

IronHorse® MTCP Premium Efficiency Cast-Iron Three-Phase AC Motors

T-Frame TEFC Motors – Three-Phase Industrial Duty – 1/2 to 200hp

TC-Frame (C-Face) TEFC Motors – Three-Phase Industrial Duty – 1/2 to 100hp



**Premium Efficiency
Three-Phase Cast Iron T-Frame**



**Premium Efficiency
Three-Phase Cast Iron TC-Frame**

Features

- Available in 1200, 1800, & 3600 rpm
- Totally Enclosed Fan Cooled (TEFC) enclosure
- NEMA TC-frame (C-face) and T-frame motors
- Cast iron frame with ribbed design for maximum cooling
- Solid full frame length cast iron mounting feet
- Steel fan cover
- Cast iron junction box with rubber gasket and rubber dust cover
- NSK/NTN/SKF brand premium quality ball or roller bearings
- Maintenance free bearings (10 hp and below)
- V-ring shaft seals on drive end and on opposite drive end
- Electrically reversible
- Class F winding insulation
- Service Factor: 1.15 (1.0 with AC drive)
- Meets or exceeds Premium Efficiency standards
- Class I, Div 2 hazardous locations
- CSA_{US} certified, ISO9001, CE
- Inverter ratings: 10:1 (variable torque); 4:1 (constant torque)
- Two year warranty

Accessories & Spare Parts Available

- STABLE motor slide bases for adjustable mounting
- C-flange kits (for converting T-frame motors to TC-frame)
- Replacement junction boxes
- Replacement fans
- Replacement fan shrouds

Applications

- Fans
- Conveyors
- Pumps
- Material Handling
- Metal Processing
- Textile Processing
- Test Stands



Company Information

Systems Overview

Programmable Controllers

Field I/O

Software

C-more & other HMI

Drives

Soft Starters

Motors & Gearbox

Steppers/ Servos

Motor Controls

Proximity Sensors

Photo Sensors

Limit Switches

Encoders

Current Sensors

Pressure Sensors

Temperature Sensors

Pushbuttons/ Lights

Process

Relays/ Timers

Comm.

Terminal Blocks & Wiring

Power

Circuit Protection

Enclosures

Tools

Pneumatics

Appendix

Product Index

Part # Index

IronHorse® MTCP Premium Efficiency Cast-Iron Three-Phase AC Motors

T-Frame TEFC Motors – Three-Phase Industrial Duty – 1–200 hp – 1800 rpm

TC-Frame (C-Face) TEFC Motors – 3-Phase Industrial Duty – 1–100 hp – 1800 rpm

Motor Specifications – Premium Efficiency T & TC Frame Three-Phase Motors – 1800 rpm																																																																																		
Part Number	Price	HP	Base RPM	Phase	Voltage	Housing	NEMA Frame	Mounting ⁽¹⁾	Holes / Foot	Service Factor	F.L. Amps @230V/460V	Approx Product Weight (lb)																																																																						
MTCP-001-3BD18	<--->	1	1800	3	208-230/460	TEFC		F1(F2)	1.15		3.22 / 1.61	41																																																																						
MTCP-001-3BD18C	<--->											45																																																																						
MTCP-1P5-3BD18	<--->	1.5																4.64 / 2.32	47																																																															
MTCP-1P5-3BD18C	<--->																		50																																																															
MTCP-002-3BD18	<--->	2																							6.0 / 3.0	56																																																								
MTCP-002-3BD18C	<--->																									60																																																								
MTCP-003-3BD18	<--->	3																														8.05 / 4.02	84 (2)																																																	
MTCP-003-3BD18C	<--->																																92 (2)																																																	
MTCP-005-3BD18	<--->	5																																					13.41 / 6.71	99 (2)																																										
MTCP-005-3BD18C	<--->																																							107 (2)																																										
MTCP-7P5-3BD18	<--->	7.5																																												18.68 / 9.34	150 (2)																																			
MTCP-7P5-3BD18C	<--->																																														154 (2)																																			
MTCP-010-3BD18	<--->	10																																																			24.9 / 12.45	186 (2)																												
MTCP-010-3BD18C	<--->																																																					190 (2)																												
MTCP-015-3BD18	<--->	15																																																										35.8 / 17.9	329 (2)																					
MTCP-015-3BD18C	<--->																																																												325 (2)																					
MTCP-020-3BD18	<--->	20																																																																	47.94 / 23.97	390 (2)														
MTCP-020-3BD18C	<--->																																																																			370 (2)														
MTCP-025-3BD18 ⁽²⁾	<--->	25																																																																									455 (2)							
MTCP-025-3BD18C ⁽²⁾	<--->																																																																										467 (2)							
MTCP-030-3BD18 ⁽²⁾	<--->	30																																																																									488 (2)							
MTCP-030-3BD18C ⁽²⁾	<--->																																																																										497 (2)							
MTCP-040-3BD18 ⁽²⁾	<--->	40																																																																										611 (2)						
MTCP-040-3BD18C ⁽²⁾	<--->																																																																											626 (2)						
MTCP-050-3BD18 ⁽²⁾⁽³⁾	<--->	50 ⁽³⁾																																																																											690 (2)					
MTCP-050-3BD18C ⁽²⁾⁽³⁾	<--->																																																																												706 (2)					
MTCP-060-3BD18 ⁽²⁾⁽³⁾	<--->	60 ⁽³⁾																																																																												851 (2)				
MTCP-060-3BD18C ⁽²⁾⁽³⁾	<--->																																																																													864 (2)				
MTCP-075-3BD18 ⁽²⁾⁽³⁾	<--->	75 ⁽³⁾																																																																													948 (2)			
MTCP-075-3BD18C ⁽²⁾⁽³⁾	<--->																																																																														961 (2)			
MTCP-100-3BD18 ⁽²⁾⁽³⁾	<--->	100 ⁽³⁾																																																																														1199 (2)		
MTCP-100-3BD18C ⁽²⁾⁽³⁾	<--->																																																																															1236 (2)		
MTCP-125-3BD18 ⁽²⁾⁽³⁾	<--->	125 ⁽³⁾																																																																															1500 (2)	
MTCP-150-3BD18 ⁽²⁾⁽³⁾	<--->	150 ⁽³⁾																																																																															1630 (2)	
MTCP-200-3BD18 ⁽²⁾⁽³⁾	<--->	200 ⁽³⁾																																																																																2127 (2)
MTCP-250-3D18 ⁽²⁾⁽³⁾⁽⁴⁾	<--->	250 ⁽³⁾																																																																																2508 (2)
MTCP-300-3D18 ⁽²⁾⁽³⁾⁽⁴⁾	<--->	300 ⁽³⁾																																																										2728 (2)																						

- 1) F1(F2) indicates F1 conduit box mounting location, field convertible to F2 (as shown on dimensional diagram).
- 2) For shipping weights over 100 lbs: A) LTL shipment required. B) Order before 5:00 p.m. EST for same day shipment. C) You must have a receiving loading dock. D) Not available in Hawaii or Puerto Rico. Please review AutomationDirect Terms & Conditions for shipping information on this product.
- 3) For warranty on motors 50 hp and above, motors must be inspected by an EASA motor repair or service center. Please review AutomationDirect Terms & Conditions for warranty and service on this product.
- 4) Premium Efficiency standards not applicable for MTC motors over 200 hp.

IronHorse® MTCP Premium Efficiency Cast-Iron Three-Phase AC Motors

T-Frame TEFC Motors – Three-Phase Industrial Duty – 1200 & 3600 rpm

Motor Specifications – Premium Efficiency T-Frame Three-Phase Motors – 1200 rpm												
Part Number	Price	HP	Base RPM	Phase	Voltage	Housing	NEMA Frame	Mounting ⁽¹⁾	Holes / Foot	Service Factor	F.L. Amps @230V/460V	Approx Product Weight (lb)
MTCP-001-3BD12	<--->	1	1200	3	208-230/460	TEFC cast iron	145T	F1(F2)	4	1.15	3.2 / 1.6	60
MTCP-1P5-3BD12	<--->	1.5					182T		2		4.5 / 2.2	104 ⁽²⁾
MTCP-002-3BD12	<--->	2					184T		4		5.7 / 2.9	110 ⁽²⁾
MTCP-003-3BD12 ⁽²⁾	<--->	3					213T		2		8.5 / 4.2	160 ⁽²⁾
MTCP-005-3BD12 ⁽²⁾	<--->	5					215T		4		13.8 / 6.9	180 ⁽²⁾
MTCP-7P5-3BD12 ⁽²⁾	<--->	7.5					254T		2		20.9 / 10.4	325 ⁽²⁾
MTCP-010-3BD12 ⁽²⁾	<--->	10					256T		4		27.8 / 13.9	325 ⁽²⁾
MTCP-015-3BD12 ⁽²⁾	<--->	15					284T		2		40.3 / 20.2	420 ⁽²⁾
MTCP-020-3BD12 ⁽²⁾	<--->	20					286T		4		52.4 / 26.2	470 ⁽²⁾

1) F1(F2) indicates F1 conduit box mounting location, field convertible to F2 (as shown on dimensional diagram).
 Notes 2 & 3: Please review the AutomationDirect Terms & Conditions for warranty and service on this product.
 2) For shipping weights over 100 lbs: A) LTL shipment required. B) Order before 5:00 p.m. EST for same day shipment. C) You must have a receiving loading dock. D) Not available in Hawaii or Puerto Rico.
 3) For warranty on motors 50 hp and above, motors must be inspected by an EASA motor repair or service center.

