	6324 C3	6319 C3
	4,6 (vert.)	6324 C3	7219 BM
450	2 (hor.)	6217 C3 + NU 217 C3	NU217 C3
	2 (vert.)	6217 C3	7320 BM
450	4,6 (hor.)	6226 C3 + NU 324 C3	NU324 C3
	4,6 (vert.)	6324 C3	7320 BM
500	2 (hor.)	6219 C3 + NU 219 C3	NU 219 C3
	2 (vert.)	6219 C3	7322 BM
500	4 (hor.)	6228 C3 + NU 326 C3	NU 326 C3
	4 (vert.)	6226 C3	7322 BM
500	6 (hor.)	6230 C3 + NU 328 C3	NU 328 C3
	6 (vert.)	6228 C3	7322 BM

(other arrangements on request)

Frame size	Bearing Drive side	Bearing on non-drive side	Spring element
355...500	Fixed bearing	Floating bearing	Non-drive side (hor.) Drive side(vert.)

☞	The motor's non-drive side bearing is insulated against shaft currents.

Maximum permissible axial forces without additional radial forces

The values apply to 50 Hz and to minimum 50,000 hours assumed bearing life. For operation with 60 Hz, the values must be reduced by 10% (with effect from additional radial forces, a query is required depending on the direction of force).

Horizontal shaft

Frame size	Permissible axial forces (pressure or pull) [N]		
	Grooved ball bearing		
	3000 min^{-1}	1500 min^{-1}	1000 min^{-1}
355	4036	5650	7520
400	4973	8103	9767
450	7063	11575	13673
500	8842	16580	18365

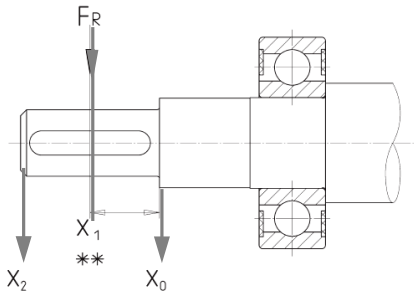
Vertical shaft downward or upward

Frame size	Permissible axial forces (pressure or pull) [N]					
	Angular contact ball bearings (downward)			Deep groove ball bearings (upward)		
	3000 min^{-1}	1500 min^{-1}	1000 min^{-1}	3000 min^{-1}	1500 min^{-1}	1000 min^{-1}
355	4250	5312	5666	2825	3955	5264
355	4250	5312	5666	2825	3955	5264
400	4825	7750	8266	3481	5673	6836
450	10150	12687	13533	5504	8102	9571

Permissible radial forces

The values apply to 50 Hz and to minimum 50,000 hours assumed bearing life. For operation with 60 Hz, the values must be reduced by 6 %.

If the radial force is applied between points X_0 and X_2, the permissible force F_R can be calculated from the following formula: $F_R = F_{X0} - X/E\ (F_{X0} - F_{X2})$, where E = length of shaft extension in basic version.



Frame size	Force impact point	Permissible radial forces [N]					
		Grooved ball bearing			Cylinder roller bearing		
		3000 min^{-1}	1500 min^{-1}	1000 min^{-1}	3000 min^{-1}	1500 min^{-1}	1000 min^{-1}
355	X_0	2830	8830	9490	–	–	–
	X_2	1306	3210	3452	–	–	–
400	X_0	2530	8140	8580	–	–	–
	X_2	1046	2960	3118	–	–	–
450	X_0	–	–	–	2940	6420	6870
	X_2	–	–	–	1216	2334	2497
500	X_0	–	–	–	4170	36000	42750
	X_2	–	–	–	1725	13109	15545

4.3 Technical data of standard motors

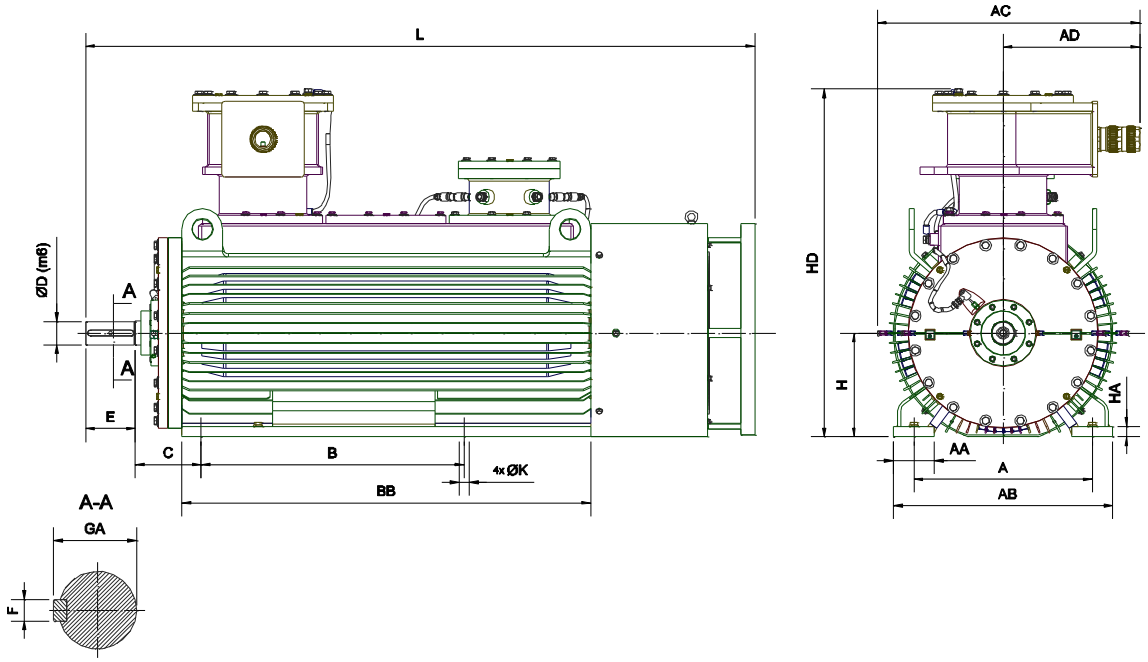
Type	Frame size	Rating data for mains operation							Direct online start				
		Rated power	Rated speed	Rated torque	Efficiency EN60034-2-1:2014			Power factor	Starting current	Starting torque	Break-down torque	Rotor inertia	Weight
		P_N	n_N	T_N	η [%]			cos φ	I_S/I_N	T_S/T_N	T_B/T_N	J	
		[kW]	[min^{-1}]	[Nm]	100 %	75 %	50 %					[kgm^2]	[kg]
Helmke flameproof													
3000 min^{-1} (2-pole)													
DDOR355M-02	355	160	2980	513	96.5	95.4	94.5	0.88	6.0	0.7	2.3	2.7	2250
DDOR355M-02	355	200	2980	642	95.7	95.6	95	0.88	5.5	0.7	2.0	3.0	2350
DDOR355M-02	355	250	2982	801	96.1	96.0	95.2	0.88	6.0	0.7	2.3	3.5	2500
DDOR355L-02	355	315	2980	1011	96.5	96.4	96.0	0.89	6.0	0.8	2.2	4.3	2850
DDOR355L-02	355	355	2982	1138	96.6	96.5	96.0	0.87	6.0	0.8	2.3	4.5	3000
DDOR400M-02	400	400	2983	1282	96.3	96.2	95.4	0.90	6.0	0.8	2.2	6.0	3300
DDOR400L-02	400	450	2984	1442	96.4	96.3	95.5	0.90	6.5	0.9	2.3	6.5	3450
DDOR400L-02	400	500	2985	1601	96.5	96.4	95.8	0.90	6.5	0.9	2.4	6.5	3650
DDOR450M-02	450	560	2985	1794	97.0	96.8	96.3	0.91	6.0	0.8	2.2	13.0	4650
DDOR450L-02	450	630	2986	2017	97.1	96.9	96.5	0.92	6.5	0.8	2.2	14.3	5000
DDOR450L-02	450	710	2986	2273	97.1	97.0	96.6	0.92	6.5	0.9	2.3	16.0	5350
DDOR500M-02	500	800	2983	2564	96.2	96.0	95.0	0.92	6.0	0.8	2.2	34.5	6300
DDOR500L-02	500	900	2982	2885	96.3	96.2	95.5	0.92	6.0	0.8	2.2	39.0	6850
DDOR500L-02	500	1000	2984	3204	96.6	96.4	95.7	0.92	6.5	0.8	2.3	41.0	7100

