



## MCX SERIES

PCB MOUNT



### Features

- SIP SSR
- Ratings of 5 A @ 660 VAC
- SCR output for heavy industrial loads
- AC or DC control
- Zero-crossing (resistive loads) or random-fire (inductive loads) output
- Plastic encapsulated



### PRODUCT SELECTION

Control Voltage	5 A	5 A	5 A
3-15 VDC	MCX240D4		
4-15 VDC		MCX380D5	MCX480D5
15-32 VDC	MCXE240D5		
18-36 VAC	MCXE240A5		
90-140 VAC	MCX240A5		



### SPECIFICATIONS

#### Output <sup>(1)</sup>

Description	240 VAC	380 VAC	480 VAC
Operating Voltage (47-63Hz) [Vrms]	12-280	48-530	48-660
Transient Overvoltage [Vpk]	600	1200	1200
Maximum Off-State Leakage Current @ Rated Voltage [mArms]	0.1	0.1	0.1
Minimum Off-State dv/dt @ Maximum Rated Voltage [V/μsec] <sup>(2)</sup>	500	500	500
Maximum Load Current [Arms] <sup>(3)</sup>	5	5	5
Minimum Load Current [Arms]	0.06	0.06	0.06

<b>Maximum Surge Current (16.6msec) [Apk]</b>	250	250	250
<b>Maximum On-State Voltage Drop @ Rated Current [Vpk]</b>	1.4	1.4	1.4
<b>Maximum I<sup>2</sup> t for Fusing (8.3msec) [A<sup>2</sup> sec]</b>	260	260	260
<b>Minimum Power Factor (at Maximum load)</b>	0.5	0.5	0.25/0.18

## Input <sup>(1)</sup>

Description	MCX240Dx	MCX380Dx	MCXExxxDx	MCX240A5	MCXE240A5
<b>Nominal Voltage</b>	5 VDC	5 VDC	24 VDC	120 VAC	24 VAC
<b>Control Voltage Range</b>	3-15 VDC	4-15VDC	15-32VDC	90-140VAC	18-36VAC
<b>Maximum Turn-On Voltage</b>	3.0 VDC	4.0 VDC	15.0 VDC	90.0 Vrms	18.0 Vrms
<b>Minimum Turn-Off Voltage</b>	1.0 VDC	1.0 VDC	1.0 VDC	10.0 Vrms	2.0 Vrms
<b>Input Current @ Nominal Voltage</b>	15 mAdc	15 mAdc	15 mAdc	10 mArms	10 mArms
<b>Nominal Input Impedance</b>	300 Ohm	240 Ohm	1500 Ohm	14.1K Ohm	2.1K Ohm
<b>Maximum Turn-On Time [msec] <sup>(3)</sup></b>	1/2 Cycle	1/2 Cycle	1/2 Cycle	10	10
<b>Maximum Turn-Off Time [msec]</b>	1/2 Cycle	1/2 Cycle	1/2 Cycle	40	40

## General <sup>(1)</sup>

Description	Parameters
<b>Dielectric Strength, Input/Output/Base (50/60Hz)</b>	4000 Vrms
<b>Minimum Insulation Resistance (@ 500 VDC)</b>	10 g Ohms
<b>Maximum Capacitance, Input/Output</b>	10 pF
<b>Ambient Operating Temperature Range</b>	-40 to 80°C
<b>Ambient Storage Temperature Range</b>	-40 to 125°C
<b>Weight (typical)</b>	0.7 oz (20g)
<b>Encapsulation</b>	Thermally Conductive Epoxy Meets the requirements of IEC60335-1

