



IronHorse MTS Washdown 3-phase Motors

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		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					TEFC			1.4-1.2/0.6 (1.4-1.2/0.6)	60 dB(A)		PDF
MTSN-P50-3BD18		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					TEFC				60 dB(A)		PDF
MTSN-P75-3BD18		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					TEFC			2.5-2.4/1.2 (2.5-2.4/1.2)	60 dB(A)		PDF
MTSN-001-3BD18		1 (3/4)			TENV			3.3-3.1/1.55 (3.3-3.1/1.55)	59 dB(A)	42	PDF
MTSP-001-3BD18					TEFC			3.1-2.8/1.45 (3.1-2.8/1.45)	61 dB(A)	36	PDF
MTSN-1P5-3BD18		1 1/2 (1)			TENV	4.8-4.4/2.2 (4.8-4.4/2.2)		60 dB(A)	51	PDF	
MTSP-1P5-3BD18-14					TEFC					4.1-4.0/2.0 (4.1-4.0/2.0)	61 dB(A)
MTSP-1P5-3BD18								145TC	PDF		
MTSP-1P5-3BD18-14					145TC			PDF			
MTSN-002-3BD18		2 (1 1/2)			TENV	56C		60 dB(A)	65	PDF	
MTSN-002-3BD18-14					145TC	PDF					
MTSP-002-3BD18					TEFC	56C		62-6.0/3.0 (6.2-6.0/3.0)	61 dB(A)	51	PDF
MTSP-002-3BD18-14						145TC					PDF
MTSN-003-3BD18-18		3 (2)			TENV	182TC		8.3-7.6/3.8 (8.3-7.6/3.8)	62 dB(A)	99	PDF
MTSP-003-3BD18-18					TEFC	184TC		8.8-8.2/4.1 (8.8-8.2/4.1)	64 dB(A)	65	PDF
MTSP-005-3BD18		13-12.5/6.25 (13-12.5/6.25)						69 dB(A)	100	PDF	
MTSP-7P5-3BD18		20-18.6/9.3 (20-18.6/9.3)							180	PDF	
MTSP-010-3BD18		215TC							210	PDF	
MTSP-015-3BD18		254TC							370	PDF	
MTSP-020-3BD18		256TC						436	PDF		
MTSP-020-3BD18											

*@ 60Hz (@ 50Hz)



IronHorse MTS Washdown 3-phase Motors

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		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		3/4 (1/2)						3.8-3.7/1.85 (3.8-3.7/1.85)		35	PDF	
MTSP-001-3BD12		1 (3/4)				4.2-4.0/2.0 (4.2-4.0/2.0)		42		PDF		
MTSP-1P5-3BD12		1 1/2 (1)				182TC		5.3-4.9/2.45 (5.3-4.9/2.45)	57 dB(A)	82	PDF	
MTSP-002-3BD12		2 (1 1/2)				184TC		6.6-6.1/3.05 (6.6-6.1/3.05)		98	PDF	
MTSP-003-3BD12		3 (2)				213TC		10-9.2/4.6 (10-9.2/4.6)		170	PDF	
MTSP-005-3BD12		5 (3)				215TC		15-14.0/7.0 (15-14.0/7.0)	61 dB(A)	200	PDF	
Rigid Base With C-face - 3600 RPM												
MTSN-P33-3BD36		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					TEFC				75 dB(A)		PDF	
MTSN-P50-3BD36		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					TEFC				75 dB(A)		PDF	
MTSN-P75-3BD36		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					TEFC				75 dB(A)		PDF	
MTSN-001-3BD36		1 (3/4)			TENV			3-2.8/1.4 (3-2.8/1.4)	74 dB(A)	39	PDF	
MTSP-001-3BD36					TEFC			2.9-2.8/1.4 (2.9-2.8/1.4)	76 dB(A)	35	PDF	
MTSN-1P5-3BD36		1 1/2 (1)			TENV	143TC		4-3.7/1.85 (4-3.7/1.85)	74 dB(A)	46	PDF	
MTSN-1P5-3BD36-14												PDF
MTSP-1P5-3BD36						TEFC		56C	4.2-4.0/2.0 (4.2-4.0/2.0)	76 dB(A)	39	PDF
MTSP-1P5-3BD36-14						143TC						PDF
MTSN-002-3BD36		2 (1 1/2)			TENV	56C		5.5-5/2.5 (5.5-5/2.5)	75 dB(A)	60	PDF	
MTSN-002-3BD36-14						145TC						PDF
MTSP-002-3BD36						TEFC		56C	4.9-4.8/2.4 (4.9-4.8/2.4)	76 dB(A)	46	PDF
MTSP-002-3BD36-14						145TC						PDF
MTSN-003-3BD36-18		3 (2)			TENV	182TC		8-7.2/3.6 (8-7.2/3.6)	78 dB(A)	95	PDF	
MTSP-003-3BD36-18								8.8-8.1/4.05 (8.8-8.1/4.05)		81	PDF	
MTSP-005-3BD36		5 (3)			TEFC	184TC		12.6-12.2/6.1 (12.6-12.2/6.1)		95	PDF	

