UPD SERIES | SINGLE CHANNEL

PCB OR PANEL MOUNT SOLID STATE RELAYS



Features

- Single Channel Ratings of 15 A and 25 A @ 280 VAC
- SIP PCB Mount Package or Panel Mount quick connect terminals (F option)
- SCR output for heavy industrial loads
- Zero voltage (resistive loads) or instantaneous turn-on (inductive loads) output
- Low Leakage (snubberless) output

PRODUCT SELECTION

Control Voltage	15 A	15 A	25 A	25 A
3-32 VDC	UPD2415	UPD2415	UPD2425	UPD2425-10

SPECIFICATIONS

Output [1]

Description	UPD2415	UPD2415-10	UPD2425	UPD2425-10
Operating Voltage (47-440 Hz) [Vrms]	24-280	24-280	24-280	24-280
Maximum Load Current [Arms] [3]	15	15	25	25
Transient Overvoltage [Vpk]	600	600	600	600
Maximum 1 Cycle Surge Current (50/60 Hz) [Apk]	115/120	115/120	239/250	239/250
Maximum On-State Voltage Drop @ Rated Current [Vpk]	1.4	1.4	1.4	1.4
Thermal Resistance Junction to Case [°C/W]	1.2	1.2	0.7	0.7
Maximum I^2t for fusing (50/60 Hz, 1/2 cycle) [A^2 sec]	66/60	66/60	285/259	285/259
Maximum Off-State Leakage Current @ Rated Voltage [mArms]	0.1	0.1	0.1	0.1
Minimum Off-State dv/dt @ Maximum Rated Voltage [V/µsec] [2]	500	500	500	500
Minimum Power Factor (with Maximum Load)	0.5	0.5	0.5	0.5

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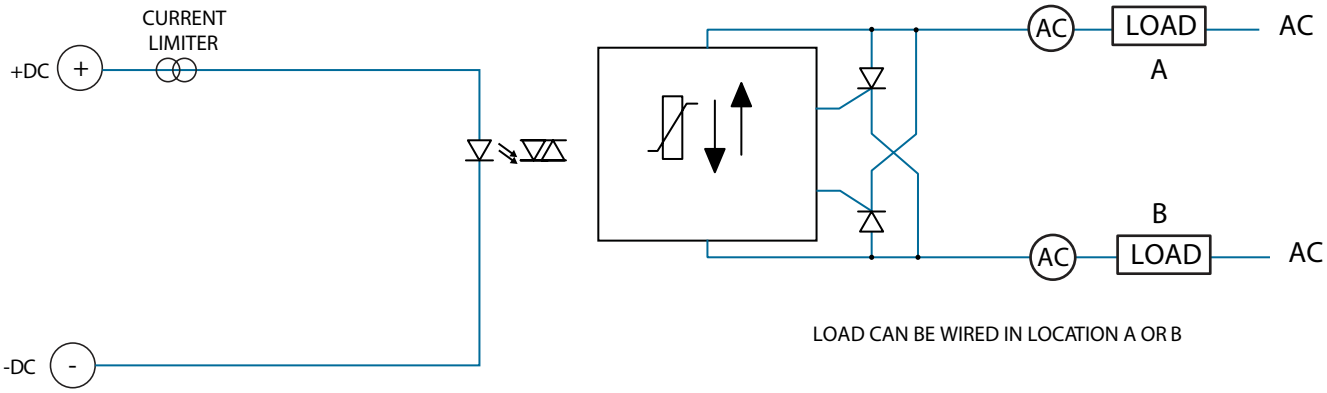
Input [1]

Description	UPD2415	UPD2415-10	UPD2425	UPD2425-10
Control Voltage Range	3-32 VDC	3-32 VDC	3-32 VDC	3-32 VDC
Maximum Turn-On Voltage	3.0 VDC	3.0 VDC	3.0 VDC	3.0 VDC
Minimum Turn-Off Voltage	1.0 VDC	1.0 VDC	1.0 VDC	1.0 VDC
Typical Input Current @ 12 VDC	10 mAdc	10 mAdc	10 mAdc	10 mAdc
Nominal Input Impedance	See note 4	See note 4	See note 4	See note 4
Maximum Turn-On Time [msec]	1/2 cycle	0.02	1/2 Cycle	0.02
Maximum Turn-Off Time [msec]	1/2 Cycle	1/2 Cycle	1/2 Cycle	1/2 Cycle

General [1]

Description	Parameters
Dielectric Strength, Input/Output/Base (50/60 Hz)	2500 Vrms
Minimum Insulation Resistance (@ 500 VDC)	10^9 Ohms
Maximum Capacitance, Input/Output	10 pF
Ambient Operating Temperature Range	-40 to 80˚C
Ambient Storage Temperature Range	-40 to 125˚C
Weight (typical)	1.5 oz (42.5 g)

