



MTR Centrifugal Jet Pump 3-phase TEFC Motors

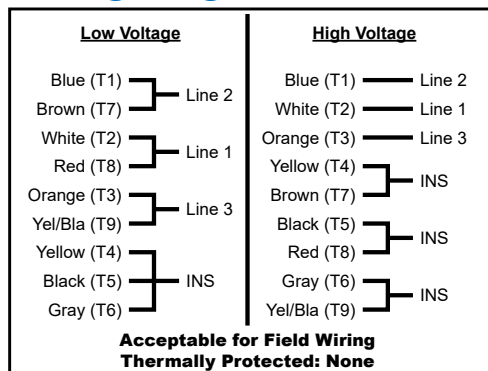
Features

- 1/3 - 3 HP
- 3600 RPM
- 208-230/460 volt
- Totally Enclosed Fan Cooled (TEFC) Enclosure
- 1.15 SF
- Class F insulation
- C-face with Removable Base
- 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
- 56J - Threaded Shaft
- IP43 Protection

Applications

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

Wiring Diagram



MTRJ-P33-3BD36J

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
Removable Rigid Base With C-face - 3600 RPM											
MTRJ-P33-3BD36J	\$181.00	1/3 (1/4)	3600 (3000)	230/460 VAC (190/380)	TEFC	56J	1.15 (1.15)	1.3 / 0.65 (1.2/0.6)	80 dB(A)	18	PDF
MTRJ-P50-3BD36J	\$187.00	1/2 (1/3)		1.7 / 0.85 (1.5/0.75)				19		PDF	
MTRJ-P75-3BD36J	\$205.00	3/4 (1/2)		2.4 / 1.2 (1.96/0.98)				22		PDF	
MTRJP-001-3BD36J	\$222.00	1 (3/4)		208-230/460 VAC (190/380)				3.00/1.50 (2.76/1.38)	85 dB(A)	23	PDF
MTRJP-1P5-3BD36J	\$280.00	1 1/2 (1)						3.96/1.98 (3.42/1.71)		31	PDF
MTRJP-002-3BD36J	\$293.00	2 (1)						5.22/2.61 (4.78/2.39)		33	PDF
MTRJP-003-3BD36J	\$374.00	3 (2)						7.38/3.69 (6.32/3.16)	88 dB(A)	39	PDF

*@ 60Hz (@ 50Hz)

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				
Removable Rigid Base With C-face - 3600 RPM													
<u>MTRJ-P33-3BD36J</u>	1/3 (1/4)	3450 (2850)	B	62.0	1.3 / 0.65	3.63	0.44	0.51	180	355	215	79.00	0.0245
<u>MTRJ-P50-3BD36J</u>	1/2 (1/3)			66.0	1.7 / 0.85	3.85	0.43	0.76	150	255	155	86.00	
<u>MTRJ-P75-3BD36J</u>	3/4 (1/2)			74.0	2.4 / 1.2	8.27	0.69	1.12	230	380	275	81.00	
<u>MTRJP-001-3BD36J</u>	1 (3/4)	3500 (2915)		77.0	3.00/1.50	11.37	0.78	1.51	255	325	220	83.00	0.0342
<u>MTRJP-1P5-3BD36J</u>	1 1/2 (1)			84.0	3.96/1.98	25.1	1.08	2.21	495	600	485	82.00	0.0473
<u>MTRJP-002-3BD36J</u>	2 (1)			85.5	5.22/2.61	27.38	1.12	3.02	385	415	315	85.00	0.0561
<u>MTRJP-003-3BD36J</u>	3 (2)			86.5	7.38/3.69	44.55	1.77	4.50	430	450	300		0.0691

*@ 60Hz (@ 50Hz)



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 - 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 Polyethelene	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.