Type	Frame size	Rating data for mains operation							Direct online start				
		Rated power	Rated speed	Rated torque	Efficiency EN60034-2-1:2014			Power factor	Starting current	Starting torque	Break-down torque	Rotor inertia	Weight
		P_N	n_N	T_N	η [%]			cos φ	I_S/I_N	T_S/T_N	T_B/T_N	J	
		[kW]	[min^{-1}]	[Nm]	100 %	75 %	50 %					[kgm^2]	[kg]
Helmke flameproof													
1500 min^{-1} (4-pole)													
DDOR355M-04	355	160	1490	1027	94.5	94.0	92.4	0.83	6.5	0.9	2.3	6.3	2200
DDOR355M-04	355	200	1490	1283	94.8	94.3	93.0	0.82	6.5	1.0	2.4	7.3	2370
DDOR355M-04	355	250	1490	1604	95.3	95.0	93.8	0.83	6.5	0.9	2.3	8.8	2650
DDOR355L-04	355	315	1490	2021	95.7	95.5	94.5	0.84	6.5	1.0	2.3	10.0	2870
DDOR355L-04	355	355	1490	2278	95.8	95.7	94.8	0.84	6.5	1.0	2.3	11.0	3150
DDOR400M-04	400	400	1490	2566	96.0	95.8	95.0	0.85	6.2	0.9	2.2	12.5	3350
DDOR400M-04	400	450	1490	2887	96.2	96.0	95.2	0.85	6.5	1.0	2.3	13.5	3570
DDOR400L-04	400	500	1490	3208	96.3	96.1	95.3	0.85	6.8	1.1	2.3	14.5	3750
DDOR400L-04	400	560	1490	3593	96.4	96.2	95.5	0.85	6.8	1.1	2.4	15.5	3970
DDOR450L-04	450	630	1487	4050	96.0	95.8	95.0	0.88	6.5	1.0	2.1	31.0	4750
DDOR450L-04	450	710	1488	4562	96.1	96.0	95.3	0.88	6.7	1.1	2.2	34.0	5100
DDOR450L-04	450	800	1488	5140	96.3	96.2	95.5	0.88	6.8	1.2	2.2	36.0	5370
DDOR500M-04	500	900	1491	5771	96.3	96.2	95.3	0.88	6.3	0.9	2.0	58.0	6400
DDOR500M-04	500	1000	1491	6412	96.5	96.3	95.5	0.89	6.5	0.9	2.0	63.0	6850
DDOR500L-04	500	1250	1491	8015	96.7	96.6	96.0	0.89	6.7	1.0	2.1	69.0	7300

Type	Frame size	Rating data for mains operation							Direct online start				
		Rated power	Rated speed	Rated torque	Efficiency EN60034-2-1:2014			Power factor	Starting current	Starting torque	Break-down torque	Rotor inertia	Weight
		P_N	n_N	T_N	η [%]			cos φ	I_S/I_N	T_S/T_N	T_B/T_N	J	
		[kW]	[min^{-1}]	[Nm]	100 %	75 %	50 %					[kgm^2]	[kg]
Helmke flameproof													
1000 min^{-1} (6-pole)													
DDOR355M-06	355	200	991	1929	94.2	93.7	92.2	0.80	5.5	0.9	2.0	13.5	2800
DDOR355L-06	355	250	991	2412	94.6	94.2	92.8	0.80	5.5	0.9	2.0	16.0	3000
DDOR355L-06	355	315	991	3039	95.0	94.6	93.4	0.80	5.5	0.9	2.0	18.0	3300
DDOR400L-06	355	355	992	3421	94.8	94.6	93.3	0.80	5.3	0.8	2.0	26.0	3900
DDOR400L-06	400	400	992	3855	95.0	94.7	93.6	0.80	5.3	0.8	2.0	27.0	4150
DDOR400L-06	400	450	992	4337	95.3	95.0	93.8	0.80	5.5	0.8	2.0	28.5	4320
DDOR450L-06	400	500	992	4819	95.2	95.0	93.8	0.85	5.5	0.8	2.0	49.0	5250
DDOR450L-06	400	560	993	5391	95.4	95.1	94.0	0.85	6.0	0.9	2.2	52.0	5470
DDOR450L-06	450	630	993	6065	95.6	95.4	94.4	0.85	5.7	0.8	2.0	55.0	5750
DDOR50ML-06	450	710	994	6829	95.7	95.3	94.1	0.84	6.8	1.0	2.4	103.0	6500
DDOR500M-06	450	800	994	7694	96.0	95.8	94.5	0.85	6.8	1.0	2.4	111.0	6850
DDOR500L-06	500	900	994	8656	96.1	95.8	94.8	0.85	6.8	1.0	2.4	118.5	7200
DDOR500L-06	500	1000	994	9618	96.3	96.0	95.0	0.85	6.8	1.1	2.4	126.5	7550