Motor Specifications – Premium Efficiency T-Frame Three-Phase Motors – 3600 rpm												
Part Number	Price	HP	Base RPM	Phase	Voltage	Housing	NEMA Frame	Mounting ⁽¹⁾	Holes / Foot	Service Factor	F.L. Amps @230V/460V	Approx Product Weight (lb)
MTCP-1P5-3BD36	<--->	1.5	3600	3	208-230/460	TEFC cast iron	143T	F1(F2)	2	1.15	4.08 / 2.04	44
MTCP-002-3BD36	<--->	2					145T		4		5.4 / 2.7	53
MTCP-003-3BD36 ⁽²⁾	<--->	3					182T		2		7.74 / 3.87	79 ⁽²⁾
MTCP-005-3BD36 ⁽²⁾	<--->	5					184T		4		12.6 / 6.3	92 ⁽²⁾
MTCP-7P5-3BD36 ⁽²⁾	<--->	7.5					213T		2		18.46 / 9.23	140 ⁽²⁾
MTCP-010-3BD36 ⁽²⁾	<--->	10					215T		4		24.4 / 12.2	161 ⁽²⁾
MTCP-015-3BD36 ⁽²⁾	<--->	15					254T		2		35.0 / 17.5	278 ⁽²⁾
MTCP-020-3BD36 ⁽²⁾	<--->	20					256T		4		46.4 / 23.2	306 ⁽²⁾

1) F1(F2) indicates F1 conduit box mounting location, field convertible to F2 (as shown on dimensional diagram).
 Notes 2 & 3: Please review the AutomationDirect Terms & Conditions for warranty and service on this product.
 2) For shipping weights over 100 lbs: A) LTL shipment required. B) Order before 5:00 p.m. EST for same day shipment. C) You must have a receiving loading dock. D) Not available in Hawaii or Puerto Rico.
 3) For warranty on motors 50 hp and above, motors must be inspected by an EASA motor repair or service center.



Company Information

Systems Overview

Programmable Controllers

Field I/O

Software

C-more & other HMI

Drives

Soft Starters

Motors & Gearbox

Steppers/ Servos

Motor Controls

Proximity Sensors

Photo Sensors

Limit Switches

Encoders

Current Sensors

Pressure Sensors

Temperature Sensors

Pushbuttons/ Lights

Process

Relays/ Timers

Comm.

Terminal Blocks & Wiring

Power

Circuit Protection

Enclosures

Tools

Pneumatics

Appendix

Product Index

Part # Index

IronHorse® MTCP Premium Efficiency Cast-Iron Three-Phase AC Motors

T-Frame TEFC Motors – Three-Phase Industrial Duty – 0.75-150kw (1–200 hp)

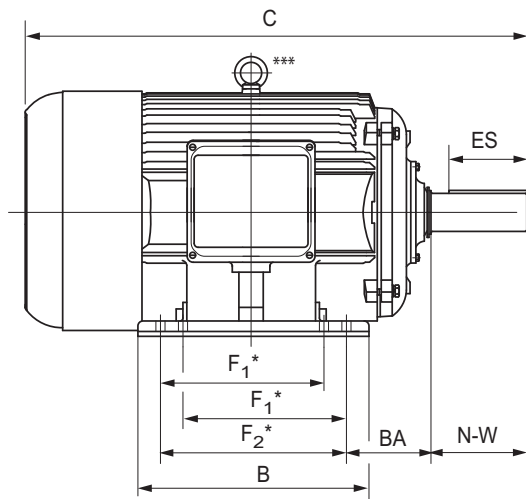
TC-Frame (C-Face) TEFC Motors – Three-Phase Industrial Duty – 0.75-75kw

Performance Data – T & TC Frame Three-Phase MTCP Motors (460 Volt except as indicated) – 1200, 1800, 3600 rpm																	
Part Number	HP	NEMA Design	FL RPM	Minimum Speed (rpm)			Current @ 230V/460V (Amps)			Torque (lb-ft)			Maximum Speed (rpm)		FL Efficiency (%)	F.L. Power Factor	Rotor Inertia (lb-ft ²)
				CT	VT		No Load	Full Load	Locked Rotor	Full Load	Locked Rotor	Break-down	CHP(1)	Safe			
MTCP-001-3BD12	1	B	1162	300	120	2.5 / 1.25	3.2 / 1.6	30 / 15	4.5	10.8	14.4	1800	3600	82.5	0.72	0.33	
MTCP-001-3BD18(C)			1750	450	180	2.28 / 1.14	3.22 / 1.61	30.0 / 15.0	3.00	9.00	11.4	2700	5400	86.3	0.690	0.089	
MTCP-1P5-3BD12	1.5	B	1180	300	120	3.2 / 1.6	4.5 / 2.2	40 / 20	6.68	15.36	21.38	1800	3600	87.5	0.72	0.36	
MTCP-1P5-3BD18(C)			1750	450	180	3.12 / 1.56	4.64 / 2.32	40.0 / 20.0	4.5	9.0	14.0	2700	5400	87.3	0.726	0.11	
MTCP-1P5-3BD36	1.5	B	3570	900	360	2.0 / 1.0	4.08 / 2.04	40.0 / 20.0	2.2	6.4	7.9	5400	5400	85.5	0.828	0.078	
MTCP-002-3BD12			1180	300	120	4.2 / 2.1	5.7 / 2.9	50.0 / 25.0	8.61	20.66	29.88	1800	3600	88.5	0.74	0.47	
MTCP-002-3BD18(C)	2	B	1750	450	180	3.6 / 1.8	6.0 / 3.0	50.0 / 25.0	6.0	17.4	19.2	2700	5400	87.3	0.725	0.13	
MTCP-002-3BD36			3520	900	360	3.14 / 1.57	5.4 / 2.7	50.0 / 25.0	3.0	9.0	12.0	5400	5400	86.6	0.821	0.098	
MTCP-003-3BD12	3	B	1180	300	120	6.4 / 3.2	8.5 / 4.2	68.0 / 34.0	13.36	29.39	40.08	1800	3600	89.5	0.74	0.50	
MTCP-003-3BD18(C)			1750	450	180	4.1 / 2.05	8.05 / 4.02	64.0 / 32.0	9.0	20.7	25.2	2700	5400	90.3	0.786	0.28	
MTCP-003-3BD36	3	B	3520	900	360	3.9 / 1.95	7.74 / 3.87	64.0 / 32.0	4.48	12.54	17.02	5400	5400	87.0	0.845	0.195	
MTCP-005-3BD12			1180	300	120	9.2 / 4.6	13.8 / 6.9	92 / 46	22.2	48.8	66.6	1800	3600	89.5	0.76	1.97	
MTCP-005-3BD18(C)	5	B	1750	450	180	6.2 / 3.1	13.41 / 6.71	92.0 / 46.0	15.0	34.5	43.5	2700	5400	90.3	0.786	0.33	
MTCP-005-3BD36			3570	900	360	5.2 / 2.6	12.6 / 6.3	92.0 / 46.0	7.36	16.19	22.82	5400	5400	89.0	0.841	0.22	
MTCP-7P5-3BD12	7.5	B	1180	300	120	12.0 / 6.0	20.9 / 10.4	127 / 63.5	33.4	76.8	116.9	1800	3600	91.1	0.74	2.74	
MTCP-7P5-3BD18(C)			1760	450	180	8.44 / 4.22	18.68 / 9.34	127 / 63.5	22.4	44.8	69.4	2700	5400	91.8	0.825	1.814	
MTCP-7P5-3BD36	7.5	B	3520	900	360	6.66 / 3.33	18.46 / 9.23	127 / 63.5	11.2	28.0	34.7	5400	5400	89.7	0.851	0.501	
MTCP-010-3BD12			1180	300	120	10.8 / 5.4	27.8 / 13.9	162 / 81	44.5	97.9	106.8	1800	3600	91.0	0.74	2.98	
MTCP-010-3BD18(C)	10	B	1750	450	180	10.54 / 5.27	24.9 / 12.45	163 / 81.5	30.0	61.5	93.0	2700	4200	92.5	0.826	1.97	
MTCP-010-3BD36			3550	900	360	8.76 / 4.38	24.4 / 12.2	163 / 81.5	14.8	37.0	50.3	5400	5400	90.3	0.851	1.2	
MTCP-015-3BD12	15	B	1180	300	120	18.0 / 9.0	40.3 / 20.2	232 / 116	60.23	132.51	174.67	1800	3600	91.7	0.76	5.49	
MTCP-015-3BD18(C)			1750	450	180	15.4 / 7.7	35.8 / 17.9	232 / 116	45	92	126	2700	4200	92.5	0.890	3.33	
MTCP-015-3BD36	15	B	3550	900	360	12 / 6	35.0 / 17.5	232 / 116	22.2	46.6	64.4	5400	5400	91.2	0.852	1.86	
MTCP-020-3BD12			1180	300	120	17.8 / 8.9	52.4 / 26.2	290 / 145	89.1	196.0	258.4	1800	3600	91.7	0.78	12.9	
MTCP-020-3BD18(C)	20	B	1770	450	180	17.11 / 8.56	47.94 / 23.97	290 / 145	59.4	118.8	166.3	2700	4200	93.8	0.846	4.09	
MTCP-020-3BD36			3570	900	360	15 / 7.5	46.4 / 23.2	290 / 145	29.4	61.7	85.3	5400	5400	91.2	0.851	2.01	
MTCP-025-3BD18(C)	25	B	1770	450	180	24 / 12	59.6 / 29.8	365 / 182.5	74.2	155.8	185.5	2700	4200	93.6	0.860	7.01	
MTCP-030-3BD18(C)	30	1780	27 / 13.5			69.96 / 34.98	435 / 217.5	88.6	203.8	248.1	93.7			0.846	8.3		
MTCP-040-3BD18(C)	40	1780	29.6 / 14.8			94.76 / 47.38	580 / 290	118.1	248.0	271.6	94.4			0.850	9		
MTCP-050-3BD18(C)	50	1775	36.2 / 18.1			116.8 / 58.4	725 / 362.5	148	326	414	94.5			0.855	14.1		
MTCP-060-3BD18(C)	60	1788	45.6 / 22.8			139.3 / 69.6	870 / 435	179	376	519	95.0			0.850	16.27		
MTCP-075-3BD18(C)	75	1787	58.4 / 29.2			173.4 / 86.7	1085 / 542.5	221	464	619	95.4			0.850	18.8		
MTCP-100-3BD18(C)	100	1790	75 / 37.5			228.6 / 114.3	1450 / 725	293.2	645.0	703.7	95.4			0.860	45.5		
MTCP-125-3BD18	125	1790	94.54 / 47.27			285.2 / 142.6	1816 / 908	367	624	918	95.4			0.860	65.1		
MTCP-150-3BD18	150	1790	104.4 / 52.2			342 / 171	2170 / 1085	443	797	1108	95.8			0.860	69.26		
MTCP-200-3BD18	200	1790	133.26 / 66.63			453.2 / 226.6	2900 / 1450	587	1174	1644	96.3			0.860	84.0		
MTC-250-3D18 (2)	250	B	1790	900	360	- / 85.6	- / 282	- / 1980	728	1660	2402	2700	4200	95.9	0.87	86.000	
MTC-300-3D18 (2)	300	B	1790	900	360	- / 96.6	- / 334	- / 2351	864	1953	2817	2700	4200	95.7	0.88	105.000	