* @ 60Hz (@ 50Hz)



IronHorse MTS Washdown 3-phase Motors

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															
MTSN-P33-3BD18	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	0.062		
MTSP-P33-3BD18		1745 (1455)			1.4-1.2/0.6		1.23/0.65					71.00			
MTSN-P50-3BD18	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	0.069		
MTSP-P50-3BD18							1.44-1.30/0.65					71.00			
MTSN-P75-3BD18	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	0.084		
MTSP-P75-3BD18					1745 (1455)		2.5-2.4/1.2			2.10-1.90/0.95		300		71.00	
MTSN-001-3BD18	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	0.138		
MTSP-001-3BD18		1750 (1460)			3.1-2.8/1.45		2.76-2.50/1.25		285	300	75.00	0.1			
MTSN-1P5-3BD18	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	0.184		
MTSN-1P5-3BD18-14					1750 (1460)		4.1-4.0/2.0		3.32-3.00/1.50	285		300	75.00	0.138	
MTSP-1P5-3BD18		1750 (1460)				6-5.4/2.7	25	2.9-3.2/1.6	300	400		79.00	0.25		
MTSP-1P5-3BD18-14					1750 (1460)			6.2-6.0/3.0	3.87-3.50/1.75	285		300	78.00	0.184	
MTSN-002-3BD18	2 (1 1/2)	1750 (1455)			89.5	8.3-7.6/3.8	32	3.2-3.5/1.75	8.80	240		200	82.00	0.5	
MTSN-002-3BD18-14						1750 (1470)		8.8-8.2/4.1		3.6-4/2	270	310	240	80.00	0.253
MTSP-002-3BD18					1765 (1465)	91.7	13-12.5/6.25	46	6.63-6.00/3.00	14.70	225	280	220	85.00	0.5
MTSP-7P5-3BD18							7 1/2 (5)	1755 (1470)	20-18.6/9.3	63.5		9.95-9.00/4.50	22.00	270	210
MTSP-010-3BD18	10 (7 1/2)	1760 (1470)		92.4	26-24.4/12.2	81	12.16-11.00/5.50	29.30	200	265	190		1.16		
MTSP-015-3BD18	15 (10)	1765 (1470)			40-37/18.5	116	x-14.4/7.2	44.00		260		85.00	1.8		
MTSP-020-3BD18	20 (15)			93.0	53-49/24.5	145	x-17.1/8.57	58.60		250	170		2.4		
Rigid Base With C-face - 1200 RPM															
MTSP-P50-3BD12	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	0.088	
MTSP-P75-3BD12	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	0.103	
MTSP-001-3BD12	1 (3/4)	1165 (960)			82.5	4.2-4.0/2.0	15	x-2.5/1.25	4.40				68.00	0.143	
MTSP-1P5-3BD12	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	0.416	
MTSP-002-3BD12	2 (1 1/2)	1175 (980)	88.5		6.6-6.1/3.05	25	x-4.2/2.1	8.80	250		210	71.00	0.61		
MTSP-003-3BD12	3 (2)		89.5		10-9.2/4.6	32	x-6.4/3.2	13.20		280		74.00	1.055		
MTSP-005-3BD12	5 (3)				15-14.0/7.0	46	x-9.2/4.6	22.10		270		78.00	1.356		

