

General Purpose AC Motors

industrial duty three-phase

OME Series



- ✓ **Cast Iron AC Motors:**
1 to 5 HP
- ✓ **NEMA T Frame**
- ✓ **203 to 230/460 Volt,**
3-Phase
- ✓ **TEFC (Totally Enclosed**
Fan Cooled)
- ✓ **3600, 1800, and 900 RPM**
- ✓ **Industrial Duty**
- ✓ **Premium-Grade Quality**
- ✓ **Inverter-Duty Capable**
 - **Variable Torque = 5:1**
Speed Turndown
 - **Constant Torque = 2:1**
Speed Turndown

OMEGA® general purpose AC motors are made by one of the leading motor manufacturers for over 45 years, a world-class accredited supplier with a long history of quality testing procedures and standards performed by the finest independent testing laboratories in the world. Our motors are made in high quality ISO9001-certified facilities using only the highest quality material and manufacturing processes. All motors are electrically tested in sub-assembly production and again after final assembly, and come with an ironclad 2-year warranty.

Features and Benefits of AC Motors from Omegamation

Following are a few of the many reasons why our AC motors provide the best combination of quality and performance at the lowest prices.

Bearings

There are no sleeve bearings in our entire line of general purpose motors. We use nothing but premium quality SKF brand ball bearings on both the DE (drive end) and the ODE (opposite drive end). It is exactly for this reason that we can mount our motors in the "shaft up" or "shaft down" position with no derating. And all of our AC motors have a high tensile strength steel shaft.

Seals

Our motors are protected from moisture and contaminants by the use of V-ring shaft seals on both the drive-end and the opposite drive-end. These motors are name plated IP54 Enclosure.

Windings/Insulation

All of our motors have copper windings and are manufactured with Class F insulation. This 155°C insulation system gives us inverter duty capability:

- A. Variable Torque Applications:
(Basically, fans and blowers)
5 to 1 speed turndown permitted
- B. Constant Torque Applications:
(Basically, all but fan and blower loads)
2 to 1 speed turndown

Castings

Our motors are unicast construction, meaning the entire frame is cast iron in one piece, as opposed to two-piece castings that are welded in the middle of the main frame or at the point where the feet are attached to the frame. This unfortunate, cost cutting practice is becoming more prevalent in our industry.



OME1-18-143T,
shown smaller than
actual size.

Metallurgy

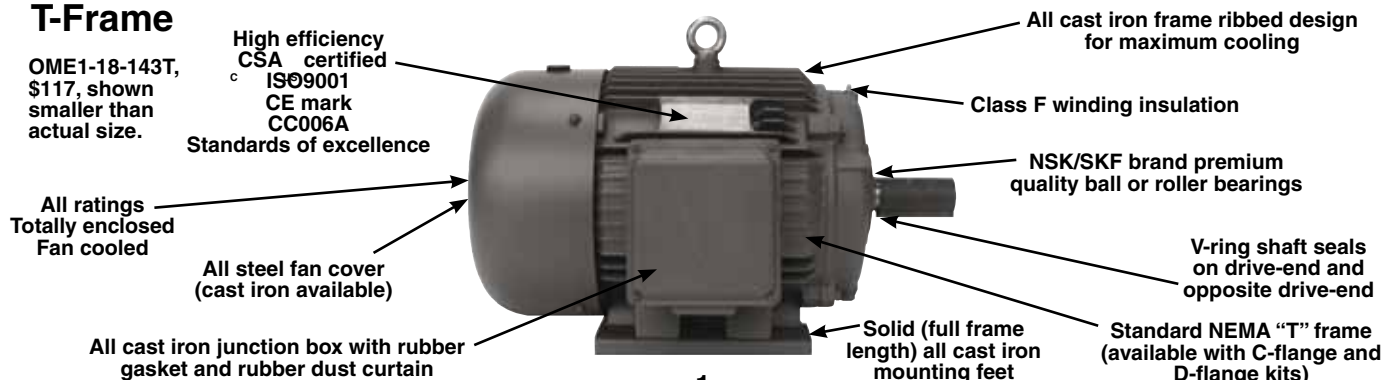
Our motors use only high density, FC200 cast iron frames on all sizes starting at 1 HP. This assures rapid heat transfer from the core of the motor into the motor's fins from which point it is dissipated by the motor's fan. Only a select few use this high density iron which results in longer insulation and bearing life. Many competitors use less expensive FC150 or even FC100 iron.

