



## 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

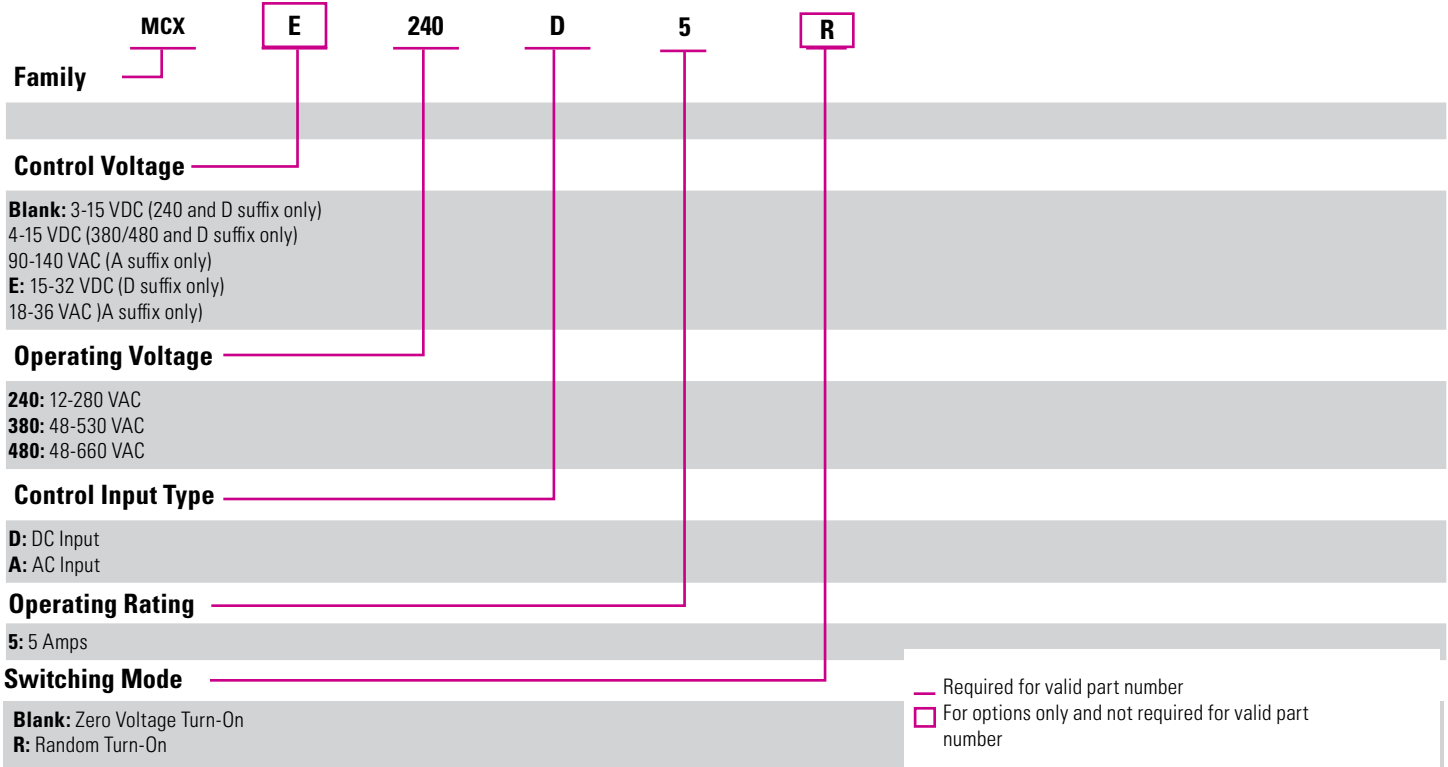
- <sup>(1)</sup> All parameters at 25°C unless otherwise specified
- <sup>(2)</sup> Off-State dv/dt test method per EIA/NARM standard RS-443, paragraph 13.11.1
- <sup>(3)</sup> Turn-On time for random turn-on versions is 0.01 msec (DC control Models).





## 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.**

Sensata Technologies, Inc. ("Sensata") data sheets are solely intended to assist designers ("Buyers") who are developing systems that incorporate Sensata products (also referred to herein as "components"). Buyer understands and agrees that Buyer remains responsible for using its independent analysis, evaluation and judgment in designing Buyer's systems and products. Sensata data sheets have been created using standard laboratory conditions and engineering practices. Sensata has not conducted any testing other than that specifically described in the published documentation for a particular data sheet. Sensata may make corrections, enhancements, improvements and other changes to its data sheets or components without notice.

Buyers are authorized to use Sensata data sheets with the Sensata component(s) identified in each particular data sheet. HOWEVER, NO OTHER LICENSE, EXPRESS OR IMPLIED, BY ESTOPPEL OR OTHERWISE TO ANY OTHER SENSATA INTELLECTUAL PROPERTY RIGHT, AND NO LICENSE TO ANY THIRD PARTY TECHNOLOGY OR INTELLECTUAL PROPERTY RIGHT, IS GRANTED HEREIN. SENSATA DATA SHEETS ARE PROVIDED "AS IS". SENSATA MAKES NO WARRANTIES OR REPRESENTATIONS WITH REGARD TO THE DATA SHEETS OR USE OF THE DATA SHEETS, EXPRESS, IMPLIED OR STATUTORY, INCLUDING ACCURACY OR COMPLETENESS. SENSATA DISCLAIMS ANY WARRANTY OF TITLE AND ANY IMPLIED WARRANTIES OF MERCHANTABILITY, FITNESS FOR A PARTICULAR PURPOSE, QUIET ENJOYMENT, QUIET POSSESSION, AND NON-INFRINGEMENT OF ANY THIRD PARTY INTELLECTUAL PROPERTY RIGHTS WITH REGARD TO SENSATA DATA SHEETS OR USE THEREOF.

All products are sold subject to Sensata's terms and conditions of sale supplied at [www.sensata.com](http://www.sensata.com) SENSATA ASSUMES NO LIABILITY FOR APPLICATIONS ASSISTANCE OR THE DESIGN OF BUYERS' PRODUCTS. BUYER ACKNOWLEDGES AND AGREES THAT IT IS SOLELY RESPONSIBLE FOR COMPLIANCE WITH ALL LEGAL, REGULATORY AND SAFETY-RELATED REQUIREMENTS CONCERNING ITS PRODUCTS, AND ANY USE OF SENSATA COMPONENTS IN ITS APPLICATIONS, NOTWITHSTANDING ANY APPLICATIONS-RELATED INFORMATION OR SUPPORT THAT MAY BE PROVIDED BY SENSATA.

Mailing Address: Sensata Technologies, Inc., 529 Pleasant Street, Attleboro, MA 02703, USA.

## CONTACT US

### Americas

+1 (877) 502 5500 - Option 2  
sales.crydom@sensata.com  
**Europe, Middle East & Africa**  
+44 (1202) 416170  
ssr-info.eu@sensata.com

### Asia Pacific

sales.isasia@list.sensata.com  
China +86 (21) 2306 1500  
Japan +81 (45) 277 7117  
Korea +82 (31) 601 2004  
India +91 (80) 67920890  
Rest of Asia +886 (2) 27602006  
ext 2808