

IronHorse MTS Washdown 3-phase Motors

IRONHORSE®

Features

- 1/3-20 HP, 3600 and 1800 RPM
- 1/2-5 HP, 1200 RPM
- 208-230/460 volt, 60 Hz
- Fan Cooled (TEFC) or Non Ventilated (TENV) Enclosure
- IP69K Protection
- 1.15 SF
- Class F Insulation with Class B Temperature Rise
- C-Face with Rigid Base and Round Body (Footless)
- Premium Efficiency (EISA Compliant)
- NEMA Design B
- Continuous Duty
- 304 Stainless Steel Frame, End Bracket, Junction Box, and Hardware
- Stainless Steel Shaft and Key
- F1 Junction Box Location
- Horizontal or Vertical Mounting
- Lip Seal on DE and ODE
- Round Welded Junction Box with Epoxy Potted Leads
- Double Sealed Bearings Pre-Packed with Mobil Polyrex EM Grease
- Inverter Duty – 10:1 Constant Torque (CT) / 20:1 Variable Torque (VT)
- Class 1 Division 2 Groups A, B, C, D – Temperature Code T2B
- Ambient -20°C to +40°C, Altitude up to 3300 Feet Above Sea Level (FASL)
- Bi-directional Rotation
- Bakery Equipment Assessment Group (BEAG) certified (Previously BISSC)
- In Accordance with NEMA, CSA, UR, and CE



MTSP-P33-3BD18



MTSP-P33-3BD18R

Applications

Ideal for use in food and chemical processing plants, pharmaceutical applications, and other environments where corrosion-resistant, watertight motors are required.

Motor Specifications – 3-phase											
Part Number	Price	HP*	Base RPM *	Volts*	Encl.	NEMA Frame	Service Factor*	F.L. Amps*	Sound Power (dB)	Weight (lb)	Drawing Links
Rigid Base With C-face - 1800 RPM											
MTSN-P33-3BD18	\$434.00	1/3 (1/4)	1800 (1500)	208-230/460 VAC (190/380)	TENV	56C	1.15 (1.15)	1.5-1.4/0.7 (1.5-1.4/0.7)	58 dB(A)	28	PDF
MTSP-P33-3BD18	\$434.00				TEFC			1.4-1.2/0.6 (1.4-1.2/0.6)	60 dB(A)		PDF
MTSN-P50-3BD18	\$443.00	1/2 (1/3)			TENV			1.8-1.6/0.8 (1.8-1.6/0.8)	58 dB(A)	30	PDF
MTSP-P50-3BD18	\$443.00				TEFC				60 dB(A)		PDF
MTSN-P75-3BD18	\$480.00	3/4 (1/2)			TENV			2.6-2.4/1.2 (2.6-2.4/1.2)	58 dB(A)	33	PDF
MTSP-P75-3BD18	\$480.00				TEFC			2.5-2.4/1.2 (2.5-2.4/1.2)	60 dB(A)		PDF
MTSN-001-3BD18	\$619.00	1 (3/4)			TENV			3.3-3.1/1.55 (3.3-3.1/1.55)	59 dB(A)	42	PDF
MTSP-001-3BD18	\$548.00				TEFC			3.1-2.8/1.45 (3.1-2.8/1.45)	61 dB(A)		36
MTSN-1P5-3BD18	\$677.00	1 1/2 (1)			TENV			4.8-4.4/2.2 (4.8-4.4/2.2)	60 dB(A)	51	PDF
MTSN-1P5-3BD18-14	\$694.00				145TC			PDF			
MTSP-1P5-3BD18	\$617.00				56C			PDF			
MTSP-1P5-3BD18-14	\$634.00				145TC			PDF			
MTSN-002-3BD18	\$1,160.00	2 (1 1/2)	TENV	6-5.4/2.7 (6-5.4/2.7)	60 dB(A)	65	PDF				
MTSN-002-3BD18-14	\$1,173.00		145TC	PDF							
MTSP-002-3BD18	\$668.00		56C	PDF							
MTSP-002-3BD18-14	\$685.00		145TC	PDF							
MTSN-003-3BD18-18	\$1,619.00	3 (2)	TENV	8.3-7.6/3.8 (8.3-7.6/3.8)	62 dB(A)	99	PDF				
MTSP-003-3BD18-18	\$1,351.00		182TC	PDF							
MTSP-005-3BD18	\$1,513.00	5 (3)	TEFC	184TC	64 dB(A)	69 dB(A)	100	PDF			
MTSP-7P5-3BD18	\$2,148.00	7 1/2 (5)		213TC	180		PDF				
MTSP-010-3BD18	\$2,343.00	10 (7 1/2)		215TC	210		PDF				
MTSP-015-3BD18	\$5,097.00	15 (10)		254TC	370		PDF				
MTSP-020-3BD18	\$5,550.00	20 (15)		256TC	436		PDF				
					53-49/24.5 (53-49/24.5)						

