

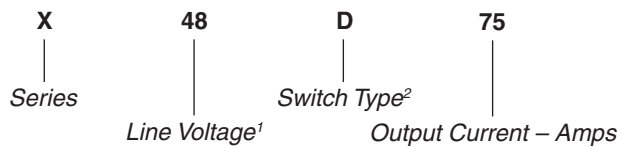
**FEATURES/BENEFITS**

- Solid-state relay designed for most loads
- Capable of handling loads with high inrush current, such as infrared lamps
- Back-to-back thyristors on output for long life
- Up to 1600V blocking voltage
- Compact package



Part Number	Description
X48D75	75A, 600 Vac Solid-State Relay
X60R75	75A, 690 Vac Solid-State Relay

**Part Number Explanation**



NOTES  
1) Line Voltage (nominal): 48 = 480 Vac  
2) Switch Type: D = Zero-cross turn-on; R = Random turn-on

**ELECTRICAL SPECIFICATIONS**

(+20°C ambient temperature unless otherwise specified)

**INPUT (CONTROL) SPECIFICATIONS**

	Min	Max	Units
<b>Control Range</b>			
X48D75	5	30	Vdc
X60R75	4	30	Vdc
<b>Input Current Range</b>			
X48D75	5	30	mA
X60R75	2	30	mA
Must Turn-Off Voltage	1		V
Input Resistance (Typical)	1000		Ω
Reverse Voltage Protection	30		V

**MECHANICAL SPECIFICATION**

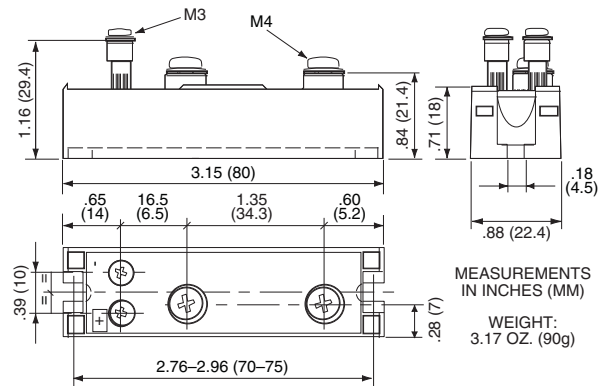


Figure 1

**TYPICAL APPLICATION**

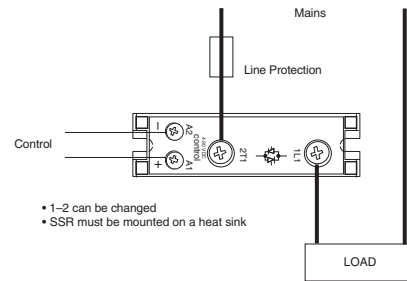


Figure 2

**CONTROL CHARACTERISTIC**

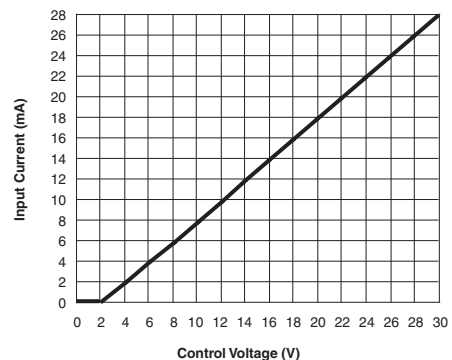


Figure 3

**ELECTRICAL SPECIFICATIONS**  
(+20°C ambient temperature unless otherwise specified)

**OUTPUT (LOAD) SPECIFICATIONS**

	Min	Max	Units
<b>Operating Range</b>			
X48D75	24	600	Vrms
X60R75	24	690	Vrms
<b>Peak Voltage</b>			
X48D75		1200	Vpeak
X60R75		1600	Vpeak
<b>Output Current Range</b>			
	.005	75	A
<b>Zero-Cross Window (X48D75)</b>			
		±12	V
<b>Maximum Surge Current Rating (Non-Repetitive)</b>			
		1000	A
<b>On-State Voltage Drop</b>			
		1.3	V
<b>Off-State Leakage Current (60 Hz)</b>			
		1	mA
<b>Turn-On Time (60 Hz)</b>			
X48D75		8.3	ms
X60R75		0.8	ms
<b>Turn-Off Time (60 Hz)</b>			
		8.3	ms
<b>Operating Frequency Range</b>			
	0.1	880	Hz
<b>Off-state dv/dt</b>			
		500	V/μs
<b>Maximum di/dt (Non-Repetitive)</b>			
		50	A/μs
<b>I<sup>2</sup>t for Match Fusing (&lt;8.3 ms)</b>			
		5000	A <sup>2</sup> s

**GENERAL SPECIFICATIONS**

(+20°C ambient temperature unless otherwise specified)

**ENVIRONMENTAL SPECIFICATIONS**

	Min	Max	Units
<b>Operating Temperature</b>			
	-40	+100	°C
<b>Storage Temperature</b>			
	-40	+100	°C
<b>Input-Output Isolation</b>			
	4000		Vrms
<b>Output-Case Isolation</b>			
	4000		Vrms
<b>Rated Impulse Voltage</b>			
	4000		V

**THERMAL CHARACTERISTICS**

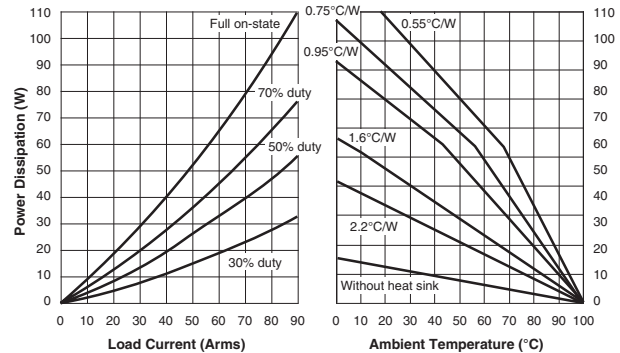


Figure 4

**SURGE CURRENT**

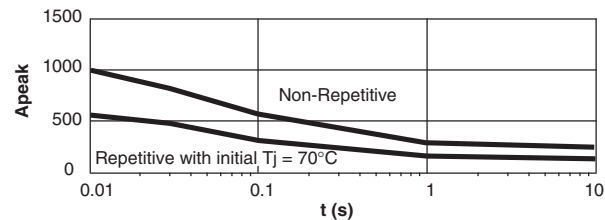


Figure 5

**TYPICAL APPLICATION WITH 3 RELAYS**

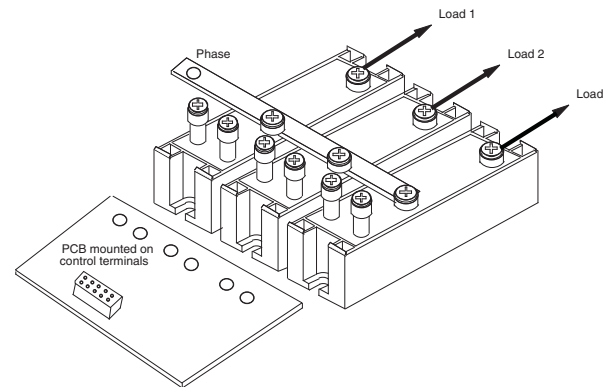


Figure 6

**NOTES**

1. For additional/custom options, contact factory.