



# Motor Data and Wire Size Specifications

## Single and Three Phase Jet/Centrifugal Motors

FW0016  
0323  
Supersedes  
0122

### SINGLE PHASE MOTOR DATA 60 HZ 3450 RPM( <sup>1</sup> )

### CHART A

Motor Model No.	HP	Motor Voltage	Service Factor	Service Factor Motor AMPS		Locked Rotor Motor AMPS		KVA Code Letter
				115V	230V	115V	230V	
98J103	1/3	115/230	1.75	8.6	4.3	26.0	13.0	K
98J105, 98S105	1/2	115/230	1.60	13.0	6.5	36.0	18.0	K
98J107, 98S107	3/4	115/230	1.50	14.0	7.0	52.0	26.0	K
98H107	3/4	115/230	1.86	18.0	9.0	78.0	39.0	P
98J110, 98S110	1	115/230	1.40	18.0	9.0	78.0	39.0	L
98H110	1	115/230	1.95	21.0	10.5	98.0	49.0	N
98J115, 98S115	1-1/2	115/230	1.30	21.0	10.5	98.0	49.0	J
98H115	1-1/2	115/230	1.66	25.0	12.5	116.0	58.0	K
98J120, 98S120	2	115/230	1.25	25.0	12.5	116.0	58.0	H
98J610	1	230	1.70	-	8.1	-	39.0	L
98J615	1-1/2	230	1.30	-	10.2	-	49.0	J
98J630, 98S630	3	230	1.00	-	13.5	-	53.0	D

(<sup>1</sup>) Thermal Overload Protected - Automatic Reset

### SINGLE PHASE MOTOR DATA 50 HZ 2875 RPM(<sup>1</sup>)

### CHART B

Motor Model No.	HP	Motor Voltage	Service Factor	Service Factor Motor AMPS		Locked Rotor Motor AMPS		KVA Code Letter
				110V	220V	110V	220V	
98J003	1/3	110/220	1.75	7.6	3.8	44.0	22.0	R
98J005, 98S005	1/2	110/220	1.60	10.0	5.0	48.0	24.0	M
98J007, 98S007	3/4	110/220	1.50	14.4	7.2	64.0	32.0	L
98J010, 98S010	1	110/220	1.40	16.4	8.2	72.0	36.0	K
98J015, 98S015	1-1/2	110/220	1.30	23.6	11.8	104.0	52.0	K
98J820, 98S820	2	220	1.00	-	13.2	-	55.0	H

(<sup>1</sup>) Thermal Overload Protected - Automatic Reset

### THREE PHASE MOTOR DATA 60/50(<sup>1 2</sup>) HZ 3450/2875 RPM

### CHART C

Motor Model No.	HP	Motor Voltage	Service Factor	Service Factor Motor AMPS		Locked Rotor Motor AMPS		KVA Code Letter
				230V	460V	230V	460V	
98J305, 98S305	1/2	208-230/460	1.60	3.5	1.75	19.0	9.5	K
98J307, 98S307	3/4	208-230/460	1.50	3.5	1.75	19.0	9.5	K
98J310, 98S310	1	208-230/460	1.40	4.5	2.25	26.9	13.5	K
98J315, 98S315	1-1/2	208-230/460	1.30	5.7	2.85	33.5	16.8	K
98J320, 98S320	2	208-230/460	1.25	7.4	3.70	44.0	22.0	K
98J330, 98S330	3	208-230/460	1.00	9.8	4.90	48.0	24.0	D

(<sup>1</sup>) 3HP, 3 phase motors are operable on 60hz only unless connected to a properly sized VFD

(<sup>2</sup>) Thermal Overload Protector - Not Supplied

Three Phase motors must be installed with properly sized magnetic or manual starters, VFD or other controller, that is properly sized heaters, overloads or starting features that protect the motor.