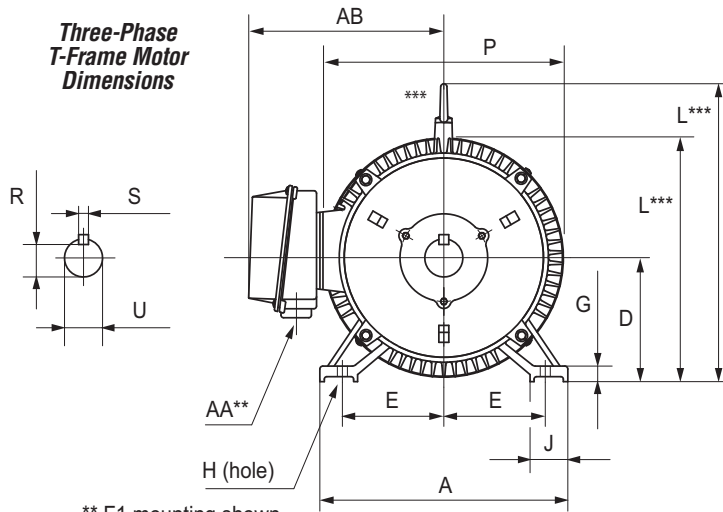
1) Maximum Constant HP RPM is for direct coupled loads.
 2) Premium Efficiency standards not applicable for MTC motors over 200 hp.

IronHorse® MTCP Premium Efficiency Cast-Iron Three-Phase AC Motors

T-Frame TEFC Motors – Three-Phase Industrial Duty – 1 to 200 hp



* Various frame sizes have 2 or 4 mounting holes per mounting foot (one mounting foot per side).



** F1 mounting shown.
** Some frame sizes are F1/F2 convertible.
*** Frames 143T & 145T have no lifting eyelet.

Dimensions [inches, except as noted] – Premium Efficiency T-Frame Three-Phase Motors – 1800 rpm

Part Number	HP	NEMA Frame	A	AA**	AB	B	BA	C	D	E	ES	F ₁ *	F ₂ *	G	H	J	N-W	L	P	R	S	U
1800 rpm Motors																						
MTCP-001-3BD18	1	143T	7	3/4"NPT	6.89	5.1	2.25	12.47	3.5	2.75	1.41	n/a	4	0.47	0.34	1.45	2.25	6.90	7.2	0.771	0.188	0.875
MTCP-1P5-3BD18	1.5	145T	7	3/4"NPT	6.89	6.1	2.25	13.47	3.5	2.75	1.41	4	5	0.47	0.34	1.45	2.25	6.90	7.2	0.771	0.188	0.875
MTCP-002-3BD18	2		7	3/4"NPT	6.89	6.1	2.25	13.47	3.5	2.75	1.41	4	5	0.47	0.34	1.45	2.25	6.90	7.2	0.771	0.188	0.875
MTCP-003-3BD18	3	182T	8.9	1" NPT	7.45	6.3	2.75	15.11	4.5	3.75	1.78	n/a	4.5	0.52	0.41	1.97	2.75	10.39	9.0	0.986	0.25	1.125
MTCP-005-3BD18	5	184T	8.9	1" NPT	7.45	7.1	2.75	16.12	4.5	3.75	1.78	4.5	5.5	0.52	0.41	1.97	2.75	10.39	9.0	0.986	0.25	1.125
MTCP-7P5-3BD18	7.5	213T	10.5	1" NPT	8.63	7.5	3.5	18.89	5.25	4.25	2.41	n/a	5.5	0.78	0.41	2.36	3.38	12.26	10.8	1.201	0.312	1.375
MTCP-010-3BD18	10	215T	10.5	1" NPT	8.63	9	3.5	20.49	5.25	4.25	2.41	5.5	7	0.78	0.41	2.36	3.38	12.26	10.8	1.201	0.312	1.375
MTCP-015-3BD18	15	254T	12.3	1.5" NPT	12.0	10.3	4.25	23.29	6.25	5	2.91	n/a	8.25	0.87	0.53	2.40	4	15.10	14.4	1.416	0.375	1.625
MTCP-020-3BD18	20	256T	12.3	1.5" NPT	12.0	12.4	4.25	25.06	6.25	5	2.91	8.25	10	0.87	0.53	2.40	4	15.10	14.4	1.416	0.375	1.625
MTCP-025-3BD18	25	284T	13.7	1.5" NPT	13.7	12.2	4.75	26.63	7	5.5	3.28	n/a	9.5	0.98	0.53	2.68	4.62	16.50	16.0	1.591	0.5	1.875
MTCP-030-3BD18	30	286T	13.7	1.5" NPT	13.7	13.7	4.75	28.18	7	5.5	3.28	9.5	11	0.98	0.53	2.68	4.62	16.50	16.0	1.591	0.5	1.875
MTCP-040-3BD18	40	324T	15.3	2"NPT	14.6	12.6	5.25	29.95	8	6.25	3.91	n/a	10.5	0.98	0.66	2.76	5.25	18.25	17.8	1.845	0.5	2.125
MTCP-050-3BD18	50	326T	15.3	2"NPT	14.6	14.0	5.25	31.24	8	6.25	3.91	10.5	12	0.98	0.66	2.76	5.25	18.25	17.8	1.845	0.5	2.125
MTCP-060-3BD18	60	364T	17.0	3"NPT	17.6	14.6	5.88	32.58	9	7	4.28	n/a	11.25	1.10	0.66	3.15	5.88	21.0	19.4	2.021	0.625	2.375
MTCP-075-3BD18	75	365T	17.0	3"NPT	17.6	15.6	5.88	34.11	9	7	4.28	11.25	12.25	1.10	0.66	3.15	5.88	21.0	19.4	2.021	0.625	2.375
MTCP-100-3BD18	100	405T	20	3"NPT	18.1	17.8	6.62	38.35	10	8	5.65	12.25	13.75	1.18	0.81	3.15	7.25	23.46	21.4	2.45	0.75	2.875
MTCP-125-3BD18	125	444T	22	2x3"NPT	19.1	18.5	7.5	42.52	11	9	6.91	n/a	14.5	1.38	0.81	3.35	8.5	26.43	23.4	2.88	0.875	3.375
MTCP-150-3BD18	150	445T	22	2x3"NPT	19.1	20.5	7.5	44.5	11	9	6.91	14.5	16.5	1.38	0.81	3.35	8.5	26.43	23.4	2.88	0.875	3.375
MTCP-200-3BD18	200	445/7T	22	2x3"NPT	19.1	24	7.5	48.03	11	9	6.91	16.5	20	1.38	0.81	3.35	8.5	26.43	23.4	2.88	0.875	3.375
MTCP-250-3D18 (1)	250	449T	22	2x3"NPT	19.1	31	7.5	55.51	11	9	7.01	n/a	25	1.575	0.81	3.35	8.5	27.25	24	2.88	0.875	3.375
MTCP-300-3D18 (1)	300																					