*@ 60Hz (@ 50Hz)

IronHorse MTS Washdown 3-phase Motors

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Motor Specifications – 3-phase											
Part Number	Price	HP*	Base RPM *	Volts*	Encl.	NEMA Frame	Service Factor*	F.L. Amps*	Sound Power (dB)	Weight (lb)	Drawing Links
Rigid Base With C-face - 1200 RPM											
MTSP-P50-3BD12	\$505.00	1/2 (1/3)	1200 (1000)	208-230/460 VAC (190/380)	TEFC	56C	1.15 (1.15)	1.9-1.8/0.9 (1.9-1.8/0.9)	55 dB(A)	30	PDF
MTSP-P75-3BD12	\$548.00	3/4 (1/2)						3.8-3.7/1.85 (3.8-3.7/1.85)			
MTSP-001-3BD12	\$648.00	1 (3/4)						4.2-4.0/2.0 (4.2-4.0/2.0)			
MTSP-1P5-3BD12	\$1,101.00	1 1/2 (1)						5.3-4.9/2.45 (5.3-4.9/2.45)	57 dB(A)	82	PDF
MTSP-002-3BD12	\$1,200.00	2 (1 1/2)						6.6-6.1/3.05 (6.6-6.1/3.05)			
MTSP-003-3BD12	\$1,877.00	3 (2)						10-9.2/4.6 (10-9.2/4.6)			
MTSP-005-3BD12	\$2,209.00	5 (3)						15-14.0/7.0 (15-14.0/7.0)	61 dB(A)	170	PDF
Rigid Base With C-face - 3600 RPM											
MTSN-P33-3BD36	\$418.00	1/3 (1/4)	3600 (3000)	208-230/460 VAC (190/380)	TENV	56C	1.15 (1.15)	1.2-1.1/0.55 (1.2-1.1/0.55)	73 dB(A)	26	PDF
MTSP-P33-3BD36	\$418.00				TEFC				75 dB(A)		
MTSN-P50-3BD36	\$432.00	1/2 (1/3)			TENV			1.6-1.5/0.75 (1.6-1.5/0.75)	73 dB(A)	29	PDF
MTSP-P50-3BD36	\$432.00				TEFC				75 dB(A)		
MTSN-P75-3BD36	\$497.00	3/4 (1/2)			TENV			2.3-2.2/1.1 (2.3-2.2/1.1)	73 dB(A)	33	PDF
MTSP-P75-3BD36	\$497.00				TEFC				75 dB(A)		
MTSN-001-3BD36	\$601.00	1 (3/4)			TENV			3-2.8/1.4 (3-2.8/1.4)	74 dB(A)	39	PDF
MTSP-001-3BD36	\$548.00				TEFC				76 dB(A)		
MTSN-1P5-3BD36	\$660.00	1 1/2 (1)			TENV			4-3.7/1.85 (4-3.7/1.85)	74 dB(A)	46	PDF
MTSN-1P5-3BD36-14	\$680.00				TEFC				74 dB(A)		
MTSP-1P5-3BD36	\$600.00	2 (1 1/2)			56C			4.2-4.0/2.0 (4.2-4.0/2.0)	76 dB(A)	39	PDF
MTSP-1P5-3BD36-14	\$617.00				143TC				76 dB(A)		
MTSN-002-3BD36	\$1,039.00	2 (1 1/2)			TENV			5.5-5/2.5 (5.5-5/2.5)	75 dB(A)	60	PDF
MTSN-002-3BD36-14	\$1,052.00				145TC				75 dB(A)		
MTSP-002-3BD36	\$651.00	3 (2)			56C			4.9-4.8/2.4 (4.9-4.8/2.4)	76 dB(A)	46	PDF
MTSP-002-3BD36-14	\$671.00				145TC						
MTSN-003-3BD36-18	\$1,567.00	3 (2)			TENV			8-7.2/3.6 (8-7.2/3.6)	78 dB(A)	95	PDF
MTSP-003-3BD36-18	\$1,334.00				182TC						
MTSP-005-3BD36	\$1,465.00		TEFC	184TC	81	PDF					
								78 dB(A)	95	PDF	

