

LEGACY MOTORS

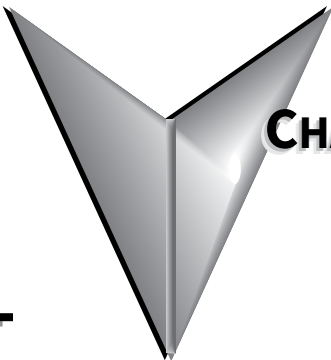


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CHAPTER OVERVIEW

This chapter provides technical information for Ironhorse AC motors that have been retired by ADC. *These legacy models are no longer sold by AutomationDirect*, but are detailed in this chapter to keep motor data available during the motors' lifetime.

We also encourage you to visit our web site where you can find technical and non-technical information about our products and our company. Visit us at www.automationdirect.com.

MTCP SERIES MOTORS

MTCP FEATURES AND SPECIFICATIONS

Premium Efficiency Cast-Iron T-Frame



Premium Efficiency Cast-Iron TC-Frame



IronHorse cast-iron industrial-duty Premium Efficiency motors are available in T-frame housings in speeds of 1200, 1800, and 3600 rpm, and in TC-frame housings in speeds of 1800 rpm. Optional C-face kits are available for IronHorse T-frame Premium Efficiency motors. (Premium Efficiency C-face kits are NOT compatible with EPAct motors.) All models have a TEFC frame and full length mounting feet.



NOTE: For MTCP motors shipped with a shaft lock in place, remove the shaft lock after the motor is installed and before coupling and turning the shaft.

MTCP SPECIFICATIONS**MTCP SPECIFICATIONS – CAST-IRON T-FRAME AND TC-FRAME – 60Hz/1800RPM (50Hz/1500RPM)**

Motor Specifications Premium-Efficiency T & TC Frame Three-Phase Motors 60Hz/1800rpm (50Hz/1500rpm)										
Part Number	HP(2)	NEMA Frame	Voltage @ 60Hz (50Hz)	Housing	Shaft Material	Conduit Box Location (1)	Holes / Foot	Service Factor	F.L. Amps @ 230V/460V (200V/400V)	Product Weight (lb)
MTCP-001-3BD18	1	143T	208-230/460 – 3-phase (200/400 – 3-phase)	TEFC cast iron	1045 carbon steel	F1(F2)	2	1.15 (1.0)	3.22 / 1.61 (3.70 / 1.85)	41
MTCP-001-3BD18C		143TC								45
MTCP-1P5-3BD18	1-1/2	145T					4		4.64 / 2.32 (5.34 / 2.67)	47
MTCP-1P5-3BD18C		145TC								50
MTCP-002-3BD18	2	145T					4		6.00 / 3.00 (6.90 / 3.50)	56
MTCP-002-3BD18C		145TC								60
MTCP-003-3BD18	3	182T					2		8.05 / 4.02 (9.26 / 4.63)	84
MTCP-003-3BD18C		182TC								92
MTCP-005-3BD18	5	184T					4		13.4 / 6.71 (15.4 / 7.71)	99
MTCP-005-3BD18C		184TC								107
MTCP-7P5-3BD18	7-1/2	213T					2		18.7 / 9.34 (21.5 / 10.7)	150
MTCP-7P5-3BD18C		213TC								154
MTCP-010-3BD18	10	215T					4		24.9 / 12.5 (28.6 / 14.3)	186
MTCP-010-3BD18C		215TC								190
MTCP-015-3BD18	15	254T					2		35.8 / 17.9 (41.2 / 20.6)	329
MTCP-015-3BD18C		254TC								325
MTCP-020-3BD18	20	256T					4		47.9 / 24.0 (55.1 / 27.6)	390
MTCP-020-3BD18C		256TC								370
MTCP-025-3BD18	25	284T					2		59.6 / 29.8 (68.5 / 34.3)	455
MTCP-025-3BD18C		284TC								467
MTCP-030-3BD18	30	286T					4		70.0 / 35.0 (80.5 / 40.2)	488
MTCP-030-3BD18C		286TC								497
MTCP-040-3BD18	40	324T					2		94.8 / 47.4 (109 / 54.5)	611
MTCP-040-3BD18C		324TC								626
MTCP-050-3BD18 (2)	50	326T					4		117 / 58.4 (134 / 67.2)	690
MTCP-050-3BD18C (2)		326TC								706
MTCP-060-3BD18 (2)	60	364T					2		139 / 69.6 (160 / 80.1)	851
MTCP-060-3BD18C (2)		364TC								864
MTCP-075-3BD18 (2)	75	365T					4		173 / 86.7 (199 / 99.7)	948
MTCP-075-3BD18C (2)		365TC								961
MTCP-100-3BD18 (2)	100	405T					4		229 / 114 (263 / 132)	1199
MTCP-100-3BD18C (2)		405TC								1236
MTCP-125-3BD18 (2)	125	444T					2	285 / 143 (328 / 164)	1500	
MTCP-150-3BD18 (2)	150	445T					4	342 / 171 (414 / 207)	1630	
MTCP-200-3BD18 (2)	200	445/7T					4	453 / 227 (521 / 261)	2127	

1) F1(F2) indicates F1 conduit box mounting location, field convertible to F2 (as shown on dimensional diagram).

2) For warranty on motors 50 hp and above, motors must be inspected by an EASA motor repair or service center. See AutomationDirect Terms & Conditions for details.

MTCP SPECIFICATIONS – CAST-IRON T-FRAME AND TC-FRAME
– 60Hz/1200&3600RPM (50Hz/1000&3000 RPM)

Motor Specifications Premium Efficiency T-Frame Three-Phase Motors 60Hz / 1200 & 3600 rpm (50Hz / 1000 & 3000 rpm)										
Part Number	HP	NEMA Frame	Voltage @ 60Hz (50Hz)	Housing	Shaft Material	Conduit Box Location (1)	Holes / Foot	Service Factor	F.L. Amps @ 230V/460V (200V/400V)	Product Weight (lb)
1200 rpm Base Speed @ 60Hz (1000 rpm Base Speed @ 50Hz)										
MTCP-001-3BD12	1	145T	208-230/460 – 3-phase (200/400 – 3-phase)	TEFC cast iron	1045 carbon steel	F1(F2)	4	1.15 (1.0)	3.16 / 1.58 (3.63 / 1.82)	60
MTCP-1P5-3BD12	1-1/2	182T					2		4.46 / 2.23 (5.13 / 2.57)	104
MTCP-002-3BD12	2	184T					4		5.72 / 2.86 (6.58 / 3.29)	110
MTCP-003-3BD12	3	213T					2		8.48 / 4.24 (9.75 / 4.88)	160
MTCP-005-3BD12	5	215T					4		13.8 / 6.88 (15.8 / 7.91)	180
MTCP-7P5-3BD12	7-1/2	254T					2		20.9 / 10.4 (24.0 / 12.0)	325
MTCP-010-3BD12	10	256T					4		27.8 / 13.9 (32.0 / 16.0)	325
MTCP-015-3BD12	15	284T					2		40.3 / 20.2 (46.4 / 23.2)	420
MTCP-020-3BD12	20	286T					4		52.4 / 26.2 (60.2 / 30.1)	470
3600 rpm Base Speed (3000 rpm Base Speed @ 50Hz)										
MTCP-1P5-3BD36	1-1/2	143T	208-230/460 – 3-phase (200/400 – 3-phase)	TEFC cast iron	1045 carbon steel	F1(F2)	2	1.15 (1.0)	4.08 / 2.04 (4.69 / 2.35)	44
MTCP-002-3BD36	2	145T					4		5.40 / 2.70 (6.20 / 3.10)	53
MTCP-003-3BD36	3	182T					2		7.74 / 3.87 (8.90 / 4.45)	79
MTCP-005-3BD36	5	184T					4		12.6 / 6.30 (14.5 / 7.25)	92
MTCP-7P5-3BD36	7-1/2	213T					2		18.5 / 9.23 (21.2 / 10.6)	140
MTCP-010-3BD36	10	215T					4		24.4 / 12.2 (28.1 / 14.1)	161
MTCP-015-3BD36	15	254T					2		35.0 / 17.5 (40.3 / 20.1)	278
MTCP-020-3BD36	20	256T					4		46.4 / 23.2 (53.4 / 26.7)	306
1) F1(F2) indicates F1 conduit box mounting location, field convertible to F2 (as shown on dimensional diagram).										

MTCP MOTOR PERFORMANCE DATA**MTCP PERFORMANCE DATA – CAST-IRON T-FRAME AND TC-FRAME – 60Hz/1800RPM**

Performance Data @ 60Hz Premium-Efficiency T & TC Frame Three-Phase Motors – 1800 rpm (460 Volt except as indicated)											
Part Number	HP	NEMA Design	F.L. RPM	Speed (rpm)				F.L. Efficiency (%)	F.L. Power Factor	Rotor Inertia (lb·ft²)	Slip (%)
				Minimum		Maximum					
				Constant Torque (4:1)	Variable Torque (10:1)	CHP(1)	Safe				
MTCP-001-3BD18(C)	1	B	1750	450	180	2700	5400	86.3	0.690	0.089	1.81
MTCP-1P5-3BD18(C)	1-1/2		1750					87.3	0.726	0.11	2.80
MTCP-002-3BD18(C)	2		1750					87.3	0.725	0.13	2.80
MTCP-003-3BD18(C)	3		1750					90.3	0.786	0.28	1.60
MTCP-005-3BD18(C)	5		1750					90.3	0.786	0.33	2.00
MTCP-7P5-3BD18(C)	7-1/2		1760					91.8	0.825	1.814	1.54
MTCP-010-3BD18(C)	10		1750				4200	92.5	0.826	1.97	1.31
MTCP-015-3BD18(C)	15		1750					92.5	0.890	3.33	1.22
MTCP-020-3BD18(C)	20		1770					93.8	0.846	4.09	1.70
MTCP-025-3BD18(C)	25		1770					93.6	0.860	7.01	1.67
MTCP-030-3BD18(C)	30		1780					93.7	0.846	8.3	1.10
MTCP-040-3BD18(C)	40		1780					94.4	0.850	9	1.11
MTCP-050-3BD18(C)	50		1775					94.5	0.855	14.1	0.78
MTCP-060-3BD18(C)	60		1788					95.0	0.850	16.27	0.66
MTCP-075-3BD18(C)	75		1787					95.4	0.850	18.8	0.69
MTCP-100-3BD18(C)	100		1790					95.4	0.860	45.5	0.56
MTCP-125-3BD18	125		1790					95.4	0.860	65.1	0.56
MTCP-150-3BD18	150		1790					95.8	0.860	69.26	0.53
MTCP-200-3BD18	200		1790					96.3	0.860	84.0	0.52

1) Maximum Constant HP RPM is for direct-coupled loads.

Part Number (repeated)	HP	Current @ 230V/460V (Amps)			Torque (lb-ft)			Max Time @ Locked Rotor Current (hot)	Temperature Rise @ Full Load
		No Load	Full Load	Locked Rotor	Full Load	Locked Rotor	Break -down		
MTCP-001-3BD18(C)	1	2.3 / 1.1	3.2 / 1.6	30.0 / 15.0	3.0	9.0	11.4	20 seconds	80°C [176°F]
MTCP-1P5-3BD18(C)	1-1/2	3.1 / 1.6	4.6 / 2.3	40.0 / 20.0	4.5	9.0	14.0		
MTCP-002-3BD18(C)	2	3.6 / 1.8	6.0 / 3.0	50.0 / 25.0	6.0	17.4	19.2		
MTCP-003-3BD18(C)	3	4.1 / 2.1	8.1 / 4.0	64.0 / 32.0	9.0	20.7	25.2		
MTCP-005-3BD18(C)	5	6.2 / 3.1	13.4 / 6.7	92.0 / 46.0	15.0	34.5	43.5		
MTCP-7P5-3BD18(C)	7-1/2	8.4 / 4.2	18.7 / 9.3	127 / 63.5	22.4	44.8	69.4		
MTCP-010-3BD18(C)	10	10.5 / 5.3	24.9 / 12.5	163 / 81.5	30.0	61.5	93.0		
MTCP-015-3BD18(C)	15	15.4 / 7.7	35.8 / 17.9	232 / 116	45	92	126		
MTCP-020-3BD18(C)	20	17.1 / 8.6	47.9 / 24.0	290 / 145	59.4	118.8	166.3		
MTCP-025-3BD18(C)	25	24 / 12	59.6 / 29.8	365 / 182.5	74.2	155.8	185.5		
MTCP-030-3BD18(C)	30	27 / 13.5	70.0 / 35.0	435 / 217.5	88.6	203.8	248.1		
MTCP-040-3BD18(C)	40	29.6 / 14.8	94.8 / 47.4	580 / 290	118.1	248.0	271.6		
MTCP-050-3BD18(C)	50	36.2 / 18.1	116.8 / 58.4	725 / 362.5	148	326	414		
MTCP-060-3BD18(C)	60	45.6 / 22.8	139.3 / 69.6	870 / 435	179	376	519		
MTCP-075-3BD18(C)	75	58.4 / 29.2	173.4 / 86.7	1085 / 542.5	221	464	619	13 seconds	
MTCP-100-3BD18(C)	100	75 / 37.5	228.6 / 114.3	1450 / 725	293.2	645.0	703.7	20 seconds	
MTCP-125-3BD18	125	94.5 / 47.3	285.2 / 142.6	1816 / 908	367	624	918		
MTCP-150-3BD18	150	104.4 / 52.2	342 / 171	2170 / 1085	443	797	1108	18 seconds	
MTCP-200-3BD18	200	133.3 / 66.6	453.2 / 226.6	2900 / 1450	587	1174	1644		

MTCP MOTOR PERFORMANCE DATA – CAST-IRON T-FRAME – 60HZ/1200RPM

Performance Data @ 60Hz – Premium Efficiency T-Frame 3-Phase Motors – 1200 rpm – (460 Volt except as indicated)											
Part Number	HP	NEMA Design	F.L. RPM	Speed (rpm)				F.L. Efficiency (%)	F.L. Power Factor	Rotor Inertia (lb-ft²)	Slip (%)
				Minimum		Maximum					
				Constant Torque (4:1)	Variable Torque (10:1)	CHP(1)	Safe				
MTCP-001-3BD12	1	B	1162	300	120	1800	3600	82.5	0.72	0.33	3.14
MTCP-1P5-3BD12	1-1/2							87.5	0.72	0.36	1.85
MTCP-002-3BD12	2							88.5	0.74	0.47	2.0
MTCP-003-3BD12	3							89.5	0.74	0.50	1.65
MTCP-005-3BD12	5							89.5	0.76	1.97	1.85
MTCP-7P5-3BD12	7-1/2							91.1	0.74	2.74	1.51
MTCP-010-3BD12	10							91.0	0.74	2.98	1.56
MTCP-015-3BD12	15							91.7	0.76	5.49	1.16
MTCP-020-3BD12	20							91.7	0.78	12.9	1.21
1) Maximum Constant HP RPM is for direct-coupled loads.											
Part Number (repeated)	HP	Current @ 230V/460V (Amps)			Torque (lb-ft)			Max Time @ Locked Rotor Current (hot)	Temperature Rise @ Full Load		
		No Load	Full Load	Locked Rotor	Full Load	Locked Rotor	Break -down				
MTCP-001-3BD12	1	2.5 / 1.25	3.2 / 1.6	30 / 15	4.5	10.8	14.4	20 seconds	80°C [176°F]		
MTCP-1P5-3BD12	1-1/2	3.2 / 1.6	4.5 / 2.2	40 / 20	6.68	15.36	21.38				
MTCP-002-3BD12	2	4.2 / 2.1	5.7 / 2.9	50.0 / 25.0	8.61	20.66	29.88				
MTCP-003-3BD12	3	6.4 / 3.2	8.5 / 4.2	68.0 / 34.0	13.36	29.39	40.08				
MTCP-005-3BD12	5	9.2 / 4.6	13.8 / 6.9	92.0 / 46.0	22.2	48.8	66.6				
MTCP-7P5-3BD12	7-1/2	12.0 / 6.0	20.9 / 10.4	127 / 63.5	33.4	76.8	116.9				
MTCP-010-3BD12	10	10.8 / 5.4	27.8 / 13.9	162 / 81	44.5	97.9	106.8				
MTCP-015-3BD12	15	18.0 / 9.0	40.3 / 20.2	232 / 116	60.23	132.51	174.67				
MTCP-020-3BD12	20	17.8 / 8.9	52.4 / 26.2	290 / 145	89.1	196.0	258.4				

MTCP MOTOR PERFORMANCE DATA – CAST-IRON T-FRAME – 60HZ/3600RPM

Performance Data @ 60Hz – Premium Efficiency T-Frame 3-Phase Motors – 3600 rpm – (460 Volt except as indicated)											
Part Number	HP	NEMA Design	F.L. RPM	Speed (rpm)				F.L. Efficiency (%)	F.L. Power Factor	Rotor Inertia (lb-ft²)	Slip (%)
				Minimum		Maximum					
				Constant Torque (4:1)	Variable Torque (10:1)	CHP(1)	Safe				
MTCP-1P5-3BD36	1-1/2	B	3570	900	360	5400	5400	85.5	0.83	0.08	2.00
MTCP-002-3BD36	2		3520					86.6	0.82	0.10	2.20
MTCP-003-3BD36	3		3520					87.0	0.85	0.20	1.60
MTCP-005-3BD36	5		3570					89.0	0.84	0.22	1.46
MTCP-7P5-3BD36	7-1/2		3520					89.7	0.85	0.50	1.67
MTCP-010-3BD36	10		3550					90.3	0.85	1.2	1.40
MTCP-015-3BD36	15		3550					91.2	0.85	1.86	1.11
MTCP-020-3BD36	20		3570					91.2	0.85	2.01	0.97
1) Maximum Constant HP RPM is for direct-coupled loads.											
Part Number (repeated)	HP	Current @ 230V/460V (Amps)			Torque (lb-ft)			Max Time @ Locked Rotor Current (hot)	Temperature Rise @ Full Load		
		No Load	Full Load	Locked Rotor	Full Load	Locked Rotor	Break -down				
MTCP-1P5-3BD36	1-1/2	2.0 / 1.0	4.1 / 2.0	40.0 / 20.0	2.2	6.4	7.9	20 seconds	80°C [176°F]		
MTCP-002-3BD36	2	3.1 / 1.6	5.4 / 2.7	50.0 / 25.0	3.0	9.0	12.0				
MTCP-003-3BD36	3	3.9 / 2.0	7.7 / 3.9	64.0 / 32.0	4.48	12.54	17.02				
MTCP-005-3BD36	5	5.2 / 2.6	12.6 / 6.3	92.0 / 46.0	7.36	16.19	22.82				
MTCP-7P5-3BD36	7-1/2	6.7 / 3.3	18.5 / 9.2	127 / 63.5	11.2	28.0	34.7				
MTCP-010-3BD36	10	8.8 / 4.4	24.4 / 12.2	163 / 81.5	14.8	37.0	50.3				
MTCP-015-3BD36	15	12 / 6	35.0 / 17.5	232 / 116	22.2	46.6	64.4				
MTCP-020-3BD36	20	15 / 7.5	46.4 / 23.2	290 / 145	29.4	61.7	85.3				

MTCP MOTOR PERFORMANCE DATA – CAST-IRON T-FRAME AND TC-FRAME – 50Hz/1500RPM

Performance Data @ 50Hz Premium-Efficiency T & TC Frame Three-Phase Motors – 1500 rpm (400 Volt except as indicated)											
Part Number	HP	NEMA Design	F.L. RPM	Speed (rpm)				F.L. Efficiency (%)	F.L. Power Factor	Rotor Inertia (lb-ft ²)	Slip (%)
				Minimum		Maximum					
				Constant Torque	Variable Torque	CHP(1)	Safe				
MTCP-001-3BD18(C)	1	B	1453	450	180	2700	5400	86.3	0.690	0.089	1.81
MTCP-1P5-3BD18(C)	1.5		1453					87.3	0.726	0.11	2.80
MTCP-002-3BD18(C)	2		1453					87.3	0.725	0.13	2.80
MTCP-003-3BD18(C)	3		1453					90.3	0.786	0.28	1.60
MTCP-005-3BD18(C)	5		1453					90.3	0.786	0.33	2.00
MTCP-7P5-3BD18(C)	7-1/2		1461					91.8	0.825	1.814	1.54
MTCP-010-3BD18(C)	10		1453				4200	92.5	0.826	1.97	1.31
MTCP-015-3BD18(C)	15		1453					92.5	0.890	3.33	1.22
MTCP-020-3BD18(C)	20		1469					93.8	0.846	4.09	1.70
MTCP-025-3BD18(C)	25		1469					93.6	0.860	7.01	1.67
MTCP-030-3BD18(C)	30		1477					93.7	0.846	8.3	1.10
MTCP-040-3BD18(C)	40		1477					94.4	0.850	9	1.11
MTCP-050-3BD18(C)	50		1473					94.5	0.855	14.1	0.78
MTCP-060-3BD18(C)	60		1484					95.0	0.850	16.27	0.66
MTCP-075-3BD18(C)	75		1483					95.4	0.850	18.8	0.69
MTCP-100-3BD18(C)	100		1486					95.4	0.860	45.5	0.56
MTCP-125-3BD18	125		1486					95.4	0.860	65.1	0.56
MTCP-150-3BD18	150		1486					95.8	0.860	69.26	0.53
MTCP-200-3BD18	200		1486					96.3	0.860	84.0	0.52

1) Maximum Constant HP RPM is for direct-coupled loads.

