

- > Phase Angle Controller/SSR in One Package
- > Low Voltage, Current or Potentiometer Control
- > Output Status Indicator (Load Open, No Voltage)
- > 0-100% Control Range
- > Separate Output Enable/Disable Control
- > SCR Based Output Load Switching
- > Internal Snubber Network



### GENERAL SPECIFICATIONS

Dielectric Strength 50/60Hz, Input/Output/Base	4000 Vrms
Insulation Resistance (Min.) @ 500 Vdc	10 <sup>9</sup> Ohm
Max. Capacitance Input/Output	10 pF
Ambient Operating Temperature Range	-20 to 80°C
Ambient Storage Temperature Range	-40 to 125°C

### MECHANICAL SPECIFICATIONS

Weight: (typical)	3.0 oz. (86.5g)
Encapsulation	Thermally Conductive Epoxy
Terminals - Power	Screws and Saddle Clamps Furnished, Unmounted
Control	Barrier Strip Screw Terminals

### OUTPUT SPECIFICATIONS

	Voltage Suffix		
	12	24	48
Operating Voltage (47-63 Hz) [Vrms]	48-140	180-280	300-530
Transient Overvoltage [Vpk]	400	600	1200
Max. Off-State Leakage Current @ Rated Voltage [mA]	5	7	12
Power Factor (Min.) with Max. Load	0.5	0.5	0.5
Maximum Voltage Drop (100% On) [Vpk]	1.6	1.6	1.6
Minimum Off-State dv/dt [V/μsec]	200	200	200
	Current Suffix		
	25 Amp	50 Amp	90 Amp
Max. Load Current [Arms]	25	50	90
Min. Load Current (mArms)	150	150	150
Max. Surge Current (16.6ms) [Apk]	250	625	1200
Thermal Resistance Junction to Case (R <sub>θJC</sub> ) [°C/W]	1.02	0.63	0.28
Maximum I <sup>2</sup> t for Fusing, (8.3 msec.) [A <sup>2</sup> s]	260	1620	6000

### INPUT SPECIFICATIONS\*

	Minimum	Typical	Maximum
DC Voltage Supply Range [Vdc] [P1]	8	12 or 24	32
Input Current [mA]	28		30
Control Must Operate Voltage "On" [Vdc][P3]	5		32
Control Must Release Voltage "Off" [Vdc][P3]	0		4
Control Input Current [mA] [P3]	0		1.25
Control Nominal Input Impedance		30K	
PLVI Range Option A [Vdc][P4]**	0.8		5
PLVI Range Option B [Vdc][P4]**	1		7
PLVI Range Option C [Vdc][P4]**	2		10
PLVI Range Option D [mA][P4]	4		20
Nominal Input Impedance Option A,B,C [Ohms][P4]		20K	
Nominal Input Impedance Option D [Ohms][P4]		220	

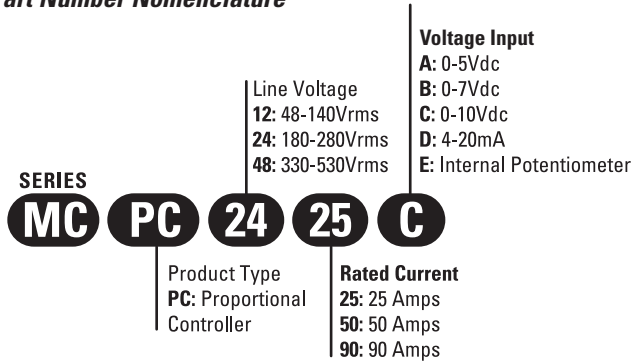
\*Voltages are reference to GND (Ground = 0Vdc) P2.

\*\*PLVI voltage can go up to max. supply voltage without damage.

The Crydom MCPC series of Proportional Controllers incorporate a complete phase-fired logic system and Solid State Relay in one small industry standard package. The MCPC uses microprocessor controlled logic, accepts a wide range input logic power supply, provides an output load status indicator, and five modes of analog control input along with an Enable/Disable control.