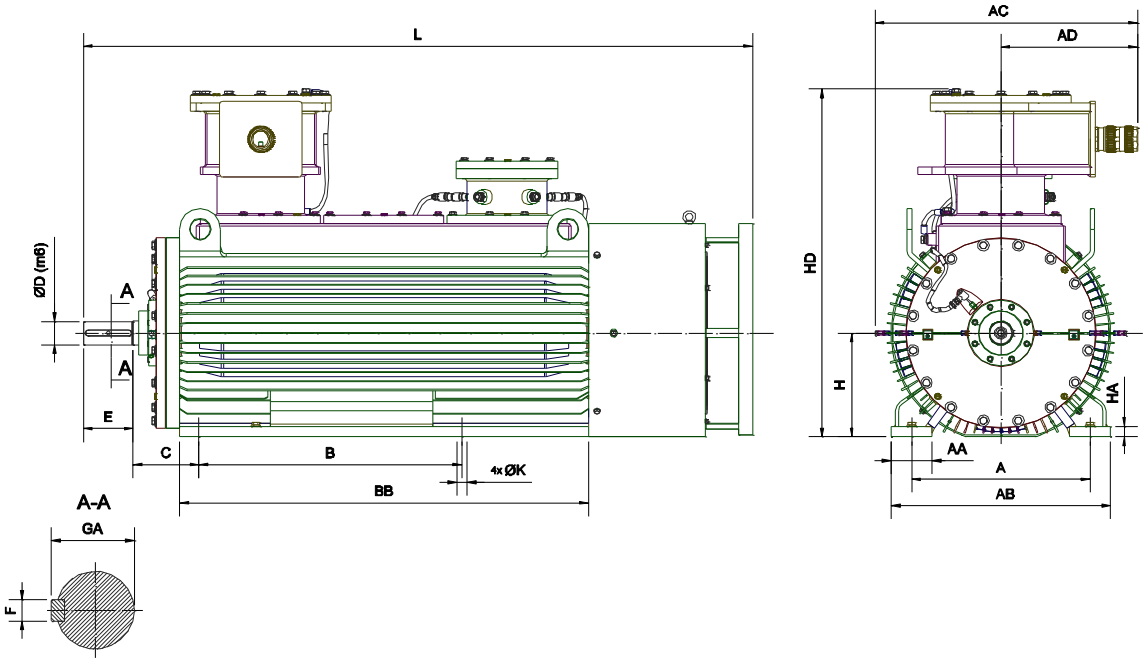
4.4 Dimensions motors fram size 355–500 (Standard)

Mounting arrangement IM 1001 (B3)



Type	Frame size	No. of poles	Dimensions according to IEC [mm]											
			H	A	B	C	AB	BB	HD	AC	AD	HA	K	L
			Dimensions according to DIN [mm]											
			h	b	a	w1	f	e	m1	g	v	c	s	k
DDOR355M-02	355	2	355	610	900	254	700	1250	1400	910	450	30	35	1950
DDOR355L-02	355	2	355	610	1120	254	700	1450	1400	910	450	30	35	2150
DDOR355M-04(6)	355	4-6	355	610	900	254	700	1250	1400	910	450	30	35	1950
DDOR355L-04(6)	355	4-6	355	610	1120	254	700	1450	1400	910	450	30	35	2150
DDOR400M-02	400	2	400	710	1120	280	840	1450	1460	930	450	30	35	2180
DDOR400L-02	400	2	400	710	1250	280	840	1600	1460	930	450	30	35	2330
DDOR400M-04(6)	400	4-6	400	710	1120	280	840	1450	1460	930	450	30	35	2180
DDOR400L-04(6)	400	4-6	400	710	1250	280	840	1600	1460	930	450	30	35	2330
DDOR450M-02	450	2.	450	800	112o	315	950	1450	1560	980	450	40	42	2340
DDOR450L-02	450	2	450	800	1250	315	950	1650	1560	980	450	40	42	2540
DDOR450M-04(6)	450	4-6	450	800	112o	315	950	1450	1560	980	450	40	42	2340
DDOR450L-04(6)	450	4-6	450	800	1250	315	950	1650	1560	980	450	40	42	2540
DDOR500M-02	500	2	500	850	1250	355	1020	1650	1670	1030	450	40	42	2540
DDOR500L-02	500	2	500	850	1400	355	1020	1750	1670	1030	450	40	42	2640
DDOR500M-04(6)	500	4-6	500	850	1250	355	1020	1650	1670	1030	450	40	42	2580
DDOR500L-04(6)	500	4-6	500	850	1400	355	1020	1750	1670	1030	450	40	42	2680

Mounting arrangement IM 1001 (B3)