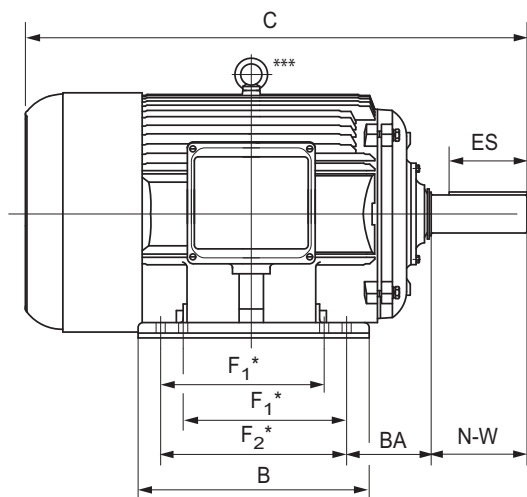
* Various frame sizes have 2 or 4 mounting holes per mounting foot.
** AA dimension is conduit fitting size.
F1 mounting shown; some frame sizes are F1/F2 convertible; refer to T Frame "Motor Specifications" table.
(F2 mounting = conduit entrance on right side facing shaft.)
*** Frame sizes 143T(C) and 145T(C) have no lifting eyelet.
1) Premium Efficiency standards not applicable for MTC motors over 200 hp.



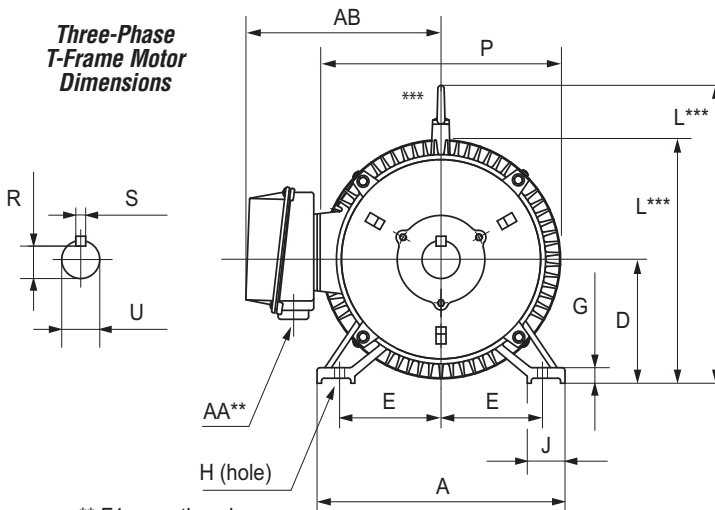
- Company Information
- Systems Overview
- Programmable Controllers
- Field I/O
- Software
- C-more & other HMI
- Drives
- Soft Starters
- Motors & Gearbox**
- Steppers/ Servos
- Motor Controls
- Proximity Sensors
- Photo Sensors
- Limit Switches
- Encoders
- Current Sensors
- Pressure Sensors
- Temperature Sensors
- Pushbuttons/ Lights
- Process
- Relays/ Timers
- Comm.
- Terminal Blocks & Wiring
- Power
- Circuit Protection
- Enclosures
- Tools
- Pneumatics
- Appendix
- Product Index
- Part # Index

IronHorse® MTCP Premium Efficiency Cast-Iron Three-Phase AC Motors

T-Frame TEFC Motors – Three-Phase Industrial Duty – Dimensions



* Various frame sizes have 2 or 4 mounting holes per mounting foot (one mounting foot per side).



Three-Phase T-Frame Motor Dimensions

** F1 mounting shown.
 ** Some frame sizes are F1/F2 convertible.
 *** Frames 143T & 145T have no lifting eyelet.

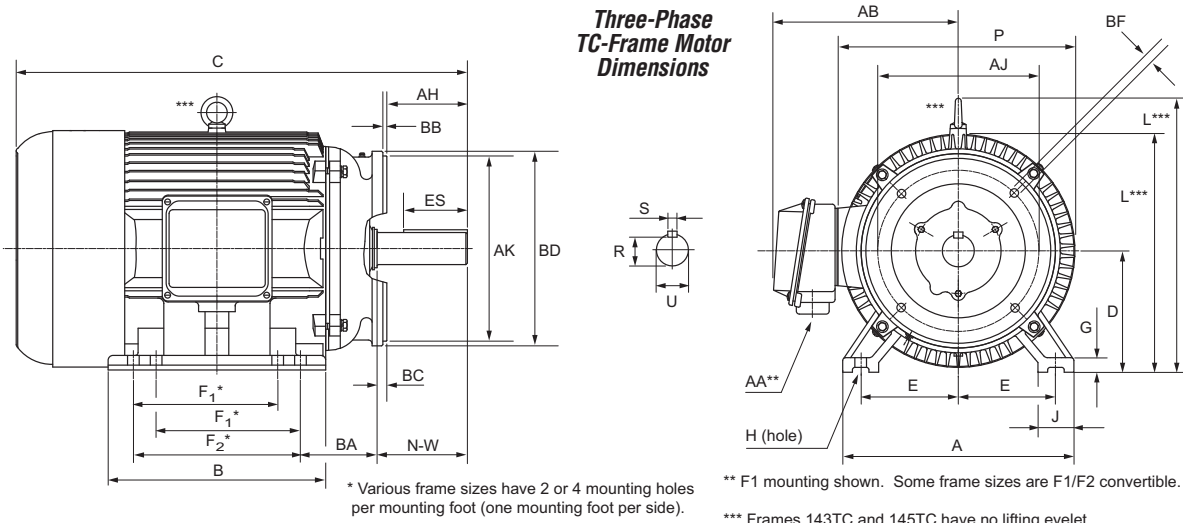
Dimensions [inches, except as noted] – Premium Efficiency T-Frame Three-Phase Motors – 1200 & 3600 rpm

Part Number	HP	NEMA Frame	A	AA**	AB	B	BA	C	D	E	ES	F1*	F2*	G	H	J	N-W	L	P	R	S	U
1200 rpm Motors																						
MTCP-001-3BD12	1	145T	7	3/4"NPT	6.89	6.1	2.25	13.47	3.5	2.75	1.41	4	5	0.47	0.34	1.45	2.25	6.90	7.2	0.771	0.188	0.875
MTCP-1P5-3BD12	1-1/2	182T	8.9	1"NPT	7.45	6.3	2.75	15.11	4.5	3.75	1.78	n/a	4.5	0.52	0.41	1.97	2.75	10.39	9.0	0.986	0.25	1.125
MTCP-002-3BD12	2	184T	8.9	1"NPT	7.45	7.1	2.75	16.12	4.5	3.75	1.78	4.5	5.5	0.52	0.41	1.97	2.75	10.39	9.0	0.986	0.25	1.125
MTCP-003-3BD12	3	213T	10.5	1"NPT	8.63	7.5	3.5	18.89	5.25	4.25	2.41	n/a	5.5	0.78	0.41	2.36	3.38	12.26	10.8	1.201	0.312	1.375
MTCP-005-3BD12	5	215T	10.5	1"NPT	8.63	9	3.5	20.49	5.25	4.25	2.41	5.5	7	0.78	0.41	2.36	3.38	12.26	10.8	1.201	0.312	1.375
MTCP-7P5-3BD12	7-1/2	254T	12.3	1.5"NPT	12.0	10.3	4.25	23.29	6.25	5	2.91	n/a	8.25	0.87	0.53	2.40	4	15.10	14.4	1.416	0.375	1.625
MTCP-010-3BD12	10	256T	12.3	1.5"NPT	12.0	12.4	4.25	25.06	6.25	5	2.91	8.25	10	0.87	0.53	2.40	4	15.10	14.4	1.416	0.375	1.625
MTCP-015-3BD12	15	284T	13.7	1.5"NPT	13.7	12.2	4.75	26.63	7	5.5	3.28	n/a	9.5	0.98	0.53	2.68	4.62	16.50	16.0	1.591	0.5	1.875
MTCP-020-3BD12	20	286T	13.7	1.5"NPT	13.7	13.7	4.75	28.18	7	5.5	3.28	9.5	11	0.98	0.53	2.68	4.62	16.50	16.0	1.591	0.5	1.875
3600 rpm Motors																						
MTCP-1P5-3BD36	1-1/2	143T	7	3/4"NPT	6.89	5.1	2.25	12.47	3.5	2.75	1.41	n/a	4	0.47	0.34	1.45	2.25	6.90	7.2	0.771	0.188	0.875
MTCP-002-3BD36	2	145T	7	3/4"NPT	6.89	6.1	2.25	13.47	3.5	2.75	1.41	4	5	0.47	0.34	1.45	2.25	6.90	7.2	0.771	0.188	0.875
MTCP-003-3BD36	3	182T	8.9	1"NPT	7.45	6.3	2.75	15.11	4.5	3.75	1.78	n/a	4.5	0.52	0.41	1.97	2.75	10.39	9.0	0.986	0.25	1.125
MTCP-005-3BD36	5	184T	8.9	1"NPT	7.45	7.1	2.75	16.12	4.5	3.75	1.78	4.5	5.5	0.52	0.41	1.97	2.75	10.39	9.0	0.986	0.25	1.125
MTCP-7P5-3BD36	7-1/2	213T	10.5	1"NPT	8.63	7.5	3.5	18.89	5.25	4.25	2.41	n/a	5.5	0.78	0.41	2.36	3.38	12.26	10.8	1.201	0.312	1.375
MTCP-010-3BD36	10	215T	10.5	1"NPT	8.63	9	3.5	20.49	5.25	4.25	2.41	5.5	7	0.78	0.41	2.36	3.38	12.26	10.8	1.201	0.312	1.375
MTCP-015-3BD36	15	254T	12.3	1.5"NPT	12.0	10.3	4.25	23.29	6.25	5	2.91	n/a	8.25	0.87	0.53	2.40	4	15.10	14.4	1.416	0.375	1.625
MTCP-020-3BD36	20	256T	12.3	1.5"NPT	12.0	12.4	4.25	25.06	6.25	5	2.91	8.25	10	0.87	0.53	2.40	4	15.10	14.4	1.416	0.375	1.625

