

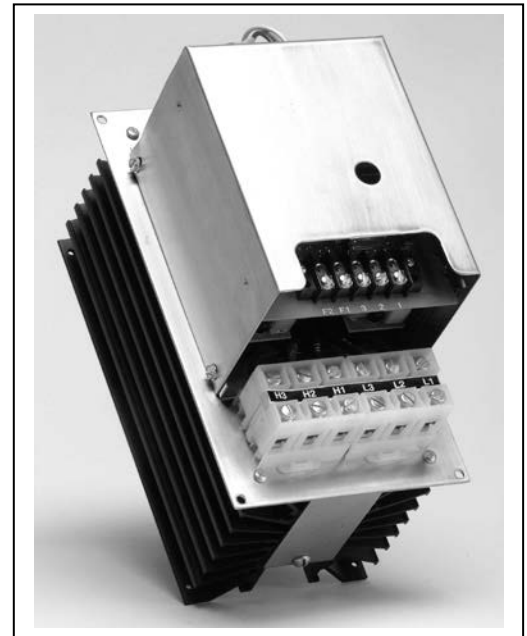
## Operation

The M&S Series can be used to replace earlier models of H&J Series and D&E Series power controllers. Contact the factory for additional information and cross-referencing.

M&S Series power controllers are solid-state, zero-cross fired, proportional devices. Line voltage is switched 0-100% linearly, with respect to the input range. A 4 second time-base controls power to the load. For example, a 5VDC signal to a 0-10VDC input will cycle the output full on for 2.0 seconds and full off for 2.0 seconds. Line voltage is used to power the electronics. An external transformer is not required.

Features of these controllers include an LED to indicate when the output should be on. Also, the output will be shut off if the input signal is disconnected or the input is shorted.

Masters can operate alone or can drive numerous slaves to control multiple loads. Slaves can be driven from other controllers with a pulsing-DC type output (see specifications).



## Catalog and Part Numbers:

**1 0 1 - M 3 - 4 8 0 - 5 0 - E - W**

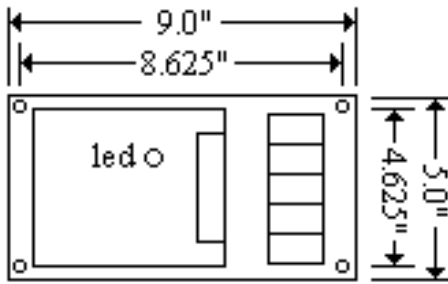
Mounting	Type	AC Voltage	Max Current	Input Code	Gasket Kit
101 = through panel	M = master S = slave	120 = 120VAC 208 = 208VAC 240 = 240VAC 277 = 277VAC 480 = 480VAC 600 = 600VAC	50 = 50 amps 70 = 70 amps	A = 2200 ohm C = 135 ohm E = 4-20mA L = 0-10VDC blank = slave	W = included blank = (none)
	AC Phase				
	1 = 1 phase 3 = 3 phase				

**Note:** Input boards can be changed in the field to reconfigure the power controller. Some models, i.e. 440VAC, have a separate 120VAC transformer for the electronics. Contact the factory for other catalog and part numbers not shown above.

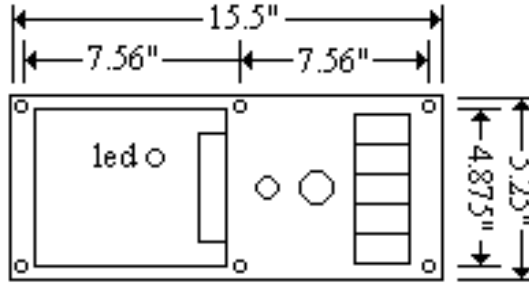
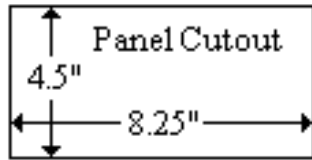
## Specifications

Storage Temp: -40° to 190°F  
 Operating Temp: -40°F to 132°F  
 UL Recognized: File E52105 Guide XAPX2  
 Isolation: 2500Vrms input to output  
 Isolation: 2500Vrms output to heatsink  
 Line Voltage: +/- 10% of AC Voltage rating  
 Frequency: 47 to 63 Hertz, sinewave only