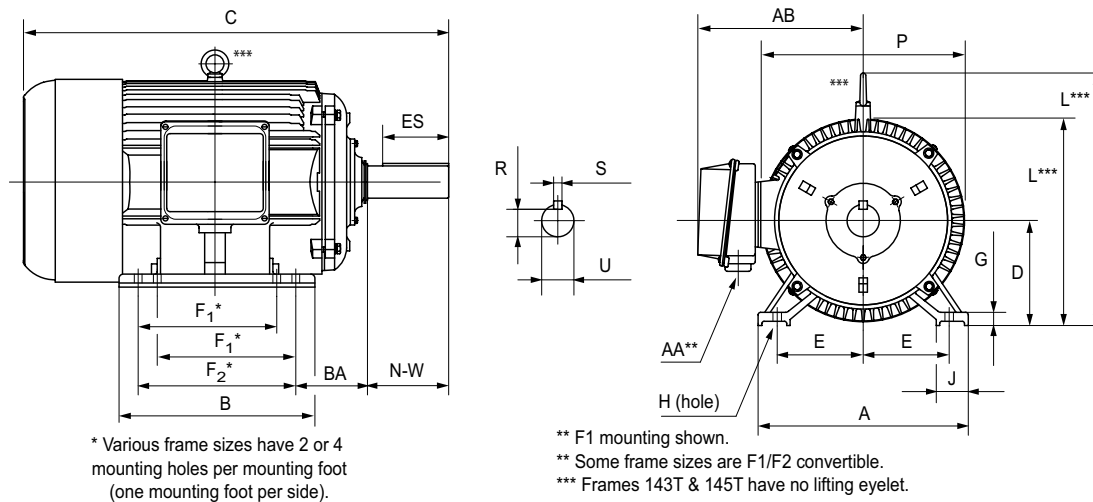
Part Number (repeated)	HP	Current @ 200V/400V (Amps)			Torque (lb-ft)			Max Time @ Locked Rotor Current (hot)	Temperature Rise @ Full Load
		No Load	Full Load	Locked Rotor	Full Load	Locked Rotor	Break -down		
MTCP-001-3BD18(C)	1	2.62 / 1.31	3.70 / 1.85	34.5 / 17.3	3.61	10.8	13.7	20 seconds	80°C [176°F]
MTCP-1P5-3BD18(C)	1-1/2	3.59 / 1.80	5.34 / 2.67	46.0 / 23.0	5.40	10.8	16.7		
MTCP-002-3BD18(C)	2	4.10 / 2.10	6.90 / 3.50	57.5 / 28.8	7.20	20.9	23.0		
MTCP-003-3BD18(C)	3	4.70 / 2.35	9.26 / 4.63	73.6 / 36.8	10.8	24.8	30.2		
MTCP-005-3BD18(C)	5	7.13 / 3.57	15.42 / 7.71	106 / 52.9	18.1	41.6	52.5		
MTCP-7P5-3BD18(C)	7-1/2	9.71 / 4.86	21.5 / 10.7	146 / 73.0	27.0	54.0	83.7		
MTCP-010-3BD18(C)	10	12.1 / 6.06	28.6 / 14.3	187 / 93.7	36.1	74.0	112		
MTCP-015-3BD18(C)	15	17.7 / 8.85	41.2 / 20.6	267 / 133	54.2	111	152		
MTCP-020-3BD18(C)	20	19.7 / 9.84	55.1 / 27.6	334 / 167	71.5	143	200		
MTCP-025-3BD18(C)	25	27.6 / 13.8	68.5 / 34.3	420 / 210	89.4	188	224		
MTCP-030-3BD18(C)	30	31.1 / 15.5	80.5 / 40.2	500 / 250	107	246	300		
MTCP-040-3BD18(C)	40	34.0 / 17.0	109 / 54.5	667 / 334	142	298	327		
MTCP-050-3BD18(C)	50	41.6 / 20.8	134 / 67.2	834 / 417	178	392	498		
MTCP-060-3BD18(C)	60	52.4 / 26.2	160 / 80.1	1001 / 500	212	445	615		
MTCP-075-3BD18(C)	75	67.2 / 33.6	199 / 99.7	1248 / 624	266	559	745	13 seconds	
MTCP-100-3BD18(C)	100	86.3 / 43.1	263 / 132	1668 / 834	353	777	847	20 seconds	
MTCP-125-3BD18	125	109 / 54.4	328 / 164	2088 / 1044	442	751	1105		
MTCP-150-3BD18	150	126 / 63.2	414 / 207	2627 / 1314	530	954	1325	18 seconds	
MTCP-200-3BD18	200	153 / 77	521 / 261	3335 / 1668	707	1414	1980		

MTCP MOTOR PERFORMANCE DATA – CAST-IRON T-FRAME – 50Hz/1000RPM

Performance Data @ 50Hz – Premium Efficiency T-Frame 3-Phase Motors – 1000 rpm – (400 Volt except as indicated)											
Part Number	HP	NEMA Design	F.L. RPM	Speed (rpm)				F.L. Efficiency (%)	F.L. Power Factor	Rotor Inertia (lb-ft ²)	Slip (%)
				Minimum		Maximum					
				Constant Torque	Variable Torque	CHP(1)	Safe				
MTCP-001-3BD12	1	B	964	300	120	1800	3600	82.5	0.72	0.33	3.14
MTCP-1P5-3BD12	1-1/2							87.5	0.72	0.36	1.85
MTCP-002-3BD12	2							88.5	0.74	0.47	2.00
MTCP-003-3BD12	3							89.5	0.74	0.50	1.65
MTCP-005-3BD12	5		979					89.5	0.76	1.97	1.85
MTCP-7P5-3BD12	7-1/2							91.1	0.74	2.74	1.51
MTCP-010-3BD12	10							91.0	0.74	2.98	1.56
MTCP-015-3BD12	15							91.7	0.76	5.49	1.16
MTCP-020-3BD12	20							91.7	0.78	12.9	1.21
1) Maximum Constant HP RPM is for direct-coupled loads.											
Part Number (repeated)	HP	Current @ 200V/400V (Amps)			Torque (lb-ft)			Max Time @ Locked Rotor Current (hot)	Temperature Rise @ Full Load		
		No Load	Full Load	Locked Rotor	Full Load	Locked Rotor	Break -down				
MTCP-001-3BD12	1	2.88 / 1.44	3.63 / 1.82	34.5 / 17.3	5.40	13.0	17.3	20 seconds	80°C [176°F]		
MTCP-1P5-3BD12	1-1/2	3.70 / 1.85	5.13 / 2.57	46.0 / 23.0	8.04	18.5	25.7				
MTCP-002-3BD12	2	4.83 / 2.42	6.58 / 3.29	57.5 / 28.8	10.7	25.7	37.1				
MTCP-003-3BD12	3	7.36 / 3.68	9.75 / 4.88	78.2 / 39.1	16.1	35.4	48.3				
MTCP-005-3BD12	5	10.6 / 5.29	15.8 / 7.91	106 / 52.9	26.8	59.0	80.4				
MTCP-7P5-3BD12	7-1/2	13.8 / 6.90	24.0 / 12.0	146 / 73.0	40.2	92.5	141				
MTCP-010-3BD12	10	12.4 / 6.21	32.0 / 16.0	186 / 93.2	53.6	118	129				
MTCP-015-3BD12	15	20.7 / 10.4	46.4 / 23.2	267 / 133	80.4	177	233				
MTCP-020-3BD12	20	20.4 / 10.2	60.2 / 30.1	334 / 167	107	235	310				

MTCP MOTOR PERFORMANCE DATA – CAST-IRON T-FRAME – 50Hz/3000RPM

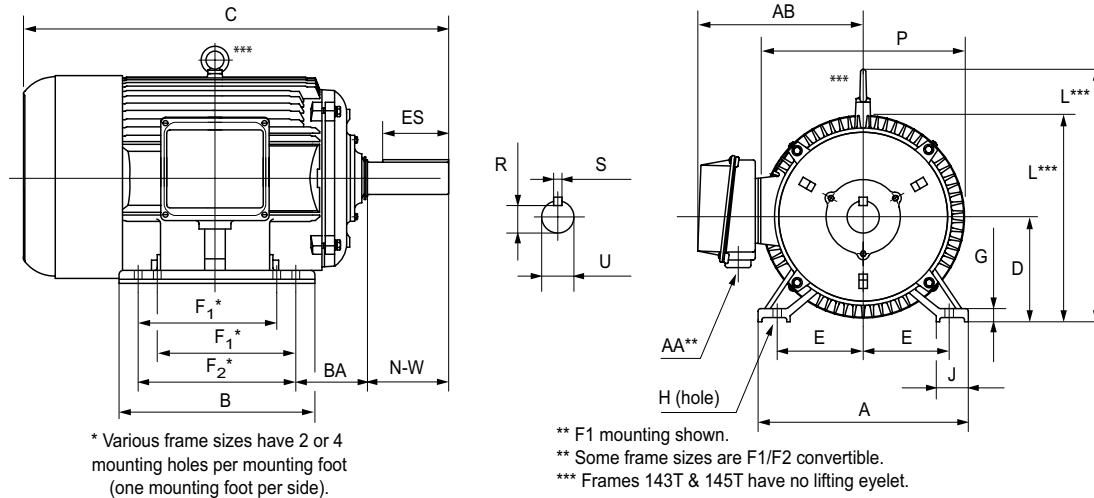
Performance Data @ 50Hz – Premium Efficiency T-Frame 3-Phase Motors – 3000 rpm – (400 Volt except as indicated)											
Part Number	HP	NEMA Design	F.L. RPM	Speed (rpm)				F.L. Efficiency (%)	F.L. Power Factor	Rotor Inertia (lb-ft ²)	Slip (%)
				Minimum		Maximum					
				Constant Torque	Variable Torque	CHP(1)	Safe				
MTCP-1P5-3BD36	1-1/2	B	2963	1800	720	5400	5400	85.5	0.83	0.08	2.00
MTCP-002-3BD36	2		2922					86.6	0.82	0.10	2.20
MTCP-003-3BD36	3		2922					87.0	0.85	0.20	1.60
MTCP-005-3BD36	5		2963					89.0	0.84	0.22	1.46
MTCP-7P5-3BD36	7-1/2		2922					89.7	0.85	0.50	1.67
MTCP-010-3BD36	10		2947					90.3	0.85	1.20	1.40
MTCP-015-3BD36	15		2947					91.2	0.85	1.86	1.11
MTCP-020-3BD36	20		2963					91.2	0.85	2.01	0.97
1) Maximum Constant HP RPM is for direct-coupled loads.											
Part Number (repeated)	HP	Current @ 200V/400V (Amps)			Torque (lb-ft)			Max Time @ Locked Rotor Current (hot)	Temperature Rise @ Full Load		
		No Load	Full Load	Locked Rotor	Full Load	Locked Rotor	Break -down				
MTCP-1P5-3BD36	1-1/2	2.30 / 1.20	4.69 / 2.35	46.0 / 23.0	2.66	7.71	9.58	20 seconds	80°C [176°F]		
MTCP-002-3BD36	2	3.60 / 1.80	6.20 / 3.10	57.5 / 28.8	3.60	10.8	14.4				
MTCP-003-3BD36	3	4.49 / 2.25	8.90 / 4.45	73.6 / 36.8	5.39	15.1	20.5				
MTCP-005-3BD36	5	5.98 / 2.99	14.5 / 7.25	106 / 46.0	8.88	19.5	27.5				
MTCP-7P5-3BD36	7-1/2	7.66 / 3.83	21.2 / 10.6	146 / 73.0	13.5	33.7	41.8				
MTCP-010-3BD36	10	10.1 / 5.04	28.1 / 14.1	188 / 93.8	17.8	44.5	60.5				
MTCP-015-3BD36	15	13.8 / 6.90	40.3 / 20.1	267 / 133	26.7	56.1	77.4				
MTCP-020-3BD36	20	17.3 / 8.63	53.4 / 26.7	334 / 167	35.4	74.4	103				

MTCP MOTOR DIMENSIONS**(DIMENSIONS = INCHES)****MTCP PREMIUM-EFFICIENCY T-FRAME THREE-PHASE MOTOR DIMENSIONS**

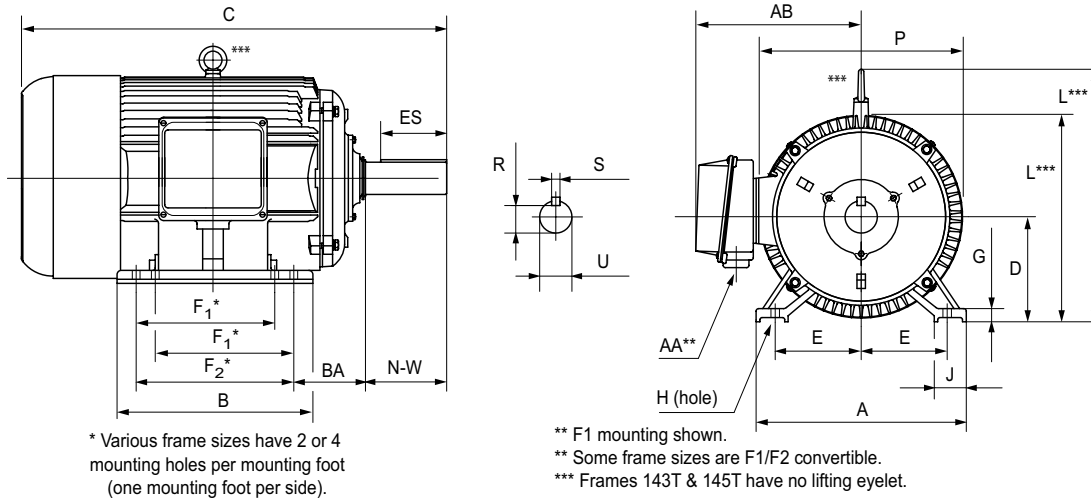
Dimensions [inches, except as noted] Premium-Efficiency Three-Phase T-Frame Motors – 1800 rpm											
Part Number	HP	NEMA Frame	A	AA**	AB	B	BA	C	D	E	ES
MTCP-001-3BD18	1	143T	7	3/4"npt	6.89	5.1	2.25	12.47	3.5	2.75	1.41
MTCP-1P5-3BD18	1-1/2	145T	7	3/4"npt	6.89	6.1	2.25	13.47	3.5	2.75	1.41
MTCP-002-3BD18	2		7	3/4"npt	6.89	6.1	2.25	13.47	3.5	2.75	1.41
MTCP-003-3BD18	3	182T	8.9	1" NPT	7.45	6.3	2.75	15.11	4.5	3.75	1.78
MTCP-005-3BD18	5	184T	8.9	1" NPT	7.45	7.1	2.75	16.12	4.5	3.75	1.78
MTCP-7P5-3BD18	7-1/2	213T	10.5	1" NPT	8.63	7.5	3.5	18.89	5.25	4.25	2.41
MTCP-010-3BD18	10	215T	10.5	1" NPT	8.63	9	3.5	20.49	5.25	4.25	2.41
MTCP-015-3BD18	15	254T	12.3	1.5" NPT	12.0	10.3	4.25	23.29	6.25	5	2.91
MTCP-020-3BD18	20	256T	12.3	1.5" NPT	12.0	12.4	4.25	25.06	6.25	5	2.91
MTCP-025-3BD18	25	284T	13.7	1.5" NPT	13.7	12.2	4.75	26.63	7	5.5	3.28
MTCP-030-3BD18	30	286T	13.7	1.5" NPT	13.7	13.7	4.75	28.18	7	5.5	3.28
MTCP-040-3BD18	40	324T	15.3	2"NPT	15.3	12.6	5.25	29.95	8	6.25	3.91
MTCP-050-3BD18	50	326T	15.3	2"NPT	15.3	14.0	5.25	31.24	8	6.25	3.91
MTCP-060-3BD18	60	364T	17.0	3"NPT	17.31	14.6	5.88	32.58	9	7	4.28
MTCP-075-3BD18	75	365T	17.0	3"NPT	17.31	15.6	5.88	34.11	9	7	4.28
MTCP-100-3BD18	100	405T	20	3"NPT	18.07	17.8	6.62	38.35	10	8	5.65
MTCP-125-3BD18	125	444T	22	2x3"NPT	19.07	18.5	7.5	42.52	11	9	6.91
MTCP-150-3BD18	150	445T	22	2x3"NPT	19.07	20.5	7.5	44.5	11	9	6.91
MTCP-200-3BD18	200	445/7T	22	2x3"NPT	19.07	24	7.5	48.03	11	9	6.91
* 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. **** TABLE CONTINUED NEXT PAGE (for dimensions F ₁ -U) ****											

MTCP MOTOR DIMENSIONS (CONTINUED) – (DIMENSIONS = INCHES)

MTCP PREMIUM-EFFICIENCY T-FRAME THREE-PHASE MOTOR DIMENSIONS (CONTINUED)



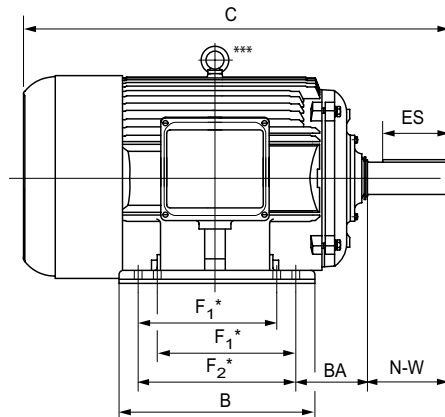
**** TABLE CONTINUED FROM PREVIOUS PAGE (for dimensions A–ES) ****												
Dimensions [inches, except as noted]												
Premium-Efficiency Three-Phase T-Frame Motors – 1800 rpm												
Part Number	HP	F ₁ *	F ₂ *	G	H	J	N-W	L	P	R	S	U
MTCP-001-3BD18	1	n/a	4	0.47	0.34	1.45	2.25	6.90	7.2	0.771	0.188	0.875
MTCP-1P5-3BD18	1-1/2	4	5	0.47	0.34	1.45	2.25	6.90	7.2	0.771	0.188	0.875
MTCP-002-3BD18	2	4	5	0.47	0.34	1.45	2.25	6.90	7.2	0.771	0.188	0.875
MTCP-003-3BD18	3	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	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	7-1/2	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	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	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	8.25	10	0.87	0.53	2.40	4	15.10	14.4	1.416	0.375	1.625
MTCP-025-3BD18	25	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	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	n/a	10.5	0.98	0.66	2.76	5.25	18.25	17.5	1.845	0.5	2.125
MTCP-050-3BD18	50	10.5	12	0.98	0.66	2.76	5.25	18.25	17.5	1.845	0.5	2.125
MTCP-060-3BD18	60	n/a	11.25	1.10	0.66	3.15	5.88	21.0	19.1	2.021	0.625	2.375
MTCP-075-3BD18	75	11.25	12.25	1.10	0.66	3.15	5.88	21.0	19.1	2.021	0.625	2.375
MTCP-100-3BD18	100	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	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	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	16.5	20	1.38	0.81	3.35	8.5	26.43	23.4	2.88	0.875	3.375
* 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.												