The MCPC does not require any calibration adjustment, is optically isolated to 4000Vrms, includes an internal snubber network, and is available in load ratings up to 90A and 530Vac. The Crydom MCPC series is particularly suited to applications such as tungsten lamp dimming, vibratory feeders, universal motor control, and resistive heating element control.

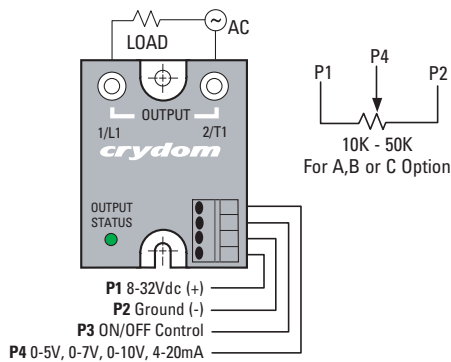
### Part Number Nomenclature



### Output Status Functions

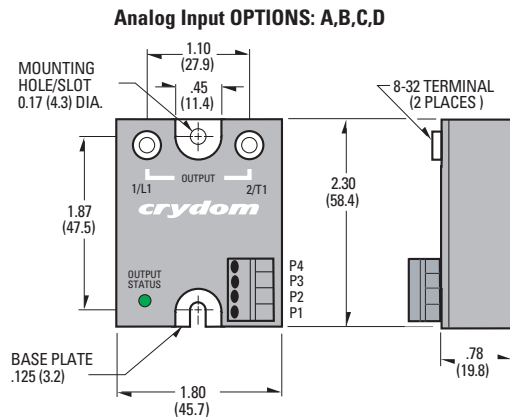
CONDITIONS	LED
Initial Logic Supply On	Flash Once
Load Voltage Missing / Load Open (w/control disabled)	Flash Once Intermittently
Load Voltage Missing / Load Open (w/control enabled)	Flash Twice Intermittently
Analog Input < Threshold	Off
Analog Input > Threshold < max	Varying Brightness
Analog Input > max	On, Bright

### Electrical Connections



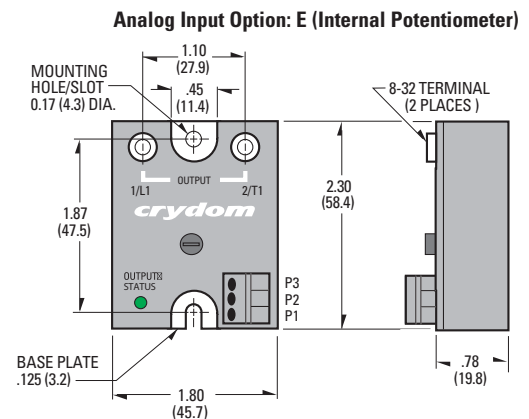
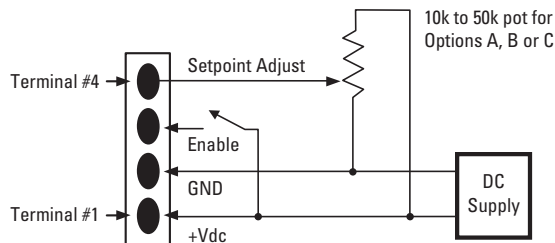
### Mechanical

Dimensions are in inches (millimeters)



