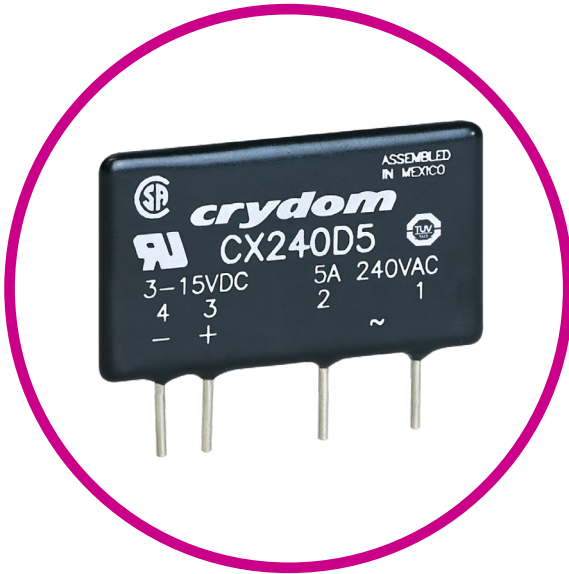




CX SERIES

PCB MOUNT SOLID STATE RELAYS



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
- CE Compliant to EN60950-1



PRODUCT SELECTION

Control Voltage	5 A	5 A	5 A
3-15 VDC	CX240D5		
4-15 VDC		CX380D5	CX480D5
15-32 VDC	CXE240D5	CXE380D5	CXE480D5
18-36 VAC	CXE240A5		
90-140 VAC	CX240A5		



SPECIFICATIONS

Output ⁽¹⁾

Description	CX240x5	CX380x5	CX480x5
Operating Voltage (47-63Hz) [Vrms]	12-280	48-530	48-660
Transient Overvoltage [Vpk]	600	1200	1200
Maximum Off-State Leakage Current @ Rated Voltage [mA_{rms}]	0.1	0.1	0.1
Minimum Off-State dv/dt @ Maximum Rated Voltage [$\text{V}/\mu\text{sec}$] ²	500	500	500
Maximum Load Current [A_{rms}]	5	5	5
Minimum Load Current [A_{rms}]	0.06	0.06	0.06
Maximum Surge Current (16.6msec) [Apk]	250	250	250
Maximum On-State Voltage Drop @ Rated Current [Vpk]	1.4	1.4	1.4
Maximum I ² t for Fusing (8.3msec) [A ² sec]	260	260	260
Minimum Power Factor (at Maximum load)	0.5	0.5	0.5
HP rating UL 508/IEC60947[HP/KW]: 240VAC	0.25/0.18	0.25/0.18	0.25/0.18
HP rating UL 508/IEC60947[HP/KW]: 380VAC	NA	0.33/0.25	0.33/0.25
HP rating UL 508/IEC60947[HP/KW]: 480VAC	NA	NA	0.5/0.37

Input ⁽¹⁾

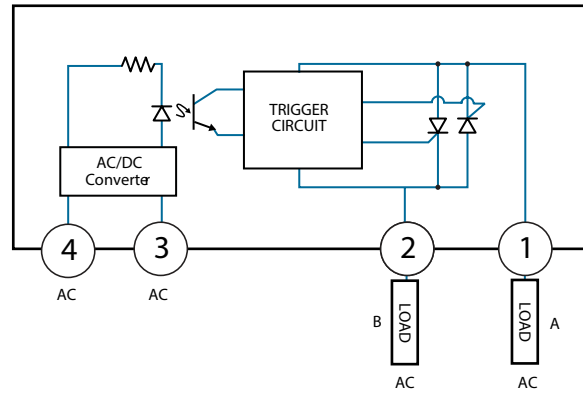
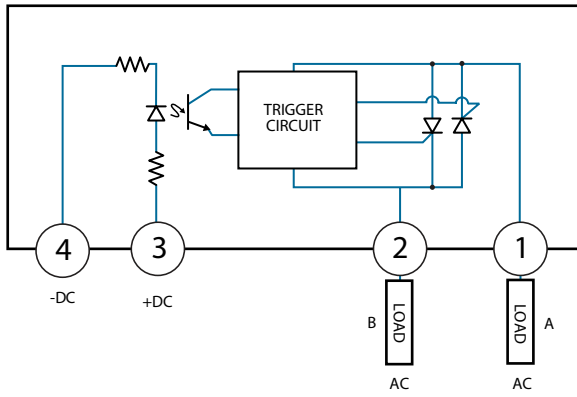
Description	CX240Dx	CX380/480Dx	CXExxxDx	CX240A5	CXE240A5
Nominal Voltage	5 VDC	5 VDC	24 VDC	120 VAC	24 VAC
Control Voltage Range	3-15 VDC	4-15 VDC	15-32 VDC	90-140 VAC	18-36 VAC
Minimum Turn-On Voltage	3.0 VDC	4.0 VDC	15.0 VDC	90.0 Vrms	18.0 Vrms
Drop Out Voltage	1.0 VDC	1.0 VDC	1.0 VDC	10.0 Vrms	2.0 Vrms
Typical Input Current	15 mAdc	15 mAdc	15 mAdc	10mArms	10mArms
Nominal Input Impedence	300 Ohm	240 Ohm	1500 Ohm	14.1K Ohm	2.1K Ohm
Maximum Turn-On Time [msec] ³	1/2 Cycle	1/2 Cycle	1/2 Cycle	10	10
Maximum Turn-Off Time [msec]	1/2 Cycle	1/2 Cycle	1/2 Cycle	40	40