MTCP MOTOR DIMENSIONS (CONTINUED) – (DIMENSIONS = INCHES)**MTCP PREMIUM-EFFICIENCY T-FRAME THREE-PHASE MOTOR DIMENSIONS (CONTINUED)**

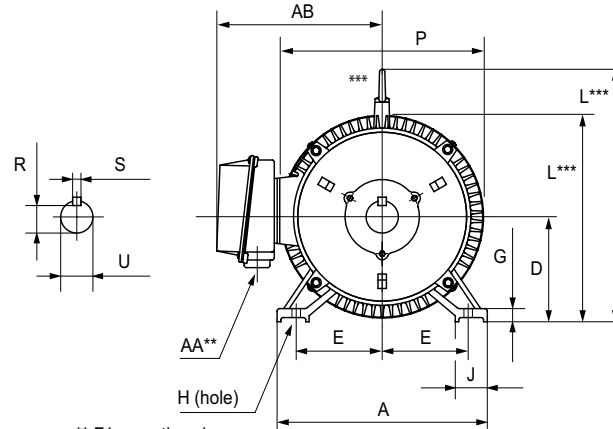
Dimensions [inches, except as noted] Premium-Efficiency Three-Phase T-Frame Motors – 1200 & 3600 rpm											
Part Number	HP	NEMA Frame	A	AA**	AB	B	BA	C	D	E	ES
1200 rpm Motors											
MTCP-001-3BD12	1	145T	7	3/4" NPT	6.89	6.1	2.25	13.47	3.5	2.75	1.41
MTCP-1P5-3BD12	1-1/2	182T	8.9	1" NPT	7.45	6.3	2.75	15.11	4.5	3.75	1.78
MTCP-002-3BD12	2	184T	8.9	1" NPT	7.45	7.1	2.75	16.12	4.5	3.75	1.78
MTCP-003-3BD12	3	213T	10.5	1" NPT	8.63	7.5	3.5	18.89	5.25	4.25	2.41
MTCP-005-3BD12	5	215T	10.5	1" NPT	8.63	9	3.5	20.49	5.25	4.25	2.41
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
MTCP-010-3BD12	10	256T	12.3	1.5" NPT	12.0	12.4	4.25	25.06	6.25	5	2.91
MTCP-015-3BD12	15	284T	13.7	1.5" NPT	13.7	12.2	4.75	26.63	7	5.5	3.28
MTCP-020-3BD12	20	286T	13.7	1.5" NPT	13.7	13.7	4.75	28.18	7	5.5	3.28
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
MTCP-002-3BD36	2	145T	7	3/4" NPT	6.89	6.1	2.25	13.47	3.5	2.75	1.41
MTCP-003-3BD36	3	182T	8.9	1" NPT	7.45	6.3	2.75	15.11	4.5	3.75	1.78
MTCP-005-3BD36	5	184T	8.9	1" NPT	7.45	7.1	2.75	16.12	4.5	3.75	1.78
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
MTCP-010-3BD36	10	215T	10.5	1" NPT	8.63	9	3.5	20.49	5.25	4.25	2.41
MTCP-015-3BD36	15	254T	12.3	1.5" NPT	12.0	10.3	4.25	23.29	6.25	5	2.91
MTCP-020-3BD36	20	256T	12.3	1.5" NPT	12.0	12.4	4.25	25.06	6.25	5	2.91
* 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. ***** TABLE CONTINUED NEXT PAGE (for dimensions F1-U) *****											

MTCP MOTOR DIMENSIONS (CONTINUED) – (DIMENSIONS = INCHES)

MTCP PREMIUM-EFFICIENCY T-FRAME THREE-PHASE MOTOR DIMENSIONS (CONTINUED)



* 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.

**** TABLE CONTINUED FROM PREVIOUS PAGE (for dimensions A–ES) ****

Dimensions [inches, except as noted]

Premium-Efficiency Three-Phase T-Frame Motors – 1200 & 3600 rpm

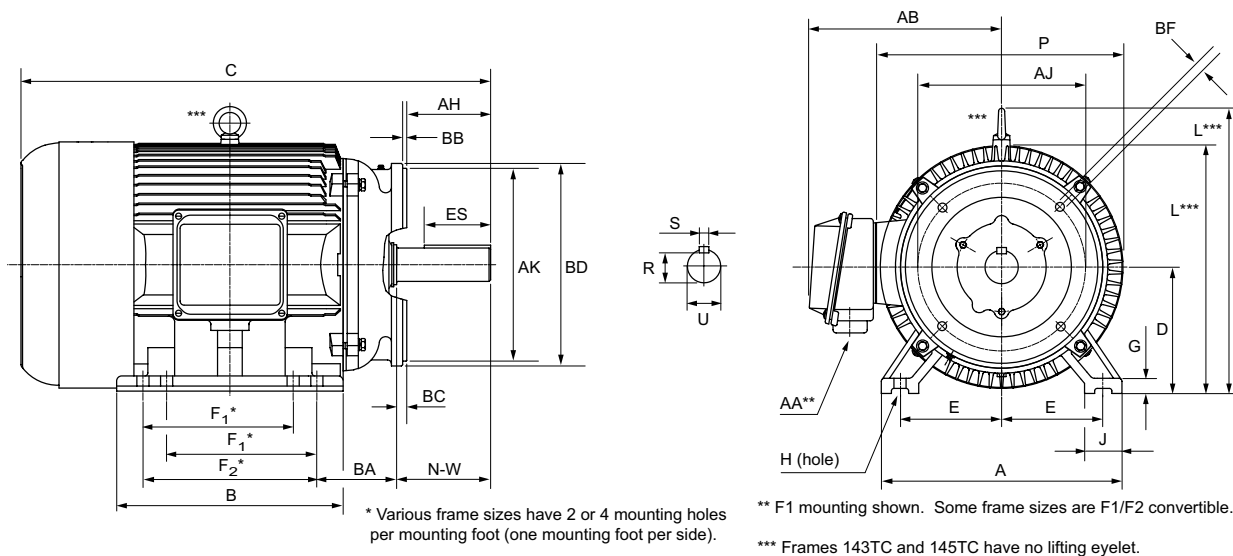
Part Number	HP	F ₁ *	F ₂ *	G	H	J	N-W	L	P	R	S	U
1200 rpm Motors												
MTCP-001-3BD12	1	4	5	0.47	0.34	1.45	2.25	6.90	7.2	0.771	0.188	0.875
MTCP-1P5-3BD12	1-1/2	n/a	4.5	0.52	0.41	1.97	2.75	10.39	9.0	0.986	0.25	1.125
MTCP-002-3BD12	2	4.5	5.5	0.52	0.41	1.97	2.75	10.39	9.0	0.986	0.25	1.125
MTCP-003-3BD12	3	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	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	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	8.25	10	0.87	0.53	2.40	4	15.10	14.4	1.416	0.375	1.625
MTCP-015-3BD12	15	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	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	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	4	5	0.47	0.34	1.45	2.25	6.90	7.2	0.771	0.188	0.875
MTCP-003-3BD36	3	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	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	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	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	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	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.)

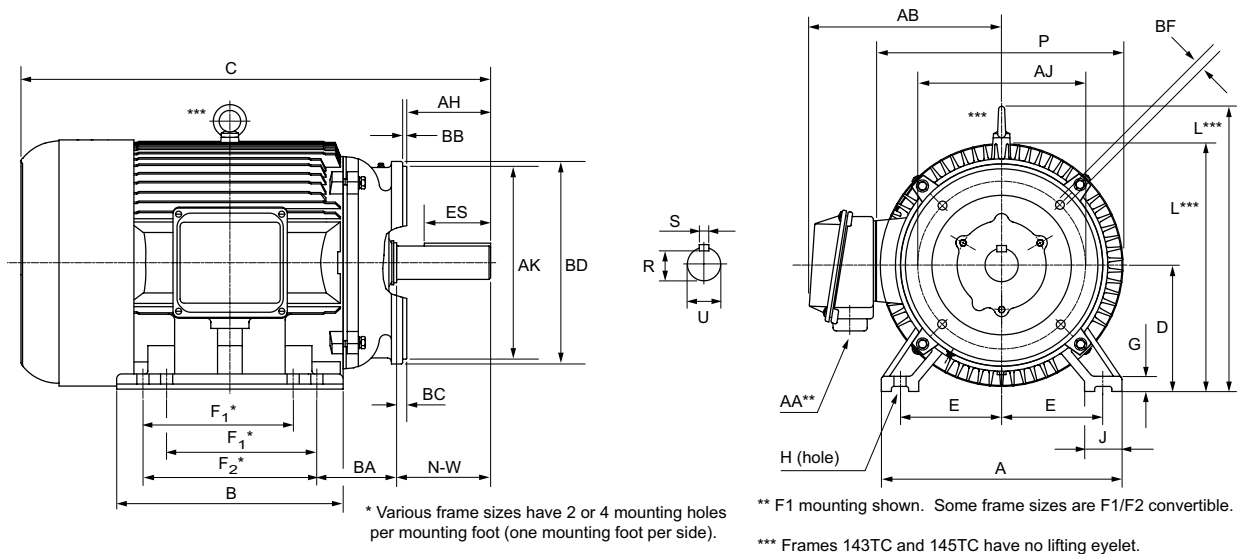
*** Frame sizes 143T(C) and 145T(C) have no lifting eyelet.

MTCP MOTOR DIMENSIONS (CONTINUED) – (DIMENSIONS = INCHES)**MTCP PREMIUM-EFFICIENCY TC-FRAME THREE-PHASE MOTOR DIMENSIONS**

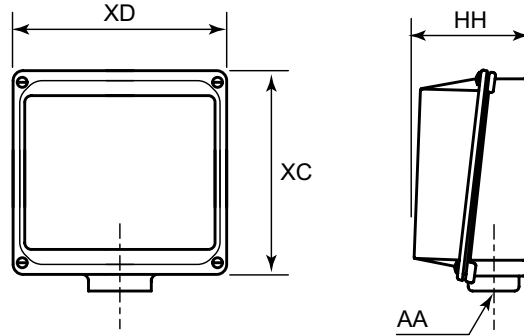
Dimensions [inches, except as noted] Premium-Efficiency Three-Phase TC-Frame Motors – 1800 rpm															
Part # MTCP- xxx- 3BD18C	HP	NEMA Frame	A	AA**	AB	AH	AJ	AK	B	BA	BB	BC	BD	BF	C
-001-	1	143TC	7	3/4" NPT	6.89	1.96	5.875	4.5	5.1	2.25	0.16	0.29	6.5	3/8-16	12.5
-1P5-	1-1/2	145TC	7	3/4" NPT	6.89	1.96	5.875	4.5	6	2.25	0.16	0.29	6.5	3/8-16	13.5
-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
-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
-7P5-	7-1/2	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
-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
-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
-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
-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
-030-	30	286TC	13.7	1.5" NPT	13.7	4.38	9	10.5	13.7	4.75	0.25	0.24	11.25	1/2-13	28.2
-040-	40	324TC	15.3	2" NPT	15.3	5	11	12.5	12.6	5.25	0.25	0.24	14	5/8-11	30.0
-050-	50	326TC	15.3	2" NPT	15.3	5	11	12.5	14.0	5.25	0.25	0.25	14	5/8-11	31.2
-060-	60	364TC	17.0	3" NPT	17.3	5.62	11	12.5	14.6	5.88	0.25	0.25	14	5/8-11	32.6
-075-	75	365TC	17.0	3" NPT	17.3	5.62	11	12.5	15.6	5.88	0.25	0.25	14	5/8-11	34.1
-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
* 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. **** TABLE CONTINUED NEXT PAGE (for dimensions D–U) ****															

MTCP MOTOR DIMENSIONS (CONTINUED) – (DIMENSIONS = INCHES)

MTCP PREMIUM-EFFICIENCY TC-FRAME THREE-PHASE MOTOR DIMENSIONS (CONTINUED)



**** TABLE CONTINUED FROM PREVIOUS PAGE (for dimensions A–C) ****															
Dimensions [inches, except as noted]															
Premium-Efficiency Three-Phase TC-Frame Motors – 1800 rpm															
Part # MTCP- xxx- 3BD18C	HP	D	E	ES	F ₁ *	F ₂ *	G	H	J	N-W	L	P	R	S	U
-001-	1	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-	1-1/2	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	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	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-	7-1/2	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	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	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	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	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	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	8	6.25	3.91	n/a	10.5	0.98	0.66	2.76	5.25	18.3	17.5	1.854	0.5	2.125
-050-	50	8	6.25	3.91	10.5	12	0.98	0.66	2.76	5.25	18.3	17.5	1.845	0.5	2.125
-060-	60	9	7	4.28	n/a	11.25	1.10	0.66	3.15	5.88	21.0	19.1	2.021	0.625	2.375
-075-	75	9	7	4.28	11.25	12.25	1.10	0.66	3.15	5.88	21.0	19.1	2.021	0.625	2.375
-100-	100	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.															

MTCP JUNCTION BOX DIMENSIONS

Junction Box Dimensions (in)				
Frame Size *	XD (Width)	XC (Height)	HH (Depth)	AA (Conduit Hole) (NPT)
143T	11.3	4.5	2.3	3/4
145T				
182T		5.0	2.5	1
184T				
213T		5.3	2.6	
215T				
254T		7.3	3.3	1-1/2
256T				
284T		10.4	6.0	
286T				
324T		10.8	5.3	2
326T				
364T				3
365T				
405T		11.7	7.1	3 (2 openings)
444T				
445T				
445/7T				
449T				
* TC-frame motors have the same junction boxes as the comparable T-frame motors.				

MTCP DECIBEL LEVELS

The decibel (sound) level of an IronHorse® motor should be measured after initial startup, after 30 days, and after six months of use. Decibel levels should remain fairly consistent and can be an indication of misalignment and premature bearing wear. If the measured decibel level for your IronHorse model exceeds the value listed below by more than 10%, contact AutomationDirect or a local motor service technician found at www.easa.com.

MTCP Average T-Frame Decibel Levels		
Frame Size *	HP	Noise Level: Lw dB(A) @ 1m
		MTCP
143T	1	70.0
145T	1-1/2	70.0
	2	70.0
182T	2	–
182T	3	74.0
184T	5	74.0
213T	7-1/2	79.0
215T	10	79.0
254T	15	84.0
256T	20	84.0
284T	25	88.0
286T	30	88.0
324T	40	89.0
326T	50	89.0
364T	60	95.0
365T	75	95.0
405T	100	98.0
444T	125	100
445T	150	100
445/7T	200	103
449T	250	105.0
	300	105.0
* TC-frame motors have the same sound ratings as the comparable T-frame motors.		

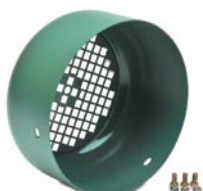
SPARE/REPLACEMENT PARTS FOR MTCP PREMIUM-EFFICIENCY THREE-PHASE MOTORS

IronHorse junction boxes, TEFC fans, and TEFC fan shrouds are available as direct replacement parts for MTCP motors.

These parts are field installable, and include installation instructions.



Fan



Fan Shroud



Junction Box

MTCP Premium-Efficiency Three-Phase Motor Replacement Parts					
Part Number (1)	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	1	0.3
MTAP-SHROUD-140	Replacement Fan Shroud		MTCP-001-3BD18(C) MTCP-1P5-3BD18(C) MTCP-1P5-3BD36	1 1-1/2 1-1/2	1.1
MTAP-JBOX-140	Replacement Junction Box		MTCP-002-3BD18(C) MTCP-002-3BD36	2 2	2.6
MTAP-FAN-180	Replacement Fan	182 & 184	MTCP-1P5-3BD12	1-1/2	0.3
MTAP-SHROUD-180	Replacement Fan Shroud		MTCP-002-3BD12 MTCP-003-3BD18(C) MTCP-003-3BD36	2 3 3	1.5
MTAP-JBOX-180	Replacement Junction Box		MTCP-005-3BD18(C) MTCP-005-3BD36	5 5	3.1
MTAP-FAN-210-2	Replacement Fan (for 2-pole motors)	213 & 215	MTCP-7P5-3BD36 MTCP-010-3BD36	7-1/2 10	0.3
MTAP-FAN-210	Replacement Fan (4&6-pole)		MTCP-003-3BD12	3	0.3
MTAP-SHROUD-210	Replacement Fan Shroud		MTCP-005-3BD12 MTCP-7P5-3BD18(C)	5 7-1/2	2.3
MTAP-JBOX-210	Replacement Junction Box		MTCP-010-3BD18(C)	10	3.4
1) These MTAP replacement components fit only MTCP Premium-Efficiency motors; they will NOT fit MTC EPM motors.					
2) Replacement Fans include fan, snap ring, and instructions.					
3) Replacement Fan Shrouds include shroud, bolts w/washers, rubber plug, and instructions.					
4) Replacement Junction Boxes include gasketed base & cover assembly, base gasket, base bolts, and instructions.					
*** TABLE CONTINUED NEXT PAGE ***					

SPARE/REPLACEMENT PARTS FOR MTCP PREMIUM-EFFICIENCY 3-PHASE MOTORS (CONTINUED)

*** TABLE CONTINUED FROM PREVIOUS PAGE ***

MTCP Premium-Efficiency Three-Phase Motor Replacement Parts					
Part Number (1)	Description (2)(3)(4)	Fits Frame	Fits PE Motor Number (1)	Motor HP	Product Weight (lb)
MTAP-FAN-250-2	Replacement Fan (for 2-pole motors)	254 & 256	MTCP-015-3BD36 MTCP-020-3BD36	15 20	0.3
MTAP-FAN-250	Replacement Fan (4&6-pole)		MTCP-7P5-3BD12 MTCP-010-3BD12 MTCP-015-3BD18(C) MTCP-020-3BD18(C)	7-1/2	0.3
MTAP-SHROUD-250	Replacement Fan Shroud			10	4.5
MTAP-JBOX-250	Replacement Junction Box			15 20	7.0
MTAP-FAN-280	Replacement Fan	284 & 286	MTCP-015-3BD12 MTCP-020-3BD12 MTCP-025-3BD18(C) MTCP-030-3BD18(C)	15 20 25 30	0.5
MTAP-SHROUD-280	Replacement Fan Shroud		20	6.5	
MTAP-JBOX-280	Replacement Junction Box		25 30	7.0	
MTAP-FAN-320	Replacement Fan	324 & 326	MTCP-040-3BD18(C) MTCP-050-3BD18(C)	40 50	0.6
MTAP-SHROUD-320	Replacement Fan Shroud				8.3
MTAP-JBOX-320	Replacement Junction Box				22.3
MTAP-FAN-360	Replacement Fan	364 & 365	MTCP-060-3BD18(C) MTCP-075-3BD18(C)	60 75	0.6
MTAP-SHROUD-360	Replacement Fan Shroud				9.0
MTAP-JBOX-360	Replacement Junction Box				22.3
MTAP-FAN-400	Replacement Fan	405	MTCP-100-3BD18(C)	100	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
MTAP-SHROUD-440	Replacement Fan Shroud				17.5
MTAP-JBOX-440	Replacement Junction Box				40.0

1) These MTAP replacement components fit only MTCP Premium-Efficiency motors; they will NOT fit MTC EPart motors.