EQUIVALENT CIRCUIT BLOCK DIAGRAM/WIRING DIAGRAM

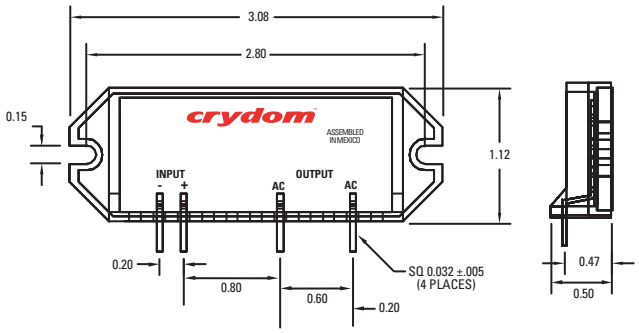


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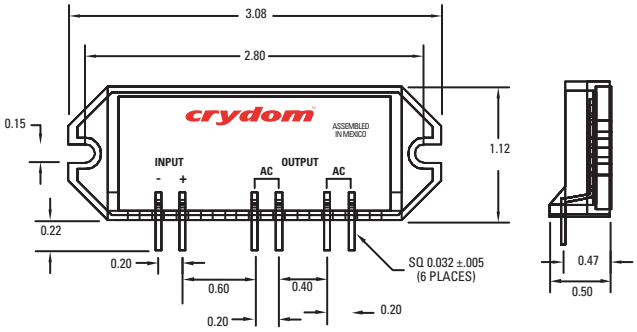
MECHANICAL SPECIFICATIONS

Tolerances: ±0.02 in / 0.5 mm
All dimensions are in inches [millimeters]

UPD2415

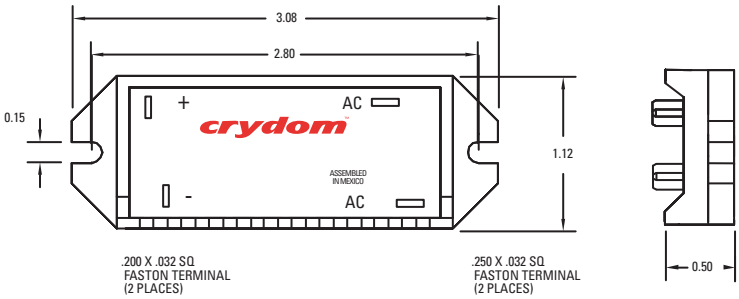


UPD2425



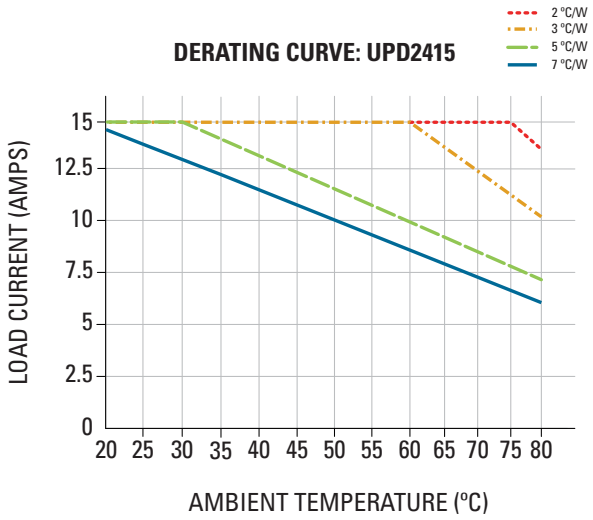
Note: Output terminals doubled for 25Amp models

UPD24XXF

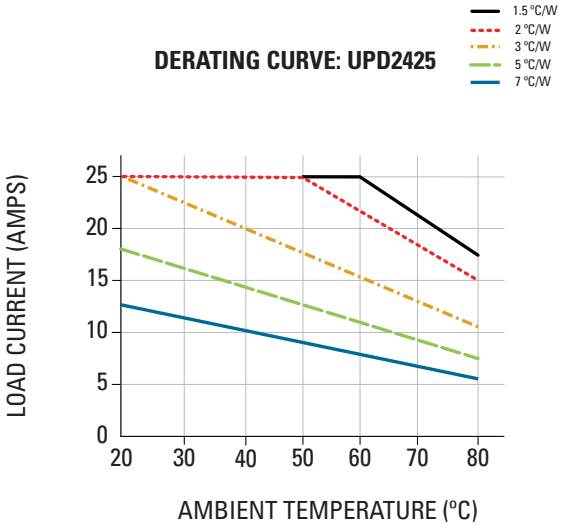


THERMAL DERATE INFORMATION

DERATING CURVE: UPD2415



DERATING CURVE: UPD2425



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ORDERING OPTIONS

Example : UPD2415F-10

UPD	24	15	F	-10

Series

UPD

Operating Voltage

24: 24-280 VAC

Rated Load Current

15: 15 Amps
25: 25 Amps

Terminals Type

Blank: Pins for PCB mount
F: Quick Connect Terminals

Switching Mode

Blank: Zero-voltage turn-on
-10: Instantaneous Turn-On

— Required for valid part number
☐ For options only and not required for valid part number

AGENCY APPROVALS & CERTIFICATIONS

(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) Heat sinking required, see following pages for derating curves.
(4) Input circuit incorporates active current limiter.

AGENCY APPROVALS & CERTIFICATIONS

Designed in accordance with the requirements of IEC 62314

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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