

## Premium efficiency motors for energy conservation

IronHorse® Premium Efficiency AC electric motors meet the requirements of the Energy Independence and Security Act of 2007. The MTCP Series gives you a low cost of entry so you get a quicker payback on your investment. All our Ironhorse motors are in stock and ready for same-day shipment; if your order is over \$49, you get free shipping too!

# Cast Iron T Frame Motors 1 to 125 hp

# TC Frame up to 100 hp

Premium efficiency, <sup>C</sup>CSA<sub>US</sub> certified, ISO9001, CE Mark, Standards of Excellence

All cast iron frame ribbed design for maximum cooling



**IRONHORSE**  
AUTOMATIONDIRECT

starting at  
**\$166.00**

Class F winding insulation

NSK/SKF/NTN brand premium quality ball or roller bearings

All ratings totally enclosed fan cooled

Steel fan cover

Cast iron junction box with rubber gasket and rubber dust curtain

Standard NEMA T frame up to 200 hp (C-flange kit optional)

TC frame models (C-face) available up to 100 hp

Solid (full frame length) cast iron mounting feet



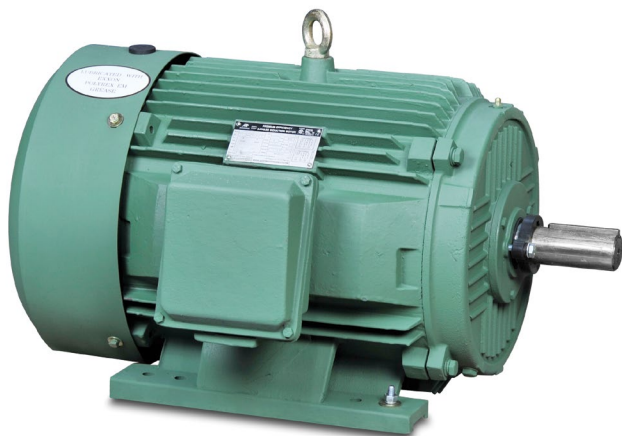
## Three-phase - 208-230/460 Volt, T Frame - TEFC Enclosure, 1200,1800, 3600 RPM

- Premium Efficiency
- Premium grade quality
- All cast iron frames
- Drive-end ball bearings or roller bearings are available on all large horsepower motors
- Electrically reversible
- C-flange kits for C-face mounting are available
- C-face models available

# IronHorse<sup>®</sup> MTCP Premium-Efficiency Cast-Iron Three-Phase AC Motors

T-Frame TEFC Motors – Three-Phase Industrial Duty – 1 to 125 hp

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



**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
- Inverter ratings: 10:1 (variable torque); 4:1 (constant torque)
- Two year warranty
- cCSA<sub>us</sub> certified, ISO9001, CE

