

# Series CX

5Amp • 120/240, 380, 480 Vac • AC Output SIP

## CRYDOM

Control over power

- SCR Output
- Ultra High Surge Rating
- Crydom's Patented Design

Crydom's family of SPST-NO relays achieves the highest power switching capability in a PC-mounted air-cooled package. Advanced features include

exceptional steady state current, plus ultra-high surge ratings. Models are available to switch up to 660 Vrms with AC or DC control, and either zero-cross or random turn-on ("R") switching versions. Pinout is compatible with Series 6 and OAC type I/O modules.

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

MODEL NUMBERS	AC CONTROL (120Vac) (24Vac)	CX240A5 CXE240A5		
	DC CONTROL (5Vdc) (24Vdc)	CX240D5 CXE240D5	CX380D5 CXE380D5	CX480D5 CXE480D5
<b>OUTPUT SPECIFICATIONS</b> ①				
Operating Voltage (47-63 Hz) [Vrms]		12-280	48-530	48-660
Load Current Range [Arms]		.06-5	.06-5	.06-5
Transient Overvoltage [Vpk]		600	1200	1200
Max. Surge Current, (16.6ms) [Apk]		250	250	250
Max. On-State Voltage Drop @ Rated Current [Vpk]		1.4	1.4	1.4
Maximum I <sup>2</sup> t for Fusing, (8.3 msec.) [A <sup>2</sup> sec]		260	260	260
Max. Off-State Leakage Current @ Rated Voltage [mArms]		0.1	0.1	0.1
Min. Off-State dv/dt @ Max. Rated Voltage [V/μsec] ②		500	500	500
Max. Turn-On Time ③		1/2 Cycle (DC Control), 10.0 msec (AC Control)		
Max. Turn-Off Time		1/2 Cycle (DC Control), 40.0 msec (AC Control)		
Power Factor (Min.) with Max. Load		0.5	0.5	0.5

MODEL NUMBERS	DC CONTROL			AC CONTROL	
	Nominal Voltage 5Vdc	5Vdc	24Vdc	120Vac	24Vac
	CX240D5	CX380D5 CX480D5	CXE240D5 CXE380D5 CXE480D5	CX240A5	CXE240A5
Control Voltage Range	3-15 Vdc	4-15 Vdc	15-32 Vdc	90-140 Vrms	18-36 Vrms
Max. Turn-On Voltage	3.0 Vdc	4.0 Vdc	15.0 Vdc	90.0 Vrms	18.0 Vrms
Min. Turn-Off Voltage	1.0 Vdc	1.0 Vdc	1.0 Vdc	10.0 Vrms	2.0 Vrms
Nominal Input Impedance	300 Ohm	240 Ohm	1500 Ohm	14.1k Ohm	4.2k Ohm
Typical Input Current @ Nominal Voltage	15 mAdc	15 mAdc	15 mAdc	10 mArms	5 mArms

### 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 Turn-On Time for Random Turn-On versions 0.1msec (DC Control Models).

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SERIES CX.  
Rev. 012402  
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For recommended applications and more information contact:  
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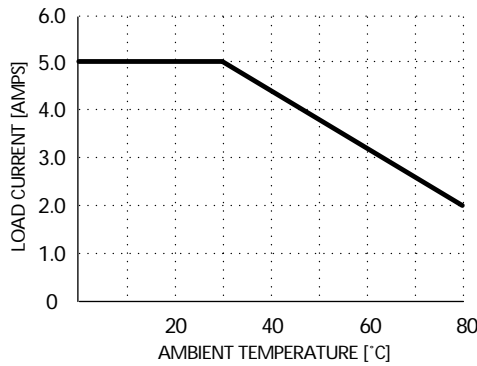
## GENERAL SPECIFICATIONS

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	-30 to 80°C
Ambient Storage Temperature Range	-30 to 125°C

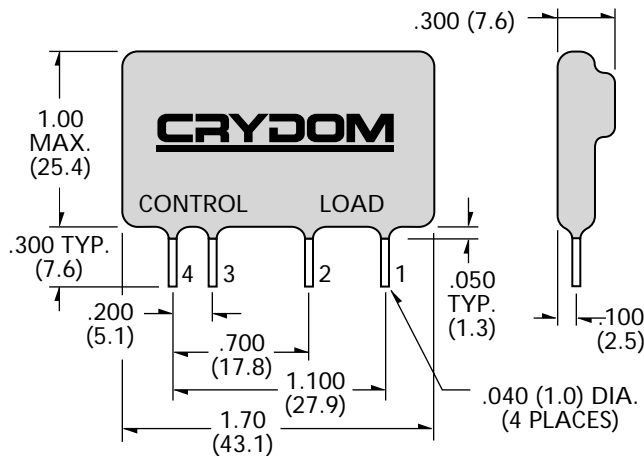
## MECHANICAL SPECIFICATIONS

Weight: (typical)	0.4 oz. (11g)
Encapsulation:	Thermally Conductive Epoxy

### CURRENT DERATING CURVE



Max. Load Current vs. Temp.



**AC CONTROL**  
PIN 1: AC LOAD  
PIN 2: AC LOAD  
PIN 3: AC CONTROL  
PIN 4: AC CONTROL

**DC CONTROL**  
PIN 1: AC LOAD  
PIN 2: AC LOAD  
PIN 3: +DC CONTROL  
PIN 4: -DC CONTROL

All dimensions are in inches (millimeters)

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### AVAILABLE OPTIONS

R Random Turn-On Switching  
Example: **CX240D5 R, CX240A5 R**

### APPROVALS

UL E116949  
CSA LR81689  
VDE 70938  
UG (240V, 380V, DC Control Only)



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