2) Replacement Fans include fan, snap ring, and instructions.

3) Replacement Fan Shrouds include shroud, bolts w/washers, rubber plug, and instructions.

4) Replacement Junction Boxes include gasketed base & cover assembly, base gasket, base bolts, and instructions.

MTCP BEARING SIZE INFORMATION

All IronHorse® cast-iron motors use premium name-brand bearings (NSK, NTN, or SKF). Below is a bearing size chart listing the type of bearings used in each frame size of IronHorse MTCP motors. The bearing types are also listed on the motor nameplate.

MTCP Bearing Size Chart		
Frame Size *	Drive End Bearing	Opposite Drive End Bearing
143T	6205-ZZ	6205-ZZ
145T		
182T	6306-ZZ	6306-ZZ
184T		
213T	6308-ZZ	6306-ZZ
215T		
254T	6309	6308
256T		
284T	6311	6309
286T		
324T	6312	6312
326T		
364T	6313	6312
365T		
404T	NU316	—
405T		6313
444T	NU318	6314
445T		
445/7T	NU319	
449T	NU320	—
* TC-frame motors have the same bearings as the comparable T-frame motors.		

MTR SERIES MOTORS

MTR FEATURES AND SPECIFICATIONS (SINGLE-PHASE MOTORS)

IronHorse® single-phase 56C/56HC-frame* motors are available from 1/3 hp to 2 hp. All models have a TEFC rolled steel frame, cast aluminum end bell and removable mounting bases.

MTR ROLLED-STEEL 56C-FRAME 1-PHASE MOTOR SPECIFICATIONS

Motor Specifications – Single-Phase 56C/56HC-Frame Motors (60Hz except as indicated)									
Part Number	HP	Base RPM	Voltage	Service Factor	NEMA Design	NEMA Frame	Housing	F.L. Amps @ 115V/230V 60Hz	Approx Weight (lb)
	@ 60Hz								
1800 RPM									
MTR-P33-1AB18	1/3	1800	115/208-230	1.15	N	56C flange mount	IP43	6.6 / 3.3	26
MTR-P50-1AB18	1/2						TEFC	8.8 / 4.4	28
MTR-P75-1AB18	3/4						rolled steel frame	11.0 / 5.5	32
MTR-001-1AB18	1						Cast AL end bell	13.6 / 6.8	38
MTR-1P5-1AB18	1-1/2						F1 conduit box location	15.2 / 7.6	45
3600 RPM									
MTR-1P5-1AB36	1-1/2	3600	115/208-230	1.15	N	56C	IP43 TEFC rolled steel frame Cast AL end bell F1 conduit box location	14.2 / 7.1	37
Note: Please review the AutomationDirect Terms & Conditions for warranty and service on this product.									

Note: Please review the AutomationDirect Terms & Conditions for warranty and service on this product.



NOTE: *56HC are suitable for 56C C-face mounting or 56, 143T, or 145T frame foot mounting dimensions.

MTR ROLLED-STEEL 56C-FRAME 1-PHASE MOTOR PERFORMANCE DATA

Performance Data – Single-Phase 56C/56HC-Frame Motors (230V / 60Hz data except as indicated)											
Part Number	HP	F.L. RPM	Current @ 115V/230V (Amps)			Torque (lb-ft)			F.L. Efficiency (%)	F.L. Power Factor	Rotor Inertia (lb-ft ²)
	@ 60Hz	230V No Load	Full Load	Locked Rotor	Full Load	Locked Rotor	Break down				
1800 RPM											
MTR-P33-1AB18	1/3	1725	2.2	6.6 / 3.3	31 / 18	1.02	3.06	2.81	56.0	0.62	0.075
MTR-P50-1AB18	1/2		2.93	8.8 / 4.4	37 / 21	1.52	4.56	4.18	57.0	0.63	0.080
MTR-P75-1AB18	3/4		3.67	11.0 / 5.5	55 / 32	2.29	6.30	5.73	65.0	0.65	0.095
MTR-001-1AB18	1		4.53	13.6 / 6.8	75 / 43	3.04	8.36	7.60	68.0	0.66	0.120
MTR-1P5-1AB18	1-1/2		5.07	15.2 / 7.6	120 / 65	4.57	11.43	10.28	71.0	0.75	0.142
3600 RPM											
MTR-1P5-1AB36	1-1/2	3450	3.0	14.2 / 7.1	116 / 58	2.2	7.5	5.4	72.0	0.9	0.03

MTR FEATURES AND SPECIFICATIONS (THREE-PHASE MOTORS)

IronHorse® rolled steel 56C/56HC-frame* three-phase motors are available from 1/3 hp to 3 hp. All models have a TEFC frame, cast aluminum end bell and removable mounting bases.

MTR ROLLED-STEEL 56C/56HC-FRAME 3-PHASE MOTOR SPECIFICATIONS – 1800 & 3600 RPM

Motor Specifications – MTR 3-Phase 56C/56HC-Frame Motors – 1800 & 3600 rpm									
Part Number	HP	Base RPM	Voltage	Service Factor	NEMA Design	NEMA Frame	Housing	F.L. Amps @ 230V/460V	Approx Weight (lb)
1800 RPM									
MTR-P33-3BD18	1/3	1800	208-230/460	1.15	B	56C flange mount	TEFC rolled steel frame Cast aluminum end bell F1 conduit box location	1.6 / 0.8	23
MTR-P50-3BD18	1/2							2.0 / 1.0	24
MTR-P75-3BD18	3/4							2.8 / 1.4	26
MTR-001-3BD18	1							3.6 / 1.8	29
MTR-1P5-3BD18	1-1/2							4.8 / 2.4	33
MTR-002-3BD18	2							6.0 / 3.0	42
3600 RPM									
MTR-P33-3BD36	1/3	3600	208-230/460	1.15	B	56C flange mount	TEFC rolled steel frame Cast aluminum end bell F1 conduit box location	1.6 / 0.8	23
MTR-P50-3BD36	1/2							2.2 / 1.1	24
MTR-P75-3BD36	3/4							2.9 / 1.5	26
MTR-001-3BD36	1							3.6 / 1.8	28
MTR-1P5-3BD36	1-1/2							4.6 / 2.3	34
MTR-002-3BD36	2							6.0 / 3.0	43
Note: Please review the AutomationDirect Terms & Conditions for warranty and service on this product.									



NOTE: *56HC are suitable for 56C C-face mounting or 56, 143T, or 145T frame foot mounting dimensions.

MTR ROLLED-STEEL 56C/56HC-FRAME THREE-PHASE MOTORS FEATURES AND SPECIFICATIONS (CONTINUED)

MTR MOTOR PERFORMANCE DATA – 1800 RPM

Performance Data – MTR/MTR2 Three-Phase 56C/56HC-Frame Motors – 1800 rpm (460V data except as indicated)									
Part Number	HP	F.L. RPM	Minimum Speed (rpm)		Maximum Speed (rpm)		Current @ 230V/460V (Amps)		
			CT	VT	CHP*	Safe	No Load	Full Load	Locked Rotor
MTR-P33-3BD18	1/3	1725	863	345	2700	5400	0.53 / 0.27	1.6 / 0.8	8 / 4
MTR-P50-3BD18	1/2						0.67 / 0.33	2.0 / 1.0	12 / 6
MTR-P75-3BD18	3/4						0.93 / 0.47	2.8 / 1.4	18 / 9
MTR-001-3BD18	1						1.2 / 0.6	3.6 / 1.8	24 / 12
MTR-1P5-3BD18	1-1/2	1725	863	345		5400	1.5 / 0.8	4.8 / 2.4	36 / 18
MTR-002-3BD18	2	1725	863	345		5400	2.0 / 1.0	6.0 / 3.0	48 / 24
Part Number	HP		Torque (lb-ft)				F.L. Efficiency (%)	F.L. Power Factor	Rotor Inertia (lb-ft²)
			Full Load	Locked Rotor	Break -down				
MTR-P33-3BD18	1/3	n/a	1.02	2.55	2.81	n/a	67.0	0.70	0.058
MTR-P50-3BD18	1/2		1.52	3.80	4.18		69.0	0.72	0.068
MTR-P75-3BD18	3/4		2.29	5.73	6.30		71.0	0.74	0.075
MTR-001-3BD18	1		3.02	7.55	8.31		73.0	0.76	0.086
MTR-1P5-3BD18	1-1/2		4.57	10.28	11.43		75.0	0.78	0.108
MTR-002-3BD18	2		6.09	13.70	15.23		77.0	0.80	0.143
* Maximum Constant HP rpm is for direct-coupled loads.									

* Maximum Constant HP rpm is for direct-coupled loads.

MTR MOTOR PERFORMANCE DATA – 3600 RPM

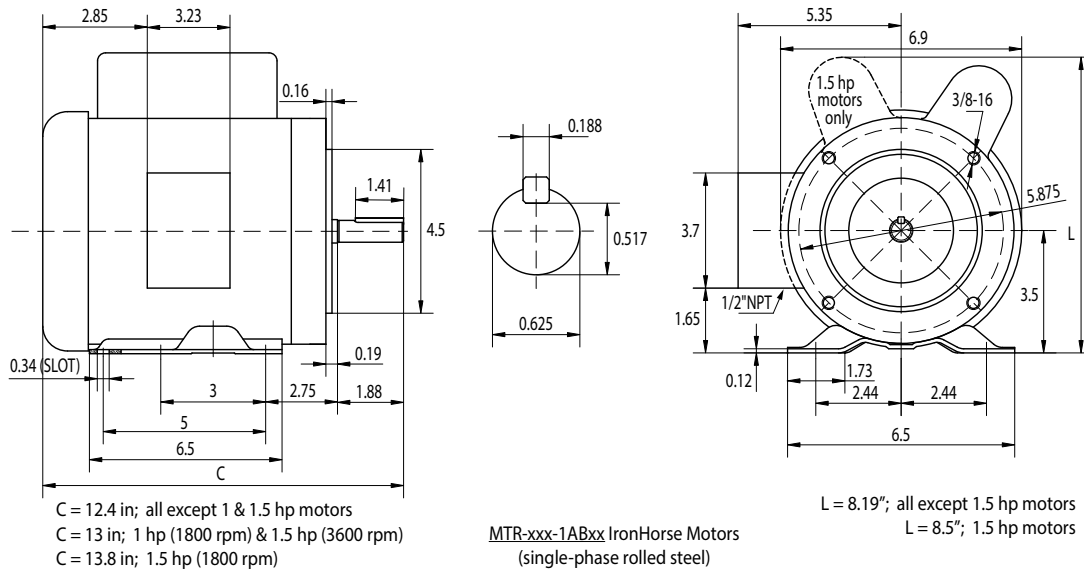
Performance Data – Three-Phase 56C/56HC-Frame Motors – 3600 rpm (460V data except as indicated)									
Part Number	HP	F.L. RPM	Minimum Speed (rpm)		Maximum Speed (rpm)		Current @ 230V/460V (Amps)		
			CT	VT	CHP*	Safe	No Load	Full Load	Locked Rotor
MTR-P33-3BD36	1/3	3450	1725	690	5400	5400	1.2 / 0.59	1.6 / 0.8	9 / 5
MTR-P50-3BD36	1/2						1.4 / 0.7	2.2 / 1.1	14 / 7
MTR-P75-3BD36	3/4						1.5 / 0.75	2.9 / 1.5	17 / 8.9
MTR-001-3BD36	1	3450	1725	690	5400	5400	1.7 / 0.85	3.6 / 1.8	25 / 13
MTR-1P5-3BD36	1-1/2	3450	1725	690	5400	5400	1.8 / 0.9	4.6 / 2.3	29 / 17
MTR-002-3BD36	2	3450	1725	690	5400	5400	3.4 / 1.7	6.0 / 3.0	57 / 30
MTRP-002-3BD36		3500	875	350	5400	5400	2.28 / 1.14	5.22 / 2.61	53/27
Part Number	HP	F.L. RPM	Torque (lb-ft)				F.L. Efficiency (%)	F.L. Power Factor	Rotor Inertia (lb-ft ²)
			Full Load	Locked Rotor	Break -down				
MTR-P33-3BD36	1/3	n/a	0.50	3.0	3.0	n/a	57.0	0.71	0.084
MTR-P50-3BD36	1/2		0.75	4.4	4.5		62.0	0.71	0.095
MTR-P75-3BD36	3/4		1.13	6.0	5.8		67.0	0.78	0.107
MTR-001-3BD36	1		1.50	7.9	7.1		69.0	0.82	0.122
MTR-1P5-3BD36	1-1/2		2.25	11.2	8.4		72.0	0.85	0.143
MTR-002-3BD36	2		3.06	18.9	13.4		75.0	0.78	0.188

* Maximum Constant HP rpm is for direct-coupled loads.

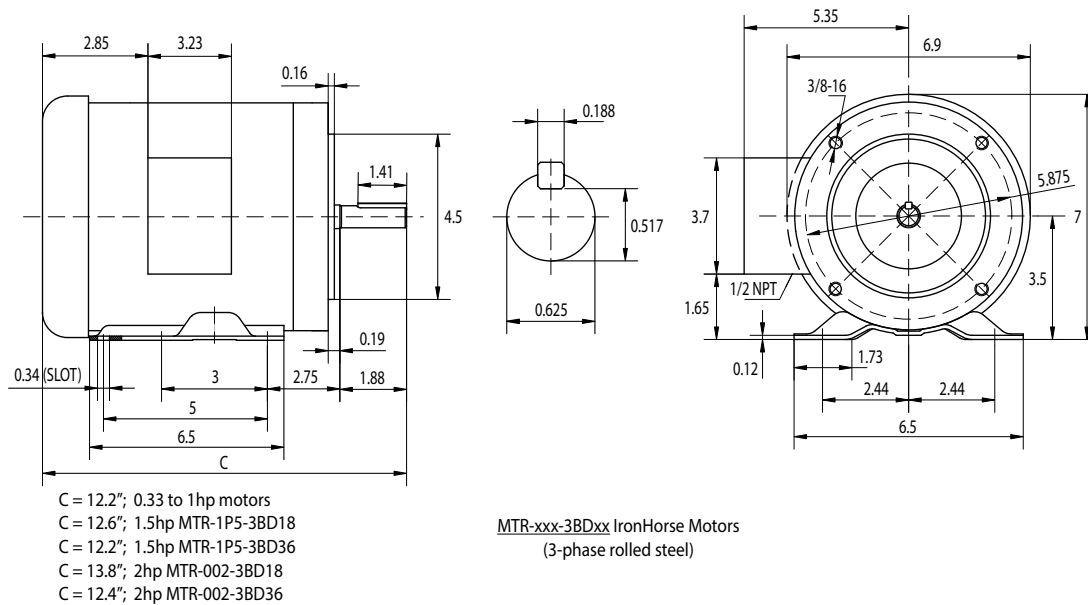
MTR MOTOR DIMENSIONS

(DIMENSIONS = INCHES)

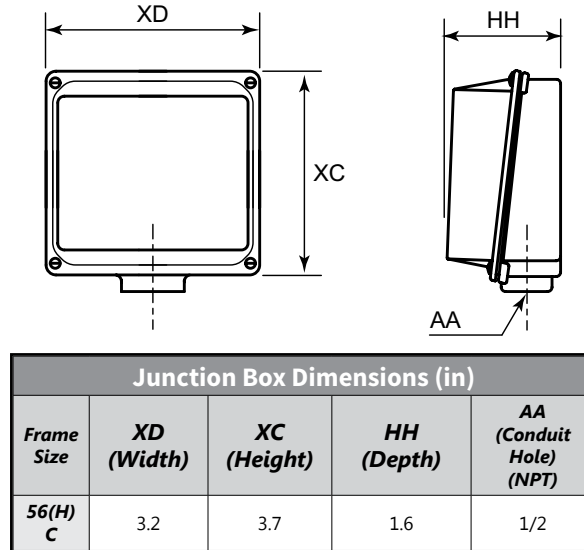
MTR 56C-FRAME SINGLE-PHASE ROLLED-STEEL MOTOR DIMENSIONS



MTR 56C-FRAME THREE-PHASE ROLLED-STEEL MOTOR DIMENSIONS



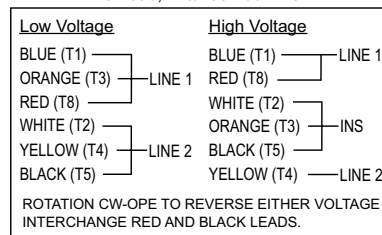
MTR JUNCTION BOX DIMENSIONS



MTR TERMINAL AND WIRING DIAGRAMS

MTR GENERAL-PURPOSE MOTORS

1/3 hp – 1.5hp 1Ø MTR models
6-Lead, 115/208-230 VAC



MTR MOTORS DECIBEL LEVELS

The decibel (sound) level of an IronHorse® motor should be measured after initial startup, after 30 days, and after six months of use. Decibel levels should remain fairly consistent and can be an indication of misalignment and premature bearing wear. If the measured decibel level for your IronHorse model exceeds the value listed below by more than 10%, contact AutomationDirect or a local motor service technician found at www.easa.com.

