



A Gardner Denver Product

ENGINEERING DATA SHEET

C1-2-2-345

DATE

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SUPERSEDES

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## MOTOR HP & AMPS ELECTRICAL WIRE, FUSE & BREAKER SIZES

The following table gives wire, breaker and fuse sizes based on horsepower, voltage and phase. Motor full load amps are taken from motors currently used by Champion. The wire, breaker and fuse sizes are provided as a reference for the installer and are based on the 1996 National Electrical Code. All wiring should be performed by a licensed electrician or electrical contractor and must meet all applicable codes for the area where installed.

Motor HP	Voltage	Typical Motor F.L.A.	Copper Conductor 75° C Rating – 30° C Ambient Wire Size Awg No.	Dual Element, Time Delay UL Class RK5 Fuse (Used with Properly Sized O/L Relay)	Circuit Breaker (Instantaneous Trip Circuit Breaker) Continuous Amp Rating
<b>SINGLE PHASE UNITS</b>					
½	115V	8.4	14	15A	15A
½	208V / 230V	4.4 / 4.2	14	8A / 7A	7A
¾	115V	11	12	15A	15A
¾	208V / 230V	5.5 / 5.4	14	12A / 10A	15A
1	115V	12.4	12	20A	15A
1	208V / 230V	6.5 / 6.2	14	12A / 10A	15A
1½	115V	18	10	20A	30A
1½	208V / 230V	9.5 / 9	14	15A / 10A	15A
2	115V	24	10	35A	30A
2	208V / 230V	12.6 / 12	14	20A	15A
3	115V	32	8	50A	50A
3	208V / 230V	16.8 / 16	10	30A / 25A	30A
5	208V / 230V	25.5 / 24	8	40A	50A / 30A
7½	208V / 230V	33 / 31	6	50A	50A
<b>THREE PHASE UNITS</b>					
1½	200V / 230V	5 / 4.8	14	8A	7A
1½	460V	2.4	14	4A	3A
2	200V / 230V	6.8 / 6.4	14	12A / 10A	15A
2	460V	3.2	14	5A	7A
3	200V / 230V	8.5 / 8	14	12A	15A
3	460V	4	14	7A	7A
5	200V / 230V	14.8 / 14	10 / 12	25A	30A
5	460V	7	14	12A	15A
7½	200V / 230V	23 / 22	8 / 10	40A / 35A	30A
7½	460V	11	14	15A	15A
10	200V / 230V	30 / 28	8	50A / 45A	50A
10	460V	14	12	20A	30A
15	200V / 230V	44.8 / 39	6	75A / 60A	100A / 50A
15	460V	19.5	10	30A	30A
20	200V / 230V	61 / 53	4	100A / 90A	100A
20	460V	26.5	8	45A	50A
25	200V / 230V	74 / 65	3 / 4	125A / 110A	100A
25	460V	32.5	8	50A	50A
30	200V / 230V	87 / 76	2 / 3	150A / 125A	150A / 100A
30	460V	38	6	60A	50A

1. To ensure proper coordination between the heater element and short circuit protective device, consult the heater table packaged with the motor controller.
2. Maximum branch-circuit, short-circuit protective device ratings shown in the manufacturer's overload relay table for use with a motor controller, or otherwise marked on the equipment, shall not be exceeded.