### MINIMUM WIRE SIZE CHART (GAUGE) - COPPER WIRE

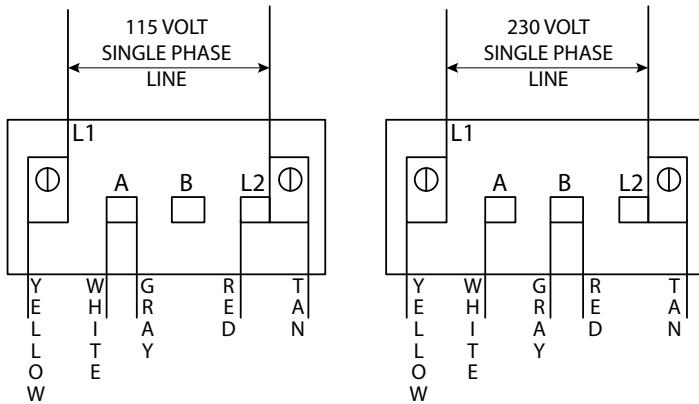
### CHART D

Motor HP	Volts	Phase	Distance in Feet from Motor to Service Panel					Breaker Size (Amps)
			0-50	50-100	100-150	150-200	200-300	
0.33	115/230	1	14/14	14/14	12/14	10/14	8/14	15/15
0.5	115/230	1	14/14	12/14	10/14	8/14	6/12	15/15
0.75	115/230	1	14/14	10/14	8/14	8/14	6/12	15/15
1	115/230	1	12/14	10/14	8/14	6/12	4/10	20/15
1	230	1	14	14	14	12	10	15
1.5	115/230	1	10/14	8/14	6/14	6/12	4/10	30/15
1.5	230	1	14	14	14	12	10	15
2	115/230	1	10/14	8/14	6/12	4/10	4/10	30/15
3	230	1	12	12	10	10	8	20
0.75	230/460	3	14/14	14/14	14/14	14/14	14/14	15/15
1	230/460	3	14/14	14/14	14/14	14/14	14/14	15/15
1.5	230/460	3	14/14	14/14	14/14	14/14	12/14	15/15
2	230/460	3	14/14	14/14	14/14	12/14	12/14	15/15
3	230/460	3	14/14	14/14	12/14	12/14	10/14	15/15

Maximum 5% voltage drop calculated by conductor resistance in NEC Table 8 and minimum ampacity rating as defined by NEC 430.22

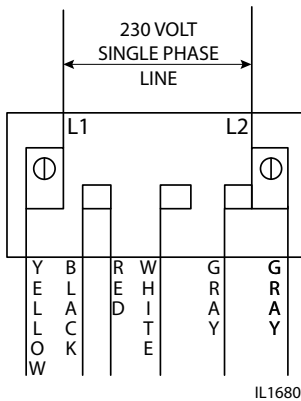
# WIRING DIAGRAMS

## JET / CENTRIFUGAL MOTORS



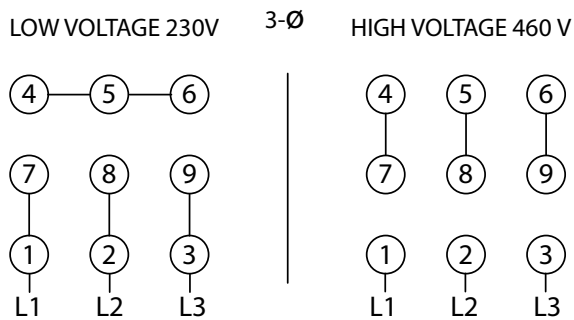
**NOTE:** Dual voltage motor, change the red and gray wire to voltage required.

**Figure 2 - Wiring Diagram for Single Phase 1/3 - 2 HP Motors**



**NOTE:** Single voltage (230V) motor, and cannot be connected to 115V.

**Figure 3 - Wiring Diagram for Single Phase 230V only 1, 1-1/2 & 3 HP Motors**



1 - Tan	4 - Yellow	7 - Purple
2 - Red	5 - Black	8 - Gray
3 - Orange	6 - Blue	9 - White

CONNECTION FOR 3 PHASE, 9 LEADS. IF YOUR 3 PHASE LEADS ARE COLOR CODED, MATCH NUMBER ABOVE TO THE CORRESPONDING COLOR.

**NOTE:** To reverse rotation, interchange any two incoming lines (Power) leads.

**Figure 4 - Wiring Diagram for Three Phase Motors**

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