* Various frame sizes have 2 or 4 mounting holes per mounting foot.
 ** AA dimension is conduit fitting size.
 F1 mounting shown; some frame sizes are F1/F2 convertible; refer to T Frame "Motor Specifications" table.
 (F2 mounting = conduit entrance on right side facing shaft.)
 *** Frame sizes 143T(C) and 145T(C) have no lifting eyelet.

IronHorse® MTCP Premium Efficiency Cast-Iron Three-Phase AC Motors

TC-Frame TEFC Motors – Three-Phase Industrial Duty – Dimensions



Dimensions [inches, except as noted] – Premium Efficiency TC-Frame Three-Phase Motors – 1800 rpm

Part # MTCP- xxx 3BD18C	HP	NEMA Frame	A	AA**	AB	AH	AJ	AK	B	BA	BB	BC	BD	BF	C	D	E	ES	F ₁ *	F ₂ *	G	H	J	N- W	L	P	R	S	U
-001-	1	143TC	7	3/4"NPT	6.89	1.96	5.875	4.5	5.1	2.25	0.16	0.29	6.5	3/8-16	12.5	3.5	2.75	1.41	n/a	4	0.47	0.34	1.45	2.25	6.9	7.2	0.771	0.188	0.875
-1P5-	1.5	145TC	7	3/4"NPT	6.89	1.96	5.875	4.5	6	2.25	0.16	0.29	6.5	3/8-16	13.5	3.5	2.75	1.41	4	5	0.47	0.34	1.45	2.25	6.9	7.2	0.771	0.188	0.875
-002-	2																												
-003-	3	182TC	8.9	1" NPT	7.45	2.37	7.25	8.5	6.3	2.75	0.25	0.38	9	1/2-13	15.1	4.5	3.75	1.78	n/a	4.5	0.52	0.41	1.97	2.75	10.4	9.0	0.986	0.25	1.125
-005-	5	184TC	8.9	1" NPT	7.45	2.37	7.25	8.5	7.1	2.75	0.25	0.38	9	1/2-13	16.1	4.5	3.75	1.78	4.5	5.5	0.52	0.41	1.97	2.75	10.4	9.0	0.986	0.25	1.125
-7P5-	7.5	213TC	10.5	1" NPT	8.63	2.87	7.25	8.5	7.5	3.5	0.25	0.51	9	1/2-13	18.9	5.25	4.25	2.41	n/a	5.5	0.78	0.41	2.36	3.38	12.3	10.8	1.201	0.312	1.375
-010-	10	215TC	10.5	1" NPT	8.63	2.87	7.25	8.5	9	3.5	0.25	0.51	9	1/2-13	20.5	5.25	4.25	2.41	5.5	7	0.78	0.41	2.36	3.38	12.3	10.8	1.201	0.312	1.375
-015-	15	254TC	12.3	1.5"NPT	12.0	3.75	7.25	8.5	10.3	4.25	0.25	0.25	10	1/2-13	23.3	6.25	5	2.91	n/a	8.25	0.87	0.53	2.40	4	15.1	14.4	1.416	0.375	1.625
-020-	20	256TC	12.3	1.5"NPT	12.0	3.75	7.25	8.5	12.4	4.25	0.25	0.25	10	1/2-13	25.1	6.25	5	2.91	8.25	10	0.87	0.53	2.40	4	15.1	14.4	1.416	0.375	1.625
-025-	25	284TC	13.7	1.5"NPT	13.7	4.38	9	10.5	12.2	4.75	0.25	0.25	11.25	1/2-13	26.6	7	5.5	3.28	n/a	9.5	0.98	0.53	2.68	4.62	16.5	16.0	1.591	0.5	1.875
-030-	30	286TC	13.7	1.5"NPT	13.7	4.38	9	10.5	13.7	4.75	0.24	0.24	11.25	1/2-13	28.2	7	5.5	3.28	9.5	11	0.98	0.53	2.68	4.62	16.5	16.0	1.591	0.5	1.875
-040-	40	324TC	15.3	2" NPT	14.6	5	11	12.5	12.6	5.25	0.24	0.24	14	5/8-11	30.0	8	6.25	3.91	n/a	10.5	0.98	0.66	2.76	5.25	18.3	17.8	1.845	0.5	2.125
-050-	50	326TC	15.3	2" NPT	14.6	5	11	12.5	14.0	5.25	0.25	0.25	14	5/8-11	31.2	8	6.25	3.91	10.5	12	0.98	0.66	2.76	5.25	18.3	17.8	1.845	0.5	2.125
-060-	60	364TC	17.0	3" NPT	17.5	5.62	11	12.5	14.6	5.88	0.25	0.25	14	5/8-11	32.6	9	7	4.28	n/a	11.25	1.10	0.66	3.15	5.88	21.0	19.4	2.021	0.625	2.375
-075-	75	365TC	17.0	3" NPT	17.5	5.62	11	12.5	15.6	5.88	0.25	0.25	14	5/8-11	34.1	9	7	4.28	11.25	12.25	1.10	0.66	3.15	5.88	21.0	19.4	2.021	0.625	2.375
-100-	100	405TC	20	3" NPT	18.1	7	11	12.5	17.8	6.62	0.25	0.25	15.5	5/8-11	38.4	10	8	5.65	12.25	13.75	1.18	0.81	3.15	7.25	23.5	21.4	2.45	0.75	2.875

* Various frame sizes have 2 or 4 mounting holes per mounting foot.

** AA dimension is conduit fitting size.

F1 mounting shown; some frame sizes are F1/F2 convertible; refer to T Frame "Motor Specifications" table.
(F2 mounting = conduit entrance on right side facing shaft.)

*** Frame sizes 143T(C) and 145T(C) have no lifting eyelet.



Company Information

Systems Overview

Programmable Controllers

Field I/O

Software

C-more & other HMI

Drives

Soft Starters

Motors & Gearbox

Steppers/ Servos

Motor Controls

Proximity Sensors

Photo Sensors

Limit Switches

Encoders

Current Sensors

Pressure Sensors

Temperature Sensors

Pushbuttons/ Lights

Process

Relays/ Timers

Comm.

Terminal Blocks & Wiring

Power

Circuit Protection

Enclosures

Tools

Pneumatics

Appendix

Product Index

Part # Index

IronHorse® MTCP Premium Efficiency Cast-Iron 3-Phase AC Motor Accessories

Premium Efficiency TEFC T-Frame Three-Phase Motor C-Flange Kits – 1 to 200 hp

We stock Premium Efficiency NEMA cast iron T-frame motors from 1–200 hp, and TC-frame motors from 1–100 hp.

We also offer IronHorse cast iron C-flange kits which can be used for C-face mounting of our 1–200 hp IronHorse MTCP Premium Efficiency cast iron T-frame motors.

The kits are field installable and include the C-faces and bolts.