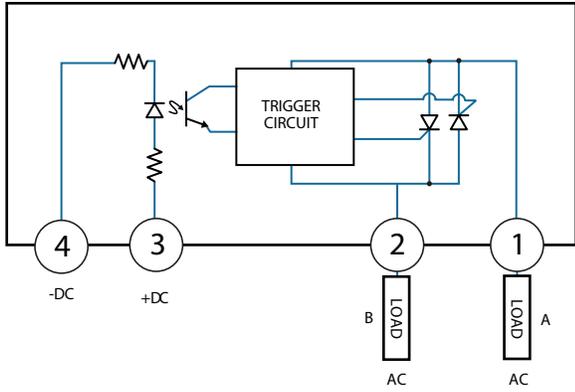


## GENERAL NOTES

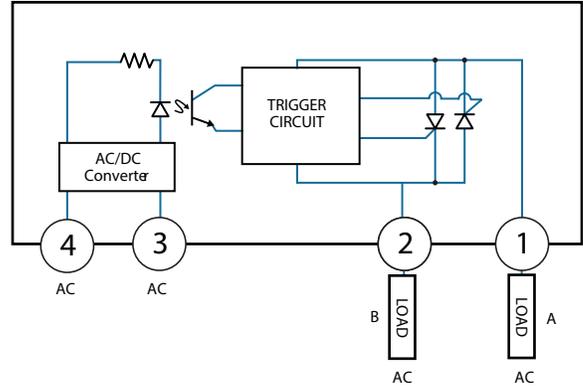
- <sup>(1)</sup> All parameters at 25°C unless otherwise specified
- <sup>(2)</sup> Off-State dv/dt test method per EIA/NARM standard RS-443, paragraph 13.11.1
- <sup>(3)</sup> Turn-On time for random turn-on versions is 0.01 msec (DC control Models).



## WIRING DIAGRAM



Load can be wired in location A or B

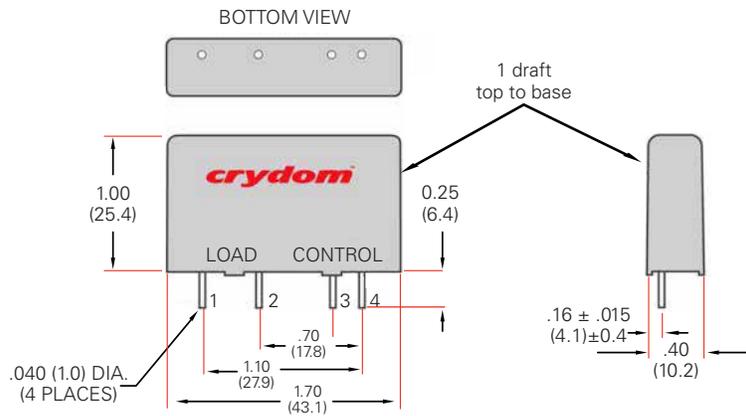


Load can be wired in location A or B

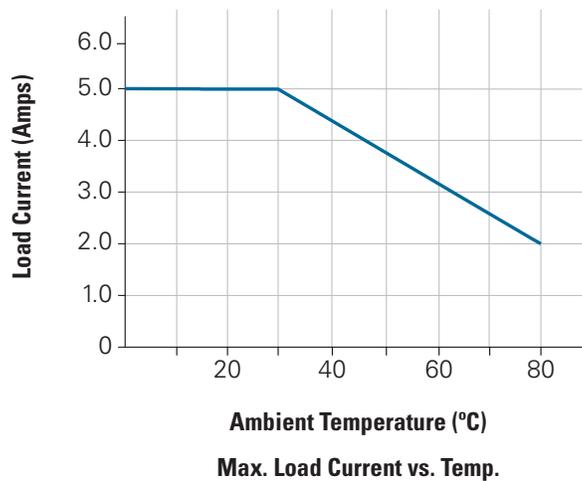


## MECHANICAL SPECIFICATIONS

Tolerances:  $\pm 0.02$  in / 0.5 mm  
All dimensions are in millimeters [inches]



