

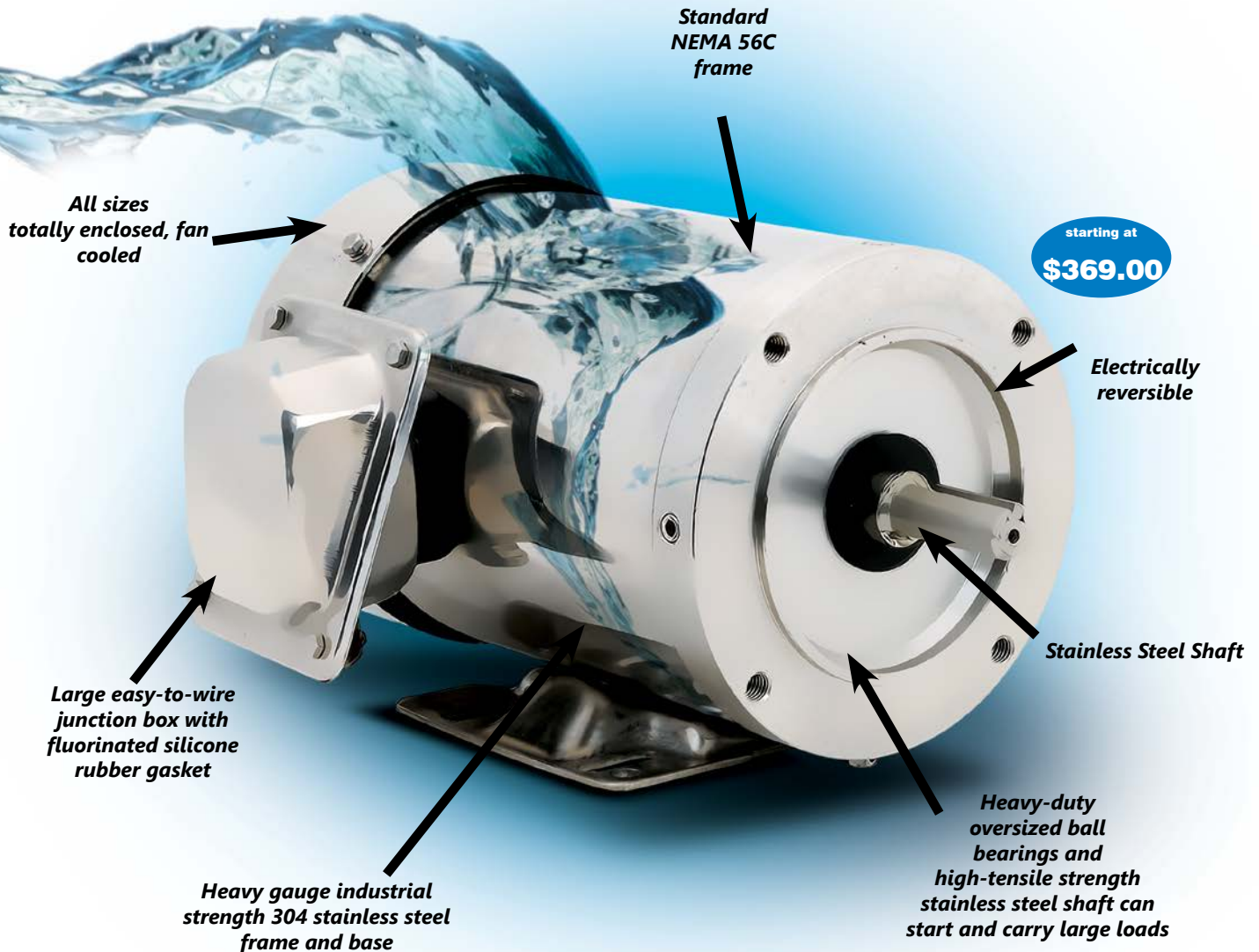
# IronHorse is ready for washdowns and harsh environments!