## 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

# IronHorse<sup>®</sup> MTCP Premium-Efficiency Cast-Iron Three-Phase AC Motors

T-Frame TEFC Motors – Three-Phase Industrial Duty – 1–125 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 <sup>(1)</sup>	Price	HP <sup>(2)</sup>	Base RPM	Phase	Voltage	Housing	NEMA Frame	Mounting <sup>(3)</sup>	Holes / Foot	Service Factor	F.L. Amps @230V/460V	Approx Product Weight (lb) <sup>(4)</sup>	
MTCP-001-3BD18	\$166.00	1	1800	3	208-230/460	TEFC	143T	F1(F2)	1.15	2	3.22 / 1.61	41	
MTCP-001-3BD18C	\$185.00						143TC					45	
MTCP-1P5-3BD18	\$211.00	1.5					145T				4	4.64 / 2.32	47
MTCP-1P5-3BD18C	\$226.00						145TC						50
MTCP-002-3BD18	\$232.00	2					145T				4	6.00 / 3.00	56
MTCP-002-3BD18C	\$246.00						145TC						60
MTCP-003-3BD18	\$396.00	3					182T				2	8.05 / 4.02	84
MTCP-003-3BD18C	\$425.00						182TC						92
MTCP-005-3BD18	\$411.00	5					184T				4	13.4 / 6.71	99
MTCP-005-3BD18C	\$440.00						184TC						107
MTCP-7P5-3BD18	\$639.00	7.5					213T				2	18.7 / 9.34	150
MTCP-7P5-3BD18C	\$668.00						213TC						154
MTCP-010-3BD18	retired	10					215T				4	24.9 / 12.5	186
MTCP-010-3BD18C	\$744.00						215TC						190
MTCP-015-3BD18	retired	15					254T				2	35.8 / 17.9	329
MTCP-015-3BD18C	\$1,015.00						254TC						325
MTCP-020-3BD18	\$1,158.00	20					256T				4	47.9 / 24.0	390
MTCP-020-3BD18C	\$1,178.00						256TC						370
MTCP-025-3BD18	\$1,475.00	25					284T				2	59.6 / 29.8	455
MTCP-025-3BD18C	\$1,440.00						284TC						467
MTCP-030-3BD18	\$1,559.00	30	286T	4	70.0 / 35.0	488							
MTCP-030-3BD18C	\$1,525.00		286TC			497							
MTCP-040-3BD18	\$1,891.00	40	324T	2	94.8 / 47.4	611							
MTCP-040-3BD18C	\$1,881.00		324TC			626							
MTCP-050-3BD18	\$2,143.00	50	326T	4	117 / 58.4	690							
MTCP-050-3BD18C	\$1,998.00		326TC			706							
MTCP-060-3BD18	retired	60	364T	2	139 / 69.6	851							
MTCP-060-3BD18C	\$2,602.00		364TC			864							
MTCP-075-3BD18	\$3,079.00	75	365T	4	173 / 86.7	948							
MTCP-075-3BD18C	\$3,020.00		365TC			961							
MTCP-100-3BD18	\$3,891.00	100	405T	4	229 / 114	1199							
MTCP-100-3BD18C	\$3,819.00		405TC			1236							
MTCP-125-3BD18	\$4,742.00	125	444T	2	285 / 143	1500							
MTCP-150-3BD18	retired	150	445T	4	342 / 171	1630							
MTCP-200-3BD18	retired	200	445/T			2127							

- 1) Please review the AutomationDirect Terms & Conditions for warranty and service on this product.
- 2) For warranty on motors 50 hp and above, motors must be inspected by an EASA motor repair or service center.
- 3) F1(F2) indicates F1 conduit box mounting location, field convertible to F2 (as shown on dimensional diagram).
- 4) Certain heavy and oversized items can be shipped only via LTL. Check our web site for current shipping method constraints by part number.

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

T-Frame TEFC Motors – Three-Phase Industrial Duty – 1–20 hp – 1200 & 3600 rpm

## Motor Specifications – Premium-Efficiency T-Frame Three-Phase Motors – 1200 rpm

Part Number <sup>(1)</sup>	Price	HP	Base RPM	Phase	Voltage	Housing	NEMA Frame	Mounting <sup>(2)</sup>	Holes / Foot	Service Factor	F.L. Amps @230V/460V	Approx Product Weight (lb) <sup>(3)</sup>
MTCP-001-3BD12	\$220.00	1	1200	3	208-230/460	TEFC cast iron	145T	F1(F2)	4	1.15	3.2 / 1.6	60
MTCP-1P5-3BD12	retired	1.5					182T		2		4.5 / 2.2	104
MTCP-002-3BD12	\$376.00	2					184T		4		5.7 / 2.9	110
MTCP-003-3BD12	\$480.00	3					213T		2		8.5 / 4.2	160
MTCP-005-3BD12	\$546.00	5					215T		4		13.8 / 6.9	180
MTCP-7P5-3BD12	\$886.00	7.5					254T		2		20.9 / 10.4	325
MTCP-010-3BD12	\$970.00	10					256T		4		27.8 / 13.9	325
MTCP-015-3BD12	\$1,267.00	15					284T		2		40.3 / 20.2	420
MTCP-020-3BD12	retired	20					286T		4		52.4 / 26.2	470

1) Please review the AutomationDirect Terms & Conditions for warranty and service on this product.

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

3) Certain heavy and oversized items can be shipped only via LTL. Check our web site for current shipping method constraints by part number.