*@ 60Hz (@ 50Hz)



IronHorse MTS Washdown 3-phase Motors

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-ft2)			
					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																
MTSN-P33-3BD36	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	0.027			
MTSP-P33-3BD36							1.06/0.53		285	300		85.00				
MTSN-P50-3BD36	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	0.036
MTSP-P50-3BD36							3460 (2900)								1.06-0.96/0.48	
MTSN-P75-3BD36	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
MTSP-P75-3BD36							1.22-1.10/0.55		88.00							
MTSN-001-3BD36	1 (3/4)	3530 (2915)		80.0	3-2.8/1.4	15	1.4-1.5/0.75	1.50	320	430	300	83.00	0.072			
MTSP-001-3BD36		3470 (2890)		77.0	2.9-2.8/1.4		1.55-1.40/0.70					90.00	0.054			
MTSN-1P5-3BD36	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	0.094
MTSN-1P5-3BD36-14					4.2-4.0/2.0		1.77-1.60/0.80								91.00	
MTSP-1P5-3BD36		3480 (2900)		85.5		5.5-5/2.5		25	1.8-2/1	2.90	90.00					0.13
MTSP-1P5-3BD36-14					3480 (2900)	4.9-4.8/2.4	1.92-1.74/0.87		91.00		0.094					
MTSN-002-3BD36	2 (1 1/2)	3520 (2915)		86.5	8-7.2/3.6	32	2.35-2.6/1.3	4.40	230	290	200	89.00	0.26			
MTSN-002-3BD36-14					3510 (2910)		8.8-8.1/4.05		4.87-4.40/2.20		270	240	85.00	0.145		
MTSP-002-3BD36	5 (3)	3525 (2930)		88.5		12.6-12.2/6.1	46	7.30		225	280	220	91.00	0.26		
MTSP-002-3BD36-14																
MTSN-003-3BD36-18	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	0.26			
MTSP-003-3BD36-18		3510 (2910)			8.8-8.1/4.05		4.87-4.40/2.20		270		240	85.00	0.145			
MTSP-005-3BD36	5 (3)	3525 (2930)		88.5	12.6-12.2/6.1	46	7.30	225	280	220	91.00	0.26				

* @ 60Hz (@ 50Hz)



IronHorse MTS Washdown 3-phase Motors

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		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		1/2 (1/3)			TEFC			1.4-1.2/0.6 (1.4-1.2/0.6)	60 dB(A)	27	PDF
MTSN-P50-3BD18R					TENV			1.8-1.6/0.8 (1.8-1.6/0.8)	58 dB(A)	30	PDF
MTSP-P50-3BD18R					TEFC				60 dB(A)	29	PDF
MTSN-P75-3BD18R					3/4 (1/2)			TENV	2.6-2.4/1.2 (2.6-2.4/1.2)	58 dB(A)	33
MTSP-P75-3BD18R		1 (3/4)			TEFC			2.5-2.4/1.2 (2.5-2.4/1.2)	60 dB(A)	32	PDF
MTSN-001-3BD18R					TENV			3.3-3.1/1.55 (3.3-3.1/1.55)	59 dB(A)	42	PDF
MTSP-001-3BD18R					TEFC			3.1-2.8/1.45 (3.1-2.8/1.45)	61 dB(A)	35	PDF
MTSN-1P5-3BD18R					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		TEFC				145TC		4.1-4.0/2.0 (4.1-4.0/2.0)	61 dB(A)	41	PDF
MTSP-1P5-3BD18R						56C					PDF
MTSP-1P5-3BD18R-14		2 (1 1/2)				TENV		145TC	6-5.4/2.7 (6-5.4/2.7)	60 dB(A)	65
MTSN-002-3BD18R					56C			PDF			
MTSN-002-3BD18R-14					TEFC	145TC		6.2-6.0/3.0 (6.2-6.0/3.0)	61 dB(A)	50	PDF
MTSP-002-3BD18R						56C					PDF
MTSP-002-3BD18R-14						145TC					PDF
C-face - 3600 RPM											
MTSP-P33-3BD36R		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		1/2 (1/3)						1.6-1.5/0.75 (1.6-1.5/0.75)		28	PDF
MTSP-P75-3BD36R		3/4 (1/2)						2.3-2.2/1.1 (2.3-2.2/1.1)		32	PDF
MTSP-001-3BD36R		1 (3/4)						2.9-2.8/1.4 (2.9-2.8/1.4)	76 dB(A)	34	PDF
MTSP-1P5-3BD36R		1 1/2 (1)				4.2-4.0/2.0 (4.2-4.0/2.0)		38		PDF	
MTSP-1P5-3BD36R-14										143TC	PDF
MTSP-002-3BD36R		2 (1 1/2)				56C		4.9-4.8/2.4 (4.9-4.8/2.4)		45	PDF
MTSP-002-3BD36R-14						145TC					PDF