*@ 60Hz (@ 50Hz)

IronHorse MTS Washdown 3-phase Motors

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Performance Data - 3-phase															
Part Number	HP*	F.L. RPM*	NEMA Design	F.L. Effic. %	Current			Torque				F.L. Power Factor	Moment of Inertia (lb-ft ²)		
					Full Load Amps	Locked Rotor Amps	No Load Current	Full Load (lb-ft)	Locked Rotor	Breakdown	Pull Up			% of F.L. Torque	
Rigid Base With C-face - 1800 RPM															
<u>MTSN-P33-3BD18</u>	1/3 (1/4)	1760 (1455)	B	74.0	1.5-1.4/0.7	6.5	1-1.1/0.55	1.00	300	400	300	62.00	0.06200		
<u>MTSP-P33-3BD18</u>		1745 (1455)			1.4-1.2/0.6		1.23/0.65					71.00			
<u>MTSN-P50-3BD18</u>	1/2 (1/3)	1745 (1450)		78.5	1.8-1.6/0.8	10	1.2-1.3/0.65	1.50	285	300	250	70.00	0.06900		
<u>MTSP-P50-3BD18</u>							1.44-1.30/0.65					71.00			
<u>MTSN-P75-3BD18</u>	3/4 (1/2)	1755 (1460)		81.5	2.6-2.4/1.2	12.5	1.65-1.8/0.9	2.20		320		69.00	0.08400		
<u>MTSP-P75-3BD18</u>		1745 (1455)					2.5-2.4/1.2					2.10-1.90/0.95		71.00	
<u>MTSN-001-3BD18</u>	1 (3/4)	1755 (1460)		85.5	3.3-3.1/1.55	15	1.8-2/1	3.00	300	400	290	74.00	0.13800		
<u>MTSP-001-3BD18</u>		1750 (1460)					3.1-2.8/1.45		2.76-2.50/1.25	285	300	75.00	0.10000		
<u>MTSN-1P5-3BD18</u>	1 1/2 (1)	1755 (1460)		86.5	4.8-4.4/2.2	20	2.55-2.8/1.4	4.40	300	400	250	74.00	0.18400		
<u>MTSN-1P5-3BD18-14</u>							1750 (1460)		4.1-4.0/2.0	3.32-3.00/1.50		285	300	75.00	0.13800
<u>MTSP-1P5-3BD18</u>															
<u>MTSP-1P5-3BD18-14</u>															
<u>MTSN-002-3BD18</u>	2 (1 1/2)	1750 (1455)		86.5	6-5.4/2.7	25	2.9-3.2/1.6	5.90	300	400	200	79.00	0.25000		
<u>MTSN-002-3BD18-14</u>							1750 (1455)		6.2-6.0/3.0	3.87-3.50/1.75		285	300	78.00	0.18400