## Motor Specifications – Premium-Efficiency T-Frame Three-Phase Motors – 3600 rpm

Part Number <sup>(1)</sup>	Price	HP	Base RPM	Phase	Voltage	Housing	NEMA Frame	Mounting <sup>(2)</sup>	Holes / Foot	Service Factor	F.L. Amps @230V/460V	Approx Product Weight (lb) <sup>(3)</sup>
MTCP-1P5-3BD36	retired	1.5	3600	3	208-230/460	TEFC cast iron	143T	F1(F2)	2	1.15	4.08 / 2.04	44
MTCP-002-3BD36	\$202.00	2					145T		4		5.4 / 2.7	53
MTCP-003-3BD36	\$282.00	3					182T		2		7.74 / 3.87	79
MTCP-005-3BD36	\$327.00	5					184T		4		12.6 / 6.3	92
MTCP-7P5-3BD36	\$515.00	7.5					213T		2		18.46 / 9.23	140
MTCP-010-3BD36	\$521.00	10					215T		4		24.4 / 12.2	161
MTCP-015-3BD36	retired	15					254T		2		35.0 / 17.5	278
MTCP-020-3BD36	\$1,079.00	20					256T		4		46.4 / 23.2	306

1) Please review the AutomationDirect Terms & Conditions for warranty and service on this product.

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

3) Certain heavy and oversized items can be shipped only via LTL. Check our web site for current shipping method constraints by part number.

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

T-Frame TEFC Motors – Three-Phase Industrial Duty – 1–125 hp<sup>(2)</sup>

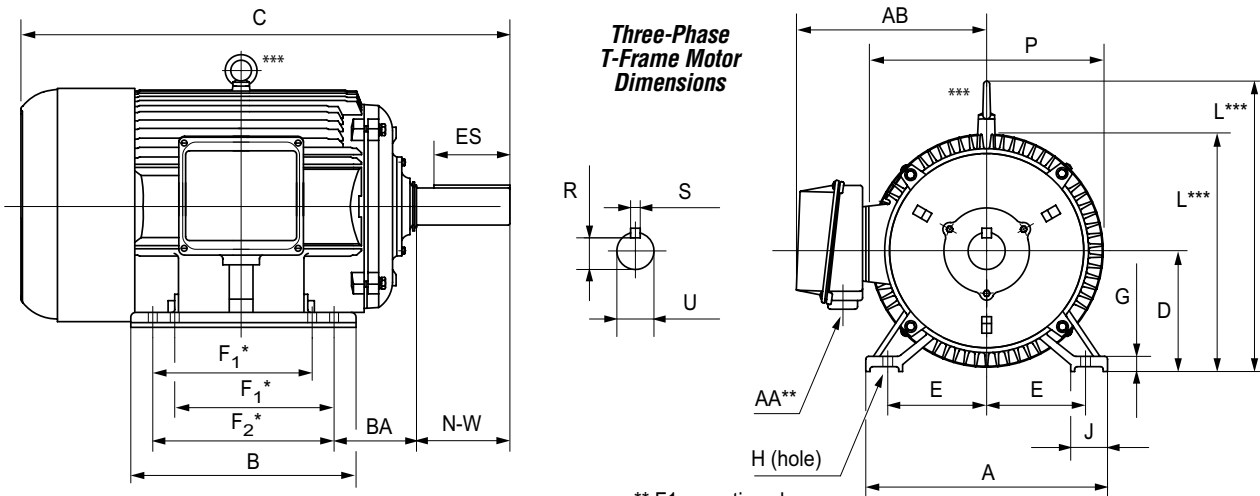
TC-Frame (C-Face) TEFC Motors – Three-Phase Industrial Duty – 1–100 hp