MTCP Premium Efficiency T-frame Three-Phase Motor C-Flange Kits					
Part Number	Price	Fits Frame	Fits Motor Number ⁽²⁾	Motor HP	Product Weight (lb)
MTAP-CFACE-140TC	<--->	143T & 145T	MTCP-001-3BD12 MTCP-001-3BD18 MTCP-1P5-3BD18 MTCP-1P5-3BD36 MTCP-002-3BD18 MTCP-002-3BD36	1 1 1-1/2 1-1/2 2 2	6.8
MTAP-CFACE-180TC	<--->	182T & 184T	MTCP-1P5-3BD12 MTCP-002-3BD12 MTCP-003-3BD18 MTCP-003-3BD36 MTCP-005-3BD18 MTCP-005-3BD36	1-1/2 2 3 3 5 5	14.3
MTAP-CFACE-210TC	<--->	213T & 215T	MTCP-003-3BD12 MTCP-005-3BD12 MTCP-7P5-3BD18 MTCP-7P5-3BD36 MTCP-010-3BD18 MTCP-010-3BD36	3 5 7-1/2 7-1/2 10 10	13.8
MTAP-CFACE-250TC	<--->	254T & 256T	MTCP-7P5-3BD12 MTCP-010-3BD12 MTCP-015-3BD18 MTCP-015-3BD36 MTCP-020-3BD18 MTCP-020-3BD36	7-1/2 10 15 15 20 20	40.1
MTAP-CFACE-280TC	<--->	284T & 286T	MTCP-015-3BD12 MTCP-020-3BD12 MTCP-025-3BD18 MTCP-030-3BD18	15 20 25 30	44.0
MTAP-CFACE-320TC	<--->	324T & 326T	MTCP-040-3BD18 MTCP-050-3BD18	40 50	61.7
MTAP-CFACE-360TC	<--->	364T & 365T	MTCP-060-3BD18 MTCP-075-3BD18	60 75	70.5
MTAP-CFACE-400TC⁽¹⁾	<--->	405T	MTCP-100-3BD18	100	136.6 ⁽¹⁾
MTAP-CFACE-444TC⁽¹⁾	<--->	444T & 445T	MTCP-125-3BD18 MTCP-150-3BD18	125 150	143.2 ⁽¹⁾
MTAP-CFACE-447TC⁽¹⁾	<--->	445/7T	MTCP-200-3BD18	200	144.4 ⁽¹⁾

1) For shipping weights over 100 lbs: A) LTL shipment required. B) Order before 5:00 p.m. EST for same day shipment. C) You must have a receiving loading dock. D) Not available in Hawaii or Puerto Rico.
2) MTAP-CFACE C-flange kits will NOT fit MTC EPAct motors.

IronHorse® MTCP Premium Efficiency Cast-Iron AC Motor Replacement Parts

Premium Efficiency TEFC Three-Phase Motor Replacement Parts – 1 to 200 hp

We stock MTCP Premium Efficiency NEMA cast iron T-frame motors from 1–200 hp, and TC-frame motors from 1–100 hp.

We also offer IronHorse junction boxes, TEFC fans, and TEFC fan shrouds as direct replacement parts for these MTCP motors.

These replacement parts are field installable. Instructions included.



MTCP Premium Efficiency Three-Phase Motor Replacement Parts						
Part Number ⁽¹⁾	Price	Description ⁽²⁾⁽³⁾⁽⁴⁾	Fits Frame	Fits PE Motor Number ⁽¹⁾	Motor HP	Product Weight (lb)
MTAP-FAN-140	<--->	Replacement Fan	143 & 145	MTCP-001-3BD12 MTCP-001-3BD18(C) MTCP-1P5-3BD18(C) MTCP-1P5-3BD36 MTCP-002-3BD18(C) MTCP-002-3BD36	1	0.3
MTAP-SHROUD-140	<--->	Replacement Fan Shroud			1-1/2	
MTAP-JBOX-140	<--->	Replacement Junction Box			1-1/2 2 2	2.6
MTAP-FAN-180	<--->	Replacement Fan	182 & 184	MTCP-1P5-3BD12 MTCP-002-3BD12 MTCP-003-3BD18(C) MTCP-003-3BD36 MTCP-005-3BD18(C) MTCP-005-3BD36	1-1/2 2	0.3
MTAP-SHROUD-180	<--->	Replacement Fan Shroud			3 3 5	1.5
MTAP-JBOX-180	<--->	Replacement Junction Box			5 5	3.1
MTAP-FAN-210-2	<--->	Replacement Fan (for 2-pole motors)	213 & 215	MTCP-7P5-3BD36 MTCP-010-3BD36 MTCP-003-3BD12 MTCP-005-3BD12 MTCP-7P5-3BD18(C) MTCP-010-3BD18(C)	7-1/2 10	0.3
MTAP-FAN-210	<--->	Replacement Fan (4&6-pole)			3	0.3
MTAP-SHROUD-210	<--->	Replacement Fan Shroud			5 7-1/2 10	2.3
MTAP-JBOX-210	<--->	Replacement Junction Box				3.4
MTAP-FAN-250-2	<--->	Replacement Fan (for 2-pole motors)	254 & 256	MTCP-015-3BD36 MTCP-020-3BD36 MTCP-7P5-3BD12 MTCP-010-3BD12 MTCP-015-3BD18(C) MTCP-020-3BD18(C)	15 20	0.3
MTAP-FAN-250	<--->	Replacement Fan (4&6-pole)			7-1/2 10 15 20	0.3 4.5
MTAP-SHROUD-250	<--->	Replacement Fan Shroud				7.0
MTAP-JBOX-250	<--->	Replacement Junction Box				
MTAP-FAN-280	<--->	Replacement Fan	284 & 286	MTCP-015-3BD12 MTCP-020-3BD12 MTCP-025-3BD18(C) MTCP-030-3BD18(C)	15 20	0.5 6.5
MTAP-SHROUD-280	<--->	Replacement Fan Shroud			25 30	7.0
MTAP-JBOX-280	<--->	Replacement Junction Box				
MTAP-FAN-320	<--->	Replacement Fan	324 & 326	MTCP-040-3BD18(C) MTCP-050-3BD18(C)	40 50	0.6 8.3
MTAP-SHROUD-320	<--->	Replacement Fan Shroud				22.3
MTAP-JBOX-320	<--->	Replacement Junction Box				
MTAP-FAN-360	<--->	Replacement Fan	364 & 365	MTCP-060-3BD18(C) MTCP-075-3BD18(C)	60 75	0.6 9.0
MTAP-SHROUD-360	<--->	Replacement Fan Shroud				22.3
MTAP-JBOX-360	<--->	Replacement Junction Box				
MTAP-FAN-400	<--->	Replacement Fan	405	MTCP-100-3BD18(C)		1.1
MTAP-SHROUD-400	<--->	Replacement Fan Shroud				15.8
MTAP-JBOX-400	<--->	Replacement Junction Box				30.0
MTAP-FAN-440	<--->	Replacement Fan	444 & 445 & 447	MTCP-125-3BD18 MTCP-150-3BD18 MTCP-200-3BD18	125 150 200	2.0 17.5 40.0
MTAP-SHROUD-440	<--->	Replacement Fan Shroud				
MTAP-JBOX-440	<--->	Replacement Junction Box				

1) These MTAP replacement components fit only MTCP Premium Efficiency motors; they will NOT fit MTC EAct motors.
 2) Replacement Fans include fan and snap ring.
 3) Replacement Fan Shrouds include shroud, bolts w/washers, and rubber plug.
 4) Replacement Junction Boxes include gasketed base & cover assembly, base gasket, and base bolts.



AutomationDirect AC Motors Selection Overview

EPAct, High, Premium Efficiency

What does it all mean?

EPAct (1992)

In 1992, the U.S. Congress passed legislation requiring that general purpose Design A & B motors meet minimum efficiency requirements, and this legislation was called the Energy Policy Act of 1992. Previously, there had been no U.S. standards set forth for motor energy efficiency. Since 1997 (when EPAct '92 was first enforced), two-, four-, and six-pole general purpose Design A & B motors had to meet EPAct guidelines. Since then, most general purpose motors manufactured and/or sold in the U.S. have met these requirements.

Premium Efficiency (EISA 2007)

In December 2010, a new level of energy efficiency mandate went into effect. The Energy Independence and Security Act of 2007 mandated that all AC industrial motors as described below must meet Premium Efficiency standards. The NEMA trade group was instrumental in getting this legislation passed, so many people refer to the high efficiency motors by their nickname – NEMA Premium®. All applicable motors manufactured or imported into the U.S. after December 2010 must meet the Premium Efficiency guidelines.

Motors Covered Under EISA 2007 (Premium Efficiency Mandate)

Included – must meet the new Premium Efficiency standards – Industrial AC electric squirrel-cage motors as follows:

Single speed; Polyphase; 1–200 hp with 3-digit frame sizes; 2, 4, & 6 pole (3600, 1800, & 1200 rpm); NEMA design A & B (including IEC equivalent); Continuous rated

Not Included in Premium Efficiency standards, but must now meet EPAct standards:

JM; JP; Round body (footless); 201–500 hp; Fire pump; U-frame; Design C; 8-pole

For full text, visit www.energy.senate.gov and click "ENERGY INDEPENDENCE & SECURITY ACT OF 2007".