Warranty

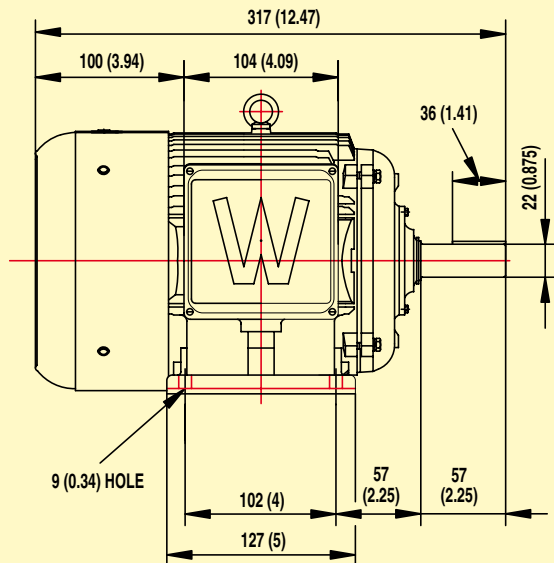
Our warranty matches the motors quality in that it leads the industry in guaranteeing customer satisfaction. All of our AC motors have an ironclad two-year warranty and it is a nameplate-only warranty. That is to say, the customer sends us the nameplate and we send him a new motor. No paperwork - no delay - no waiting for credit based on a factory inspection - and no questions asked! Simply call our customer service

Industrial Duty Three-phase motors

T-Frame

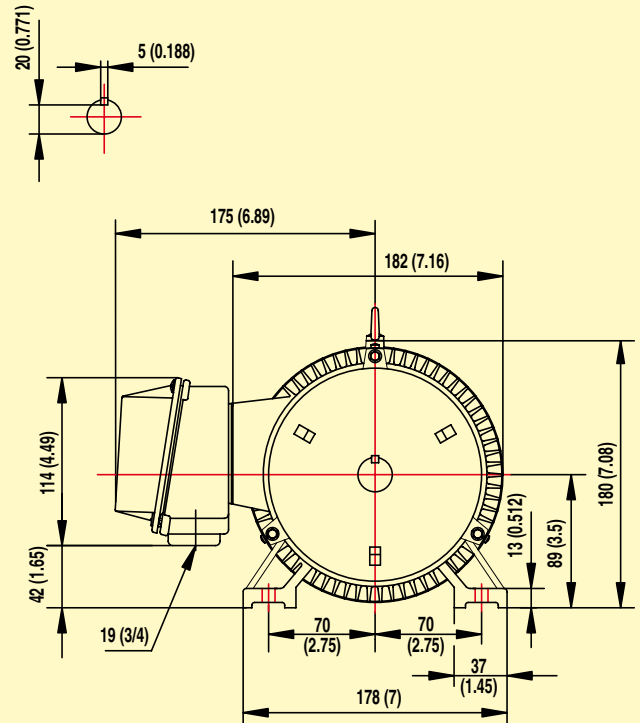


T-Frame

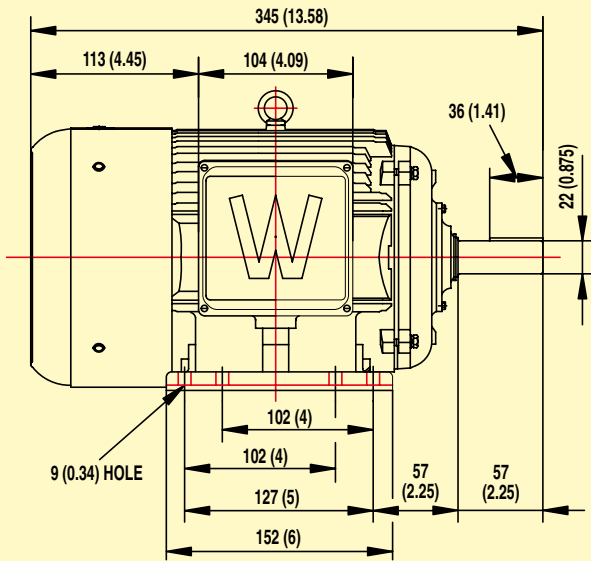


Dimensions: mm (in)

