



**CRYDOM**

# 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

### RELAY OUTPUT SPECIFICATIONS ①

Operating Voltage Range (47-63 Hz) [Vrms]	90-140 (120 Vac Models)					180-280 (240 Vac Models)
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) [Apk]	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 [mArms]	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)	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

### DC CONTROL

### 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 μAdc

### 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

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

9525 Chesapeake Drive, San Diego, CA 92123 • e-mail: sales@crydom.com

WEB SITE: <http://www.crydom.com> FASTFAX Product Information: (888) 267-9191

UK: (44)1202 812300 • fax (44)1202 812340

85, Condor Close, Woolsbridge Industrial Estate, Three-Legged Cross, Wimborne, Dorset, England BH21 6SU

GERMANY: (49)271 925405 • fax (49)271 925407, Avenue Industriale 5, D-64823 Altdorf, Germany





# Series CPV

## 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

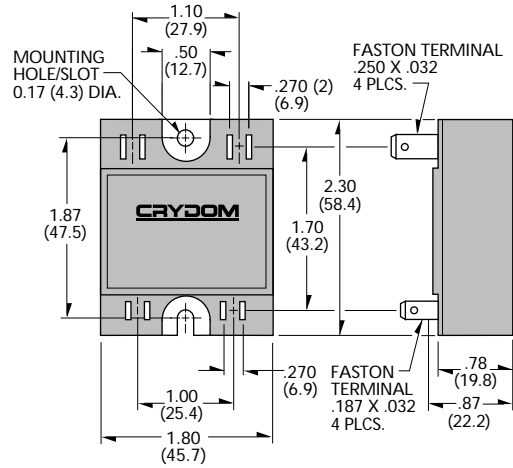
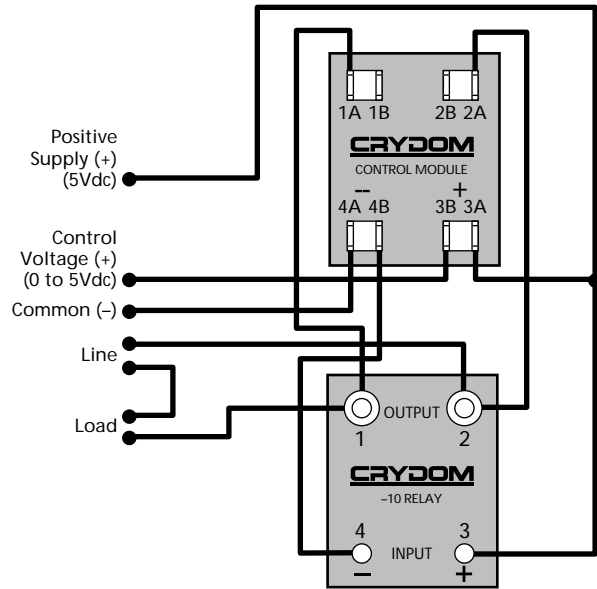
### MECHANICAL SPECIFICATIONS

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

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

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