



MTR Centrifugal Jet Pump 1-phase TEFC Motors

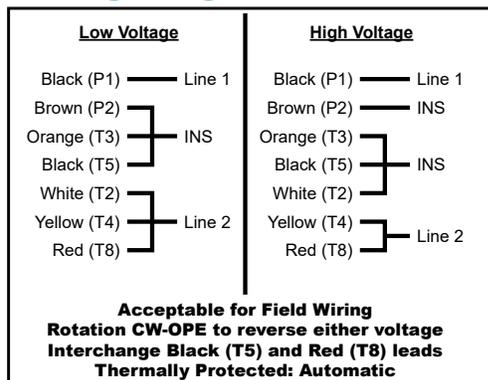
Features

- 1/3 - 2 HP
- 3600 RPM
- 115/208-230 volt
- Totally Enclosed Fan Cooled (TEFC) Enclosure
- 1.15 SF
- Class F insulation
- C-face with Removable Base
- Capacitor start / induction run (1/3 - 1 HP)
- Capacitor start / capacitor run (1.5 - 2 HP) for reduced amperage and high torque
- Vacuum Pressure Impregnation (VPI) System
- Anti-rust film applied to rotor
- Improved shaft seal on drive-end protects drive-end bearing from moisture and contaminants
- Automatic overload
- 56J - Threaded Shaft
- IP43 Protection

Applications

- Typical uses include: jet pumps and jet pump motor replacements.

Wiring Diagram



MTRJ-001-1AB36J

Motor Specifications – 1-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 With Removable Base											
MTRJ-P33-1AB36J	\$188.00	1/3 (1/4)	3600 (3000)	115/230 VAC (110/220)	TEFC	56J	1.15 (1)	5.0/2.5 (4.4/2.2)	80 dB(A)	19.4	PDF
MTRJ-P50-1AB36J	\$195.00	1/2 (1/3)						6.6/ 3.3 (5.4/2.7)		21	PDF
MTRJ-P75-1AB36J	\$212.00	3/4 (1/2)						9.0 / 4.5 (8.0/4.0)		25.5	PDF
MTRJ-001-1AB36J	\$224.00	1 (3/4)						11.4/5.7 (10.4/5.2)	28.3	PDF	
MTRJ-1P5-1AB36J	\$270.00	1 1/2 (1)						13.0 / 6.5 (11.8/5.9)	30.7	PDF	
MTRJ-002-1AB36J	\$293.00	2 (1 1/2)						17.2 / 8.6 (14.8/7.4)	36.6	PDF	

*@ 60Hz (@ 50Hz)

Performance Data - 1-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 With Removable Base - 3600 RPM													
MTRJ-P33-1AB36J	1/3 (1/4)	3450 (2850)	N	55.0	5.0/2.5	19.51	2.64	0.51	145	250	95	85.00	0.02450
MTRJ-P50-1AB36J	1/2 (1/3)			59.5	6.6/ 3.3	25.22	3.19	0.76	130	265	90		0.02770
MTRJ-P75-1AB36J	3/4 (1/2)			66.0	9.0 / 4.5	47.22	4.95	1.12	125	220	100	81.00	0.03820
MTRJ-001-1AB36J	1 (3/4)			70.0	11.4/5.7	61.78	5.97	1.53	125	225	75	82.00	0.04580
MTRJ-1P5-1AB36J	1 1/2 (1)			78.5	13.0 / 6.5	82.74	8.34	2.25	115	220	110	94.00	0.04720
MTRJ-002-1AB36J	2 (1 1/2)			80.0	17.2 / 8.6	116.2	8.64	3.06	140	205	95	95.00	0.06020

*@ 60Hz (@ 50Hz)



AC Motor Selection – IronHorse[®] General Purpose Motors

IronHorse[®] 1-Phase Motor Selection			
<i>Motor Series</i>	<i>MTR2</i>	<i>MTRJ</i>	<i>MTF2</i>
<i>Paint Color</i>	Black	Black	Green
<i>Main Characteristics</i>	General Purpose Rolled Steel	Jet Pump	Farm Duty Rolled Steel
Electrical Characteristics			
Horsepower range	1/3 - 2	1/3 - 2	2 - 10
Base speed	1800; 3600	3600	1800
Standard Voltage	115/208–230 VAC; 115/230 VAC	115/230 VAC	208–230 VAC
Phase / Base Frequency	1-phase / 60 Hz		
Service Factor	1.15		
Design Code (NEMA)	L or N (by model)	L or N (by model)	L
Insulation Class	Class F		
Insulation System	Dip and Bake Twice		Double VPI
Duty Cycle	Continuous		
Thermal protection	None	Automatic	Manual
Hazard Classification	None		
Mechanical Characteristics			
Frame size	56C or HC	56J	182T - 215T
Enclosure	TEFC	TEFC	TEFC
Enclosure Rating	IP43		IP55
Frame material	Rolled Steel		
End bracket material	Aluminum		
Junction box material	Steel		
Fan guard material	Steel		
Fan material	Polypropylene Plastic	Plastic	
Lead termination	Junction Box		
Standard mounting	C-Face with Removable Rigid Base		Rigid Base
Drive end shaft slinger	Yes		V-ring seal
Bearings	Ball		
Grease	Mobil Polyrex EM		NS7 ENS
Standard junction box assembly position	F1		
Performance Characteristics			
Constant Torque speed range	N/A		
Variable Torque speed range	N/A		
Constant Horsepower speed range	N/A		
Temperature rise	B		
Encoder provisions	None		
Other Characteristics			
Warranty*	2 Years		
Agency Approvals **	CSA, CE		CE, UR

* 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.