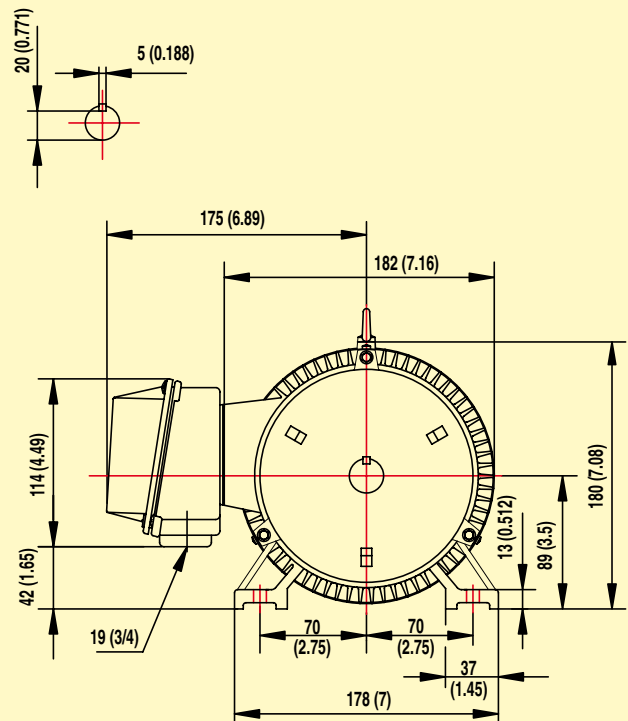
NEMA Frame 143T



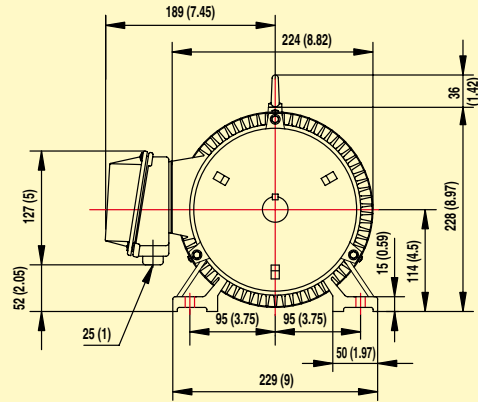
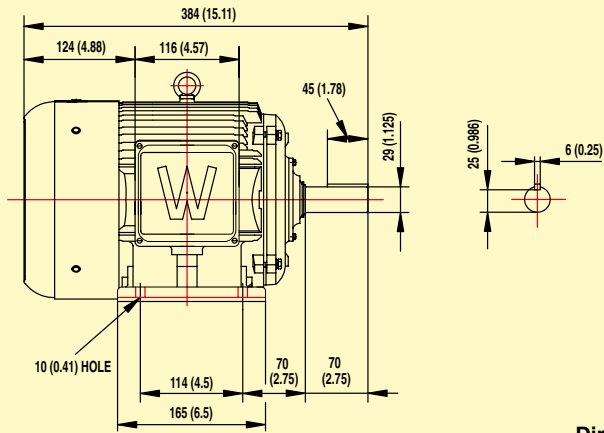
NEMA Frame 145T



Dimensions: mm (in)

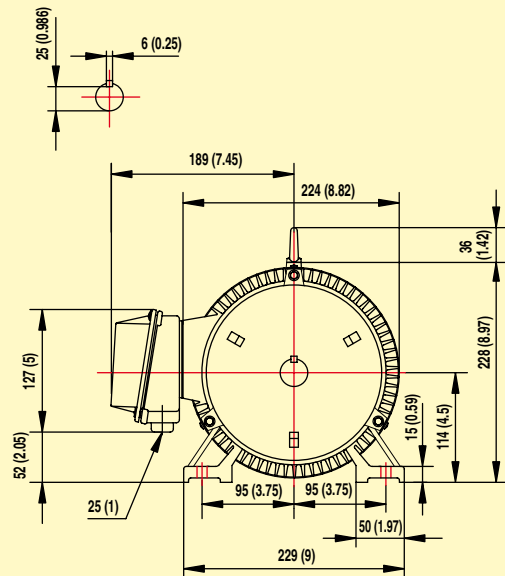
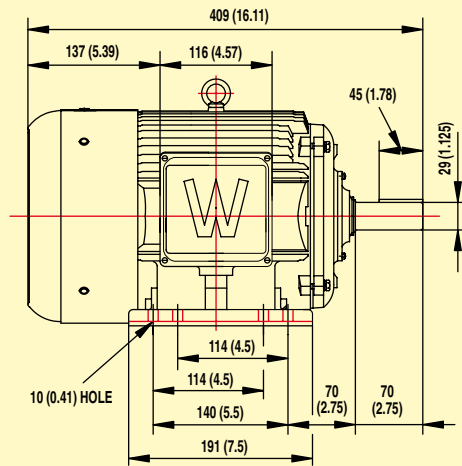