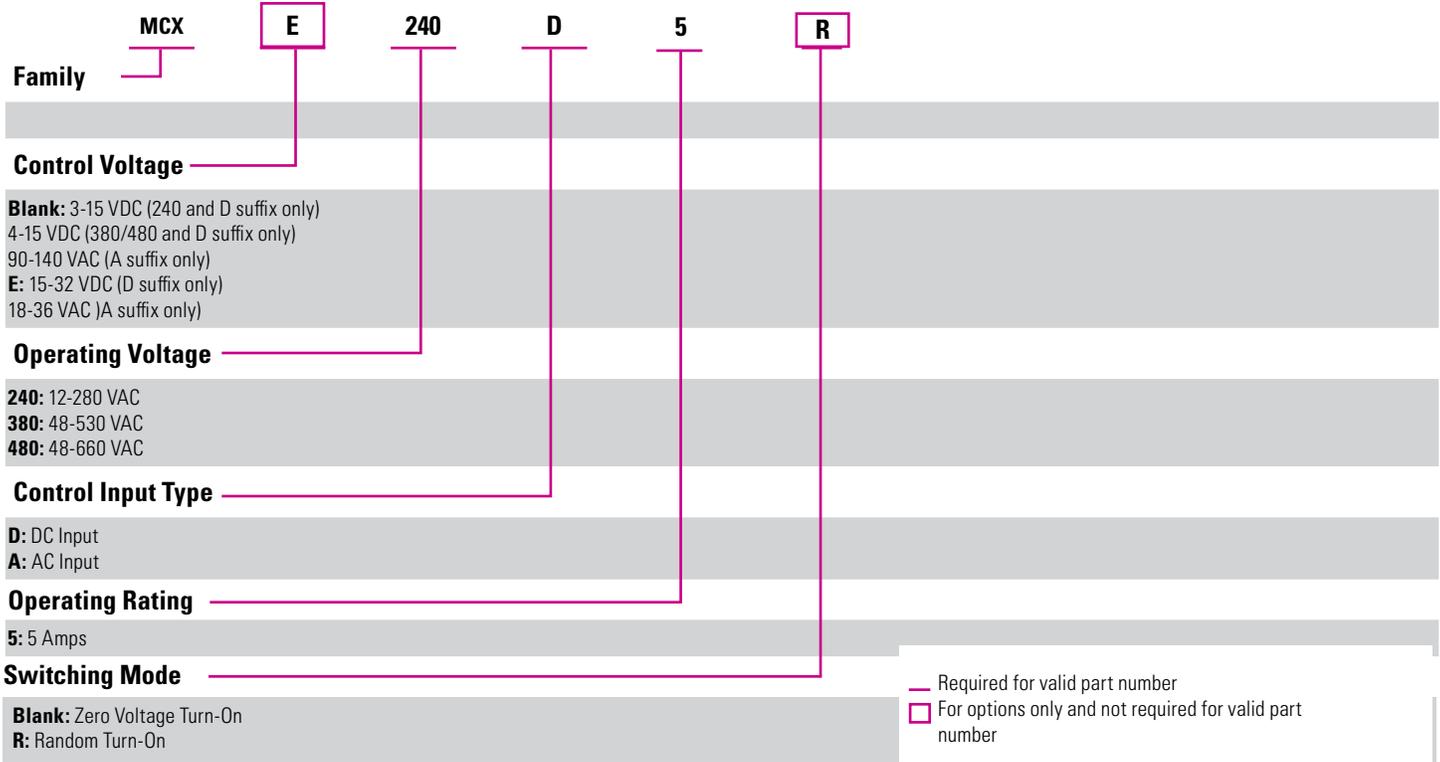
## THERMAL DERATE INFORMATION





## ORDERING OPTIONS

Example : MCXE240D5R



## AGENCY APPROVALS & CERTIFICATIONS

Designed in accordance with the requirements of IEC 62314  
IEC60335-1: Resistance to heat and fire meets the requirements of section 30, evaluated by TUV SUD.  
Glow Wire Test, per requirements of IEC/EN 60695-2-10 and IEC/EN 60695-2-11  
Ball Pressure Test, per requirements of IEC/EN 60695-10-2





## WARNINGS



### RISK OF MATERIAL DAMAGE AND HOT ENCLOSURE

- The product's side panels may be hot, allow the product to cool before touching
- Follow proper mounting instructions including torque values
- Do not allow liquids or foreign objects to enter this product

**Failure to follow these instructions can result in serious injury, or equipment damage.**



### HAZARD OF ELECTRIC SHOCK, EXPLOSION OR ARC FLASH

- Disconnect all power before installing or working with this equipment
- Verify all connections and replace all covers before turning on power

**Failure to follow these instructions will result in death or serious injury.**

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