



# Series MCX

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

- 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)	MCX240A5 MCXE240A5		
	DC CONTROL (5Vdc 24Vdc)	MCX240D5 MCXE240D5	MCX380D5 MCXE380D5	MCX480D5 MCXE480D5
<b>OUTPUT SPECIFICATIONS ①</b>				
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
	MCX240D5	MCX380D5 MCX480D5	MCXE240D5 MCXE380D5 MCXE480D5	MCX240A5	MCXE240A5
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

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## 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).

For recommended applications and more information contact:

USA: (800) 8 CRYDOM • (800) 827-9366 • (619) 715-7200 • fax (619) 715-7280  
 Crydom Corp, 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 Crydom International Ltd., 85, Condor Close,  
 Woolsbridge Industrial Estate, Three-Legged Cross, Wimborne, Dorset, England BH21 6SU  
 GERMANY: (49) (0)6874 182580 • fax (49)(0)6874 182585 Crydom GmbH,  
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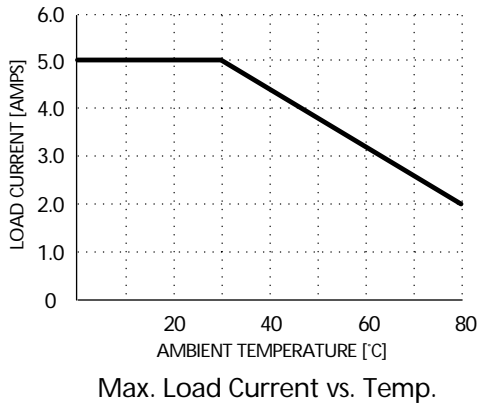
## GENERAL SPECIFICATIONS

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	-40 to 80°C
Ambient Storage Temperature Range	-40 to 125°C

## MECHANICAL SPECIFICATIONS

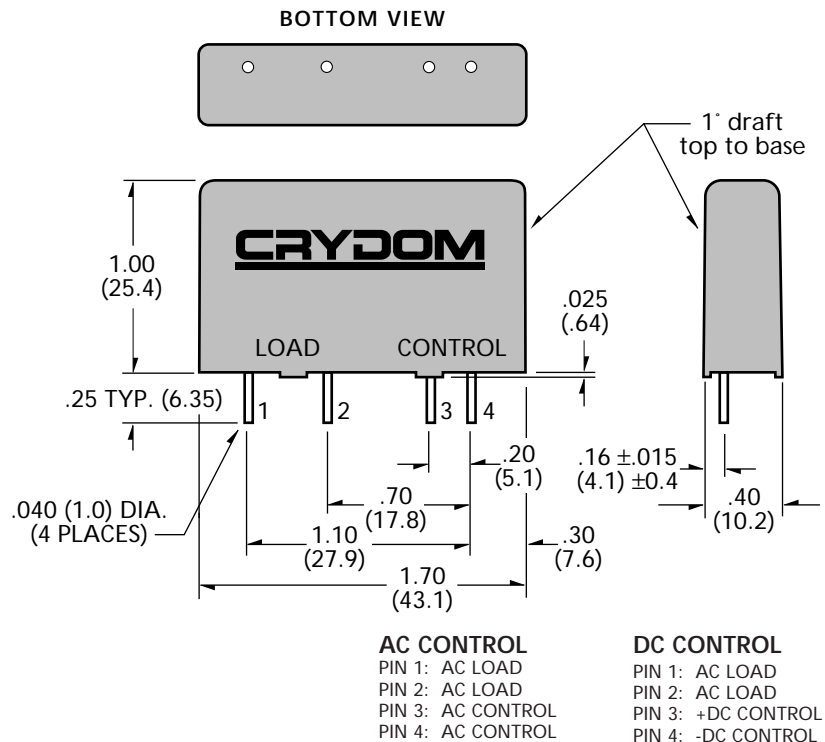
Weight: (typical)	0.7 oz. (20g)
Encapsulation:	Thermally Conductive Epoxy

### CURRENT DERATING CURVE



### AVAILABLE OPTIONS

- R** Random Turn-On Switching  
Example: **MCX240D5R, MCX240A5R**



All dimensions are in inches (millimeters)

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### APPROVALS

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**USA:** (800) 8 CRYDOM • (800) 827-9366 • (619) 715-7200 • fax (619) 715-7280  
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**WEB SITE:** <http://www.crydom.com> **FASTFAX Product Information:** (888) 267-9191  
**UK:** (44)1202 812300 • fax (44)1202 812340 Crydom International Ltd., 85, Condor Close, Woolsbridge Industrial Estate, Three-Legged Cross, Wimborne, Dorset, England BH21 6SU  
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