MTR Average T-Frame Decibel Levels					
Noise Level: Lw dB(A) @ 1m					
Frame Size	HP	1800 RPM		3600 RPM	
		1Ø	3Ø	1Ø	3Ø
56(H)C	1/3	65.0	65.0	—	75.0
	1/2				
	3/4				
	1				80.0
	1-1/2				
	2		70.0		
	3	—	—	—	—

SPARE/REPLACEMENT PARTS FOR MTR SINGLE-PHASE MOTORS

MTR Single-Phase Motor Spare/Replacement Parts (NOT for MTR ₂ Motors)*						
Part Number	Accessory Type	Capacitance (μF)	Rated Voltage	Dimension Height x Ø (in[mm])	Applicable MTR Motor Number	MTR Motor HP ; RPM
MTA-CAP-01	Start capacitor	200	165	3.15 x 1.65 [80.0 x 41.9]	MTR-P33-1AB18	1/3 ; 1800
MTA-CAP-02		250			MTR-P50-1AB18	1/2 ; 1800
MTA-CAP-03		300			MTR-P75-1AB18	3/4 ; 1800
					MTR-001-1AB18	1 ; 1800
MTA-CAP-04		250			MTR-1P5-1AB18	1-1/2 ; 1800
MTA-CAP-08		400		MTR-1P5-1AB36	1-1/2 ; 3600	
MTA-CAP-06	Run capacitor	40	450	4.02 x 1.75 [102.1 x 44.5]	MTR-1P5-1AB18	1-1/2 ; 1800
MTA-CAP-09		35		4.0 x 1.8 [101 x 45]	MTR-1P5-1AB36	1-1/2 ; 3600
MTA-CSW-01	Centrifugal switch	N/A	250		MTR-xxx-1AB18	all 1800 rpm
MTA-CSW-02					MTR-1P5-1AB36	3600 rpm
MTAR-BASE-56	Motor base		N/A		MTR-xxx-1ABxx	All
MTAR-FAN-56	Fan					
MTAR-JBOX-56	Junction box					
MTAR-SHROUD-56	Fan shroud					
* These accessories are spare/replacement components only for MTR series IronHorse motors. Accessories for MTR series motors are NOT compatible with MTR ₂ series motors.						

MTR Series Three-Phase Motor Spare/Replacement Parts*			
Part Number	Description	Applicable MTR Motor Number	MTR Motor HP : RPM
MTAR-BASE-56	Motor base	MTR-xxx-xBDxx	All
MTAR-FAN-56	Fan		
MTAR-JBOX-56	Junction box		
MTAR-SHROUD-56	Fan shroud		
* These accessories are spare/replacement components only for MTR series IronHorse motors			

MTR BEARING SIZE INFORMATION

All IronHorse® cast-iron motors use premium name-brand bearings (NSK, NTN, or SKF). Below is a bearing size chart listing the type of bearings used in each frame size of IronHorse MTR motors. The bearing types are also listed on the motor nameplate.

MTR Bearing Size Chart		
Frame Size	Drive End Bearing	Opposite Drive End Bearing
56(H)C	6203-ZZ or 6205	6203-ZZ

MTSS SERIES MOTORS

MTSS FEATURES AND SPECIFICATIONS

Stainless-Steel 56C-Frame
Three-Phase Motor with
Round Body



Stainless-Steel 56C-Frame
Three-Phase Motor with
Rigid Base



IronHorse stainless steel 56C-frame three-phase motors are available from 1/3 hp to 2 hp. All models have TEFC frames and stainless steel end bells, and they are available with or without rigid mounting bases.

MTSS STAINLESS-STEEL 56C-FRAME 3-PHASE MOTOR SPECIFICATIONS – 1800 & 3600 RPM

Motor Specifications – MTSS 3-Phase 56C-Frame Motors – 1800 & 3600 rpm											
Part Number	HP	Base RPM	Voltage	Service Factor	NEMA Design	NEMA Frame	Housing	F.L. Amps @ 208-230V/460V	Approx Weight (lb)		
1800 RPM			208-230/460 – 3-phase	1.15	B	56C flange mount	TEFC stainless steel frame with round body F1 conduit box location	1800 RPM			
MTSS-P33-3BD18R	1/3	1800						1.5-1.4 / 0.7	27		
MTSS-P50-3BD18R	1/2							1.55-1.5 / 0.75	27		
MTSS-P75-3BD18R	3/4							2.6-2.4 / 1.2	29		
MTSS-001-3BD18R	1							3.5-3.2 / 1.6	34		
MTSS-1P5-3BD18R	1-1/2							4.6-4.2 / 2.1	36		
MTSS-002-3BD18R	2							6.6-6.0 / 3.0	43		
MTSS-P33-3BD18	1/3							1.5-1.4 / 0.7	28		
MTSS-P50-3BD18	1/2						1.55-1.5 / 0.75	28			
MTSS-P75-3BD18	3/4	2.6-2.4 / 1.2					30				
MTSS-001-3BD18	1	3.5-3.2 / 1.6					35				
MTSS-1P5-3BD18	1-1/2	4.6-4.2 / 2.1					36				
MTSS-002-3BD18	2	6.6-6.0 / 3.0					44				
3600 RPM							3600	F1 conduit box location	3600 RPM		
MTSS-P50-3BD36	1/2	1.99-1.8 / 0.9							29		
MTSS-P75-3BD36	3/4	2.4-2.3 / 1.15							31		
MTSS-001-3BD36	1	3.3-3.0 / 1.5							31		
MTSS-1P5-3BD36	1-1/2	4.2-4.0 / 2.0							36		
MTSS-002-3BD36	2	5.0-4.8 / 2.4							43		
Note: Please review the AutomationDirect Terms & Conditions for warranty and service on this product.											

MTSS STAINLESS-STEEL 56C-FRAME 3-PHASE MOTORS FEATURES & SPECS (CONTINUED)**MTSS MOTOR PERFORMANCE DATA – 1800 RPM**

Performance Data
MTSS Three-Phase 56C-Frame Motors – 1800 rpm
 (460V data except as indicated)

Part Number	F.L. RPM	Minimum Speed (rpm)		Maximum Speed (rpm)		Current @ 460V (Amps)	
		CT (2:1)	VT (5:1)	CHP*	Safe	No Load	Locked Rotor
MTSS-P33-3BD18(R)	1725	900	360	2250	4500	0.29	4.2
MTSS-P50-3BD18(R)	1725					0.30	4.6
MTSS-P75-3BD18(R)	1725					0.44	7.3
MTSS-001-3BD18(R)	1740					0.61	10.0
MTSS-1P5-3BD18(R)	1740					0.70	13.8
MTSS-002-3BD18(R)	1740					1.08	21.0

* Maximum Constant HP rpm is for direct-coupled loads.

Part Number	HP	Torque (lb-ft)			F.L. Efficiency (%)	F.L. Power Factor	Rotor Inertia (lb-ft ²)
		Full Load	Locked Rotor	Break -down			
MTSS-P33-3BD18(R)	1/3	1.0	2.9	3.9	82.5	0.71	0.078
MTSS-P50-3BD18(R)	1/2	1.5	3.8	5.2	82.5	0.76	0.078
MTSS-P75-3BD18(R)	3/4	2.2	5.0	7.0	82.5	0.78	0.081
MTSS-001-3BD18(R)	1	3.0	7.2	9.9	84.0	0.78	0.090
MTSS-1P5-3BD18(R)	1-1/2	4.4	10.3	14.5	84.0	0.83	0.087
MTSS-002-3BD18(R)	2	5.9	13.9	18.9	84.0	0.83	0.101

MTSS MOTOR PERFORMANCE DATA – 3600 RPM

Performance Data
MTSS Three-Phase 56C-Frame Motors – 3600 rpm
 (460V data except as indicated)

Part Number	F.L. RPM	Minimum Speed (rpm)		Maximum Speed (rpm)		Current @ 460V (Amps)	
		CT (2:1)	VT (5:1)	CHP*	Safe	No Load	Locked Rotor
MTSS-P50-3BD36	3460	1800	720	4500	4500	0.36	6.0
MTSS-P75-3BD36	3470					0.43	7.6
MTSS-001-3BD36	3470					0.58	10.0
MTSS-1P5-3BD36	3480					0.70	15.0
MTSS-002-3BD36	3480					0.85	18.0

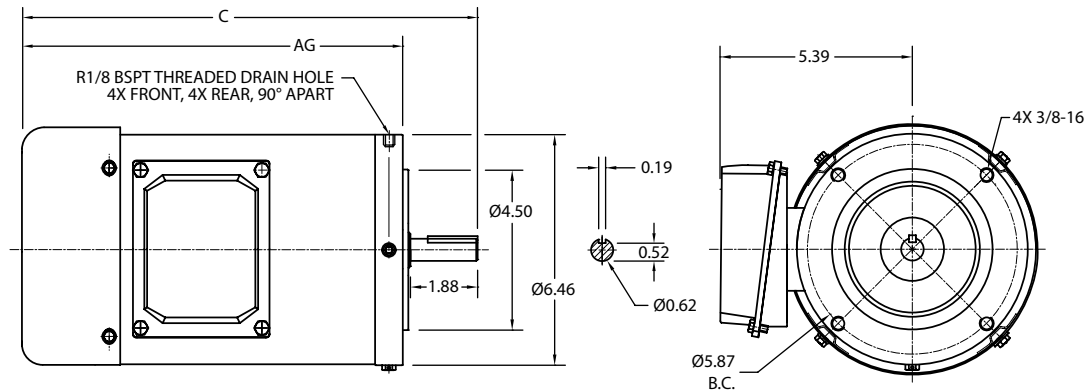
* Maximum Constant HP rpm is for direct-coupled loads.

Part Number	HP	Torque (lb-ft)			F.L. Efficiency (%)	F.L. Power Factor	Rotor Inertia (lb-ft ²)
		Full Load	Locked Rotor	Break -down			
MTSS-P50-3BD36	1/2	0.7	1.9	2.5	77.0	0.88	0.077
MTSS-P75-3BD36	3/4	1.1	2.7	3.3	73.0	0.84	0.100
MTSS-001-3BD36	1	1.5	4.6	5.5	80.0	0.72	0.094
MTSS-1P5-3BD36	1-1/2	2.3	6.6	9.0	84.0	0.74	0.098
MTSS-002-3BD36	2	2.9	8.6	11.3	80.0	0.72	0.107

MTSS MOTOR DIMENSIONS

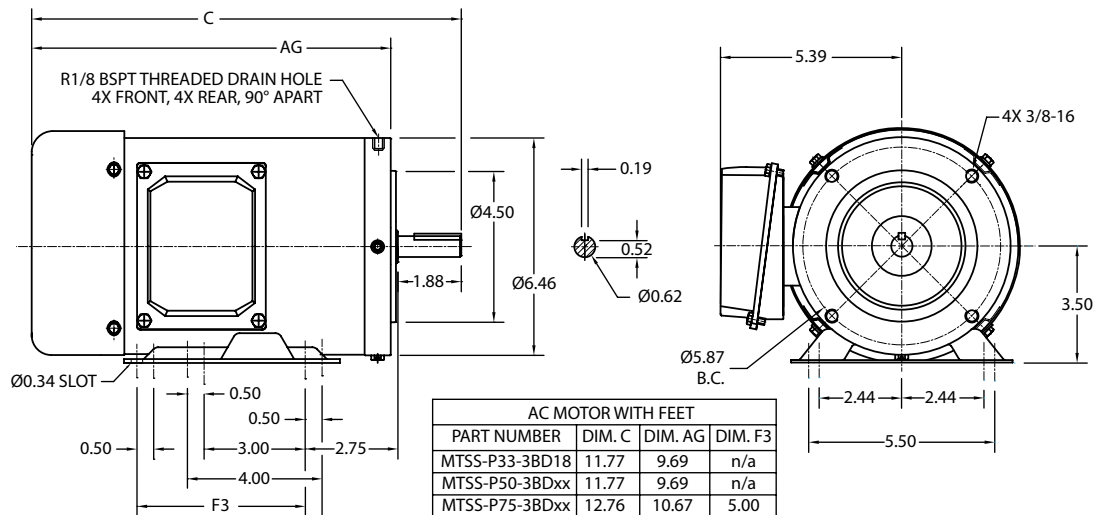
(DIMENSIONS = INCHES)

MTSS 56C-FRAME THREE-PHASE ROUND-BODY MOTOR DIMENSIONS

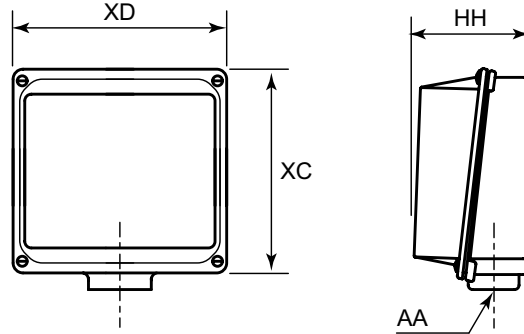


AC MOTOR WITHOUT FEET		
PART NUMBER	DIM. C	DIM. AG
MTSS-P33-3BD18R	11.59	9.50
MTSS-P50-3BD18R	11.59	9.50
MTSS-P75-3BD18R	12.76	10.67
MTSS-001-3BD18R	12.76	10.67
MTSS-1P5-3BD18R	12.76	10.67
MTSS-002-3BD18R	12.76	10.48

MTSS 56C-FRAME THREE-PHASE RIGID-BASE MOTOR DIMENSIONS



AC MOTOR WITH FEET			
PART NUMBER	DIM. C	DIM. AG	DIM. F3
MTSS-P33-3BD18	11.77	9.69	n/a
MTSS-P50-3BDxx	11.77	9.69	n/a
MTSS-P75-3BDxx	12.76	10.67	5.00
MTSS-001-3BDxx	12.76	10.67	5.00
MTSS-1P5-3BDxx	12.76	10.67	5.00
MTSS-002-3BDxx	13.50	11.42	5.00

MTSS JUNCTION BOX DIMENSIONS

Junction Box Dimensions (in)				
Frame Size *	XD (Width)	XC (Height)	HH (Depth)	AA (Conduit Hole) (NPT)
56	3.8	3.3	1.5	0.86*
* MTSS conduit holes are unthreaded through holes with cable glands installed.				

MTSS DECIBEL LEVELS

The decibel (sound) level of an IronHorse® motor should be measured after initial startup, after 30 days, and after six months of use. Decibel levels should remain fairly consistent and can be an indication of misalignment and premature bearing wear. If the measured decibel level for your IronHorse model exceeds the value listed below by more than 10%, contact AutomationDirect or a local motor service technician found at www.easa.com.

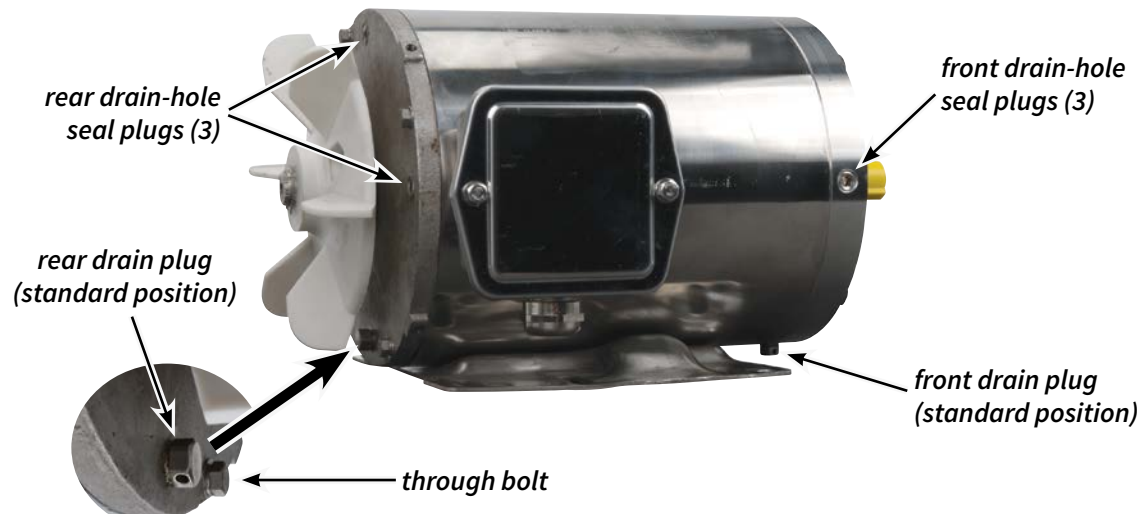
MTSS Average T-Frame Decibel Levels		
Frame Size	HP	Noise Level: Lw dB(A) @ 1m
		MTSS
56C	—	65

MTSS MOTOR MOUNTING

MTSS stainless-steel motors can be mounted in any orientation, horizontal or vertical, as long as the drain plugs are installed in the two lower locations.

The motors have four drain holes in the 12:00, 3:00, 6:00, and 9:00 positions of each end of the motor. The motors are shipped with two drain plugs installed in the front and rear 6:00 positions of the end bells, and drain-hole seal plugs installed in the other positions. This is the standard arrangement for the most 'normal' horizontal mounting orientation for a rigid-base motor.

When the motors are mounted in other orientations, switch drain plugs and seals so that there are two drain plugs on opposite sides of the bottom surface of the motor. For example, in a shaft-downward mounting orientation, install both drain plugs 180° apart in the front end bell. (Remove the fan shroud for access to the rear drain plugs and seals.)

Motor shown with fan cover removed

Some IronHorse motors include a shaft slinger (rubber washer) on the output shaft at the end bell. The shaft slinger provides an added layer of protection to the output shaft seal. We recommend leaving the slinger in place, but it can be removed if it poses an interference problem with C-Face-mounted gearboxes.

SPARE/REPLACEMENT PARTS FOR MTSS STAINLESS-STEEL THREE-PHASE MOTORS

MTSS Stainless-Steel Three-Phase Motor Replacement Parts		
Part Number	Description	Picture
MTAS-CG-M22	Cable gland; M22 x 1.5 mm thread; (1) silicone rubber gasket accommodates a cable diameter range of 0.393 to 0.512 in (10 to 13 mm); IP66 protection level; nickel-plated brass housing. This is a SPARE part for IronHorse MTSS motors – one cable gland is pre-installed on each MTSS motor.	

MTSS BEARING SIZE INFORMATION

All IronHorse® cast-iron motors use premium name-brand bearings (NSK, NTN, or SKF). Below is a bearing size chart listing the type of bearings used in each frame size of IronHorse MTSS motors. The bearing types are also listed on the motor nameplate.

MTSS Bearing Size Chart		
Frame Size	Drive End Bearing	Opposite Drive End Bearing
56C	6203-ZZ or 6205	6205

MTC EPACT SERIES MOTORS

MTC FEATURES AND SPECIFICATIONS

EPAct Cast-Iron T-Frame



EPAct Cast-Iron TC-Frame



IronHorse 1800 rpm T-frame cast-iron industrial duty EPAct motors are available from 1–300 hp, and TC-frame motors are available from 1–100 hp. Optional C-face kits are available for IronHorse T-frame EPAct motors. (EPAct C-face kits are NOT compatible with Premium Efficiency motors.) All models have a TEFC frame and full length mounting feet.