NEMA Frame 182T



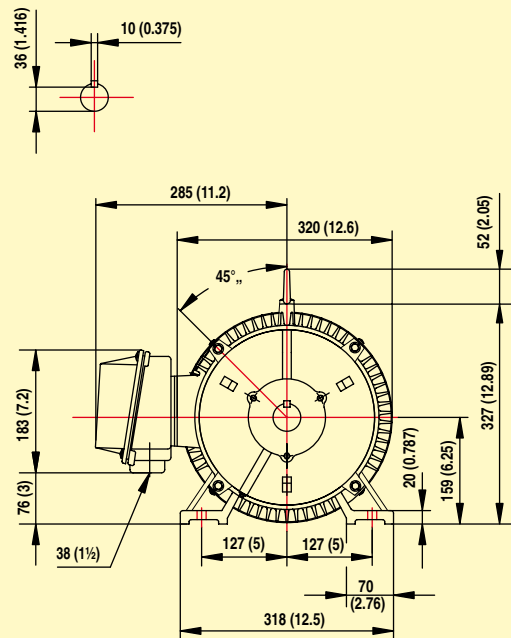
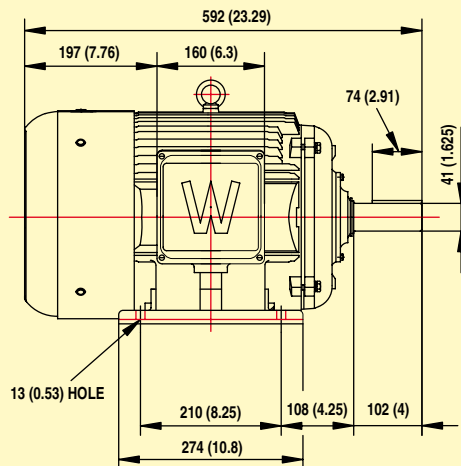
Dimensions: mm (in)

NEMA Frame 184T



Dimensions: mm (in)

NEMA Frame 254T



Dimensions: mm (in)