<u>MTSP-002-3BD18</u>															
<u>MTSP-002-3BD18-14</u>															
<u>MTSN-003-3BD18-18</u>	3 (2)	1760 (1455)		89.5	8.3-7.6/3.8	32	3.2-3.5/1.75	8.80	240	310	240	82.00	0.50000		
<u>MTSP-003-3BD18-18</u>		1750 (1470)			8.8-8.2/4.1		3.6-4/2		270	80.00		0.25300			
<u>MTSP-005-3BD18</u>	5 (3)	1765 (1465)	89.5	13-12.5/6.25	46	6.63-6.00/3.00	14.70	225	280	220	85.00	0.50000			
<u>MTSP-7P5-3BD18</u>	7 1/2 (5)	1755 (1470)	91.7	20-18.6/9.3	63.5	9.95-9.00/4.50	22.00	225	270	210	83.00	0.92700			
<u>MTSP-010-3BD18</u>	10 (7 1/2)	1760 (1470)	91.7	26-24.4/12.2	81	12.16-11.00/5.50	29.30	200	265	190	83.00	1.16000			
<u>MTSP-015-3BD18</u>	15 (10)	1765 (1470)	92.4	40-37/18.5	116	x-14.4/7.2	44.00	200	260	170	85.00	1.80000			
<u>MTSP-020-3BD18</u>	20 (15)		93.0	53-49/24.5	145	x-17.1/8.57	58.60	200	250	170	85.00	2.40000			
Rigid Base With C-face - 1200 RPM															
<u>MTSP-P50-3BD12</u>	1/2 (1/3)	1155 (970)	B	75.5	1.9-1.8/0.9	10	x-1.8 / 0.9	2.20	255	270	220	63.00	0.08800		
<u>MTSP-P75-3BD12</u>	3/4 (1/2)	1155 (960)		81.5	3.8-3.7/1.85	12.5	x-1.7/0.85	3.30		280		65.00	0.10300		
<u>MTSP-001-3BD12</u>	1 (3/4)	1165 (960)		82.5	4.2-4.0/2.0	15	x-2.5/1.25	4.40		270		68.00	0.14300		
<u>MTSP-1P5-3BD12</u>	1 1/2 (1)	1170 (980)		87.5	5.3-4.9/2.45	20	x-3.24/1.62	6.60		270		70.00	0.41600		
<u>MTSP-002-3BD12</u>	2 (1 1/2)	1175 (980)		88.5	6.6-6.1/3.05	25	x-4.2/2.1	8.80		250		280	210	74.00	1.05500
<u>MTSP-003-3BD12</u>	3 (2)			89.5	10-9.2/4.6	32	x-6.4/3.2	13.20		250		280	210	74.00	1.05500
<u>MTSP-005-3BD12</u>	5 (3)			89.5	15-14.0/7.0	46	x-9.2/4.6	22.10		225		270	170	78.00	1.35600

*@ 60Hz (@ 50Hz)