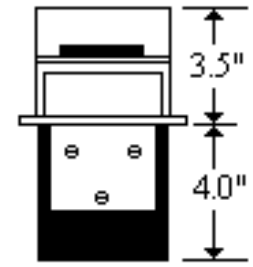
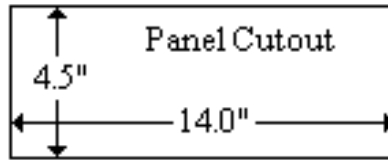
Load Current: 0.5A to Max Current rating  
 Load Wire Range: 2-18 AWG, copper only  
 Input Impedance: 250Ω (mA), 47KΩ (VDC)  
 Input Wire Range: 16-22 AWG, copper only  
 Slave Input: 3.0-12VDC, 270KΩ impedance  
 UL Type 4X with option "W" gaskets.  
 Panel gasket and screws shipped loose.



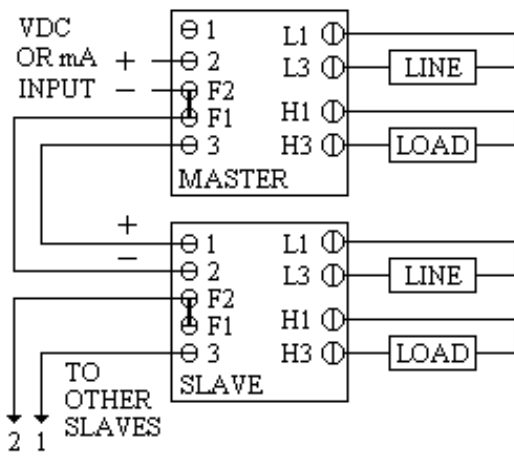
50 Amp Models



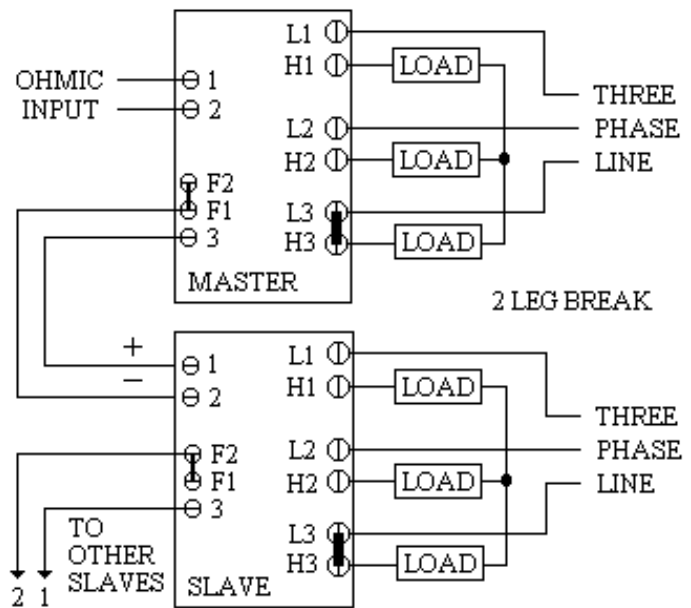
70 Amp Models



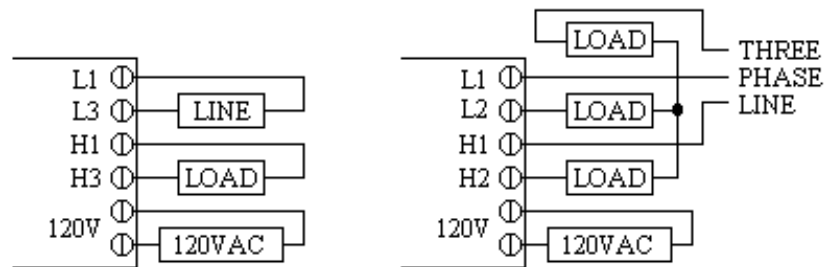
**Physical Dimensions**



**Wiring Diagrams:**  
*1 phase and 3 phase units*



**Wiring Diagrams:**  
*120VAC Electronics Transformer*



**INDEECO CONTROLS**

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**Input Board Specifications**

Input Code	Full Off	Full On	Board Part #
A = 2200 ohms	2150 ohms	2250 ohms	1034200
C = 135 ohms	20 ohms	120 ohms	1034201
E = 4-20mA	5.6 mA	18.4 mA	1034202
L = 0-10VDC	1.0 VDC	9.0 VDC	1034203
S = slave	< 3.0 VDC	>3.0 VDC	1034204