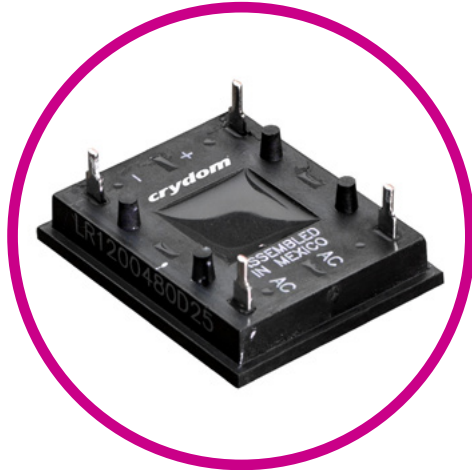




LR SERIES

PCB MOUNT SOLID STATE RELAYS



Features

- Ratings up to 40 A @ 600 VAC with external heat sink
- SCR output for heavy industrial loads
- AC or DC control
- Zero voltage (resistive loads) or instantaneous turn-on (inductive loads) output
- Optional mounting clip available (LMC-1)

PRODUCT SELECTION

Control Voltage	25 A	40 A	25 A	40 A	25 A	40 A
90-140 VAC	LR600240A25-120	LR600240A40-120	LR1200480A25-120	LR1200480A40-120	LR1200600A25-120	R1200600A40-120
180-260 VAC	LR600240A25-240	LR600240A40-240	LR1200480A25-240	LR1200480A40-240	LR1200600A25-240	LR1200600A40-240
4-32 VDC	LR600240D25	LR600240D40	LR1200480D25	LR1200480D40	LR1200600D25	LR1200600D40

SPECIFICATIONS

Output ⁽¹⁾

Description	25A	40A	25A	40A	25A	40A
Operating Voltage Range (47-63 Hz) [Vrms]	24-280	24-280	48-530	48-530	48-600	48-600
Transient Overvoltage [Vpk]	600	600	1200	1200	1200	1200
Maximum Off-State Leakage Current @ Rated Voltage [mA_{rms}]	0.1	0.1	0.1	0.1	0.1	0.1
Minimum Off-State dv/dt @ Maximum Rated Voltage [V/μsec] ⁽³⁾	500	500	500	500	500	500
Maximum Load Current [Arms]	25	40	25	40	25	40
Minimum Load Current [Arms]	0.15	0.15	0.15	0.15	0.15	0.15
Maximum Surge Non-Repetitive (16.6 msec)[Apk]	250	400	250	400	250	40
Maximum On-State Voltage Drop @ Rated Current [Vpk]	1.6	1.6	1.6	1.6	1.6	1.6
Maximum I² t for Fusing (8.33 msec) [A² sec]	260	660	260	660	260	660
Maximum Thermal Resistance Junction to Ceramic Base	0.9°C/W	0.7°C/W	0.9°C/W	0.7°C/W	0.9°C/W	0.7°C/W
Minimum Power Factor (with Maximum Load)	0.5	0.5	0.5	0.5	0.5	0.5

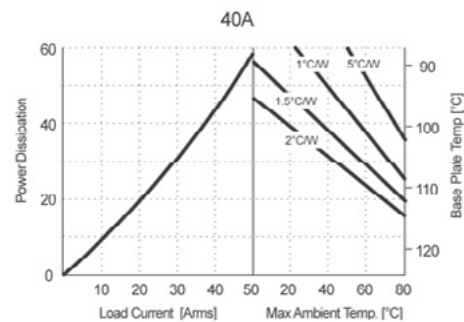
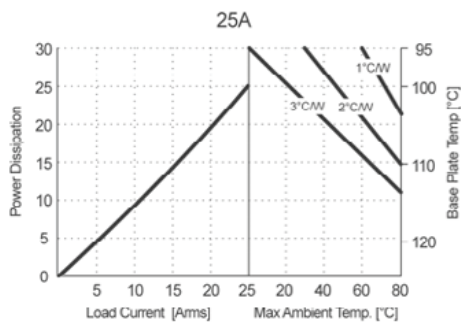
Input ⁽¹⁾

Description	No Suffix	-120	-240
Control Voltage Range	4-32 VDC	90-140 VAC	180-260 VAC
Must Turn-On Voltage	4.0 VDC	90 VAC	180 VAC
Must Turn-Off Voltage	1.0 VDC	10 VAC	10 VAC
Typical Input Current [mA] ⁽⁵⁾⁽⁶⁾	9	15	11
Maximum Turn-on Time ⁽⁴⁾	1/2 Cycle	10	10
Maximum Turn-off Time	1/2 Cycle	40	40