IronHorse MTS Washdown 3-phase Motors

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Performance Data - 3-phase																
Part Number	HP*	F.L. RPM*	NEMA Design	F.L. Effic. %	Current			Torque				F.L. Power Factor	Moment of Inertia (lb-ft ²)			
					Full Load Amps	Locked Rotor Amps	No Load Current	Full Load (lb-ft)	Locked Rotor	Breakdown	Pull Up			% of F.L. Torque		
Rigid Base With C-face - 3600 RPM																
<u>MTSN-P33-3BD36</u>	1/3 (1/4)	3500 (2890)	B	72.0	1.2-1.1/0.55	6.5	0.72-0.8/0.4	0.50	290	320	250	78.00	0.02700			
<u>MTSP-P33-3BD36</u>							1.06/0.53					85.00				
<u>MTSN-P50-3BD36</u>	1/2 (1/3)	3490 (2900)		74.0	1.6-1.5/0.75	10	0.9-0.95/0.475	0.70	285	300	250	83.00	0.03600			
<u>MTSP-P50-3BD36</u>		3460 (2900)					1.06-0.96/0.48					87.00				
<u>MTSN-P75-3BD36</u>	3/4 (1/2)	3500 (2890)		77.0	2.3-2.2/1.1	12.5	1-1.1/0.55	1.10	320	430	300	83.00	0.05000			
<u>MTSP-P75-3BD36</u>							1.22-1.10/0.55					88.00				
<u>MTSN-001-3BD36</u>	1 (3/4)	3530 (2915)		80.0	3-2.8/1.4	15	1.4-1.5/0.75	1.50	285	300	250	83.00	0.07200			
<u>MTSP-001-3BD36</u>		3470 (2890)			77.0		2.9-2.8/1.4					1.55-1.40/0.70		90.00	0.05400	
<u>MTSN-1P5-3BD36</u>	1 1/2 (1)	3525 (2910)		84.0	4-3.7/1.85	20	1.3-1.4/0.7	2.30	285	300	250	89.00	0.09400			
<u>MTSN-1P5-3BD36-14</u>												3480 (2900)		1.77-1.60/0.80	91.00	0.07200
<u>MTSP-1P5-3BD36</u>																
<u>MTSP-1P5-3BD36-14</u>																
<u>MTSN-002-3BD36</u>	2 (1 1/2)	3520 (2915)		85.5	5.5-5/2.5	25	1.8-2/1	2.90	285	290	200	90.00	0.13000			
<u>MTSN-002-3BD36-14</u>												3480 (2900)		1.92-1.74/0.87	91.00	0.09400
<u>MTSP-002-3BD36</u>																
<u>MTSP-002-3BD36-14</u>																
<u>MTSN-003-3BD36-18</u>	3 (2)	3535 (2925)	86.5	8-7.2/3.6	32	2.35-2.6/1.3	4.40	230	290	200	89.00	0.26000				
<u>MTSP-003-3BD36-18</u>		3510 (2910)		8.8-8.1/4.05		270		240		85.00	0.14500					
<u>MTSP-005-3BD36</u>	5 (3)	3525 (2930)	88.5	12.6-12.2/6.1	46	4.87-4.40/2.20	7.30	225	280	220	91.00	0.26000				

*@ 60Hz (@ 50Hz)