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 <sup>2</sup> )
				CT	VT	No Load	Full Load	Locked Rotor	Full Load	Locked Rotor	Break-down	CHP <sup>(1)</sup>	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			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	2	B	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)			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			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	5	B	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)			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			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	10	B	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)			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			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	20	B	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)			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		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		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		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		45.6 / 22.8			139.3 / 69.6	870 / 435	179	376	519	95.0			0.850	16.27	
MTCP-075-3BD18(C)	75		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		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		94.54 / 47.27			285.2 / 142.6	1816 / 908	367	624	918	95.4			0.860	65.1	
MTCP-150-3BD18	150		104.4 / 52.2			342 / 171	2170 / 1085	443	797	1108	95.8			0.860	69.26	
MTCP-200-3BD18	200		133.26 / 66.63			453.2 / 226.6	2900 / 1450	587	1174	1644	96.3			0.860	84.0	

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

# IronHorse<sup>®</sup> MTCP Premium-Efficiency Cast-Iron Three-Phase AC Motors

T-Frame TEFC Motors – Three-Phase Industrial Duty – 1 to 125 hp<sup>(1)</sup>



\* 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.

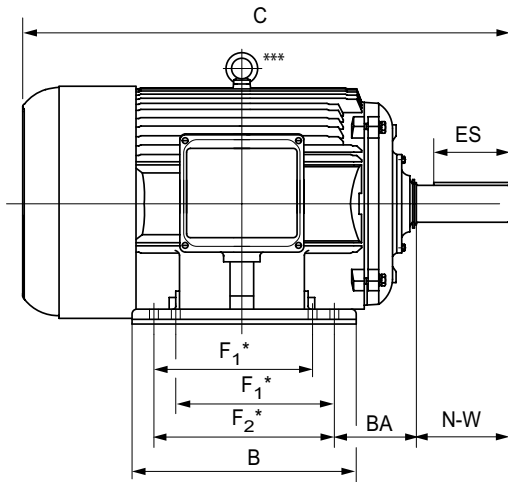
**Dimensions [inches, except as noted] – Premium-Efficiency T-Frame Three-Phase Motors – 1800 rpm**

Part Number	HP	NEMA Frame	A	AA**	AB	B	BA	C	D	E	ES	F <sub>1</sub> *	F <sub>2</sub> *	G	H	J	N-W	L	P	R	S	U
<b>1800 rpm Motors</b>																						
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

\* 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.

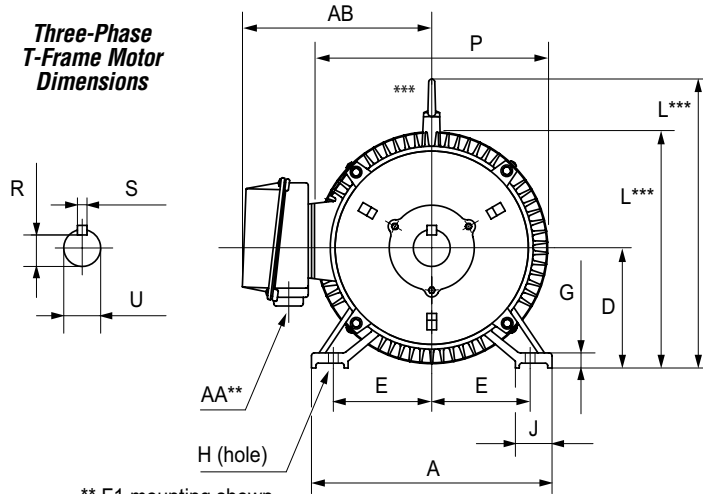
# IronHorse<sup>®</sup> MTCP Premium-Efficiency Cast-Iron Three-Phase AC Motors