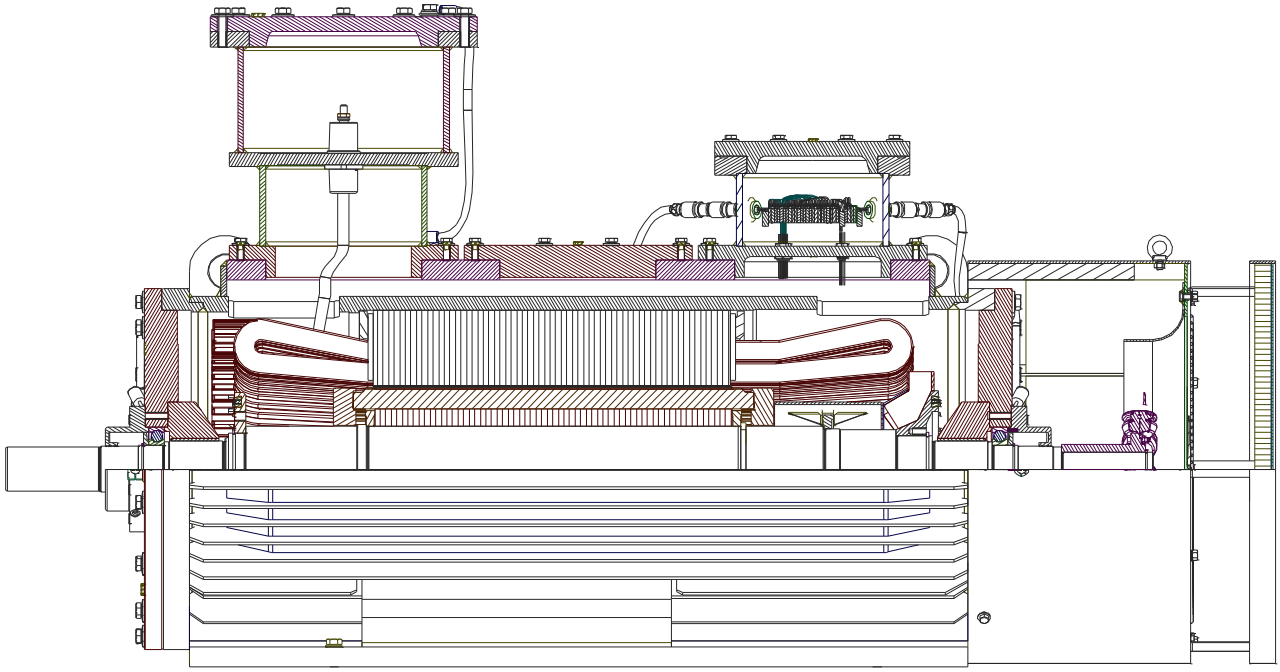


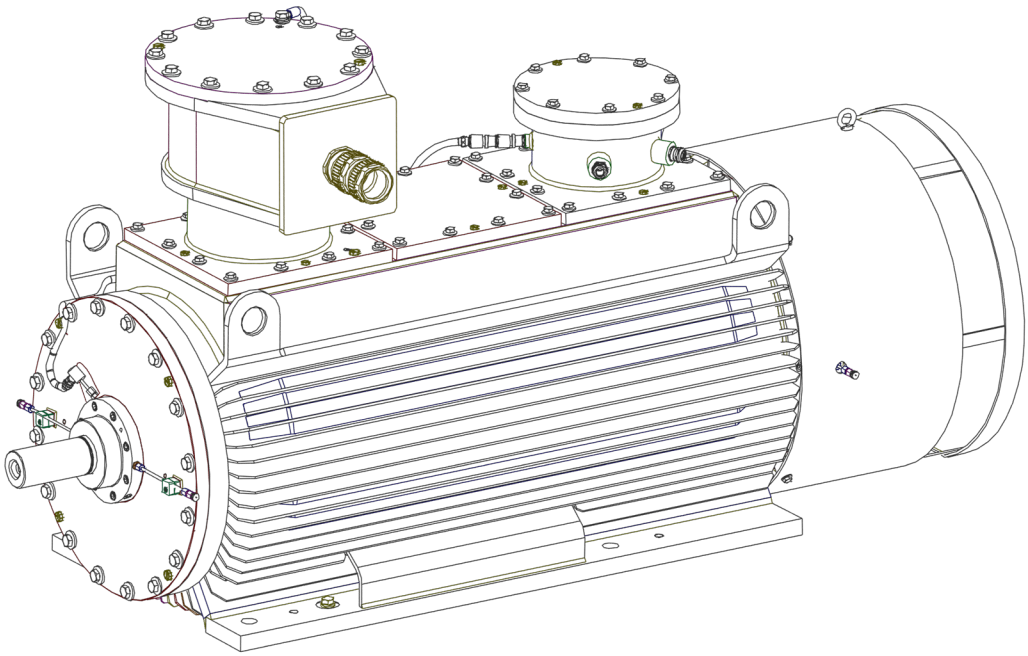
Typ	Frame size	No. of poles	Dimensions according to IEC [mm]					
			AA	D	E	F	GD	GA
			Dimensions according to DIN [mm]					
			n	d	l	u		t
DDOR355M-02	355	2	120	70	140	20	12	74.5
DDOR355L-02	355	2	120	70	140	20	12	74.5
DDOR355M-04(6)	355	4-6	120	100	210	28	16	106
DDOR355L-04(6)	355	4-6	120	100	210	28	16	106
DDOR400M-02	400	2	150	80	170	22	14	85
DDOR400L-02	400	2	150	80	170	22	14	85
DDOR400M-04(6)	400	4-6	150	110	210	28	16	116
DDOR400L-04(6)	400	4-6	150	110	210	28	16	116
DDOR450M-02	450	2	225	80	170	22	14	85
DDOR450L-02	450	2	225	80	170	22	14	85
DDOR450M-04(6)	450	4-6	225	110	210	28	16	116
DDOR450L-04(6)	450	4-6	225	110	210	28	16	116
DDOR500M-02	500	2	225	90	170	25	14	95
DDOR500L-02	500	2	225	90	170	25	14	95
DDOR500M-04	500	4	225	120	210	28	16	127
DDOR500L-04	500	4	225	120	210	28	16	127
DDOR500M-06	500	6	225	130	250	32	18	137
DDOR500L-06	500	6	225	130	250	32	18	137