IronHorse MTS Washdown 3-phase Motors

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Motor Specifications – 3-phase												
Part Number	Price	HP*	Base RPM *	Volts*	Encl.	NEMA Frame	Service Factor*	F.L. Amps*	Sound Power (dB)	Weight (lb)	Drawing Links	
C-face - 1800 RPM												
MTSN-P33-3BD18R	\$417.00	1/3 (1/4)	1800 (1500)	208–230/460 VAC (190/380)	TENV	56C	1.15 (1.15)	1.5-1.4/0.7 (1.5-1.4/0.7)	58 dB(A)	28	PDF	
MTSP-P33-3BD18R	\$415.00				TEFC			1.4-1.2/0.6 (1.4-1.2/0.6)	60 dB(A)	27	PDF	
MTSN-P50-3BD18R	\$427.00	1/2 (1/3)			TENV			1.8-1.6/0.8 (1.8-1.6/0.8)	58 dB(A)	30	PDF	
MTSP-P50-3BD18R	\$426.00				TEFC				60 dB(A)	29	PDF	
MTSN-P75-3BD18R	\$463.00	3/4 (1/2)			TENV			2.6-2.4/1.2 (2.6-2.4/1.2)	58 dB(A)	33	PDF	
MTSP-P75-3BD18R	\$459.00				TEFC				60 dB(A)	32	PDF	
MTSN-001-3BD18R	\$602.00	1 (3/4)			TENV			3.3-3.1/1.55 (3.3-3.1/1.55)	59 dB(A)	42	PDF	
MTSP-001-3BD18R	\$528.00				TEFC				61 dB(A)	35	PDF	
MTSN-1P5-3BD18R	\$660.00	1 1/2 (1)			TENV			4.8-4.4/2.2 (4.8-4.4/2.2)	60 dB(A)	51	PDF	
MTSN-1P5-3BD18R-14	\$678.00				145TC				PDF			
MTSP-1P5-3BD18R	\$596.00				56C				4.1-4.0/2.0 (4.1-4.0/2.0)	61 dB(A)	41	PDF
MTSP-1P5-3BD18R-14	\$610.00				145TC					PDF		
MTSN-002-3BD18R	\$1,126.00	2 (1 1/2)	TENV	6.5-4.2/2.7 (6-5.4/2.7)	60 dB(A)	65	PDF					
MTSN-002-3BD18R-14	\$1,139.00		145TC		PDF							
MTSP-002-3BD18R	\$647.00		56C		6.2-6.0/3.0 (6.2-6.0/3.0)	61 dB(A)	50	PDF				
MTSP-002-3BD18R-14	\$665.00		145TC			PDF						
C-face - 3600 RPM												
MTSP-P33-3BD36R	\$401.00	1/3 (1/4)	3600 (3000)	208–230/460 VAC (190/380)	TEFC	56C	1.15 (1.15)	1.2-1.1/0.55 (1.2-1.1/0.55)	75 dB(A)	25	PDF	
MTSP-P50-3BD36R	\$415.00	1/2 (1/3)						1.6-1.5/0.75 (1.6-1.5/0.75)		28	PDF	
MTSP-P75-3BD36R	\$480.00	3/4 (1/2)						2.3-2.2/1.1 (2.3-2.2/1.1)		32	PDF	
MTSP-001-3BD36R	\$531.00	1 (3/4)						2.9-2.8/1.4 (2.9-2.8/1.4)	34	PDF		
MTSP-1P5-3BD36R	\$582.00	1 1/2 (1)						4.2-4.0/2.0 (4.2-4.0/2.0)	76 dB(A)	38	PDF	
MTSP-1P5-3BD36R-14	\$600.00							143TC		PDF		
MTSP-002-3BD36R	\$630.00	2 (1 1/2)						56C	4.9-4.8/2.4 (4.9-4.8/2.4)	45	PDF	
MTSP-002-3BD36R-14	\$651.00							145TC		PDF		

*@ 60Hz (@ 50Hz)