## 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.

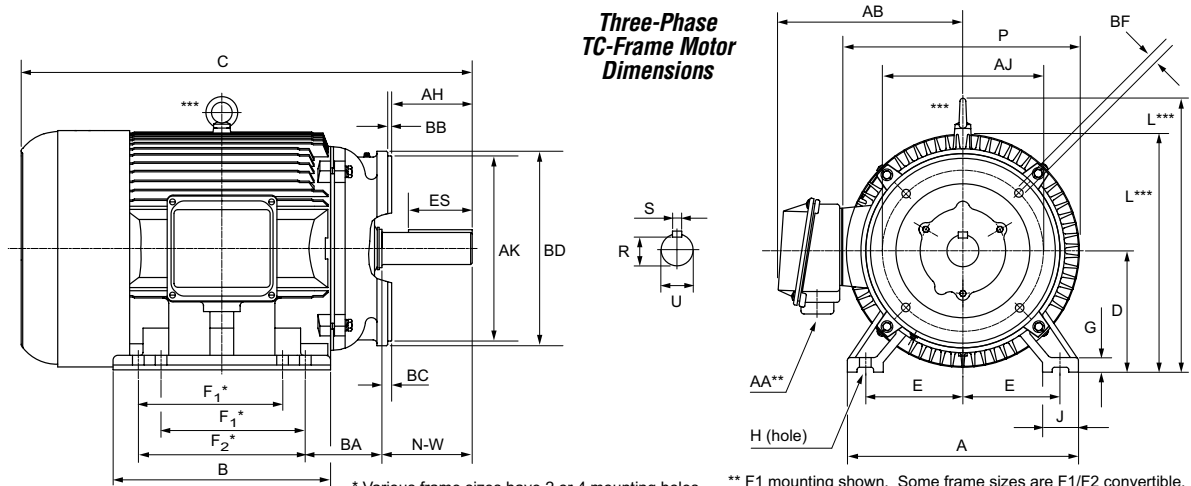
**Dimensions [inches, except as noted] – Premium-Efficiency T-Frame Three-Phase Motors – 1200 & 3600 rpm**

Part Number	HP	NEMA Frame	A	AA**	AB	B	BA	C	D	E	ES	F <sub>1</sub> *	F <sub>2</sub> *	G	H	J	N-W	L	P	R	S	U
<b>1200 rpm Motors</b>																						
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
<b>3600 rpm Motors</b>																						
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 <sub>1</sub> *	F <sub>2</sub> *	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.



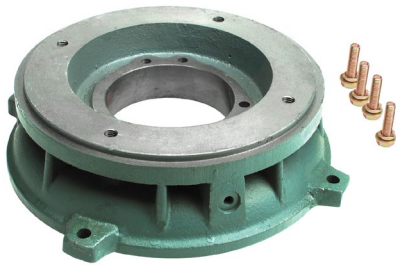
# IronHorse® MTCP Premium-Efficiency Cast-Iron Three-Phase AC Motors

## 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 <sup>(1)</sup>	Price	Fits Frame	Fits Motor Number	Motor HP	Product Weight (lb) <sup>(2)</sup>
<b>MTAP-CFACE-140TC</b>	\$14.50	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
<b>MTAP-CFACE-180TC</b>	\$19.50	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
<b>MTAP-CFACE-210TC</b>	\$26.00	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
<b>MTAP-CFACE-250TC</b>	\$44.50	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
<b>MTAP-CFACE-280TC</b>	\$55.00	284T & 286T	MTCP-015-3BD12 MTCP-020-3BD12 MTCP-025-3BD18 MTCP-030-3BD18	15 20 25 30	44.0
<b>MTAP-CFACE-320TC</b>	\$77.00	324T & 326T	MTCP-040-3BD18 MTCP-050-3BD18	40 50	61.7
<b>MTAP-CFACE-360TC</b>	\$112.00	364T & 365T	MTCP-060-3BD18 MTCP-075-3BD18	60 75	70.5
<b>MTAP-CFACE-400TC</b>	\$170.00	405T	MTCP-100-3BD18	100	136.6
<b>MTAP-CFACE-444TC</b>	\$179.00	444T & 445T	MTCP-125-3BD18 MTCP-150-3BD18	125 150	143.2
<b>MTAP-CFACE-447TC</b>	\$179.00	445/7T	MTCP-200-3BD18	200	144.4
<p><b>1) Please review the AutomationDirect Terms &amp; Conditions for warranty and service on this product.</b></p> <p><b>2) Certain heavy and oversized items can be shipped only via LTL.</b></p> <p><b>Check our web site for current shipping method constraints by part number.</b></p>					