MTC MOTOR SPECIFICATIONS – CAST-IRON T-FRAME AND TC-FRAME – 1800 RPM

Motor Specifications – EPAct T & TC(1) Frame Three-Phase Motors – 1800 rpm															
Part Number	HP(3)	NEMA Frame	Voltage	Housing	Shaft Material	Conduit Box Location (2)	Holes / Foot	Service Factor	F.L. Amps @ 230V/460V	Product Weight (lb)					
MTC-001-3BD18	1	143T	208-230/460 – 3-phase	TEFC cast iron	1045 CS	F1(F2)	2	1.15	3.0 / 1.5	58					
MTC-001-3BD18CK (1)		143TC								61					
MTC-1P5-3BD18	1-1/2	145T					3		4.2 / 2.1	60					
MTC-1P5-3BD18CK (1)		145TC								67					
MTC-002-3BD18	2	145T					3		5.4 / 2.7	70					
MTC-002-3BD18CK (1)		145TC								69					
MTC-003-3BD18	3	182T					2		7.72 / 3.86	90					
MTC-003-3BD18CK (1)		182TC								112					
MTC-005-3BD18	5	184T					3		11.8 / 5.9	110					
MTC-005-3BD18CK (1)		184TC								125					
MTC-7P5-3BD18	7-1/2	213T					2		18.6 / 9.3	160					
MTC-7P5-3BD18CK (1)		213TC								170					
1) TC-frame motors are T-frame motors with applicable C-face accessory kits installed.															
2) F1(F2) indicates F1 conduit box mounting location, field convertible to F2. (Refer to “Chapter 5: Reference” for further information regarding F1 and F2 mounting.)															
3) For warranty on motors 50 hp and above, motors must be inspected by an EASA motor repair or service center. See AutomationDirect Terms & Conditions for details.															
*** TABLE CONTINUED ON NEXT PAGE ***															

MTC EPACK CAST-IRON 3-PHASE MOTORS FEATURES AND SPECS (CONTINUED)**MTC MOTOR SPECIFICATIONS – CAST-IRON T-FRAME AND TC-FRAME – 1800 RPM**

***** Table Continued From Previous Page (for 1–7.5hp motors) *****

Motor Specifications – EPACK T & TC(1) Frame Three-Phase Motors – 1800 rpm										
Part Number	HP (3)	NEMA Frame	Voltage	Housing	Shaft Material	Conduit Box Location (2)	Holes / Foot	Service Factor	F.L. Amps @ 230V/460V	Product Weight (lb)
MTC-010-3BD18	10	215T	208-230/460 – 3-phase	TEFC cast iron	1045 CS	F1(F2)	3	1.15	24.8 / 12.4	179
MTC-010-3BD18CK (1)		215TC								198
MTC-015-3BD18	15	254T				F1(F2)	2		35.4 / 17.7	290
MTC-015-3BD18CK (1)		254TC								310
MTC-020-3BD18	20	256T				F1(F2)	3		47.6 / 23.8	326
MTC-020-3BD18CK (1)		256TC								360
MTC-025-3BD18	25	284T				F1	2		56.4 / 28.2	400
MTC-025-3BD18CK (1)		284TC								440
MTC-030-3BD18	30	286T				F1	3		67.2 / 33.6	451
MTC-030-3BD18CK (1)		286TC								470
MTC-040-3BD18	40	324T				F1	2		93.0 / 46.5	589
MTC-040-3BD18CK (1)		324TC								608
MTC-050-3BD18 (3)	50	326T				F1	3		114.6 / 57.3	640
MTC-050-3BD18CK (1)(3)		326TC								652
MTC-060-3BD18 (3)	60	364T				F1	2		139.4 / 69.7	780
MTC-060-3BD18CK (1)(3)		364TC								780
MTC-075-3BD18 (3)	75	365T				F1	3		172.8 / 86.4	870
MTC-075-3BD18CK (1)(3)		365TC								837
MTC-100-3BD18 (3)	100	405T				F1	3		230 / 115	1350
MTC-100-3BD18CK (1)(3)		405TC								1335
MTC-125-3BD18 (3)	125	444T				F1(F2)	2		274 / 137	1500
MTC-150-3BD18 (3)	150	445T				F1(F2)	3		326 / 163	1630
MTC-200-3BD18 (3)	200	445/7T				F1(F2)	3		446 / 223	1858
MTC-250-3D18 (3)	250	449T	460		4140 CS	F1	2		– / 282	2508
MTC-300-3D18 (3)	300	449T							– / 334	2728

1) TC-frame motors are T-frame motors with applicable C-face accessory kits installed.

2) F1(F2) indicates F1 conduit box mounting location, field convertible to F2.
(Refer to “Chapter 5: Reference” for further information regarding F1 and F2 mounting.)

3) For warranty on motors 50 hp and above, motors must be inspected by an EASA motor repair or service center. See AutomationDirect Terms & Conditions for details.

MTC EPACT CAST-IRON 3-PHASE MOTORS FEATURES AND SPECS (CONTINUED)

MTC MOTOR SPECIFICATIONS – CAST-IRON T-FRAME – 1200 & 3600 RPM

Motor Specifications – EPAct T-Frame Three-Phase Motors – 1200 & 3600 rpm										
Part Number	HP ⁽³⁾	NEMA Frame	Voltage	Housing	Shaft Material	Conduit Box Location (2)	Holes / Foot	Service Factor	F.L. Amps @ 230V/460V	Product Weight (lb)
1200 rpm Base Speed										
MTC-001-3BD12	1	145T	208-230/460 3-phase	TEFC cast iron	1045 carbon steel	F1(F2)	4	1.15	3.2 / 1.6	62
MTC-1P5-3BD12	1-1/2	182T					2		4.8 / 2.4	106
MTC-002-3BD12	2	184T					4		6.1 / 3.1	119
MTC-003-3BD12	3	213T					2		8.4 / 4.2	171
MTC-005-3BD12	5	215T					4		13.6 / 6.8	189
MTC-7P5-3BD12	7-1/2	254T					2		21.2 / 10.6	272
MTC-010-3BD12	10	256T					4		28.0 / 14.0	307
3600 rpm Base Speed										
MTC-1P5-3BD36	1-1/2	143T	208-230/460 3-phase	TEFC cast iron	1045 carbon steel	F1(F2)	2	1.15	3.8 / 1.9	62
MTC-002-3BD36	2	145T					4		5.0 / 2.5	66
MTC-003-3BD36	3	182T					2		7.2 / 3.6	107
MTC-005-3BD36	5	184T					4		11.3 / 5.7	112
MTC-7P5-3BD36	7-1/2	213T					2		16.8 / 8.4	165
MTC-010-3BD36	10	215T					4		22.4 / 11.2	185
2) F1(F2) indicates F1 conduit box mounting location, field convertible to F2. (Refer to “Chapter 5: Reference” for further information regarding F1 and F2 mounting.)										
3) For warranty on motors 50 hp and above, motors must be inspected by an EASA motor repair or service center. See AutomationDirect Terms & Conditions for details.										

MTC EPACT CAST-IRON 3-PHASE MOTORS FEATURES AND SPECS (CONTINUED)**MTC MOTOR PERFORMANCE DATA – CAST-IRON T-FRAME AND TC-FRAME – 1800 RPM**

Performance Data – EPAct T & TC(1) Frame Three-Phase Motors – 1800 rpm (460 Volt except as indicated)													
Part Number	HP	NEMA Design	F.L. RPM	Minimum Speed (rpm)		Maximum Speed (rpm)		F.L. Efficiency (%)	F.L. Power Factor	Rotor Inertia (lb-ft ²)			
				CT (2:1)	VT (5:1)	CHP(2)	Safe						
MTC-001-3BD18(CK)	1	B	1760	900	360	2700	5400	82.5	0.71	0.068			
MTC-1P5-3BD18(CK)	1-1/2		1755				5400	84.0	0.74	0.083			
MTC-002-3BD18(CK)	2		1750				5400	84.0	0.77	0.09			
MTC-003-3BD18(CK)	3		1750				5400	87.5	0.81	0.22			
MTC-005-3BD18(CK)	5		1750				5400	87.5	0.84	0.285			
MTC-7P5-3BD18(CK)	7-1/2		1760				5400	89.5	0.81	0.602			
MTC-010-3BD18(CK)	10	A	1760				4200	89.5	0.83	0.742			
MTC-015-3BD18(CK)	15		1770				4200	91.0	0.83	1.71			
MTC-020-3BD18(CK)	20		1770				4200	91.0	0.84	2.18			
MTC-025-3BD18(CK)	25		1775				4200	92.4	0.87	3.3			
MTC-030-3BD18(CK)	30		1775				4200	92.4	0.86	3.76			
MTC-040-3BD18(CK)	40		1775				3600	93.0	0.86	5.84			
MTC-050-3BD18(CK)	50		1775				3600	93.0	0.86	6.34			
MTC-060-3BD18(CK)	60		B				1785	3600	93.6	0.85	11.4		
MTC-075-3BD18(CK)	75						1785	3600	94.1	0.84	12.7		
MTC-100-3BD18(CK)	100						1785	2800	94.5	0.87	28.5		
MTC-125-3BD18	125	1785					2800	94.5	0.86	38.9			
MTC-150-3BD18	150	1785					2800	95.0	0.87	47.2			
MTC-200-3BD18	200	1785					2800	95.0	0.87	62.3			
MTC-250-3D18	250	1790					2800	95.9	0.87	86.0			
MTC-300-3D18	300	1790					2800	95.7	0.88	105.0			
1) TC-frame motors (MTC-xxx-xxxxCK) are T-frame motors with applicable C-face accessory kits installed.													
2) Maximum Constant HP RPM is for direct-coupled loads.													
*** TABLE CONTINUED NEXT PAGE ***													

MTC EPACK CAST-IRON 3-PHASE MOTORS FEATURES AND SPECS (CONTINUED)

MTC MOTOR PERFORMANCE DATA – CAST-IRON T-FRAME AND TC-FRAME – 1800 RPM

***** Table Continued From Previous Page *****							
Performance Data – EPACK T & TC ⁽¹⁾ Frame 3-Phase Motors – 1800 rpm (460 Volt except as indicated)							
Part Number	HP	Current @ 230V/460V (Amps)			Torque (lb-ft)		
		No Load	Full Load	Locked Rotor	Full Load	Locked Rotor	Break-down
MTC-001-3BD18(CK)	1	1.9 / 0.95	3.0 / 1.5	30.0 / 15.0	3.00	7.50	10.50
MTC-1P5-3BD18(CK)	1-1/2	2.44 / 1.22	4.2 / 2.1	40.0 / 20.0	4.41	10.58	14.11
MTC-002-3BD18(CK)	2	2.76 / 1.38	5.4 / 2.7	50.0 / 25.0	6.05	13.92	17.55
MTC-003-3BD18(CK)	3	3.74 / 1.87	7.72 / 3.86	64.0 / 32.0	9.07	25.40	29.93
MTC-005-3BD18(CK)	5	5.1 / 2.55	11.8 / 5.9	92.0 / 46.0	15.1	40.8	46.8
MTC-7P5-3BD18(CK)	7-1/2	8.98 / 4.49	18.6 / 9.3	127 / 63.5	22.0	44.0	72.6
MTC-010-3BD18(CK)	10	13.0 / 6.5	24.8 / 12.4	200 / 100	29.8	59.6	92.4
MTC-015-3BD18(CK)	15	15.6 / 7.8	35.4 / 17.7	280 / 140	44.5	89.0	124.6
MTC-020-3BD18(CK)	20	19.0 / 9.5	47.6 / 23.8	400 / 200	59.7	119.4	155.2
MTC-025-3BD18(CK)	25	24.0 / 12.0	56.4 / 28.2	440 / 220	73.9	152.2	206.9
MTC-030-3BD18(CK)	30	27.0 / 13.5	67.2 / 33.6	520 / 260	88.7	177.4	257.2
MTC-040-3BD18(CK)	40	35.0 / 17.5	93.0 / 46.5	720 / 360	118	248	355
MTC-050-3BD18(CK)	50	38.6 / 19.3	114.6 / 57.3	880 / 440	148	311	444
MTC-060-3BD18(CK)	60	48.0 / 24.0	139.4 / 69.7	870 / 435	179	322	483
MTC-075-3BD18(CK)	75	59.2 / 29.6	172.8 / 86.4	1086 / 543	221	398	530
MTC-100-3BD18(CK)	100	72.0 / 36.0	230 / 115	1450 / 725	296	592	858
MTC-125-3BD18	125	82.0 / 41.0	274 / 137	1815 / 908	355	604	888
MTC-150-3BD18	150	97.6 / 48.8	326 / 163	2170 / 1085	433	779	1083
MTC-200-3BD18	200	140 / 70.0	446 / 223	2900 / 1450	590	1180	1652
MTC-250-3D18	250	– / 85.6	– / 282	– / 2017	728	1660	2402
MTC-300-3D18	300	– / 96.6	– / 334	– / 2351	864	1953	2817
1) TC-frame motors (MTC-xxx-xxxxCK) are T-frame motors with applicable C-face accessory kits installed.							
*** TABLE CONTINUED NEXT PAGE ***							

MTC EPACK CAST-IRON 3-PHASE MOTORS FEATURES AND SPECS (CONTINUED)**MTC MOTOR PERFORMANCE DATA – CAST-IRON T-FRAME AND TC-FRAME – 1800 RPM**

*** TABLE CONTINUED FROM PREVIOUS PAGE ***

Performance Data					
EPAct T & TC ⁽¹⁾ Frame Three-Phase Motors					
1800 rpm – (460 Volt except as indicated)					
Part Number	HP	Slip (%)	Max Time @ Locked Rotor Current (hot)	Temperature Rise @ Full Load	
MTC-001-3BD18(CK)	1	2.22	20 seconds	80° C (176°F)	
MTC-1P5-3BD18(CK)	1-1/2	2.50			
MTC-002-3BD18(CK)	2	2.78			
MTC-003-3BD18(CK)	3	2.78			
MTC-005-3BD18(CK)	5	2.78			
MTC-7P5-3BD18(CK)	7-1/2	2.22			
MTC-010-3BD18(CK)	10	2.20	13 seconds		80° C (176°F)
MTC-015-3BD18(CK)	15	1.67	20 seconds		
MTC-020-3BD18(CK)	20	1.67			
MTC-025-3BD18(CK)	25	1.38	16 seconds		
MTC-030-3BD18(CK)	30	1.38	20 seconds		
MTC-040-3BD18(CK)	40	1.39			
MTC-050-3BD18(CK)	50	1.39			
MTC-060-3BD18(CK)	60	0.83			
MTC-075-3BD18(CK)	75	0.83			
MTC-100-3BD18(CK)	100	0.83			
MTC-125-3BD18	125	0.83			
MTC-150-3BD18	150	0.83			
MTC-200-3BD18	200	0.83			
MTC-250-3D18	250	0.54	20 seconds	85° C (185°F)	
MTC-300-3D18	300	0.53			
1) TC-frame motors (MTC-xxx-xxxxCK) are T-frame motors with applicable C-face accessory kits installed.					

MTC EPACT CAST-IRON 3-PHASE MOTORS FEATURES AND SPECS (CONTINUED)

MTC MOTOR PERFORMANCE DATA – CAST-IRON T-FRAME – 1200 RPM

Performance Data – EPAct T-Frame Three-Phase Motors – 1200 rpm (460 Volt except as indicated)								
Part Number	HP	NEMA Design	F.L. RPM	Minimum Speed (rpm)		Maximum Speed (rpm)		
				Constant Torque (2:1)	Variable Torque (5:1)	CHP(2)	Safe	
MTC-001-3BD12	1	B	1150	600	240	1800	3600	
MTC-1P5-3BD12	1-1/2		1170					
MTC-002-3BD12	2		1180					
MTC-003-3BD12	3							
MTC-005-3BD12	5							
MTC-7P5-3BD12	7-1/2							
MTC-010-3BD12	10	A						
Part Number	HP	Current @ 230V/460V (Amps)			Torque (lb-ft)			
		No Load	Full Load	Locked Rotor	Full Load	Locked Rotor	Break-down	
MTC-001-3BD12	1	3.2 / 1.6	3.2 / 1.6	25.0 / 12.5	4.59	11.48	14.69	
MTC-1P5-3BD12	1-1/2	3.5 / 1.8	4.8 / 2.4	40.0 / 20.0	6.60	18.5	24.4	
MTC-002-3BD12	2	4.0 / 2.0	6.1 / 3.1	50.0 / 25.0	9.02	24.4	30.7	
MTC-003-3BD12	3	4.7 / 2.4	8.4 / 4.2	64.0 / 32.0	13.4	22.8	37.5	
MTC-005-3BD12	5	7.3 / 3.7	13.6 / 6.8	92.0 / 46.0	22.2	37.7	53.3	
MTC-7P5-3BD12	7-1/2	12.6 / 6.3	21.2 / 10.6	127 / 63.5	32.9	75.7	98.7	
MTC-010-3BD12	10	7.6 / 3.8	28.0 / 14.0	168 / 84.0	44.8	98.6	139	
Part Number	HP	Temperature Rise @ Full Load	Max Time Locked Rotor (Hot)	F.L. Efficiency (%)	F.L. Power Factor	Rotor Inertia (lb-ft ²)	Slip (%)	
MTC-001-3BD12	1	80°C (176°F)	20 seconds	81.1	0.72	0.009	3.3	
MTC-1P5-3BD12	1-1/2			85.5	0.65	0.068	2.5	
MTC-002-3BD12	2			86.5	0.70	0.100	2.5	
MTC-003-3BD12	3			87.5	0.72	0.207	1.7	
MTC-005-3BD12	5			87.5	0.72	0.258	1.7	
MTC-7P5-3BD12	7-1/2			89.5	0.71	0.480	1.7	
MTC-010-3BD12	10			89.5	0.74	2.487	1.7	
2) Maximum Constant HP RPM is for direct-coupled loads								

2) Maximum Constant HP RPM is for direct-coupled loads

MTC EPACT CAST-IRON 3-PHASE MOTORS FEATURES AND SPECS (CONTINUED)**MTC MOTOR PERFORMANCE DATA – CAST-IRON T-FRAME – 3600 RPM**