### Wiring Example

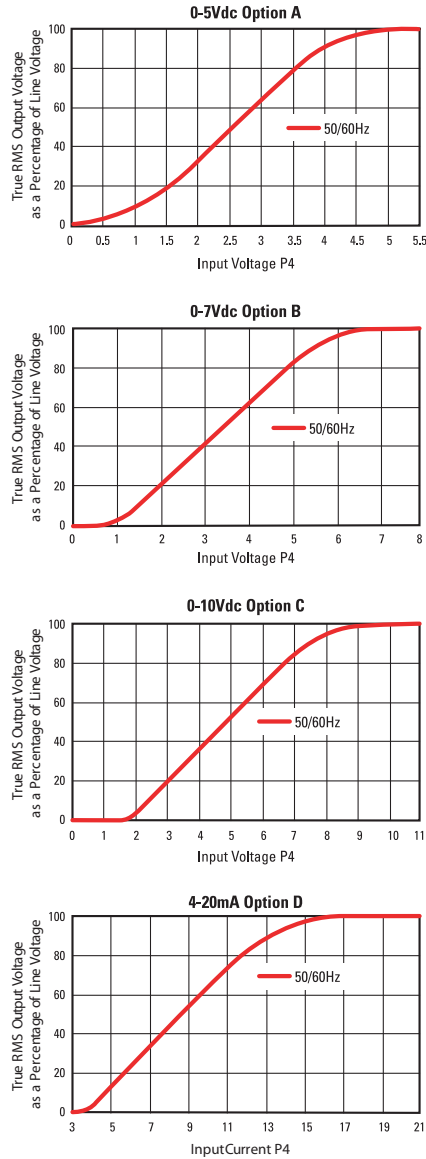
(for Options A, B or C using an external potentiometer)



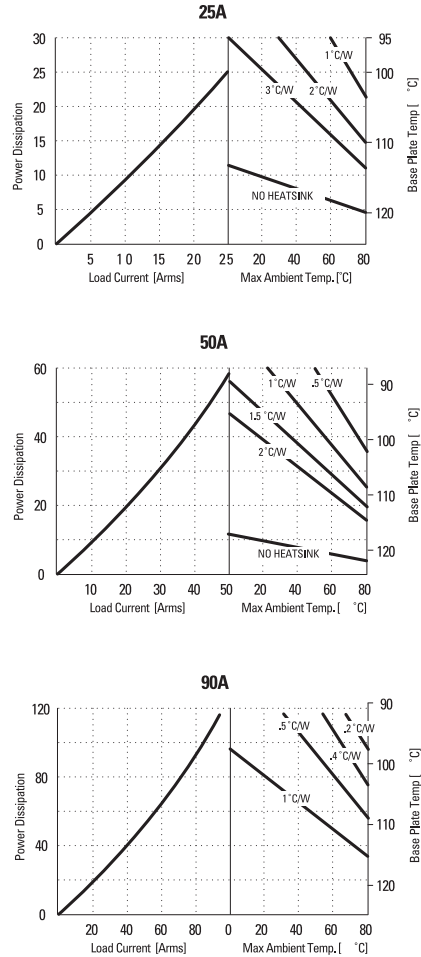
### Screw Torque Requirements:

8-32 Screws - 20in. lbs. (Screws dry without grease.)

### Output vs. Analog Input Signal Curves



### Current Derating Curves



ISO9001 Certified

Approvals

UL - Pending



For recommended applications and more information contact:  
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## ANNEX – ENVIRONMENTAL INFORMATION:

The environmental information disclosed in this annex including the EIP Pollution logo are in compliance with People's Republic of China Electronic Industry Standard SJ/T11364 – 2006, Marking for Control of Pollution Caused by Electronic Information Products.

Part Name	Toxic or hazardous Substance and Elements					
	Lead (Pb)	Mercury (Hg)	Cadmium (Cd)	Hexavalent Chromium (Cr (VI))	Polybrominated biphenyls (PBB)	Polybrominated diphenyl ethers (PBDE)
Semiconductor die	X	O	O	O	O	O
Solder	X	O	O	O	O	O

### 附件 - 环保信息:

此附件所标示的包括电子信息产品污染图标的环保信息符合中华人民共和国电子行业标准 **SJ/T11364 - 2006**, 电子信息产品污染控制标识要求

部件名称	有毒有害物质或元素					
	铅 (Pb)	汞 (Hg)	镉 (Cd)	六价铬 (Cr (VI))	多溴联苯 (PBB)	多溴二苯醚 (PBDE)
半导体芯片	X	O	O	O	O	O
焊接点	X	O	O	O	O	O