**IRONHORSE**<sup>®</sup>  
AUTOMATIONDIRECT<sup>®</sup>

**IP56 environmental rating**

## MTSS Stainless Steel 56C Frame Motors 0.33 to 0.75 hp



### Three-phase - 208-230/460 Volt, 56C Frame - TEFC Enclosure, 1800 & 3600 RPM

- 0.33 to 0.75 hp
- Electrically reversible
- Round body motors (no base) also available
- Heavy gauge stainless steel shaft, frame

- and base
- Available with or without mounting feet
- Includes pre-installed IP66 cord grip



# MTSS Series Stainless-Steel 3-phase General-Purpose AC Motors

## MTSS Stainless Steel TEFC Motors – 3-phase – 0.33 to 0.75 hp



**MTSS-xxx-3BDxxR**  
**3-Phase Stainless Steel 56C Frame without Feet**



**MTSS-xxx-3BDxx**  
**3-Phase Stainless Steel 56C Frame with Feet**

### Features

- Totally Enclosed Fan Cooled (TEFC) enclosure
- NEMA 56C flange mount
- 304 stainless steel shell frame
- No mounting orientation restrictions
- Stainless steel shaft
- Large easy-to-wire junction box with fluorinated silicone rubber gasket
- Nickel-plated brass cable gland included
- IP56 environmental rating
- Available with or without mounting feet
- Heavy-duty permanently-sealed oversized ball bearings
- Nameplate information with wiring diagram etched into frame
- Electrically reversible
- NEMA design B
- Class F winding insulation
- Service Factor: 1.15 across-the-line (1.0 with AC drive)
- One year warranty
- cCSA<sub>us</sub> certified

### Accessories & Spare Parts Available

- Nickel-plated brass cable gland (spare/replacement)

### Applications

- Conveyors
- Fans
- Gear reducers
- Pumps
- Inverter capable
- Washdown environments



# MTSS Stainless-Steel 3-phase General-Purpose AC Motors

## 56C Frame Stainless Steel TEFC Motors – 3-phase – 0.33 to 0.75 hp

Motor Specifications – 3-phase MTSS Series Stainless Steel Motors – 1800 & 3600 RPM											
Part Number	Price	HP	Base RPM	Phase	Voltage	Housing	NEMA Frame	Service Factor	F.L. Amps @ 208-230V/460V	Approx Weight (lb)	Drawing Links
<a href="#">MTSS-P33-3BD18R</a>	\$369.00	1/3	1800	3	208-230/460	TEFC	56C flange mount	1.15	1.5-1.4 / 0.7	27	<a href="#">PDF</a>
<a href="#">MTSS-P50-3BD18R</a>	\$375.00	1/2				stainless steel frame with round body			1.55-1.5 / 0.75	27	<a href="#">PDF</a>
<a href="#">MTSS-P75-3BD18R</a>	\$387.00	3/4				F1 conduit box location			2.6-2.4 / 1.2	29	<a href="#">PDF</a>
<a href="#">MTSS-P33-3BD18</a>	\$384.00	1/3				TEFC			1.5-1.4 / 0.7	28	<a href="#">PDF</a>
<a href="#">MTSS-P50-3BD18</a>	\$390.00	1/2				1800			1.55-1.5 / 0.75	28	<a href="#">PDF</a>
<a href="#">MTSS-P50-3BD36</a>	\$381.00					3600			stainless steel frame with rigid base	1.99-1.8 / 0.9	29
<a href="#">MTSS-P75-3BD18</a>	\$402.00	3/4				1800			2.6-2.4 / 1.2	30	<a href="#">PDF</a>
<a href="#">MTSS-P75-3BD36</a>	\$388.00					3600			F1 conduit box location	2.4-2.3 / 1.15	31

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

## Performance Data – 3-phase MTSS Series Stainless Steel Motors (460V data except as indicated) – 1800 & 3600 RPM

Part Number	HP	NEMA Design	FL RPM	Minimum Speed (rpm)			Current @ 460V (Amps)		Torque (lb-ft)			Maximum Speed (rpm)		FL Efficiency (%)	FL Power Factor	Rotor Inertia (lb-ft <sup>2</sup> )
				CT (2:1)	VT (5:1)	No Load	Locked Rotor	Full Load	Locked Rotor	Break-down	CHP*	Safe				
<a href="#">MTSS-P33-3BD18(R)</a>	1/3	B	1725	900	360	0.29	4.2	1.0	2.9	3.9	2250	4500	82.5	0.71	0.078	
<a href="#">MTSS-P50-3BD18(R)</a>	1/2		1725	900	360	0.30	4.6	1.5	3.8	5.2	2250		82.5	0.76	0.078	
<a href="#">MTSS-P50-3BD36</a>			3460	1800	720	0.36	6.0	0.7	1.9	2.5	4500		77.0	0.88	0.077	
<a href="#">MTSS-P75-3BD18(R)</a>	3/4		1725	900	360	0.44	7.3	2.2	5.0	7.0	2250		82.5	0.78	0.081	
<a href="#">MTSS-P75-3BD36</a>			3470	1800	720	0.43	7.6	1.1	2.7	3.3	4500		73.0	0.84	0.100	

\* Maximum Coupled HP speed is for direct-coupled loads.