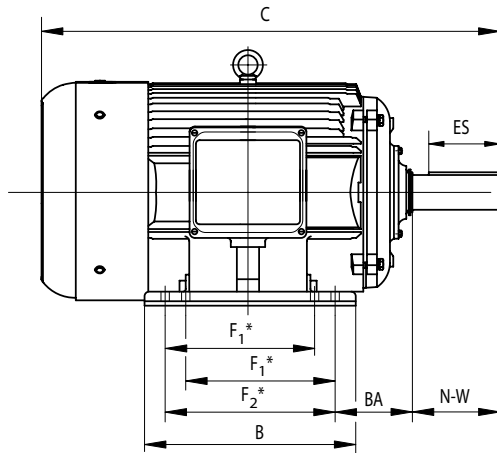
Performance Data – EPAct T-Frame Three-Phase Motors – 3600 rpm (460 Volt except as indicated)								
Part Number	HP	NEMA Design	F.L. RPM	Minimum Speed (rpm)		Maximum Speed (rpm)		
				Constant Torque (2:1)	Variable Torque (5:1)	CHP(2)	Safe	
MTC-1P5-3BD36	1-1/2	B	3480	1800	720	5400	5400	
MTC-002-3BD36	2							
MTC-003-3BD36	3		3520					
MTC-005-3BD36	5		3510					
MTC-7P5-3BD36	7-1/2		3520					
MTC-010-3BD36	10		3530					
Part Number	HP	Current @ 230V/460V (Amps)			Torque (lb·ft)			
		No Load	Full Load	Locked Rotor	Full Load	Locked Rotor	Break-down	
MTC-1P5-3BD36	1-1/2	1.4 / 0.7	3.8 / 1.9	40.0 / 20.0	2.23	4.01	5.58	
MTC-002-3BD36	2	1.5 / 0.8	5.0 / 2.5	50.0 / 25.0	3.03	6.06	8.18	
MTC-003-3BD36	3	2.8 / 1.4	7.2 / 3.6	64.0 / 32.0	4.50	10.4	16.2	
MTC-005-3BD36	5	4.0 / 2.0	11.3 / 5.7	92.0 / 46.0	7.46	15.7	26.5	
MTC-7P5-3BD36	7-1/2	5.0 / 2.5	16.8 / 8.4	127 / 63.5	11.0	22.0	36.3	
MTC-010-3BD36	10	5.7 / 2.8	22.4 / 11.2	162 / 81.0	15.0	33.0	49.5	
Part Number	HP	Temperature Rise @ Full Load	Max Time Locked Rotor (Hot)	F.L. Efficiency (%)	F.L. Power Factor	Rotor Inertia (lb·ft²)	Slip (%)	
MTC-1P5-3BD36	1-1/2	80°C (176°F)	20 seconds	82.5	0.86	0.009	3.3	
MTC-002-3BD36	2			84.0	0.87	0.010	3.3	
MTC-003-3BD36	3			85.5	0.86	0.034	2.2	
MTC-005-3BD36	5			87.5	0.88	0.040	2.5	
MTC-7P5-3BD36	7-1/2			88.5	0.89	0.258	2.2	
MTC-010-3BD36	10			89.5	0.89	0.109	1.9	
2) Maximum Constant HP RPM is for direct-coupled loads								

2) Maximum Constant HP RPM is for direct-coupled loads

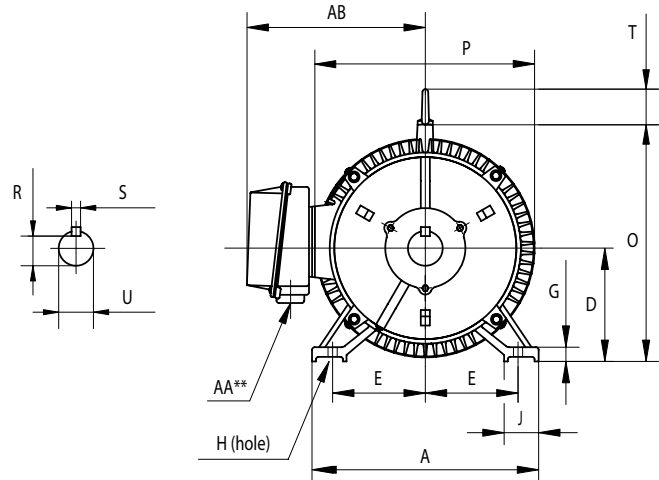
MTC MOTOR DIMENSIONS

(DIMENSIONS = INCHES)

MTC EPAct T-FRAME THREE-PHASE MOTOR DIMENSIONS



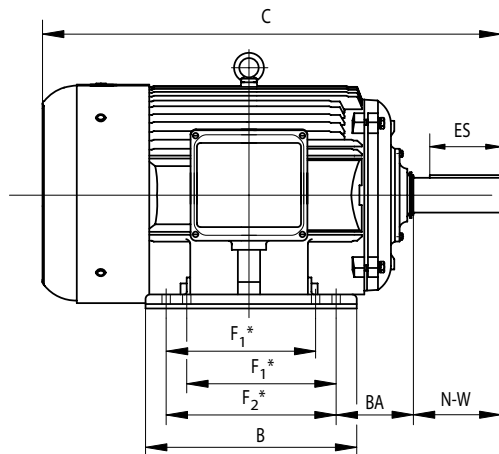
* Various frame sizes have 2 or 4 mounting holes per mounting foot (one mounting foot per side).



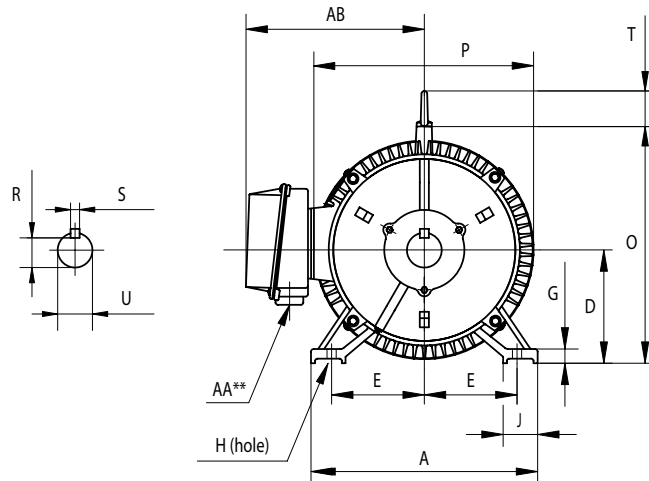
** F1 mounting shown.

** Some frame sizes are F1/F2 convertible.

Dimensions [inches, except as noted]											
EPAct Three-phase T-Frame Motors – 1200, 1800, 3600 rpm											
Part Number	HP	NEMA Frame	A	AA**	AB	B	BA	C	D	E	ES
MTC-001-3BD12	1	145T	7	3/4"npt	6.89	6	2.25	13.58	3.5	2.75	1.41
MTC-001-3BD18		143T				5		12.57			
MTC-1P5-3BD12	1-1/2	182T	9	1" NPT	7.45	6.5	2.75	15.11	4.5	3.75	1.78
MTC-1P5-3BD18		145T	7	3/4"npt	6.89	6	2.25	13.58	3.5	2.75	1.41
MTC-1P5-3BD36						5		12.57			
MTC-002-3BD12	2	184T	9	1" NPT	7.45	7.5	2.75	16.11	4.5	3.75	1.78
MTC-002-3BD18		145T	7	3/4"npt	6.89	6	2.25	13.58	3.5	2.75	1.41
MTC-002-3BD36											
MTC-003-3BD12	3	213T	10.5	1" NPT	8.63	7.5	3.5	18.89	5.25	4.25	2.41
MTC-003-3BD18		182T	9	1" NPT	7.45	6.5	2.75	15.11	4.5	3.75	1.78
MTC-003-3BD36											
MTC-005-3BD12	5	215T	10.5	1" NPT	8.63	9	3.5	20.49	5.25	4.25	2.41
MTC-005-3BD18		184T	9	1" NPT	7.45	7.5	2.75	16.11	4.5	3.75	1.78
MTC-005-3BD36											
MTC-7P5-3BD12	7-1/2	254T	12.5	1.5" NPT	11.2	10.8	4.25	23.29	6.25	5	2.91
MTC-7P5-3BD18		213T	10.5	1" NPT	8.63	7.5	3.5	18.89	5.25	4.25	2.41
MTC-7P5-3BD36											
MTC-010-3BD12	10	256T	12.5	1.5" NPT	11.2	12.5	4.25	25.06	6.25	5	2.91
MTC-010-3BD18		215T	10.5	1" NPT	8.63	9	3.5	20.49	5.25	4.25	2.41
MTC-010-3BD36											
* 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.)											
**** TABLE CONTINUED NEXT PAGE (for dimensions F1–U) ****											

MTC MOTOR DIMENSIONS (CONTINUED) – (DIMENSIONS = INCHES)**MTC E Pact T-FRAME THREE-PHASE MOTOR DIMENSIONS (CONTINUED)**

* 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.

**** Table Continued Previous Page (for dimensions A–ES) ****

Dimensions [inches, except as noted]

E Pact Three-phase T-Frame Motors – 1200, 1800, 3600 rpm

Part Number	F ₁ *	F ₂ *	G	H	J	N-W	O	P	R	S	T	U
MTC-001-3BD12	4	5	0.512	0.34	1.45	2.25	7.08	7.16	0.771	0.188	0.88	0.875
MTC-001-3BD18	n/a	4									n/a	
MTC-1P5-3BD12	n/a	4.5	0.59	0.41	1.97	2.75	8.97	8.82	0.986	0.25	1.42	1.125
MTC-1P5-3BD18	4	5	0.512	0.34	1.45	2.25	7.08	7.16	0.771	0.188	n/a	0.875
MTC-1P5-3BD36	n/a	4									n/a	
MTC-002-3BD12	4.5	5.5	0.59	0.41	1.97	2.75	8.97	8.82	0.986	0.25	1.42	1.125
MTC-002-3BD18	4	5	0.512	0.34	1.45	2.25	7.08	7.16	0.771	0.188	n/a	0.875
MTC-002-3BD36											0.88	
MTC-003-3BD12	n/a	5.5	0.709	0.41	2.36	3.38	10.53	10.4	1.201	0.312	1.73	1.375
MTC-003-3BD18	n/a	4.5	0.59	0.41	1.97	2.75	8.97	8.82	0.986	0.25	1.42	1.125
MTC-003-3BD36												
MTC-005-3BD12	5.5	7	0.709	0.41	2.36	3.38	10.53	10.4	1.201	0.312	1.73	1.375
MTC-005-3BD18	4.5	5.5	0.59	0.41	1.97	2.75	8.97	8.82	0.986	0.25	1.42	1.125
MTC-005-3BD36												
MTC-7P5-3BD12	n/a	8.25	0.787	0.53	2.76	4	12.89	12.6	1.416	0.375	2.05	1.625
MTC-7P5-3BD18	n/a	5.5	0.709	0.41	2.36	3.38	10.53	10.4	1.201	0.312	1.73	1.375
MTC-7P5-3BD36												
MTC-010-3BD12	8.25	10	0.787	0.53	2.76	4	12.89	12.6	1.416	0.375	2.05	1.625
MTC-010-3BD18	5.5	7	0.709	0.41	2.36	3.38	10.53	10.4	1.201	0.312	1.73	1.375
MTC-010-3BD36												

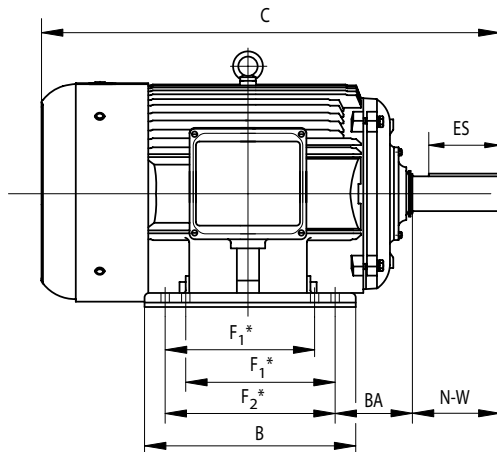
* Various frame sizes have 2 or 4 mounting holes per mounting foot.

** AA dimension is conduit fitting size.

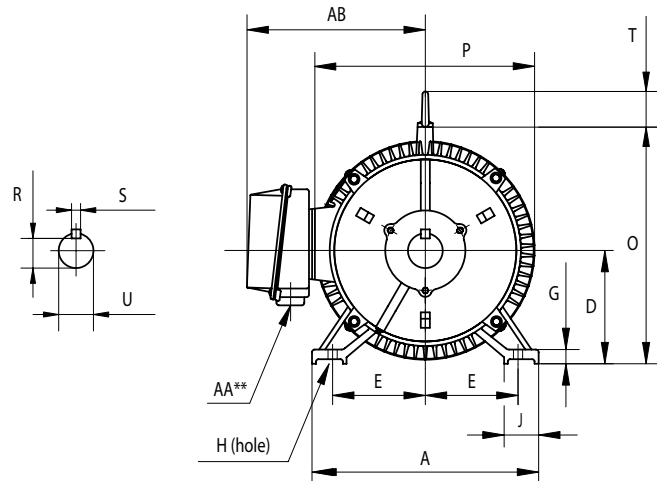
F1 mounting shown; some frame sizes are F1/F2 convertible; refer to T-frame "Motor Specifications" table. (F2 mounting = conduit entrance on right side facing shaft.)

MTC MOTOR DIMENSIONS (CONTINUED) – (DIMENSIONS = INCHES)

MTC EAct T-FRAME THREE-PHASE MOTOR DIMENSIONS (CONTINUED)



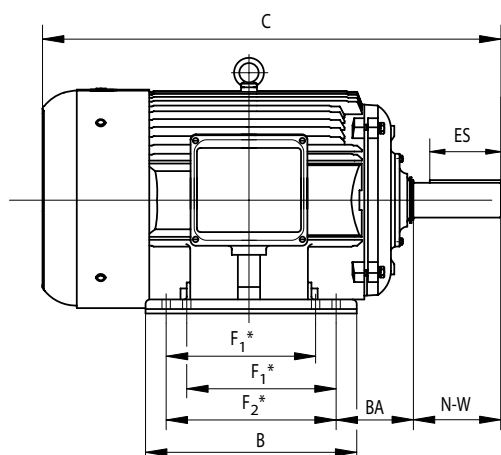
* Various frame sizes have 2 or 4 mounting holes per mounting foot (one mounting foot per side).



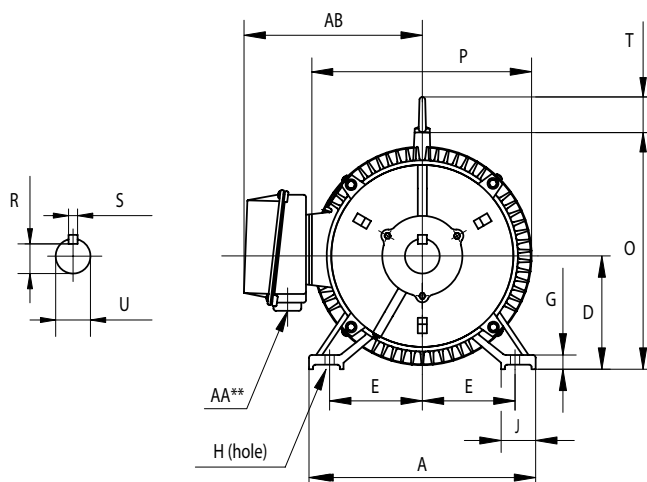
** F1 mounting shown.

** Some frame sizes are F1/F2 convertible.

Dimensions [inches, except as noted]											
EPAct Three-phase T-Frame Motors – 1800 rpm											
Part Number	HP	NEMA Frame	A	AA**	AB	B	BA	C	D	E	ES
MTC-015-3BD18	15	254T	12.5	1.5" NPT	11.2	10.8	4.25	23.29	6.25	5	2.91
MTC-020-3BD18	20	256T				12.5		25.06			
MTC-025-3BD18	25	284T	14	1.5" NPT	12	12.5	4.75	26.64	7	5.5	3.28
MTC-030-3BD18	30	286T				14		28.18			
MTC-040-3BD18	40	324T	16	2" NPT	13.4	14	5.25	29.95	8	6.25	3.91
MTC-050-3BD18	50	326T				15.5		31.24			
MTC-060-3BD18	60	364T	18	3" NPT	15.7	15.2	5.88	32.68	9	7	4.28
MTC-075-3BD18	75	365T				16.2		34.11			
MTC-100-3BD18	100	405T	20	3" NPT	18.31	17.8	6.62	38.35	10	8	5.65
MTC-125-3BD18	125	444T	22	2x3"NPT	19.41	18.5	7.5	42.52	11	9	6.91
MTC-150-3BD18	150	445T				20.5		44.5			
MTC-200-3BD18	200	445/7T				24		48.03			
MTC-250-3D18	250	449T	22	2x3"NPT	19.07	31	7.5	55.51	11	9	7.01
MTC-300-3D18	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.)											
**** TABLE CONTINUED NEXT PAGE (for dimensions F1–U) ****											

MTC MOTOR DIMENSIONS (CONTINUED) – (DIMENSIONS = INCHES)**MTC EAct T-FRAME THREE-PHASE MOTOR DIMENSIONS (CONTINUED)**

* 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.

**** Table Continued Previous Page (for dimensions A–ES) ****

Dimensions [inches, except as noted]

EAct Three-phase T-Frame Motors – 1800 rpm

Part Number	F ₁ *	F ₂ *	G	H	J	N-W	O	P	R	S	T	U
MTC-015-3BD18	n/a	8.25	0.787	0.53	2.76	4	12.89	12.6	1.416	0.375	2.05	1.625
MTC-020-3BD18	8.25	10										
MTC-025-3BD18	n/a	9.5	0.866	0.53	2.76	4.62	14.28	14.17	1.591	0.5	2.05	1.875
MTC-030-3BD18	9.5	11										
MTC-040-3BD18	n/a	10.5	0.984	0.66	2.76	5.25	15.91	15.75	1.845	0.5	2.44	2.125
MTC-050-3BD18	10.5	12										
MTC-060-3BD18	n/a	11.25	1.102	0.66	2.95	5.88	18.13	17.7	2.021	0.625	2.44	2.375
MTC-075-3BD18	11.25	12.25										
MTC-100-3BD18	12.25	13.75	1.18	0.81	3.15	7.25	21.02	21.42	2.45	0.75	2.83	2.875
MTC-125-3BD18	n/a	14.5	1.38	0.81	3.35	8.5	22.97	23.43	2.88	0.875	3.46	3.375
MTC-150-3BD18	14.5	16.5										
MTC-200-3BD18	16.5	20										
MTC-250-3D18	n/a	25	1.575	0.81	3.35	8.5	23	24	2.88	0.875	4.25	3.375
MTC-300-3D18												

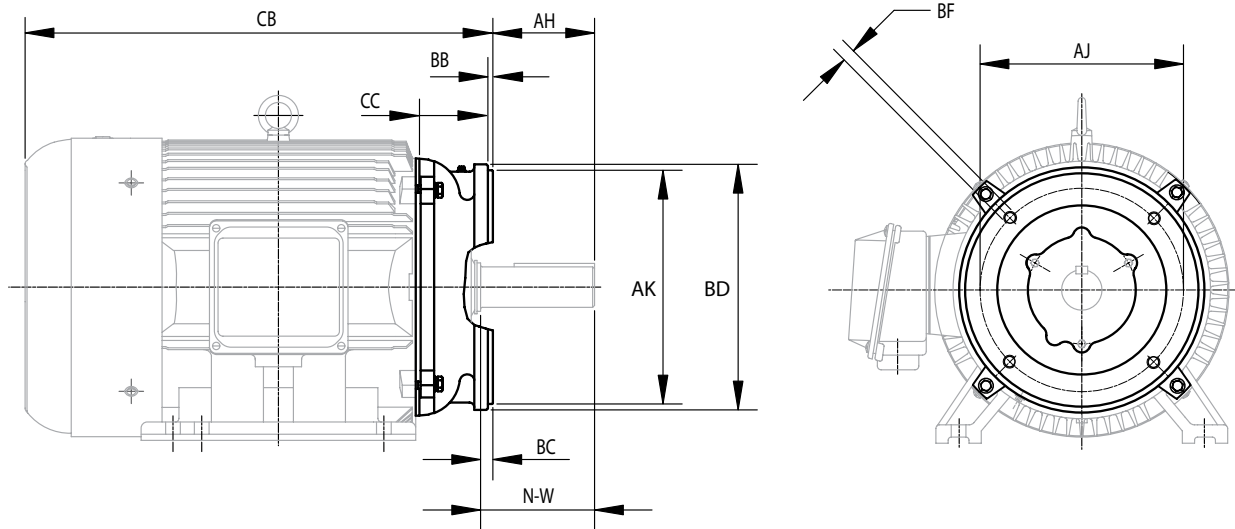
* Various frame sizes have 2 or 4 mounting holes per mounting foot.