IronHorse MTS Washdown 3-phase Motors

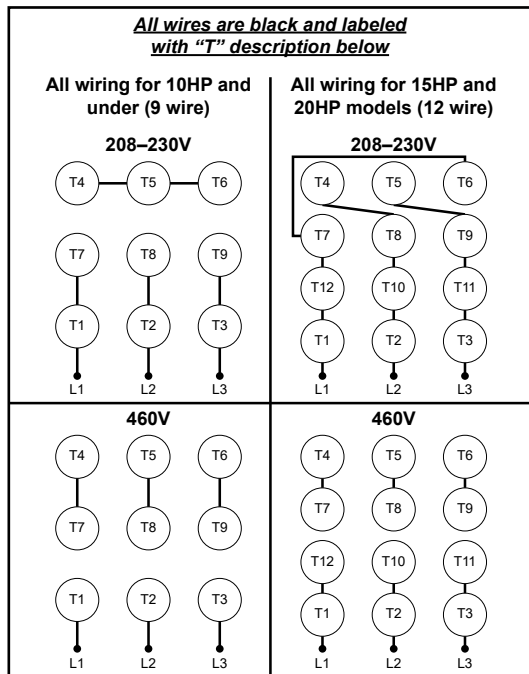
IRONHORSE®

Performance Data - 3-phase																	
Part Number	HP*	F.L. RPM*	NEMA Design	F.L. Effic. %	Current			Torque			F.L. Power Factor	Moment of Inertia (lb·ft ²)					
					Full Load Amps	Locked Rotor Amps	No Load Current	Full Load (lb·ft)	Locked Rotor	Breakdown			Pull Up				
% of F.L. Torque																	
C-face - 1800 RPM																	
<u>MTSN-P33-3BD18R</u>	1/3 (1/4)	1760 (1455)	B	74.0	1.5-1.4/0.7	6.5	1-1.1/0.55	1.00	300	400	300	62.00	0.06200				
<u>MTSP-P33-3BD18R</u>		1745 (1455)		82.5	1.4-1.2/0.6	8	x-0.78/0.39					71.00					
<u>MTSN-P50-3BD18R</u>	1/2 (1/3)	1745 (1450)		78.5	1.8-1.6/0.8	10	1.2-1.3/0.65	1.50	285	300	250	70.00	0.06900				
<u>MTSP-P50-3BD18R</u>				82.5			1.44-1.30/0.65					78.00					
<u>MTSN-P75-3BD18R</u>	3/4 (1/2)	1755 (1460)		81.5	2.6-2.4/1.2	12.5	1.65-1.8/0.9	2.20	285	320	250	69.00	0.08400				
<u>MTSP-P75-3BD18R</u>		1745 (1455)		82.5	2.5-2.4/1.2		2.10-1.90/0.95					78.00					
<u>MTSN-001-3BD18R</u>	1 (3/4)	1755 (1460)		85.5	3.3-3.1/1.55	15	1.8-2/1	3.00	300	400	290	74.00	0.13800				
<u>MTSP-001-3BD18R</u>		1750 (1460)					3.1-2.8/1.45					2.76-2.50/1.25		285	300	75.00	
<u>MTSN-1P5-3BD18R</u>	1 1/2 (1)	1755 (1460)		86.5	4.8-4.4/2.2	20	2.55-2.8/1.4	4.40	300	400	250	74.00	0.18400				
<u>MTSN-1P5-3BD18R-14</u>							1750 (1460)					4.1-4.0/2.0		3.32-3.00/1.50	285	300	75.00
<u>MTSP-1P5-3BD18R</u>																	
<u>MTSP-1P5-3BD18R-14</u>							2 (1 1/2)					1750 (1455)		86.5	6.2-6.0/3.0	25	3.87-3.50/1.75
<u>MTSN-002-3BD18R</u>	2 (1 1/2)	1750 (1455)		86.5	6-5.4/2.7	25		2.9-3.2/1.6	5.90	300	400		290				
<u>MTSN-002-3BD18R-14</u>							75.00										
<u>MTSP-002-3BD18R</u>							78.00										
<u>MTSP-002-3BD18R-14</u>							78.00										
C-face - 3600 RPM																	
<u>MTSP-P33-3BD36R</u>	1/3 (1/4)	3500 (2890)	B	74.0	1.2-1.1/0.55	8	x-0.74/0.37	0.50	285	300	250	85.00	0.02700				
<u>MTSP-P50-3BD36R</u>	1/2 (1/3)	3460 (2900)		77.0	1.6-1.5/0.75	10	1.06-0.96/0.48	0.70				88.00	0.03600				
<u>MTSP-P75-3BD36R</u>	3/4 (1/2)	3500 (2890)		80.0	2.3-2.2/1.1	12.5	1.22-1.10/0.55	1.10				90.00	0.05000				
<u>MTSP-001-3BD36R</u>	1 (3/4)	3470 (2890)		80.0	2.9-2.8/1.4	15	1.55-1.40/0.70	1.50				90.00	0.05400				
<u>MTSP-1P5-3BD36R</u>	1 1/2 (1)	3480 (2900)		84.0	4.2-4.0/2.0	20	1.77-1.60/0.80	2.30				285	300	250	91.00	0.07200	
<u>MTSP-1P5-3BD36R-14</u>				86.5													
<u>MTSP-002-3BD36R</u>	2 (1 1/2)	3480 (2900)		85.5	4.9-4.8/2.4	25	1.92-1.74/0.87	2.90				285	300	250	91.00	0.09400	
<u>MTSP-002-3BD36R-14</u>				85.5													