Nominal Full-Load Efficiency Standards Comparisons (%)

Enclosed Electric Motors, Random Wound, 60 Hz, 600V or Less

Motor HP	1200 rpm [6-pole]		1800 rpm [4-pole]		3600 rpm [2-pole]	
	EPAct	Premium Efficiency	EPAct	Premium Efficiency	EPAct	Premium Efficiency
1	80.0	82.5	82.5	85.5	75.5	77.0
1.5	85.5	87.5	84.0	86.5	82.5	84.0
2	86.5	88.5	84.0	86.5	84.0	85.5
3	87.5	89.5	87.5	89.5	85.5	86.5
5	87.5	89.5	87.5	89.5	87.5	88.5
7.5	89.5	91.0	89.5	91.7	88.5	89.5
10	89.5	91.0	89.5	91.7	89.5	90.2
15	90.2	91.7	91.0	92.4	90.2	91.0
20	90.2	91.7	91.0	93.0	90.2	91.0
25	91.7	93.0	92.4	93.6	91.0	91.7
30	91.7	93.0	92.4	93.6	91.0	91.7
40	93.0	94.1	93.0	94.1	91.7	92.4
50	93.0	94.1	93.0	94.5	92.4	93.0
60	93.6	94.5	93.6	95.0	93.0	93.6
75	93.6	94.5	94.1	95.4	93.0	93.6
100	94.1	95.0	94.5	95.4	93.6	94.1
125	94.1	95.0	94.5	95.4	94.5	95.0
150	95.0	95.8	95.0	95.8	94.5	95.0
200	95.0	95.8	95.0	96.2	95.0	95.4

AC Motor Selection – Three-phase Motors

(Single-phase motors are shown on page 15-15)

3-Phase Characteristic	IronHorse® 56C Frame 3-Phase	IronHorse® T & TC Frames EPAct & PE	Marathon microMAX™	Marathon Black Max®	Marathon Blue Max®	Marathon NEMA Premium® XRI®	Marathon Blue Chip XRI®
Electrical Characteristics							
Horsepower range	1/3 - 2	PE: 1-200(T); 1-100(TC) EPAct: 1-300(T); 1-100(TC)	1/4 - 10	1/4 - 30	40 - 100	1 - 10	15 - 100
Base speed (# Poles)	1800 (4), 3600 (2)	1200(6), 1800 (4), 3600(2)	1800 (4)	1800 (4) and 1200 (6)	1800 (4)	1200(6),1800(4),3600(2)	1800 (4)
Standard Voltage	208-230/460	208-230/460 (250 & 300 hp 460V only)	230/460 (1/4 hp is 230V only)	230/460 and 575	230/460	208-230/460	230/460 and 575
Insulation Class	F	F	H	F	H	F	F
Insulation System	dip & bake	EPAct: double dip & bake PE: VPI	CR ²⁰⁰ magnet wire	MAX GUARD®		CR ²⁰⁰ magnet wire	
Service Factor	1.15 (line) 1.0 (drive)	1.15 (line) 1.0 (drive)	1.0	1.0	1.0	1.15 (line) 1.0 (drive)	1.15
Phase/Base Frequency	3/60						
Design Code (NEMA)	B	A: 10-50 hp 4&6-pole EPAct B: all other EPAct; all PE	A and B for 1/4 - 2 hp	A	A	B	B
Duty Cycle	Continuous						
Thermal protection	None			Class F thermostats		None	
Mechanical Characteristics							
Frame size (mounting)	56C	143T/TC - 405TC/449T	56C - 215TC	56C - 286TC	324T(C)-405T(C)	56C - 215TC	254T - 405T
Enclosure	TEFC	TEFC	TENV and TEFC	TENV	TEFC and TEBC	TEFC	TEFC
Frame material	Rolled Steel frame; Aluminum end bell	Cast Iron	Rolled Steel	Rolled Steel w Al face; Cast Iron	Cast Iron	Rolled Steel	Cast Iron
End bracket material	Aluminum	Cast Iron	Aluminum	Aluminum, Cast Iron	Cast Iron	Aluminum	Cast Iron
Conduit box material	Steel	Cast Iron	Steel	Steel	Cast Iron	Steel	Steel (<326T) Cast Iron (>364T)
Fan guard material	Steel	Steel	Polypropylene	None (all ratings TENV)	Cast Iron	Plastic	Polyprop. (<286T) Cast Iron (>324T)
Fan material	Plastic	Plastic (143T/TC - 445/7T) Aluminum (449T)	Polypropylene	None (all ratings TENV)	Polypropylene	Plastic	Polypropylene
Lead termination	Conduit box	Conduit box	Conduit box except Terminal block - 1/4 hp	Conduit box	Conduit box	Conduit box	Conduit box
Standard mounting	C-Face with Removable Rigid Base	Rigid Base (C-Flange kit available EPAct) C-Face with Rigid Base (1-100 hp)	C-Face with Rigid Base & C-Face Round Body	C-Face with Rigid Base	C-Face with Rigid Base	C-Face with Rigid Base	Rigid Base
Drive end shaft slinger	Yes	Yes	No	No	Yes	Yes	Yes
Paint	Black	EPAct: Epoxy primer / Synthetic alkyd enamel PE: Polyurethane enamel	Black powder-coat	Black enamel	Blue enamel	Blue enamel	epoxy paint
Bearings	Ball	1-75 hp: Ball 100-300 hp: Roller	Ball (C3 fit)	Ball (C3 fit)	Ball (C3 fit)	Ball	Ball (C3 fit)
Grease	Exxon Polyrex EM						
Standard conduit box assembly position	F1	F1 some sizes reversible to F2	F3	F1, reversible to F2	F1, reversible to F2	F3	F1
Performance Characteristics							
Constant Torque speed range	2:1	2:1 (EPAct) 4:1 (Premium Efficiency)	20:1 (TEFC) 1000:1 (TENV)	1000:1 (TENV)	2000:1 (all enclosures)	10:1	20:1
Variable Torque speed range	5:1	5:1 (EPAct) 10:1 (Premium Efficiency)	-	-	-	10:1	-
Constant Horsepower speed range	1.5:1	1.5:1	2:1	2:1 (90-120Hz intermit- tent @50% duty cycle)	2:1	2:1	2:1
Temperature rise	B	B	B	F	F (TEFC) and B (TEBC)	F	B
Encoder provisions	No	No	No	Yes	Yes	No	No
Other Characteristics							
Agency listings	cCSA _{US}	CE, cCSA _{US} , EPAct	UL Recognized and CSA Certified				
Warranty*	2 years		3 years (through Marathon Electric)				
*See Terms and Conditions for motor warranty explanation.							
1) For warranty on IronHorse motors below 50 hp, warranty service can be arranged through AutomationDirect.							
2) For warranty on IronHorse motors 50 hp and above, motors must be inspected by a local EASA motor repair or service center; see AutomationDirect Terms & Conditions.							
3) Marathon warranty service can be arranged through Marathon Electric service centers. See list of service centers on our web site at www.automationdirect.com.							

STABLE™ Motor Slide Bases

Mounting Slide Bases for 56 to 449T NEMA Motors Features

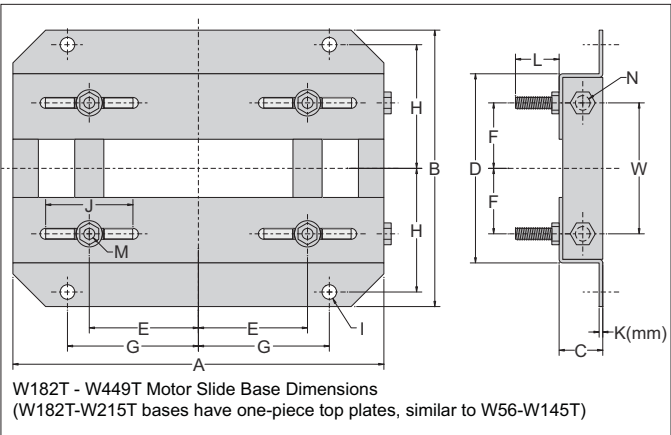
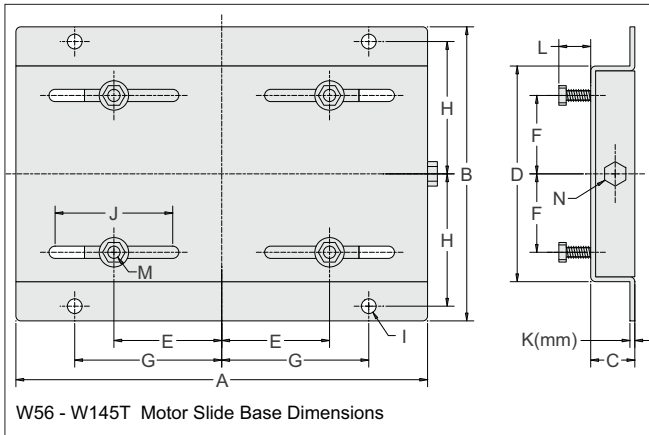
- Allows adjustment of motor mounting position
- Double adjusting screws for frames 182T - 449T
- Manufactured to precise dimensional standards
- Dimensionally interchangeable with existing major makes
- Heavy-duty steel construction
- Painted with oven-baked primer for better adhesion of customer's paint
- All "D" bolts (motor mounting bolts) are fixed to the exact motor foot pattern
- All "D" bolts are welded into position to prevent spinning and dropping from slots
- Bases are provided with washers