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

## 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 <sup>(1)</sup>	Price	Description <sup>(2)(3)(4)</sup>	Fits Frame	Fits PE Motor Number <sup>(1)</sup>	Motor HP	Product Wt. (lb)
<b>MTAP-FAN-140</b>	\$22.50	Replacement Fan	143 & 145	MTCP-001-3BD12	1	0.3
<b>MTAP-SHROUD-140</b>	\$18.50	Replacement Fan Shroud		MTCP-001-3BD18(C)	1	1.1
<b>MTAP-JBOX-140</b>	\$18.00	Replacement Junction Box		MTCP-1P5-3BD18(C) MTCP-1P5-3BD36 MTCP-002-3BD18(C) MTCP-002-3BD36	1-1/2 1-1/2 2 2	
<b>MTAP-FAN-180</b>	\$22.50	Replacement Fan	182 & 184	MTCP-1P5-3BD12	1-1/2	0.3
<b>MTAP-SHROUD-180</b>	\$25.00	Replacement Fan Shroud		MTCP-002-3BD12 MTCP-003-3BD18(C) MTCP-003-3BD36	2 3 3	1.5
<b>MTAP-JBOX-180</b>	\$26.00	Replacement Junction Box		MTCP-005-3BD18(C) MTCP-005-3BD36	5 5	3.1
<b>MTAP-FAN-210-2</b>	\$26.00	Replacement Fan (for 2-pole motors)	213 & 215	MTCP-7P5-3BD36 MTCP-010-3BD36	7-1/2 10	0.3
<b>MTAP-FAN-210</b>	\$26.00	Replacement Fan (4&6-pole)		MTCP-003-3BD12	3	0.3
<b>MTAP-SHROUD-210</b>	\$26.00	Replacement Fan Shroud		MTCP-005-3BD12 MTCP-7P5-3BD18(C) MTCP-010-3BD18(C)	5 7-1/2 10	2.3
<b>MTAP-JBOX-210</b>	\$26.00	Replacement Junction Box				3.4
<b>MTAP-FAN-250-2</b>	\$44.50	Replacement Fan (for 2-pole motors)	254 & 256	MTCP-015-3BD36 MTCP-020-3BD36	15 20	0.3
<b>MTAP-FAN-250</b>	\$44.50	Replacement Fan (4&6-pole)		MTCP-7P5-3BD12	7-1/2	0.3
<b>MTAP-SHROUD-250</b>	retired	Replacement Fan Shroud		MTCP-010-3BD12 MTCP-015-3BD18(C) MTCP-020-3BD18(C)	10 15 20	4.5
<b>MTAP-JBOX-250</b>	\$44.50	Replacement Junction Box				7.0
<b>MTAP-FAN-280</b>	\$62.00	Replacement Fan	284 & 286	MTCP-015-3BD12	15	0.5
<b>MTAP-SHROUD-280</b>	\$66.00	Replacement Fan Shroud		MTCP-020-3BD12 MTCP-025-3BD18(C) MTCP-030-3BD18(C)	20 25 30	6.5
<b>MTAP-JBOX-280</b>	\$79.00	Replacement Junction Box				7.0
<b>MTAP-FAN-320</b>	\$79.00	Replacement Fan	324 & 326	MTCP-040-3BD18(C) MTCP-050-3BD18(C)	40 50	0.6
<b>MTAP-SHROUD-320</b>	\$79.00	Replacement Fan Shroud				8.3
<b>MTAP-JBOX-320</b>	\$79.00	Replacement Junction Box				22.3
<b>MTAP-FAN-360</b>	\$132.00	Replacement Fan	364 & 365	MTCP-060-3BD18(C) MTCP-075-3BD18(C)	60 75	0.6
<b>MTAP-SHROUD-360</b>	\$124.00	Replacement Fan Shroud				9.0
<b>MTAP-JBOX-360</b>	\$150.00	Replacement Junction Box				22.3
<b>MTAP-FAN-400</b>	\$158.00	Replacement Fan	405	MTCP-100-3BD18(C)	100	1.1
<b>MTAP-SHROUD-400</b>	\$150.00	Replacement Fan Shroud				15.8
<b>MTAP-JBOX-400</b>	\$150.00	Replacement Junction Box				30.0
<b>MTAP-FAN-440</b>	\$175.00	Replacement Fan	444 & 445	MTCP-125-3BD18	125	2.0
<b>MTAP-SHROUD-440</b>	\$167.00	Replacement Fan Shroud		MTCP-150-3BD18 MTCP-200-3BD18	150 200	17.5
<b>MTAP-JBOX-440</b>	\$167.00	Replacement Junction Box		447		40.0

- 1) These MTAP replacement components fit only MTCP Premium Efficiency 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.