General ⁽¹⁾

Description	Parameters
Dielectric Strength, Input/Output (50/60Hz)	4000 Vrms
Minimum Insulation Resistance (@ 500 VDC)	10 ⁹ Ohm
Maximum Capacitance, Input/Output	10 pF
Ambient Operating Temperature Range	-10°C to 80°C
Ambient Storage Temperature Range	-10°C to 125°C
Weight (typical)	0.4 oz (11g)
Encapsulation	Thermally Conductive Epoxy
Enclosure and PCB	Meets the requirements of IEC60335-1



WIRING DIAGRAMS



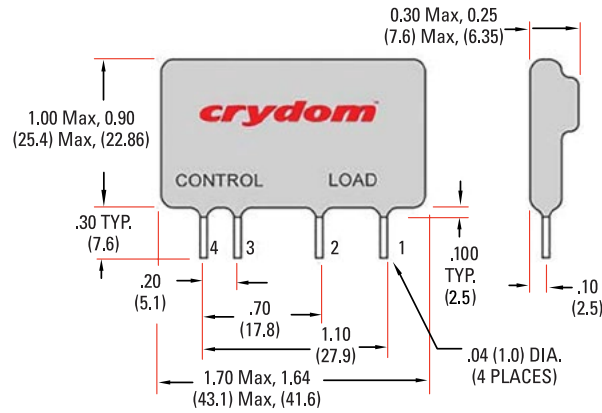
Load can be wired in location A or B



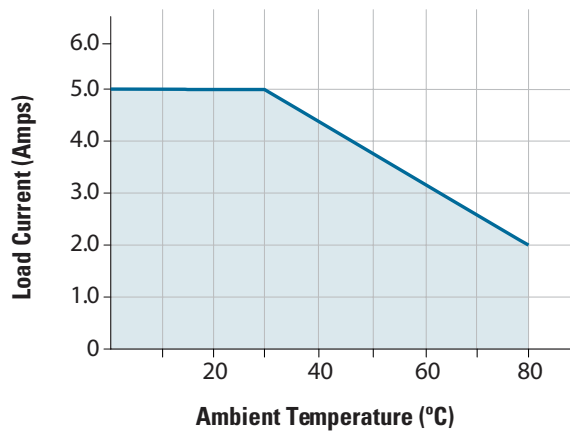
MECHANICAL SPECIFICATIONS

Tolerances: ± 0.02 in / 0.5 mm

All dimensions are in: inches [millimeters]



THERMAL DERATE INFORMATION





ORDERING OPTIONS

Example : CXE240D5R

CX - **E** - **240** - **D** - **5** - **R**

Series

CX

Control Voltage

Blank: 3-15 VDC

(240 and D suffix only)

4-15 VDC

(380/480 and D suffix only)

90-140 VAC (A suffix only)

E: 15-32 VDC (D suffix only)

18-36 VAC (A suffix only)

Operating Voltage

240: 12-280 VAC

380: 48-530 VAC

480: 48-660 VAC

Control Input Type

D: DC Input

A: AC Input

Operating Rating

5: 5 Amps

Switching Mode

Blank: Zero Voltage Turn-On

R: Random Turn-on

— Required for valid part number

□ For options only and not required for valid part number



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 is 0.01 msec (DC control Models)



AGENCY APPROVALS & CERTIFICATIONS

Designed in accordance with the requirements of IEC 62314

CE EN60950 : Meets the requirements of sections 1.5: 1.7: 2.9: 2.10.5.3: 4.2: 4.5: 4.7

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



(DC Control only)



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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[CXE480D5](#) [CX380D5](#) [CX240A5](#) [CXE240D5R](#) [CX380D5R](#) [CX480D5R](#) [CXE380D5R](#) [CXE480D5R](#)