Motor Slide Bases											
Part Number	Price	Fits Frame Type	Product Weight (lb)	Fits Motor							
				IronHorse	Marathon micro -MAX	Marathon Black Max 230/460V	Marathon Black Max 575V	Marathon Blue Max	Marathon NEMA Premium XRI	Marathon Blue Chip XRI 230/460V	Marathon Blue Chip XRI 575V
MTA-BASE-W56	<-->	56	2.8	MTR-xxx-xxxx MTPM-xxx-xxxx	Y500 Y360 Y364	Y592(-A772) Y534(-A772) Y535(-A772)	Y555(-A772) Y556(-A772)	-	E2000	-	-
MTA-BASE-W143T	<-->	143T/TC	4.6	MTC(P)-001-3BD18(C)(CK) MTC-1P5-3BD36	-	Y536(-A772)	-	-	E2001 E2003	-	-
MTA-BASE-W145T	<-->	145T/TC	5.1	MTC-001-3BD12 MTC(P)-1P5-3BD18(C)(CK) MTC(P)-002-3BD18(C)(CK) MTC-002-3BD36	Y368	Y537(-A772) Y538(-A772) Y551(-A772)	Y557(-A772)	-	E2002 E2004 E2006 E2007	-	-
MTA-BASE-W182T	<-->	182T/TC	9.2	MTC-1P5-3BD12 MTC(P)-003-3BD18(C)(CK) MTC-003-3BD36	Y999	Y541(-A772)	Y558(-A772)	-	E2005 E2009 E2010	-	-
MTA-BASE-W184T	<-->	184T/TC	10	MTC-002-3BD12 MTC(P)-005-3BD18(C)(CK) MTC-005-3BD36	Y372	Y540(-A772) Y543(-A772)	Y559(-A772)	-	E2008 E2012 E2013	-	-
MTA-BASE-W213T	<-->	213T/TC	13	MTC-003-3BD12 MTC(P)-7P5-3BD18(C)(CK) MTC-7P5-3BD36	Y994	Y542(-A772) Y545(-A772)	Y560(-A772)	-	E2011 E2015 E2016	-	-
MTA-BASE-W215T	<-->	215T/TC	15	MTC-005-3BD12 MTC(P)-010-3BD18(C)(CK) MTC-010-3BD36	Y996	Y544(-A772) Y547(-A772)	Y561(-A772)	-	E2014 E2018 E2019	-	-
MTA-BASE-W254T	<-->	254T/TC	18	MTC-7P5-3BD12 MTC(P)-015-3BD18(C)(CK)	-	Y546(-A772) Y549(-A772)	Y562(-A772)	-	-	E205	E307
MTA-BASE-W256T	<-->	256T/TC	19	MTC-010-3BD12 MTC(P)-020-3BD18(C)(CK)	-	Y548(-A772) Y552(-A772)	Y563(-A772)	-	-	E206	E308
MTA-BASE-W284T	<-->	284T/TC	20	MTC(P)-025-3BD18(C)(CK)	-	Y553(-A772)	-	-	-	E207	E309
MTA-BASE-W286T	<-->	286T/TC	21	MTC(P)-030-3BD18(C)(CK)	-	Y393(-A772)	-	-	-	E208	E310
MTA-BASE-W324T	<-->	324T/TC	30	MTC(P)-040-3BD18(C)(CK)	-	-	-	Y571(-A774) Y513(-A775)	-	E209	E311
MTA-BASE-W326T	<-->	326T/TC	31	MTC(P)-050-3BD18(C)(CK)	-	-	-	Y572(-A774) Y514(-A775)	-	E210	E312
MTA-BASE-W364T	<-->	364T/TC	43	MTC(P)-060-3BD18(C)(CK)	-	-	-	Y573(-A774) Y515(-A775)	-	E211	E313
MTA-BASE-W365T	<-->	365T/TC	43	MTC(P)-075-3BD18(C)(CK)	-	-	-	Y574(-A774) Y516(-A775)	-	E212	E315
MTA-BASE-W404T	<-->	404T/TC	58	-	-	-	-	-	-	-	-
MTA-BASE-W405T	<-->	405T/TC	60	MTC(P)-100-3BD18(C)(CK)	-	-	-	Y575(-A774) Y517(-A775)	-	E213	E314
MTA-BASE-W444T	<-->	444T	63	MTC(P)-125-3BD18	-	-	-	-	-	-	-
MTA-BASE-W445T	<-->	445T	65	MTC(P)-150-3BD18	-	-	-	-	-	-	-
MTA-BASE-W447T	<-->	445/7T 447T	89	MTC(P)-200-3BD18	-	-	-	-	-	-	-
MTA-BASE-W449T	<-->	449T	94	MTC-250-3D18 MTC-300-3D18	-	-	-	-	-	-	-

STABLE Motor Slide Bases

Dimensions – Mounting Slide Bases for NEMA Motors



Dimensions [inches, except as noted] - STABLE Motor Slide Bases

MTA-BASE-Wxxxx	A	B	C	D	E	F	G	H	I	J	K(mm)	L	M	N	W
56	10-5/8	6-1/2	1-1/8	4-1/2	2-7/16	1-1/2	3-13/16	2-7/8	3/8	3	2 mm	7/8	5/16 x 1	3/8 x 4	n/a
143T	10-1/2	7-1/2	1-1/8	5-1/2	2-3/4	2	3-3/4	3-3/8	3/8	3	3 mm	13/16	5/16 x 1	3/8 x 4	n/a
145T	10-1/2	8-1/2	1-1/8	6-1/2	2-3/4	2-1/2	3-3/4	3-7/8	3/8	3	3 mm	13/16	5/16 x 1	3/8 x 4	n/a
182T	12-3/4	9-1/2	1-1/2	6-1/2	3-3/4	2-1/4	4-1/2	4-1/4	1/2	3	3.5 mm	1-1/2	3/8 x 1-3/4	1/2 x 6	4-1/2
184T	12-3/4	10-1/2	1-1/2	7-1/2	3-3/4	2-3/4	4-1/2	4-3/4	1/2	3	3.5 mm	1-1/2	3/8 x 1-3/4	1/2 x 6	5-1/2
213T	15	11	1-3/4	7-1/2	4-1/4	2-3/4	5-1/4	4-3/4	1/2	3-1/2	3.8 mm	1-1/2	3/8 x 1-3/4	1/2 x 6	5-1/2
215T	15	12-1/2	1-3/4	9	4-1/4	3-1/2	5-1/4	5-1/2	1/2	3-1/2	3.8 mm	1-1/2	3/8 x 1-3/4	1/2 x 6	7
254T	17-3/4	15-1/8	2	10-3/4	5	4-1/8	6-1/4	6-5/8	5/8	4	4.6 mm	1-7/16	1/2 x 1-3/4	5/8 x 6	5-5/16
256T	17-3/4	16-7/8	2	12-1/2	5	5	6-1/4	7-1/2	5/8	4	4.6 mm	1-7/16	1/2 x 1-3/4	5/8 x 6	7
284T	19-3/4	16-7/8	2	12-1/2	5-1/2	4-3/4	7	7-1/2	5/8	4-1/2	4.6 mm	1-11/16	1/2 x 2	5/8 x 6	7
286T	19-3/4	18-3/8	2	14	5-1/2	5-1/2	7	8-1/4	5/8	4-1/2	4.6 mm	1-11/16	1/2 x 2	5/8 x 6	8
324T	22-3/4	19-1/4	2-1/2	14	6-1/4	5-1/4	8	8-1/2	3/4	5-1/4	4.6 mm	2-3/16	5/8 x 2-1/2	3/4 x 9	7
326T	22-3/4	20-3/4	2-1/2	15-1/2	6-1/4	6	8	9-1/4	3/4	5-1/4	4.6 mm	2-3/16	5/8 x 2-1/2	3/4 x 9	8-1/2
364T	25-1/2	20-1/2	2-1/2	15-1/2	7	5-5/8	9	9-1/8	3/4	6	5.8 mm	2-1/16	5/8 x 2-1/2	3/4 x 9	7-3/4
365T	25-1/2	21-1/2	2-1/2	16-1/2	7	6-1/8	9	9-5/8	3/4	6	5.8 mm	2-1/16	5/8 x 2-1/2	3/4 x 9	8-3/4
404T	28-3/4	22-3/8	3	16-1/2	8	6-1/8	10	9-7/8	7/8	7	5.8 mm	2-1/2	3/4 x 3	3/4 x 11	8-3/4
405T	28-3/4	23-7/8	3	18	8	6-7/8	10	10-5/8	7/8	7	5.8 mm	2-1/2	3/4 x 3	3/4 x 11	10-1/4
444T	31-1/4	24-5/8	3	19-1/4	9	7-1/4	11	11	7/8	7-1/2	5.8 mm	2-1/2	3/4 x 3	3/4 x 11	11
445T	31-1/4	26-5/8	3	21-1/4	9	8-1/4	11	12	7/8	7-1/2	5.8 mm	2-1/2	3/4 x 3	3/4 x 11	13
447T	31-1/4	30-1/8	3	24-3/4	9	10	11	13-3/4	7/8	7-1/2	8 mm	3	3/4 x 3-1/2	3/4 x 11	16-1/2
449T	31-1/4	35-1/8	3	29-3/4	9	12-1/2	11	16-1/4	7/8	7-1/2	8 mm	3	3/4 x 3-1/2	3/4 x 11	21-1/2

- Company Information
- Systems Overview
- Programmable Controllers
- Field I/O
- Software
- C-more & other HMI
- Drives
- Soft Starters
- Motors & Gearbox
- Steppers/ Servos
- Motor Controls
- Proximity Sensors
- Photo Sensors
- Limit Switches
- Encoders
- Current Sensors
- Pressure Sensors
- Temperature Sensors
- Pushbuttons/ Lights
- Process
- Relays/ Timers
- Comm.
- Terminal Blocks & Wiring
- Power
- Circuit Protection
- Enclosures
- Tools
- Pneumatics
- Appendix
- Product Index
- Part # Index