# AC Motor Selection – IronHorse® General Purpose Motors

IronHorse® General Purpose Motor Selection					
Characteristics	1-Phase		3-Phase		
	56C/56HC Frame Rolled Steel***	T Frame Farm Duty	56C/56HC Frame Rolled Steel***	56C Frame Stainless Steel	Cast Iron T & TC Frames
<b>Electrical Characteristics</b>					
<b>Horsepower range</b>	1/3 – 2	2 – 5	1/3 – 3	1/3 – 3/4	PE: 1–200(T); 1–100(TC)
<b>Base speed (# Poles)</b>	1800 (4), 3600 (2)	1800 (4)	1800 (4), 3600 (2)		1200(6), 1800 (4), 3600(2)
<b>Standard Voltage</b>	115/208-230, 115/230	230	208-230/460		208-230/460
<b>Phase / Base Frequency (Hz)</b>	1 / 60		3 / 60		
<b>Service Factor</b>	1.15		1.15 (line) ; 1.0 (drive)		
<b>Design Code (NEMA)</b>	L, N	L	B		
<b>Insulation Class</b>	F				
<b>Insulation System</b>	dip & bake twice	VPI, then bake, then dip and bake	dip & bake	double dip & bake	EPAct: double dip & bake PE: VPI
<b>Duty Cycle</b>	continuous				
<b>Thermal protection</b>	none	yes	none		
<b>Mechanical Characteristics</b>					
<b>Frame size (mounting)</b>	56C or 56HC	182T – 184T	56C or 56HC		143T/TC – 445/7T
<b>Enclosure</b>	TEFC				
<b>Frame material</b>	rolled steel		304 stainless steel		cast iron
<b>End bracket material</b>	aluminum	cast iron	aluminum	304 stainless steel	cast iron
<b>Junction box material</b>	steel		304 stainless steel		cast iron
<b>Fan guard material</b>	steel	steel	steel	304 stainless steel	steel
<b>Fan material</b>	polypropylene plastic	plastic	plastic	heat-resistant polyethylene	plastic
<b>Lead termination</b>	junction box				
<b>Standard mounting</b>	C-Face with Removable Rigid Base	Rigid Base	C-Face with Removable Rigid Base	C-Face with Rigid Base C-Face with Round Body	Rigid Base C-Face with Rigid Base (1-100 hp)
<b>Drive end shaft slinger</b>	yes				
<b>Paint</b>	black	green	black	n/a	PE: polyurethane enamel
<b>Bearings</b>	ball				1-75 hp: ball 100-300 hp: roller
<b>Grease</b>	Mobil Polyrex EM			Korschun lithium-based	Mobil Polyrex EM
<b>Standard junction box assembly position</b>	F1				F1 (some sizes reversible to F2)
<b>Performance Characteristics</b>					
<b>Constant Torque speed range</b>	n/a	n/a	2:1 (MTR, MTSS); 4:1 (MTRP, MTR2)		4:1 (Premium Efficiency)
<b>Variable Torque speed range</b>	n/a	n/a	5:1 (MTR, MTSS); 10:1 (MTRP, MTR2)		10:1 (Premium Efficiency)
<b>Constant Horsepower speed range</b>	n/a	n/a	1.5:1		1.5:1
<b>Temperature rise</b>	F		B		
<b>Encoder provisions</b>	none				
<b>Other Characteristics</b>					
<b>Warranty*</b>	2 years		1 year		2 years
<b>Agency Approvals **</b>	CE, cCSA <sub>US</sub>		cCSA <sub>US</sub>		CE, cCSA <sub>US</sub>

\* 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).  
 \*\* To obtain the most current agency approval information, see the Agency Approval Checklist on the specific part number's web page.  
 \*\*\* 56HC motors are capable of 56C C-face mounting, and are also compatible with 56, 143T, and 145T foot mounting dimensions.