5 Mechanically execution und variants

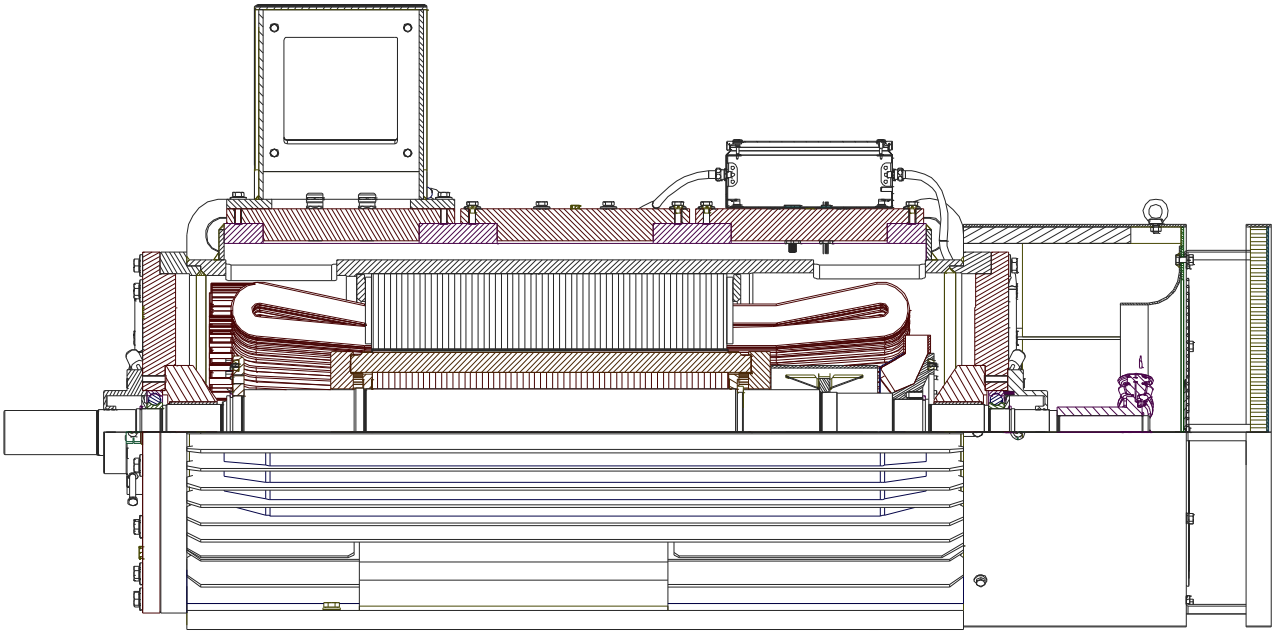
5.1 Standard motors

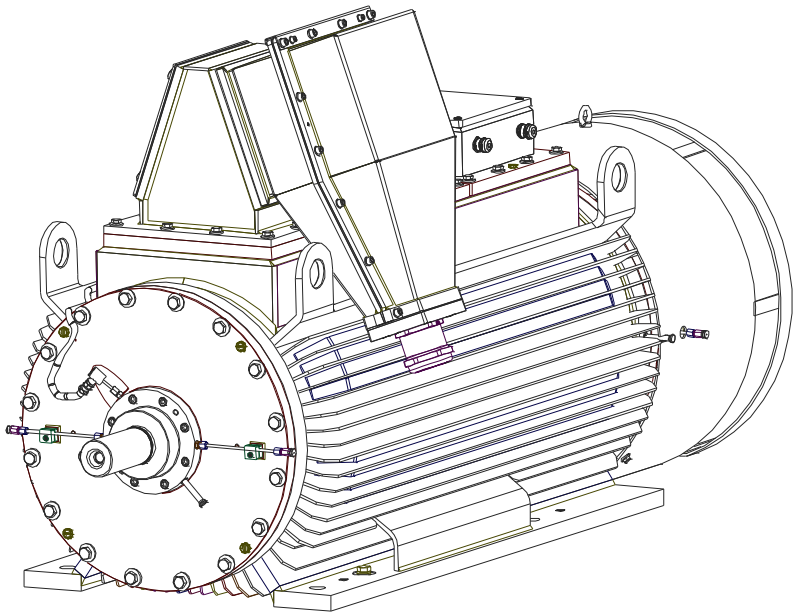
Ex db – IC 411 – cut view and 3D view





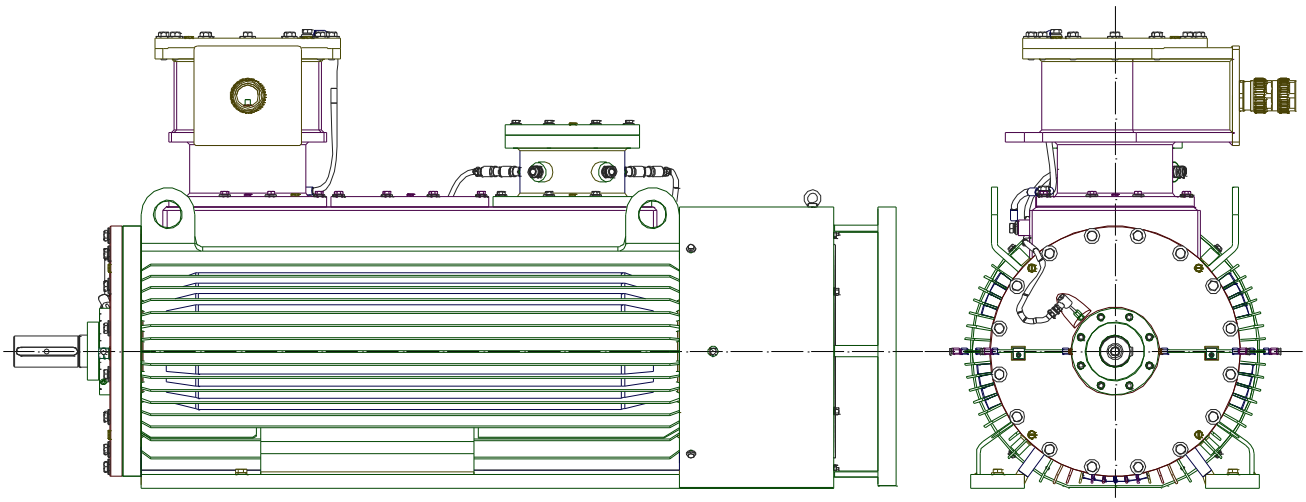
Ex db eb – IC411 – cut view and 3D view



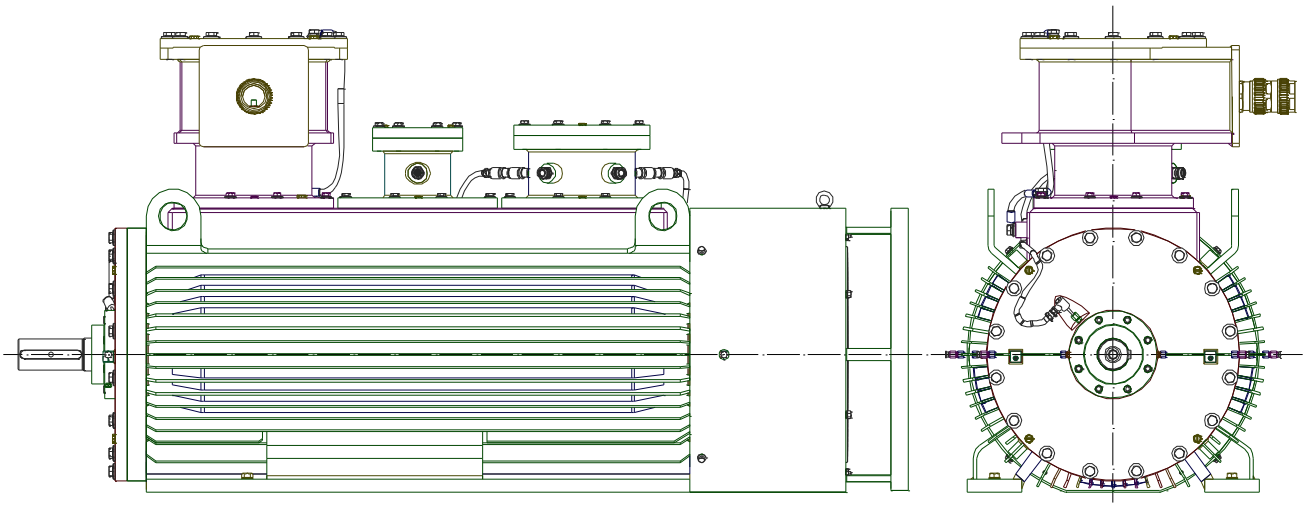