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	8 pF
Ambient Operating Temperature Range	-30 to 80 °C
Ambient Storage Temperature Range	-30 to 125 °C
Weight (typical)	0.5 oz. (14.4 g)
Encapsulation	Thermally Conductive Epoxy

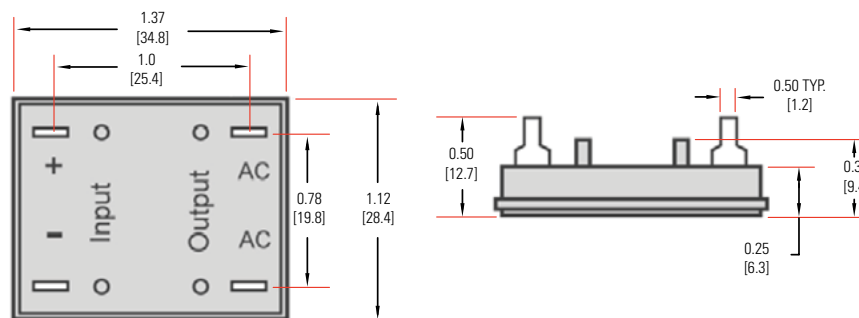
THERMAL DERATE INFORMATION



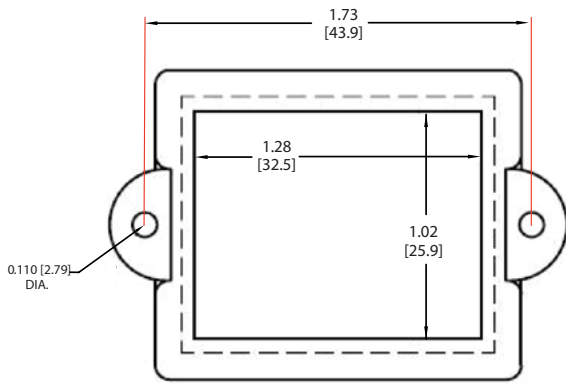
MECHANICAL DIMENSIONS

Tolerance: ±0.02 in / 0.5 mm

All dimensions are in inches [millimeters]

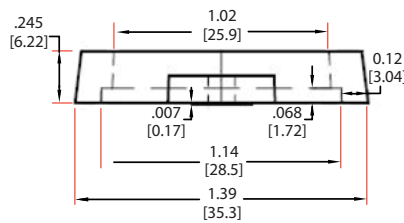
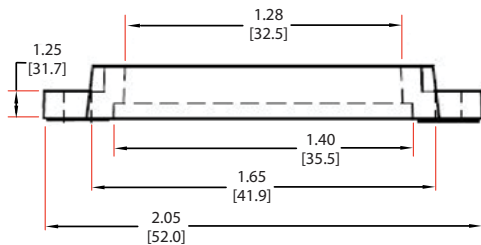


Mounting Clip (Optional)



LMC-1 Mounting Clip

NOTE: This plastic shell is designed to secure LR Series Solid State Relay to the surface of external heat sink.



ORDERING OPTIONS

Example : LR600240A25R-120

Series	LR	600	240	A	25	R	-120
LR							
Blocking Voltage							
600:		600 Vpk					
1200:		1200 Vpk					
Operating Voltage							
240:		24-280 VAC					
480:		48-530 VAC					
600:		48-600 VAC					
Control Voltage							
D:		DC Input					
A:		AC Input					
Rated Load Current							
25:		25 Amps					
40:		40 Amps					
Switching Type							
Blank:		Zero voltage Turn-on					
R:		Instantaneous Turn-on					
AC Control Range							
Blank:		4-32 VDC (DC Only)					
-120:		90-140 VAC (AC Only)					
-240:		180-260 VAC (AC Only)					

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

GENERAL NOTES

- (1) All parameters at 25 °C and per section unless otherwise specified
- (2) Dielectric and insulation resistance are measured between input and output.
- (3) Off-State dv/dt test method per EIA/NARM standard RS-443, paragraph 13.11.1
- (4) Turn-on time for instantaneous turn-on models is 0.1 ms
- (5) DC input circuitry incorporates active current limiter.
- (6) Use suffix -120 for 120 VAC control and -240 for 240 VAC control.

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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