



# Series CPV

## Phase Control Modules

- 120 & 240 Vac Models
- 0-5 Vdc Phase Control

Models CPV120 and CPV240 auxiliary function modules provide control of the phased turn-on of a solid state relay, in response to the application of a 0-5 Vdc control signal. They must be used with

Crydom Series 1 (-10) random turn-on solid state relays. Consult factory about use with 480 Vac loads. For a complete set (control module and solid state relay) order 10CPV120, 25CPV120, etc.

Manufactured in Crydom's ISO 9002 Certified facility for optimum product performance and reliability.

### MODEL NUMBERS

120 Vac	10CPV120	25CPV120	40CPV120	240 Vac	10CPV240	25CPV240	50CPV240	75CPV240	90CPV240
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### RELAY OUTPUT SPECIFICATIONS ①

Operating Voltage Range (47-63 Hz) [Vrms]	90-140 (120 Vac Models) 180-280 (240 Vac Models)				
	.04-10	.04-25	.04-50	.04-75	.04-90
Load Current Range ③ [Arms]	.04-10	.04-25	.04-50	.04-75	.04-90
Transient Overvoltage [Vpk]	400 (120 Vac models) 600 (240 Vac models)				
Max. Surge Current, (16.6ms) [A <sub>pk</sub> ]	120	250	625	1000	1200
Max. On-State Voltage Drop @ Rated Current [Vpk]	1.6	1.6	1.6	1.6	1.6
Thermal Resistance Junction to Case [R <sub>θJC</sub> ] °C/W	1.48	1.02	0.63	0.31	0.28
Maximum I <sup>2</sup> t for Fusing, (8.3 msec.) [A <sup>2</sup> sec]	60	260	1620	4150	6000
Max. Off-State Leakage Current @ Rated Voltage [mA <sub>RS</sub> ]	10.0	10.0	10.0	10.0	10.0
Min. Off-State dv/dt @ Max. Rated Voltage [V/μsec] ②	500	500	500	500	500
Max. Turn-On Time [msec]	0.02	0.02	0.02	0.02	0.02
Max. Turn-Off Time	1/2 cycle	1/2 cycle	1/2 cycle	1/2 cycle	1/2 cycle
Power Factor (Min.) with Max. Load	0.5	0.5	0.5	0.5	0.5

### CONTROL MODULE INPUT SPECIFICATIONS ①

Logic Supply Range (Terminal 3A)	DC CONTROL 3.5-10Vdc
Typical Supply Current	1.6mA @ 5Vdc
Control Voltage Range (Terminal 3B)	0-5 Vdc
Nominal Control Input Impedance	1500 Ohms
Min. Turn-Off Voltage	1.0

### CONTROL MODULE OUTPUT (Terminal 4B – Input to Relay) ①

Max. Off-State Operating Voltage	36 Vdc
Max. Load Current (Sink)	3.0 mA
Max. On-State Voltage @ 3mA	0.5 Vdc
Max. Off-State Leakage @ 10Vdc	1.0 μA <sub>dc</sub>

### GENERAL NOTES

- ① All parameters at 25°C unless otherwise specified.
- ② Off-State dv/dt test method per EIA/NARM standard RS-443, paragraph 13.11.1
- ③ Heat sinking required (Relay Only), see Series 1 data sheet.

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For recommended applications and more information contact:

USA: (800) 8 CRYDOM • (800) 827-9366 • (619) 715-7200 • fax (619) 715-7280

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GERMANY: (49)871 935405 • fax (49)871 935407, Aussere Parkstr.5, D-84032 Altdorf, Germany





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## Phase Control Modules

### GENERAL SPECIFICATIONS

Dielectric Strength, Signal to Load 4000 Vrms

Dielectric Strength, Signal to Base 4000 Vrms

Ambient Operating Temperature Range -30 to 80°C

Ambient Storage Temperature Range -40 to 125°C

### MECHANICAL SPECIFICATIONS

Weight: (typical) 3.0 oz. (43g)

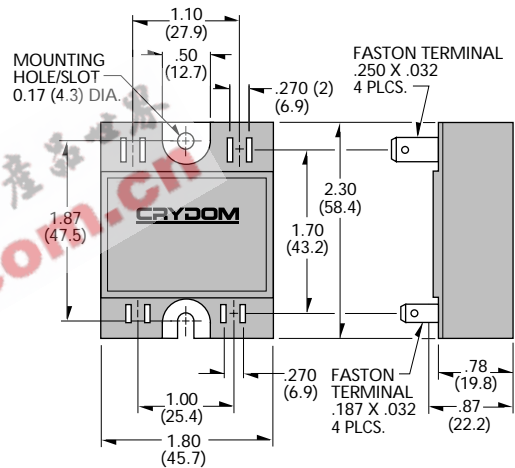
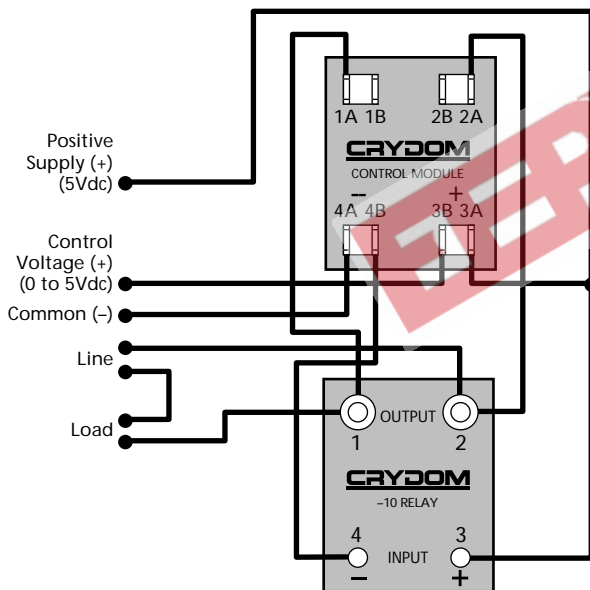
Encapsulation: Thermally Conductive Epoxy

### AVAILABLE OPTIONS

**CPV120** Control Module Only (120 Vac line)

**CPV240** Control Module Only (120 Vac line)

### DERATING CURVES – See Series 1



All dimensions are in inches (millimeters)

### Notes

1. Following pins may be interchanged: 1A & 1B, 2A & 2B.
2. Pin 4A & 4B may not be interchanged, nor may pins 3A & 3B.
3. The line and load may be interchanged.

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