** 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.)

MTC MOTOR DIMENSIONS (CONTINUED) – (DIMENSIONS = INCHES)

MTC EAct TC-FRAME THREE-PHASE MOTOR & C-FLANGE DIMENSIONS

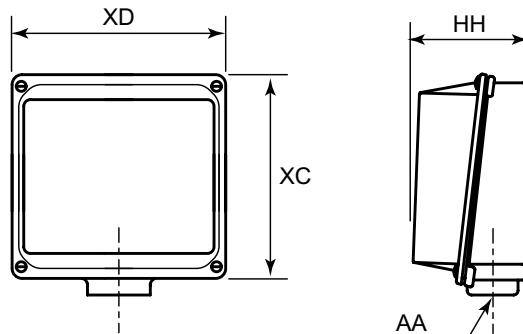


TC-frame motors are T-frame EAct motors with C-flange accessory kits installed. For more information about the C-flange accessory kits, refer to Chapter 4: Accessories.

Dimensions (inches) - EAct T-Frame Motor C-Flange Kits											
Part Number	Frame	AH ⁽²⁾	AJ	AK	BB	BC ⁽²⁾	BD	BF	CB ⁽²⁾	CC	N-W ⁽²⁾
MTA-CFACE-140TC⁽¹⁾	143T	1.96	5.875 ⁽¹⁾	4.5 ⁽¹⁾	0.16	0.12	6.5	3/8-16	10.51	1.43	2.25
	145T								11.62		
MTA-CFACE-180TC	182T	2.62	7.25	8.5	0.25	0.12	9	1/2-13	12.49	1.17	2.75
	184T								13.49		
MTA-CFACE-210TC	213T	3.12	7.25	8.5	0.25	0.25	9	1/2-13	15.77	1.45	3.38
	215T								17.37		
MTA-CFACE-250TC	254T	3.75	7.25	8.5	0.25	0.25	10	1/2-13	19.54	2.89	4
	256T								21.31		
MTA-CFACE-280TC	284T	4.38	9	10.5	0.25	0.25	11.25	1/2-13	22.26	3.26	4.62
	286T								23.80		
MTA-CFACE-320TC	324T	5	11	12.5	0.25	0.25	14	5/8-11	24.95	3.67	5.25
	326T								26.24		
MTA-CFACE-360TC	364T	5.62	11	12.5	0.25	0.25	14	5/8-11	27.06	4.06	5.88
	365T								28.49		
MTA-CFACE-400TC	405T	7	11	12.5	0.25	0.25	15.5	5/8-11	31.35	4.33	7.25
MTA-CFACE-444TC	444T	8.25	14	16	0.25	0.25	18	5/8-11	34.27	4.11	8.5
	445T								36.25		
MTA-CFACE-447TC	445/7T	8.25	14	16	0.25	0.25	18	5/8-11	39.78	4.11	8.5
MTA-CFACE-449TC	449T	8.248	14	16	0.26	0.26	17.72	5/8-11	47.26	4.35	8.5

1) Mounting bolt holes for MTA-CFACE-140TC are located outside of the highest C-face flange surface (dimension AJ > AK).

2) Motor dependent dimensions apply only to IronHorse MTC-xxx-xxxxx(CK) motors.

MTC JUNCTION BOX DIMENSIONS

Junction Box Dimensions (in)				
Frame Size *	XD (Width)	XC (Height)	HH (Depth)	AA (Conduit Hole) (NPT)
143T	4.1	4.5	2.3	3/4
145T				
182T	4.6	5.0	2.6	1
184T				
213T				
215T				
254T	6.3	7.2	3.3	1-1/2
256T				
284T				
286T				
324T	9	10.6	5.3	2
326T				
364T				
365T				
405T	9.8	11.7	7.1	3
444T				
445T				
445/7T				
449T	11.3			3 (2 openings)
* TC-frame motors have the same junction boxes as the comparable T-frame motors.				

MTC MOTORS DECIBEL LEVELS

The decibel (sound) level of an IronHorse® motor should be measured after initial startup, after 30 days, and after six months of use. Decibel levels should remain fairly consistent and can be an indication of misalignment and premature bearing wear. If the measured decibel level for your IronHorse model exceeds the value listed below by more than 10%, contact AutomationDirect or a local motor service technician found at www.easa.com.

MTC Average T-Frame Decibel Levels		
Frame Size *	HP	Noise Level: Lw dB(A) @ 1m
		MTC
143T	1	64.0
145T	1-1/2	68.0
	2	68.8
182T	2	–
182T	3	74.0
184T	5	73.0
213T	7-1/2	78.4
215T	10	74.3
254T	15	74.6
256T	20	74.0
284T	25	75.0
286T	30	76.1
324T	40	76.4
326T	50	77.0
364T	60	77.1
365T	75	78.0
405T	100	78.1
444T	125	78.3
445T	150	79.4
445/7T	200	79.4
449T	250	81.0
	300	81.4
* TC-frame motors have the same sound ratings as the comparable T-frame motors.		

C-FLANGE KITS FOR MTC EPACT THREE-PHASE MOTORS

C-FLANGE KITS

Any IronHorse MTC EPAct T-frame cast-iron motor from 1–300hp can be converted to C-face mounting by using a cast iron C-flange kit. These kits are field installable and include the C-faces and mounting bolts.

C-FLANGE DIMENSIONS

C-flange dimensions are shown in Chapter 2 (Mounting & Initial Startup) along with TC-frame motor dimensions.



MTA T-Frame C-Flange Kit



Authorized EASA service centers are equipped with the necessary equipment to quickly and inexpensively install C-Face kits. Visit the EASA website at www.easa.com to find the nearest authorized service center. C-faces must be installed by an EASA motor shop in order to maintain the motor warranty.

C-FLANGE KITS FOR MTC EPACT THREE-PHASE MOTORS (CONTINUED)

EPAct T-Frame Three-Phase Motor C-Flange Kits				
Part Number (1)	Fits Frame	Fits Motor (1)	Motor HP	Shipping Weight (lb)
MTA-CFACE-140TC	143T & 145T	MTC-001-3BD12 MTC-001-3BD18 MTC-1P5-3BD18 MTC-1P5-3BD36 MTC-002-3BD18 MTC-002-3BD36	1 1 1-1/2 1-1/2 2 2	6
MTA-CFACE-180TC	182T & 184T	MTC-1P5-3BD12 MTC-002-3BD12 MTC-003-3BD18 MTC-003-3BD36 MTC-003-3BD36 MTC-005-3BD36	1-1/2 2 3 3 5 5	12
MTA-CFACE-210TC	213T & 215T	MTC-003-3BD12 MTC-005-3BD12 MTC-7P5-3BD18 MTC-7P5-3BD36 MTC-010-3BD18 MTC-010-3BD36	3 5 7-1/2 7-1/2 10 10	12
MTA-CFACE-250TC	254T & 256T	MTC-7P5-3BD12 MTC-010-3BD12 MTC-015-3BD18 MTC-020-3BD18	7-1/2 10 15 20	24
MTA-CFACE-280TC	284T & 286T	MTC-25-3BD18 MTC-30-3BD18	25 30	30
MTA-CFACE-320TC	324T & 326T	MTC-40-3BD18 MTC-50-3BD18	40 50	48
MTA-CFACE-360TC	364T & 365T	MTC-60-3BD18 MTC-75-3BD18	60 75	50
MTA-CFACE-400TC	405T	MTC-100-3BD18	100	123
MTA-CFACE-444TC	444T & 445T	MTC-125-3BD18 MTC-150-3BD18	125 150	133
MTA-CFACE-447TC	445/7T	MTC-200-3BD18	200	133
MTA-CFACE-449TC	449T	MTC-250-3D18 MTC-300-3D18	250 300	147
1) MTA-CFACE C-flange kits will NOT fit MTCP2 Premium-Efficiency motors.				



Authorized EASA service centers are equipped with the necessary equipment to quickly and inexpensively install C-Face kits. Visit the EASA website at www.easa.com to find the nearest authorized service center.

MTC Motors BEARING SIZE INFORMATION

All IronHorse® cast-iron motors use premium name-brand bearings (NSK, NTN, or SKF). Below is a bearing size chart listing the type of bearings used in each frame size of IronHorse MTC motors. The bearing types are also listed on the motor nameplate.

MTC Motors Bearing Size Chart		
Frame Size *	Drive End Bearing	Opposite Drive End Bearing
143T	6205-ZZ	6205-ZZ
145T		
182T	6306-ZZ	6206-ZZ
184T		
213T	6308-ZZ	6308-ZZ
215T		
254T	6309	6209
256T		
284T	6311	6309
286T		
324T	6312	6311
326T		
364T	6313	6312
365T		
404T	NU316	6313
405T		
444T	NU318	
445T		
445/7T	NU319	
449T	NU320	
* TC-frame motors have the same bearings as the comparable T-frame motors.		

MTF Farm-Duty T-Frame Single-Phase Motors – Features and Specifications

IronHorse® single-phase farm-duty motors are available from 2hp to 5hp. All models have a TEFC housing (steel frame with iron end bells) that is fully gasketed for use in dirty environments. All motors are NEMA L design.

All models include a class-10 manual-reset locked-rotor thermal protector (motor thermal overload protection must be provided separately).



WE RECOMMEND DISCONNECTING POWER TO THE MOTOR BEFORE RESETING THE THERMAL PROTECTOR. DO NOT RESET MORE THAN TWICE IN SUCCESSION. THE MOTOR MUST COOL TO 40°C (104°F) BEFORE A THIRD RESET.

CAST-IRON T-FRAME 1-PHASE FARM-DUTY MOTOR SPECIFICATIONS

Motor Specifications – Single-Phase Farm-Duty Motors (60Hz)									
Part Number	HP	Base RPM	Voltage*	Service Factor	NEMA Design	NEMA Frame	Housing	F.L. Amps @ 230VAC	Approx Weight (lb)
MTF-002-1C18-182	2	1800	230VAC ±10%	1.15 @ 230VAC 1.0 @ 208VAC	L	182T	TEFC IP55	8.5	74
MTF-003-1C18	3					184T		12.9	85
MTF-005-1C18	5					184T		21.2	105

* Operate on 230VAC +/- 10% (1.15 @ 230VAC; 1.0 S.F. @ 208V), single-phase power only.

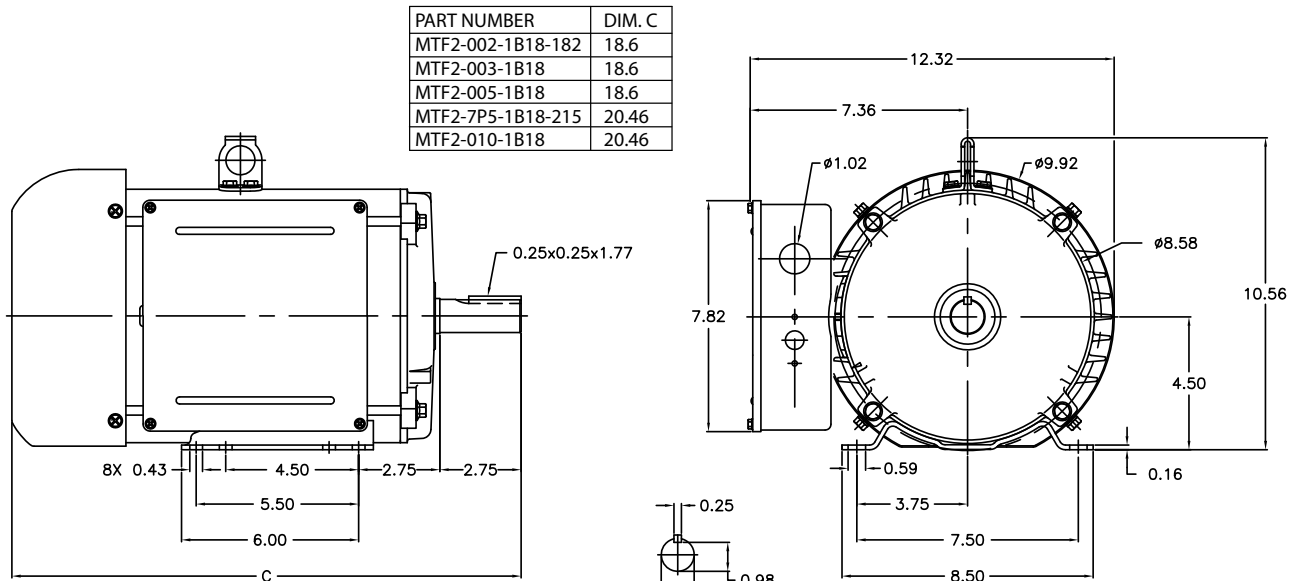
CAST-IRON T-FRAME 1-PHASE FARM-DUTY MOTOR PERFORMANCE DATA

Performance Data – Single-Phase Farm-Duty Motors (60Hz)											
Part Number	HP	F.L. RPM	Current @ 230V (Amps)			Torque (lb-ft)			F.L. Efficiency (%)	F.L. Power Factor	Rotor Inertia (lb-ft ²)
			230V No Load	Full Load	Locked Rotor	Full Load	Locked Rotor	Break down			
MTF-002-1C18-182	2	1725	2.7	8.5	70.0	6.04	20.54	15.10	82.5	0.92	0.35
MTF-003-1C18	3		3.9	12.9	95.0	9.11	32.80	23.69	81.5	0.93	0.60
MTF-005-1C18	5		6.6	21.2	160.0	15.30	58.14	36.72	81.0	0.90	0.81

MOTOR DIMENSIONS

(DIMENSIONS = INCHES)

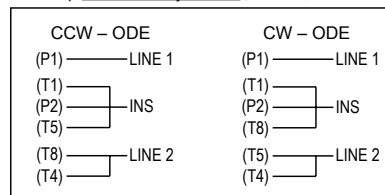
MTF T-FRAME SINGLE-PHASE FARM-DUTY MOTOR DIMENSIONS



TERMINAL AND WIRING DIAGRAMS

MTF FARM-DUTY MOTORS

2-5hp 1Ø Farm-Duty models ; 6-Lead, 230 VAC

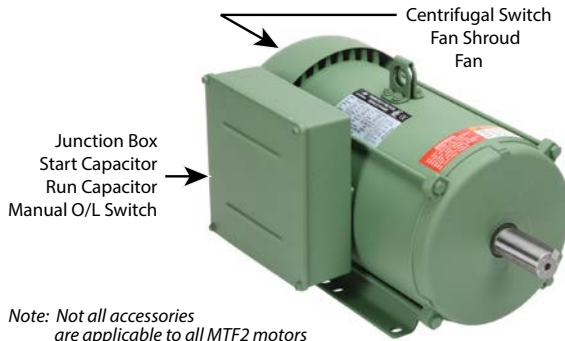


REPLACEMENT PARTS

CAPACITORS AND CENTRIFUGAL SWITCHES FOR IRONHORSE® SINGLE-PHASE MOTORS

Single phase motors use capacitors to provide starting torque when power is first applied to the motor. When the motor begins to turn, the start capacitor is no longer needed and is taken out of the circuit by a centrifugal switch. In addition to the start capacitor, 1-1/2 hp and larger IronHorse single-phase motors have run capacitors to allow the motor to develop higher running torque and greater efficiency. Run capacitors also help improve the motor power factor.

MTF ACCESSORY LOCATIONS



Note: Not all accessories are applicable to all MTF2 motors

SPARE/REPLACEMENT PARTS FOR MTF SINGLE-PHASE FARM-DUTY MOTORS

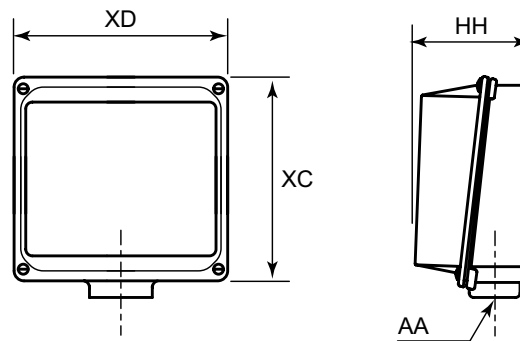
MTF Single-Phase Motor Spare/Replacement Parts *									
Part Number	Accessory Type	Capacitance (μF)	Rated Voltage	Dimension Height x Ø (in[mm])	Applicable Motor Number	Motor HP			
MTA-CAP-16	Start capacitor	200	300	3.39 x 1.81 [86.1 x 46.0]	MTF-002-1C18-182	2			
MTA-CAP-17		300		3.39 x 1.81 [86.1 x 46.0]	MTF-003-1C18	3			
MTA-CAP-18		500		4.33 x 1.97 [110.0 x 50.0]	MTF-005-1C18	5			
MTA-CAP-19	Run capacitor	35	450	3.96 x 1.77 [100.6 x 45.0]	MTF-002-1C18-182	2			
MTA-CAP-20		40		3.96 x 1.97 [100.6 x 50.0]	MTF-003-1C18	3			
MTA-CAP-21		50		4.17 x 1.97 [106.0 x 50.0]	MTF-005-1C18	5			
MTA-CSW-05	Centrifugal switch	n/a	250		MTF-002-1C18-182	2			
MTA-CSW-06					MTF-003-1C18	3			
MTA-CSW-07					MTF-005-1C18	5			
MTA-MOL-1**	Manual overload switch				MTF-002-1C18-182	2			
MTA-MOL-2**					MTF-003-1C18	3			
MTA-MOL-3**					MTF-005-1C18	5			
MTAF-JBOX-180	Junction box		n/a		MTF-xxx-1C18-xxx	all			
MTAF-FAN-182	Fan				MTF-002-1C18-182	2			
MTAF-FAN-184					MTF-003-1C18	3			
MTAF-FAN-184-2					MTF-005-1C18	5			
MTAF-SHROUD-180	Fan shroud				MTF-xxx-1C18-xxx	all			

* These accessories are spare/replacement components only for IronHorse MTF series single-phase farm-duty motors.

** MTA-MOL-1 = JOEMEX TC4-0-E-1-44, V07-1; MTA-MOL-2 = JOEMEX TC4-0-E-1-44, V06-1;

MTA-MOL-3 = JOEMEX TC4-0-E-1-40, V08-1

JUNCTION BOX DIMENSIONS



Junction Box Dimensions (in)				
Frame Size *	XD (Width)	XC (Height)	HH (Depth)	AA (Conduit Hole) (NPT)
56	n/a	n/a	n/a	1/2
143T				3/4
145T				
182T	7.8	7.8	2.7	1
184T				
213T	n/a	n/a	n/a	
215T				
254T				1-1/2
256T				
284T				
286T				2
324T				
326T				3
364T				
365T				3 (2 openings)
405T				
444T				
445T				
445/7T				
449T				
* TC-frame motors have the same junction boxes as the comparable T-frame motors.				