"T" FRAME MOTORS SPECIFICATIONS

	OME1-18-143T	OME1.5-36-143T	OME1.5-18-145T	OME2-36-145T
HP	1	1.5	1.5	2
RPM/POLES	1800/4	3600/2	1800/4	3600/2
VOLTAGE/PHASE	208 to 230/460V 3	208 to 230/460V 3	208 to 230/460V 3	208 to 230/460V 3
FRAME	143T	143T	145T	145T
FREQUENCY	60 HZ	60 HZ	60 HZ	60 HZ
RATED SPEED	1760 RPM	3480 RPM	1755 RPM	3480 RPM
FULL LOAD AMPS	3.0/1.5 A	3.8/1.9 A	4.2/2.1 A	5.0/2.5 A
DUTY CYCLE	Continuous	Continuous	Continuous	Continuous
SERVICE FACTOR	1.15	1.15	1.15	1.15
AMBIENT TEMP	40°C	40°C	40°C	40°C
ALTITUDE	3300'	3300'	3300'	3300'
INSULATION CLASS	F	F	F	F
TEMP RISE @ FULL LOAD	80°C	80°C	80°C	80°C
DESIGN	B	B	B	B
RATED TORQUE	3.00 lb-ft	2.23 lb-ft	4.41 lb-ft	3.03 lb-ft
LOCKED ROTOR TORQUE	250%	180%	240%	200%
BREAKDOWN TORQUE	350%	250%	320%	270%
LOCKED ROTOR AMPS (STARTING)	30.0/15.0 A	40.0/20.0 A	40.0/20.0 A	50.0/25.0 A
IL/IN	10.0 Code N	10.5 Code M	9.5 Code M	10.0 Code L
INRUSH CURRENT	84.8/42.4 A	113.2/56.6 A	113.2/56.6 A	141.4/70.7 A
SLIP	2.22%	3.33%	2.50%	3.33%
NO LOAD CURRENT	1.9/0.95 A	1.44/0.72 A	2.44/1.22 A	1.54/0.77 A
MAX TIME LOCKED ROTOR (HOT)	20 seconds	20 seconds	20 seconds	20 seconds
DE BEARING	6205-ZZ	6205-ZZ	6205-ZZ	6205-ZZ
ODE BEARING	6205-ZZ	6205-ZZ	6205-ZZ	6205-ZZ
REGREASING INT-DE	N/A	N/A	N/A	N/A
REGREASING INT-ODE	N/A	N/A	N/A	N/A
ENCLOSURE	TEFC (IP54)	TEFC (IP54)	TEFC (IP54)	TEFC (IP54)
MOUNTING	F-1 (F-2 suitable)	F-1 (F-2 suitable)	F-1 (F-2 suitable)	F-1 (F-2 suitable)
ROTATION	CW/CCW	CW/CCW	CW/CCW	CW/CCW
MOMENT OF INERTIA	0.015 lb-ft squared	0.009 lb-ft squared	0.015 lb-ft squared	0.010 lb-ft squared
C FLANGE	W140TC	W140TC	W140TC	W140TC
D FLANGE	W140TD	W140TD	W140TD	W140TD
CONNECTION DIAGRAM	230/460V 9 lead Y	230/460V 9 lead Y	230/460V 9 lead Y	230/460V 9 lead Y
SHAFT MATERIAL	1045 carbon steel	1045 carbon steel	1045 carbon steel	1045 carbon steel
APPROX WEIGHT	58 lb	50 lb	60 lb	60 lb
POWER FACTOR @ LOAD = 100%	0.71	0.86	0.74	0.87
POWER FACTOR @ LOAD = 75%	0.63	0.82	0.66	0.83
POWER FACTOR @ LOAD = 50%	0.44	0.72	0.54	0.74
EFFICIENCY (%) @ LOAD = 100%	82.5	82.5	84.0	84.0
EFFICIENCY (%) @ LOAD = 75%	81.5	82.0	84.1	83.5
EFFICIENCY (%) @ LOAD = 50%	77.9	81.0	82.0	83.3

