



# MTR Centrifugal Jet Pump 1-phase TEFC Motors

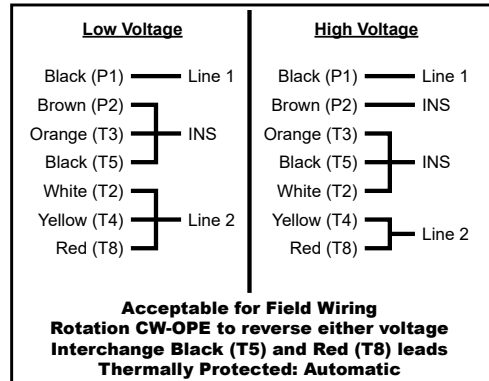
## Features

- 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
<b>Removable Rigid Base With C-face</b>											
<a href="#">MTRJ-P33-1AB36J</a>	\$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	<a href="#">PDF</a>
<a href="#">MTRJ-P50-1AB36J</a>	\$195.00	1/2 (1/3)						6.6/ 3.3 (5.4/2.7)		21	<a href="#">PDF</a>
<a href="#">MTRJ-P75-1AB36J</a>	\$212.00	3/4 (1/2)						9.0 / 4.5 (8.0/4.0)		25.5	<a href="#">PDF</a>
<a href="#">MTRJ-001-1AB36J</a>	\$224.00	1 (3/4)						11.4/5.7 (10.4/5.2)	28.3	<a href="#">PDF</a>	
<a href="#">MTRJ-1P5-1AB36J</a>	\$270.00	1 1/2 (1)						13.0 / 6.5 (11.8/5.9)	30.7	<a href="#">PDF</a>	
<a href="#">MTRJ-002-1AB36J</a>	\$293.00	2 (1 1/2)						17.2 / 8.6 (14.8/7.4)	36.6	<a href="#">PDF</a>	

\*@ 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 <sup>2</sup> )	
					Full Load Amps	Locked Rotor Amps	No Load Current	Full Load (lb-ft)	Locked Rotor	Breakdown			Pull Up
<b>Removable Rigid Base With C-face - 3600 RPM</b>													
<a href="#">MTRJ-P33-1AB36J</a>	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
<a href="#">MTRJ-P50-1AB36J</a>	1/2 (1/3)			59.5	6.6/ 3.3	25.22	3.19	0.76	130	265	90		0.02770
<a href="#">MTRJ-P75-1AB36J</a>	3/4 (1/2)			66.0	9.0 / 4.5	47.22	4.95	1.12		220	100	81.00	0.03820
<a href="#">MTRJ-001-1AB36J</a>	1 (3/4)			70.0	11.4/5.7	61.78	5.97	1.53	125	225	75	82.00	0.04580
<a href="#">MTRJ-1P5-1AB36J</a>	1 1/2 (1)			78.5	13.0 / 6.5	82.74	8.34	2.25	115	220	110	94.00	0.04720
<a href="#">MTRJ-002-1AB36J</a>	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<sup>®</sup> General Purpose Motors

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