# AC Motor Selection – IronHorse<sup>®</sup> General Purpose Motors

IronHorse <sup>®</sup> 3-Phase Motor Selection					
Motor Series	MTR2/MTRP	MTRJ/MTRJP	MTDP	MTSP/MTSN	MTCP2
Paint Color	Black	Black	Blue	Stainless	Gray
Main Characteristics	General Purpose Rolled Steel	Jet Pump	Rolled Steel Open Drip Proof	Stainless Steel Premium Efficiency IP69K	Cast-Iron Hazardous Duty
Electrical Characteristics					
Horsepower range	1/3 - 3	1/3 - 3	1 - 50	1 - 20	1 - 300(T) 1 - 30(TC)
Base speed	1800; 3600	3600	1800; 3600	1200; 1800; 3600	1200; 1800; 3600
Standard Voltage	208-230/460 VAC; 230/460 VAC	208-230/460 VAC; 230/460 VAC	208-230/460 VAC	208-230/460 VAC	208-230/460 VAC; 460VAC
Phase / Base Frequency (Hz)	3-phase / 60 Hz				
Service Factor	1.15	1.15	1.15 (sine), 1.0 (drive)		1.25 (1-200) 1.15 (250-300) 1.0 (all w/ drive)
Design Code (NEMA)	B				
Insulation Class	Class F				
Insulation System	Dip and Bake	Dip and Bake Twice	VPI	Dip and Bake	Vacuum Impregnation
Duty Cycle	Continuous				
Thermal protection	None				
Hazard Classification	None			Class 1 / Div 2	
Mechanical Characteristics					
Frame size	56C or HC - 326T	56J	56C - 326T	56C - 256TC	143T/TC - 449T
Enclosure	ODP / TEFC	TEFC	ODP / TEFC	TEFC / TENV	TEFC
Enclosure Rating	IP43		IP23	IP69K	IP55
Frame material	Rolled steel		Rolled steel	304 Stainless steel	Cast iron
End bracket material	Aluminum	Aluminum	≤256 frame- Aluminum >256- Cast iron	304 Stainless steel	Cast iron
Junction box material	Steel	Steel	Steel	304 Stainless steel	Cast iron
Fan guard material	Steel	Steel	N/a	304 Stainless steel	Steel
Fan material	Polypropylene plastic	Plastic	N/a	Heat-Resistant Polyethylene	Plastic
Lead termination	Junction Box				
standard mounting	C-face with removable rigid base		Rigid base	C-face round body and C-face with rigid base	Rigid base, c-face with rigid base (1-100 hp)
Drive end shaft slinger	Yes	Yes	None	Yes	Yes
Bearings	Ball				1-300 hp - 2p, 1-75 hp - 4p & 6p: Ball 100-300 hp - 4p & 6p: Roller
Grease	Mobil Polyrex EM		NS7 ENS	Mobil Polyrex EM	
Standard junction box assembly position	F1				F1 (field convertible F2)
Performance Characteristics					
Constant Torque speed range	4:1	4:1	10:1	10:1	10:1
Variable Torque speed range	10:1	10:1	20:1	20:1	20:1
Constant Horsepower speed range	1.5:1	1.5:1	1.5:1	1.5:1	1.5:1
Temperature rise	B				
Encoder provisions	None				
Other Characteristics					
Warranty*	2 years	2 years	2 years	1 year	2 years
Agency Approvals **	CSA, CE	CSA,CE	CSA	NEMA, CSA, UR, CE, BISCC	CSA, ISO9001, CE

\* See Terms and Conditions for motor warranty explanation.

1) For warranty on IronHorse motors below 50hp, warranty service can be arranged through AutomationDirect.

2) For warranty on IronHorse motors 50hp 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.