OME2-18-145T	OME3-18-182T	OME3-36-182T	OME5-18-184T	OME5-36-184T	OME5-9-254T
2	3	3	5	5	5
1800/4	1800/4	3600/2	1800/4	3600/2	900/8
208 to 230/460V 3	208 to 230/460V 3	208 to 230/460V 3	208 to 230/460V 3	208 to 230/460V 3	208 to 230/460V 3
145T	182T	182T	184T	184T	254T
60 HZ	60 HZ	60 HZ	60 HZ	60 HZ	60 HZ
1750 RPM	1750 RPM	3520 RPM	1750 RPM	3510 RPM	870 RPM
5.4/2.7 A	7.72/3.86 A	7.2/3.6 A	11.8/5.9 A	11.3/5.65 A	15.2/7.6 A
Continuous	Continuous	Continuous	Continuous	Continuous	Continuous
1.15	1.15	1.15	1.15	1.15	1.15
40°C	40°C	40°C	40°C	40°C	40°C
3300'	3300'	3300'	3300'	3300'	3300'
F	F	F	F	F	F
80°C	80°C	80°C	80°C	80°C	80°C
B	B	B	B	B	B
6.05 lb-ft	9.07 lb-ft	4.50 lb-ft	15.1 lb-ft	7.46 lb-ft	30 lb-ft
230%	280%	230%	270%	210%	210%
290%	330%	360%	310%	355%	280%
50.0/25.0 A	64.0/32.0 A	64.0/32.0 A	92.0/46.0 A	92.0/46.0 A	92.0/46.0 A
9.3 Code L	8.3 Code K	8.9 Code K	7.8 Code J	8.1 Code J	6.1 Code J
141.4/70.7 A	181/90.5 A	181/90.5 A	260/130 A	260/130 A	—
2.78%	2.78%	2.22%	2.78%	2.50%	3.33%
2.76/1.38 A	3.74/1.87 A	2.8/1.4 A	5.1/2.55 A	3.96/1.98 A	7.6/3.8 A
20 seconds	20 seconds	20 seconds	20 seconds	20 seconds	20 seconds
6205-ZZ	6306-ZZ	6306-ZZ	6306-ZZ	6306-ZZ	6309
6205-ZZ	6306-ZZ	6306-ZZ	6306-ZZ	6306-ZZ	6209
N/A	N/A	N/A	N/A	N/A	12,400 hour (0.46 oz)
N/A	N/A	N/A	N/A	N/A	12,700 hour (0.29 oz)
TEFC (IP54)	TEFC (IP54)	TEFC (IP54)	TEFC (IP54)	TEFC (IP54)	TEFC (IP54)
F-1 (F-2 suitable)	F-1 (F-2 suitable)	F-1 (F-2 suitable)	F-1 (F-2 suitable)	F-1 (F-2 suitable)	F-1 (F-2 suitable)
CW/CCW	CW/CCW	CW/CCW	CW/CCW	CW/CCW	CW/CCW
0.020 lb-ft squared W140TC	0.020 lb-ft squared W180TC	0.034 lb-ft squared W180TC	0.069 lb-ft squared W180TC	0.040 lb-ft squared W180TC	2.036 lb-ft squared W250TC
W140TD	W180TD	W180TD	W180TD	W180TD	W250TD
230/460V 9 lead Y	230/460V 9 lead Y	230/460V 9 lead Y	230/460V 9 lead Y	230/460V 9 lead Y	230/460V 9 lead delta
1045 carbon steel	1045 carbon steel	1045 carbon steel	1045 carbon steel	1045 carbon steel	1045 carbon steel
70 lb	90 lb	100 lb	110 lb	110 lb	240 lb
0.77	0.81	0.86	0.84	0.88	0.71
0.70	0.75	0.81	0.78	0.83	0.66
0.58	0.63	0.73	0.66	0.74	0.56
84.0	87.5	85.5	87.5	87.5	85.5
84.5	87.1	85.2	88.0	88.0	85.7
83.5	85.3	82.7	87.6	87.4	84.2

To Order

MODEL NO.	DESCRIPTION
OME1-18-143T	143T frame cast iron motor, 208-230/460 V, three-phase, 1 HP, 1800 RPM
OME1.5-36-143T	143T frame cast iron motor, 208-230/460 V, three-phase, 1.5 HP, 3600 RPM
OME1.5-18-145T	145T frame cast iron motor, 208-230/460 V, three-phase, 1.5 HP, 1800 RPM
OME2-36-145T	145T frame cast iron motor, 208-230/460 V, three-phase, 2 HP, 3600 RPM
OME2-18-145T	145T frame cast iron motor, 208-230/460 V, three-phase, 2 HP, 1800 RPM
OME3-18-182T	182T frame cast iron motor, 208-230/460 V, three-phase, 3 HP, 1800 RPM
OME3-36-182T	182T frame cast iron motor, 208-230/460 V, three-phase, 3 HP, 3600 RPM
OME5-18-184T	184T frame cast iron motor, 208-230/460 V, three-phase, 5 HP, 1800 RPM
OME5-36-184T	184T frame cast iron motor, 208-230/460 V, three-phase, 5 HP, 3600 RPM
OME5-9-254T	245T frame cast iron motor, 208-230/460 V, three-phase, 5 HP, 900 RPM

Ordering Example: OME1-18-143T, 143T frame cast iron motor, 1 HP, 1800 RPM.



OMW140TC, shown smaller than actual size.



OMW184T, shown smaller than actual size.

ACCESSORIES

MODEL NO.	DESCRIPTION
OMW140TC	C-flange kit, frame 143T, 145T
OMW180TC	C-flange kit, frame 182T, 184T
OMW250TC	C-flange kit, frame 254T, 256T
OMW140TD	D-flange kit, frame 143T, 145T
OMW180TD	D-flange kit, frame 182T, 184T
OMW250TD	D-flange kit, frame 254T, 256T
OMW143T	Motor slide base, 143T frame
OMW145T	Motor slide base, 145T frame
OMW182T	Motor slide base, 182T frame
OMW184T	Motor slide base, 184T frame
OMW254T	Motor slide base, 254T frame

Ordering Example: OMW140TC, C-flange kit for 143T-frame motor.