5.2 Variants of terminal boxes

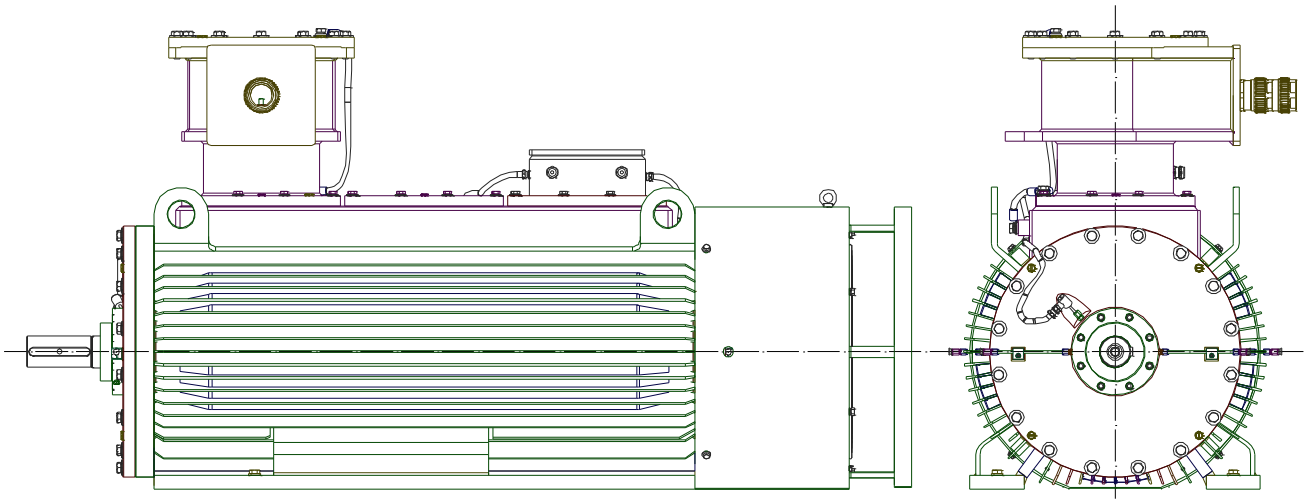
Main terminal box Ex db – Auxilliary terminal box Ex db



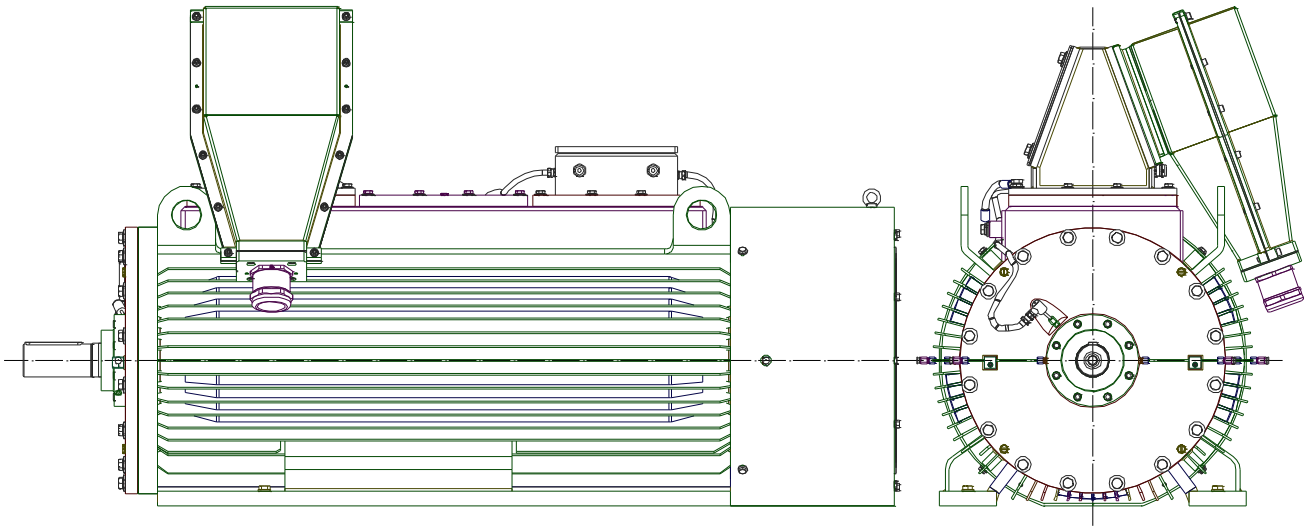
Main terminal box Ex db – Two auxilliary terminal boxes Ex db



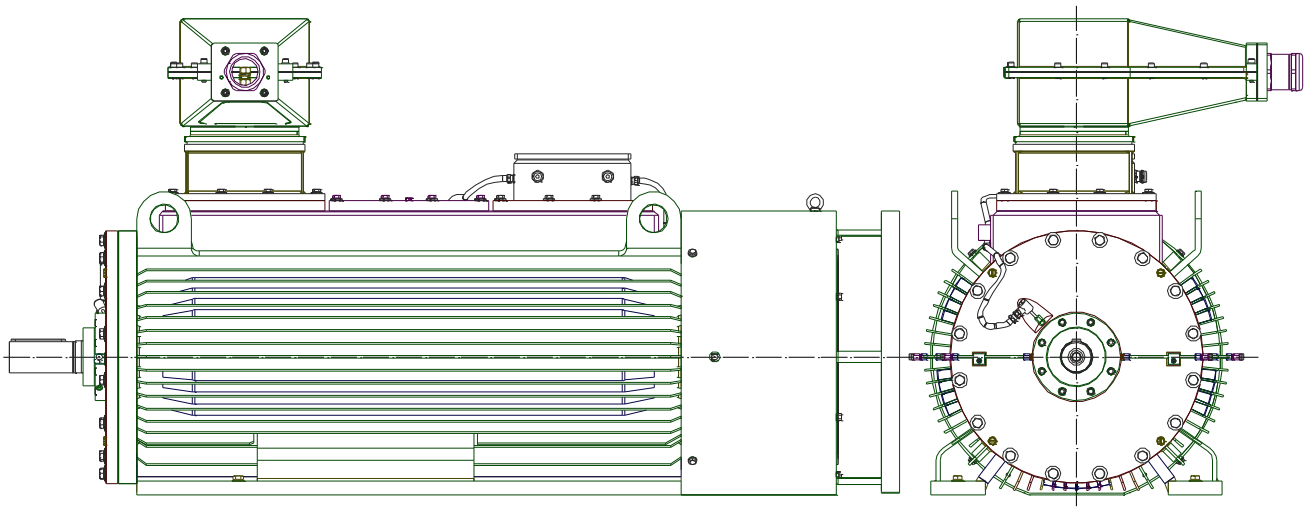
Main terminal box Ex db – Auxilliary terminal box Ex eb