* @ 60Hz (@ 50Hz)



IronHorse MTS Washdown 3-phase Motors

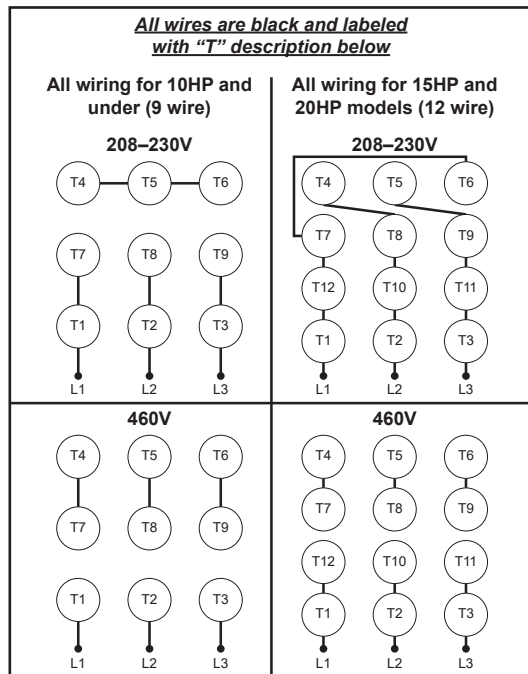
Performance Data - 3-phase															
Part Number	HP*	F.L. RPM*	NEMA Design	F.L. Effic. %	Current			Torque				F.L. Power Factor	Moment of Inertia (lb-ft ²)		
					Full Load Amps	Locked Rotor Amps	No Load Current	Full Load (lb-ft)	Locked Rotor	Breakdown	Pull Up				
									% of F.L. Torque						
C-face - 1800 RPM															
MTSN-P33-3BD18R	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	0.062		
MTSP-P33-3BD18R		1745 (1455)		82.5	1.4-1.2/0.6	8	x-0.78/0.39					71.00			
MTSN-P50-3BD18R	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	0.069		
MTSP-P50-3BD18R				82.5			1.44-1.30/0.65					78.00			
MTSN-P75-3BD18R	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	0.084		
MTSP-P75-3BD18R		1745 (1455)		82.5	2.5-2.4/1.2		2.10-1.90/0.95		300	78.00					
MTSN-001-3BD18R	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	0.138		
MTSP-001-3BD18R		1750 (1460)			3.1-2.8/1.45		2.76-2.50/1.25		285	300		75.00	0.1		
MTSN-1P5-3BD18R	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	0.184		
MTSN-1P5-3BD18R-14															
MTSP-1P5-3BD18R		1750 (1460)			4.1-4.0/2.0	3.32-3.00/1.50	285	300	75.00	0.138					
MTSP-1P5-3BD18R-14															
MTSN-002-3BD18R	2 (1 1/2)	1750 (1455)		86.5	6-5.4/2.7	25	2.9-3.2/1.6	5.90	300	400		79.00	0.25		
MTSN-002-3BD18R-14															
MTSP-002-3BD18R					6.2-6.0/3.0	3.87-3.50/1.75	285	300		78.00	0.184				
MTSP-002-3BD18R-14															
C-face - 3600 RPM															
MTSP-P33-3BD36R	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	0.027		
MTSP-P50-3BD36R	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	0.036		
MTSP-P75-3BD36R	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	0.05		
MTSP-001-3BD36R	1 (3/4)	3470 (2890)			2.9-2.8/1.4	15	1.55-1.40/0.70	1.50				90.00	0.054		
MTSP-1P5-3BD36R	1 1/2 (1)	3480 (2900)		84.0	4.2-4.0/2.0	20	1.77-1.60/0.80	2.30				91.00	0.072		
MTSP-1P5-3BD36R-14				86.5											
MTSP-002-3BD36R	2 (1 1/2)			85.5	4.9-4.8/2.4	25	1.92-1.74/0.87	2.90				0.094			
MTSP-002-3BD36R-14															