*@ 60Hz (@ 50Hz)

IronHorse MTS Washdown 3-phase Motors

Wiring Diagram



Accessories



MTAS-FAN-56



MTAS-SHROUD-56140

MTSP Accessories		
Part Number	Price	Fits
Replacement Fans		
MTAS-FAN-56	\$29.00	1/3hp, 1/2hp and 3/4hp IronHorse MTS series TEFC motors
MTAS-FAN-143180	\$29.00	1hp 2- and 4-pole, 1-1/2hp 2-pole and 3hp and 5hp 4-pole IronHorse MTS series TEFC motors
MTAS-FAN-145	\$29.00	1-1/2hp 4-pole, 2hp 2- and 4-pole IronHorse MTS series TEFC motors
MTAS-FAN-180-26	\$32.00	1hp, 1-1/2hp and 2hp 6-pole and 3hp and 5hp 2-pole IronHorse MTS series TEFC motors
MTAS-FAN-210-6	\$36.00	3hp and 5hp 6-pole IronHorse MTS series TEFC motors
MTAS-FAN-210	\$36.00	7-1/2hp and 10hp IronHorse MTS series TEFC motors
MTAS-FAN-250	\$39.00	15hp and 20hp IronHorse MTS series TEFC motors
Replacement Shrouds		
MTAS-SHROUD-56140	\$97.00	56 and 140T frame IronHorse MTS series TEFC motors
MTAS-SHROUD-180	\$129.00	180T frame IronHorse MTS series TEFC motors
MTAS-SHROUD-210	\$162.00	210T frame IronHorse MTS series TEFC motors
MTAS-SHROUD-250	\$233.00	250T frame IronHorse MTS series TEFC motors

Mounting

MTSP/MTSN stainless-steel motors can be mounted in any orientation, horizontal or vertical. Ensure the T-drain plugs are installed as necessary for proper drainage.

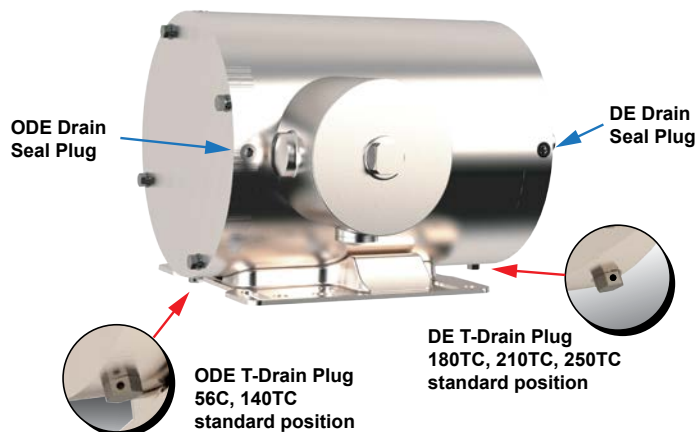
The motors have four drain holes in the 12:00, 3:00, 6:00, and 9:00 positions. Motors are shipped with one "T" shape drain plug installed as indicated below. Drain Seal plugs are installed in the other positions.

For 56C and 140TC:

- Drive End—No Drain Installed. Optional M10x1 T-Drain Plug ships with motor (install if front drain is needed).
- Opposite Drive End – M6 T-Drain Plug installed. Optional M6x1 Seal Drain Plug ships with motor (install if no drain needed).

For 180TC, 210TC, 250TC:

- Drive End—M10 x 1 T-Drain Plug installed. Optional M10 Seal Drain Plug ships with motor (install if no drain is needed).
- Opposite Drive End – No drain holes.





AC Motor Selection – IronHorse® General Purpose Motors

IronHorse® 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	56J	143T - 326T	56C - 256TC	143T/TC - 449T
Enclosure	TEFC	TEFC	ODP	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.