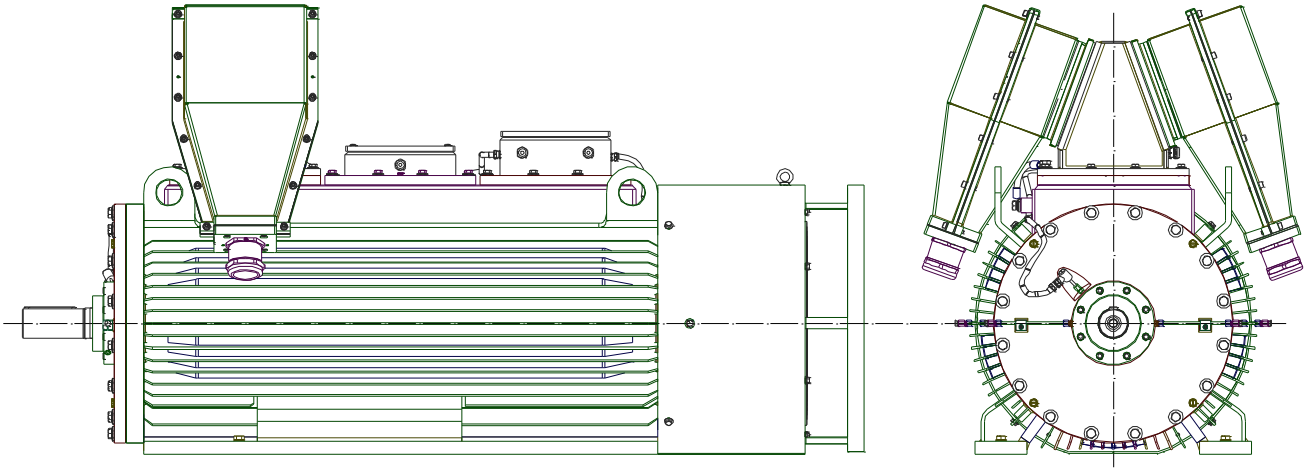
Main terminal box Ex eb – Auxilliary terminal box Ex eb