*@ 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		1/3 hp, 1/2 hp and 3/4 hp IronHorse MTS series TEFC motors
MTAS-FAN-143180		1 hp 2- and 4-pole, 1-1/2 hp 2-pole and 3 hp and 5 hp 4-pole IronHorse MTS series TEFC motors
MTAS-FAN-145		1-1/2 hp 4-pole, 2 hp 2- and 4-pole IronHorse MTS series TEFC motors
MTAS-FAN-180-26		1 hp, 1-1/2 hp and 2 hp 6-pole and 3 hp and 5 hp 2-pole IronHorse MTS series TEFC motors
MTAS-FAN-210-6		3 hp and 5 hp 6-pole IronHorse MTS series TEFC motors
MTAS-FAN-210		7-1/2 hp and 10 hp IronHorse MTS series TEFC motors
MTAS-FAN-250		15 hp and 20 hp IronHorse MTS series TEFC motors
Replacement Shrouds		
MTAS-SHROUD-56140		56 and 140T frame IronHorse MTS series TEFC motors
MTAS-SHROUD-180		180T frame IronHorse MTS series TEFC motors
MTAS-SHROUD-210		210T frame IronHorse MTS series TEFC motors
MTAS-SHROUD-250		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.

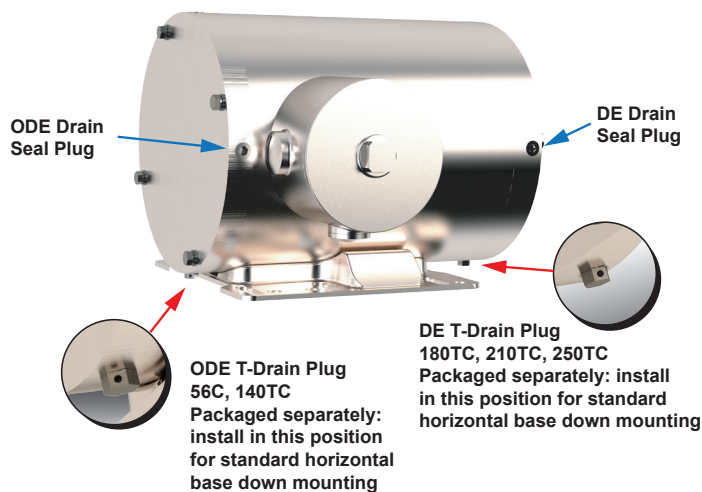
The motors have four drain holes in the 12:00, 3:00, 6:00, and 9:00 positions. Motors are shipped with Drain Seal plugs installed in all positions. T drain plugs are packaged separately. If drainage is needed, replace any drain seal plug with the included T drain plug. Installation location should be the lowest point of the motor based on the mounting orientation.

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 – No Drain installed. Optional M6x1 T-Drain Plug ships with motor. (install if rear drain needed).

For 180TC, 210TC, 250TC:

- Drive End—No Drain installed. Optional M10x1 T-Drain Plug ships with motor (install if 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; 460 VAC
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.