Main terminal box Ex eb – Auxilliary terminal box Ex eb

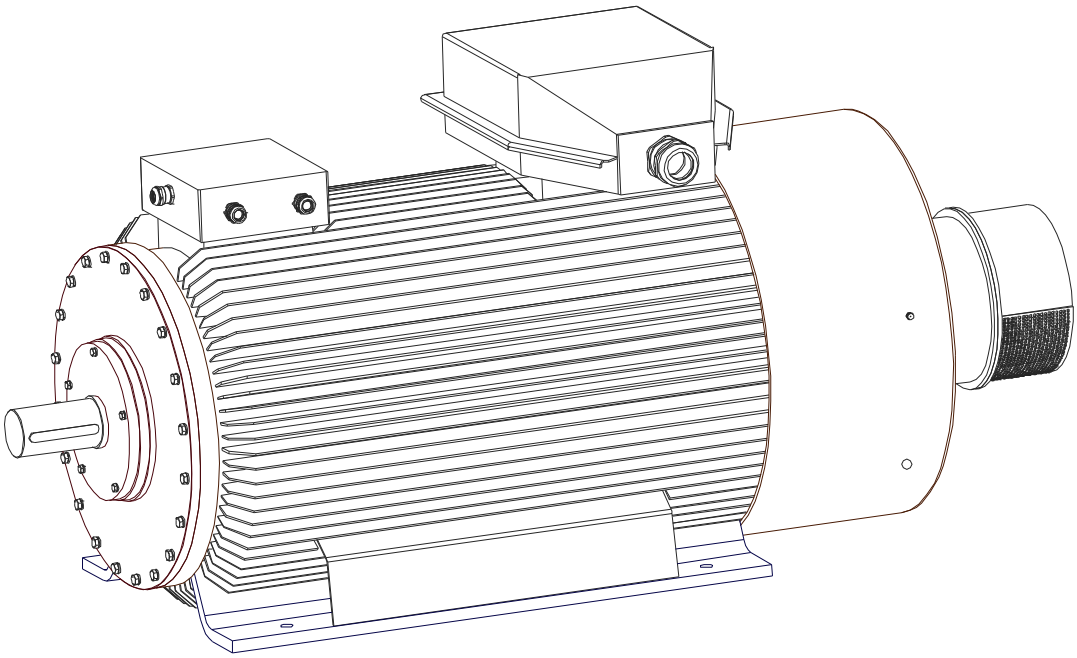


Two main terminal boxes Ex eb – Two auxilliary terminal boxes Ex eb

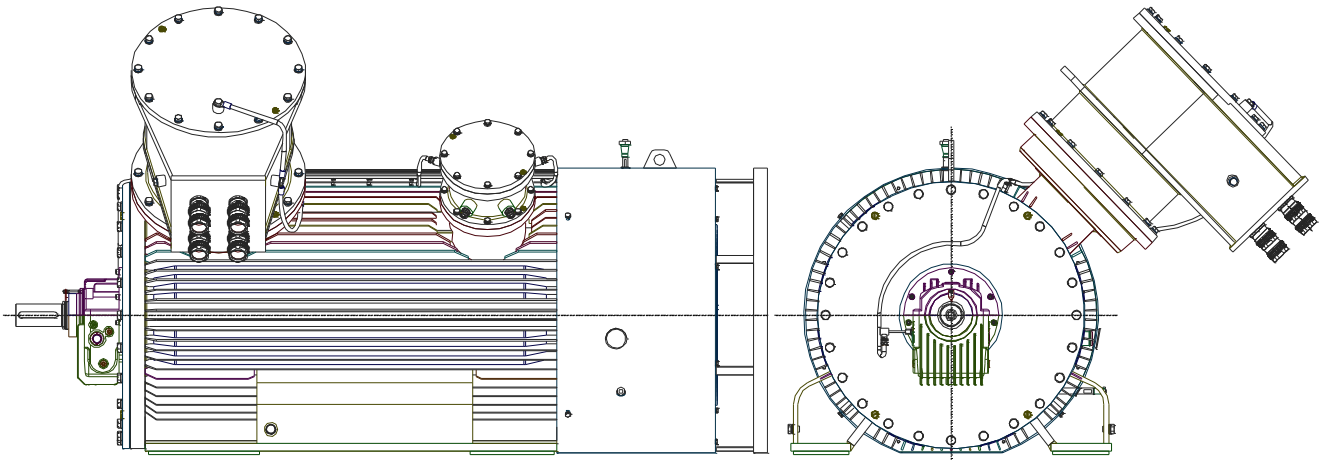


5.3 Customized motors

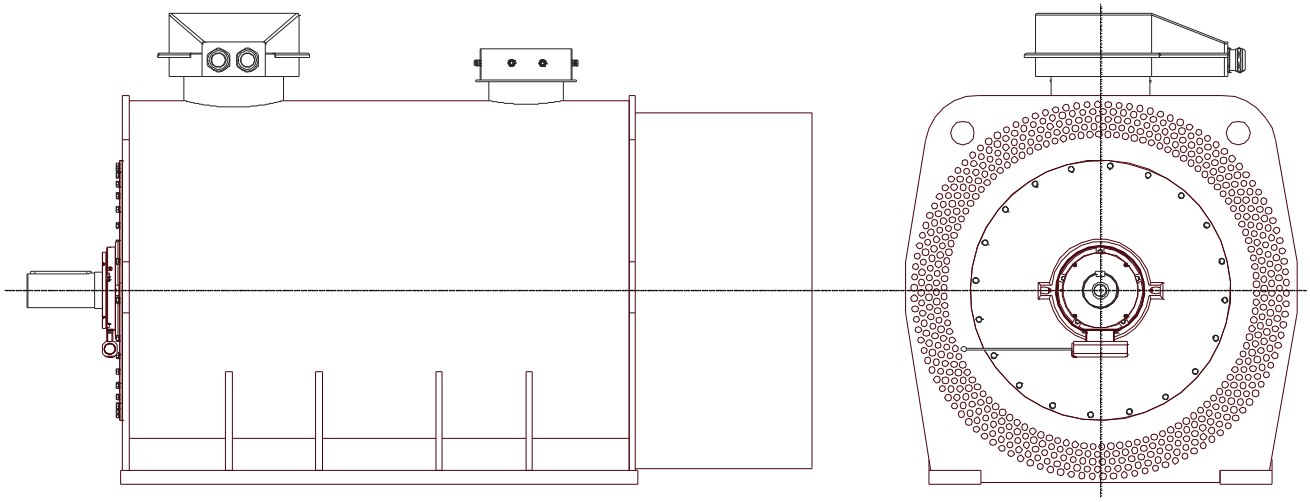
IM B3 – IC 416 – Variant with forced ventilation – Frame size 500



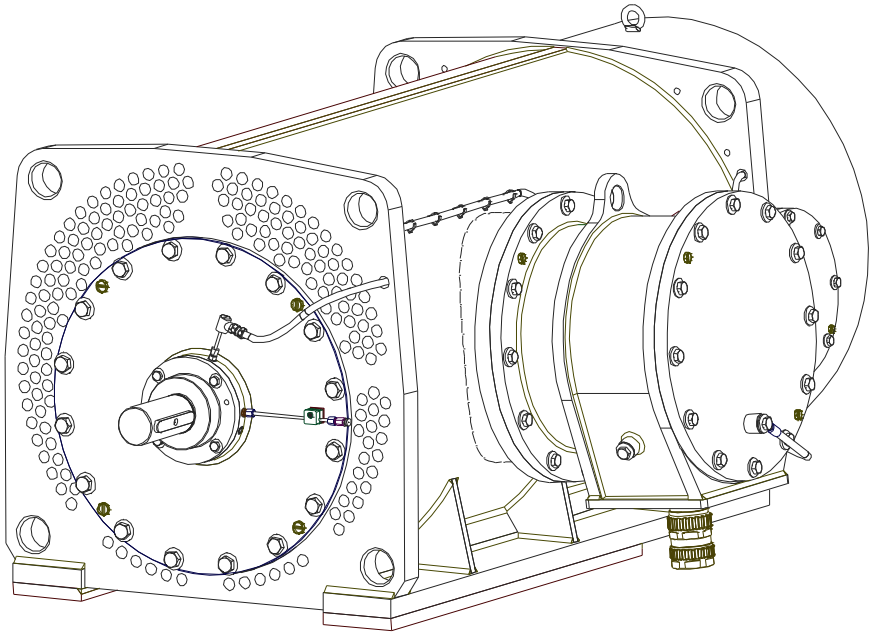
IM B3 – IC 411 – Variant with antifriction bearings and angular Ex db terminal boxes – Frame size 500



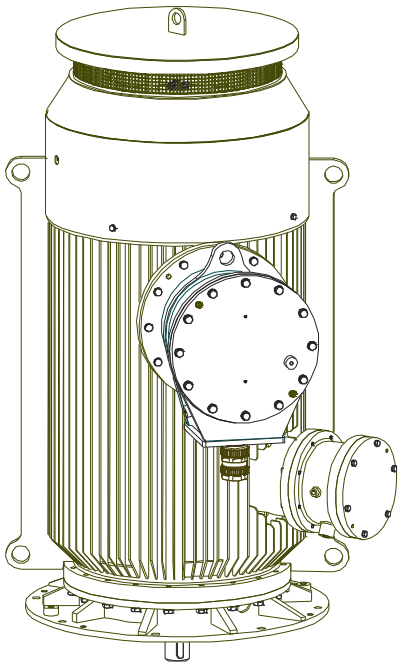
IM B3 – IC 511 – Variant with enhanced power – Frame size 710



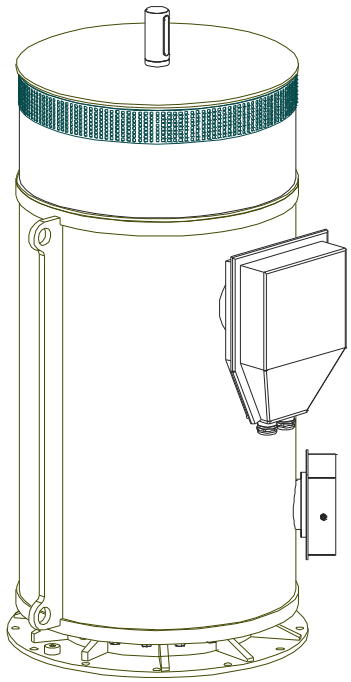
IM B3 – IC 511 – Variant with enhanced power and reduced shaft height – Frame size (shaft height) 425



IM V1 – IC 411 – Variant for vertical application, flange and shaft downwards – Frame size 560



IM V2 – IC 511 – Variant for vertical application, flange downwards, shaft end upwards – Frame size 710



6 Spare parts

No.	Designation	No.	Designation
1	Motor housing	14	External cover
2	Wounded stator	15	Shaft
3	Terminal box	16	Rotor
4	Terminal box cover	17	Bearing NDE
5	Auxiliary terminal box	18	End shield NDE
6	Auxiliary terminal box cover	19	External ring
7	Space heater terminal box	20	Safety washer
8	Space heater terminal box cover	21	Safety nut
9	Bearing DE	22	External cover
10	End shield DE	23	External fan r
11	External ring	24	Fan hood
12	Safety washer	25	Bearing RTD
13	Safety nut