

Part Number	Description
XV46D30K	30A, 420 Vac

**Part Number Explanation**

XV	46	D	30	K
Series	Line Voltage <sup>1</sup>	Switch Type <sup>2</sup>	Output Current - Amps	Control Range <sup>3</sup>

**NOTES**

- 1) Line Voltage (nominal): 46 = 420 Vac
- 2) Switch Type: D = Zero cross turn-on
- 3) Control Range: K = 20-30 Vdc

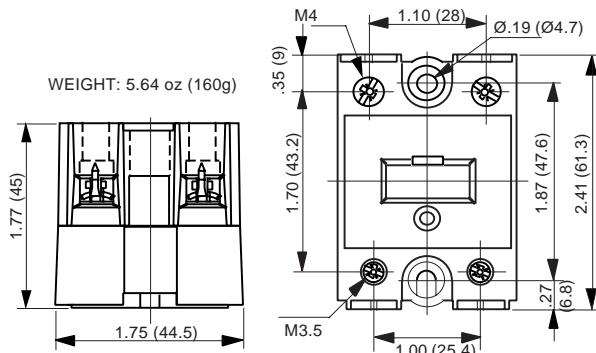
**MECHANICAL SPECIFICATION**


Figure 1 – XV relay; dimensions in inches (mm)

**INPUT (CONTROL) SPECIFICATION**

	Min	Max	Units
Control Range	20	30	Vdc
Input Current Range	31	41	mAdc
Must Turn-Off Voltage	10		Vdc
Input Resistance (Typical)	640		Ohms
Reverse Voltage Protection	30		Vdc
Control Frequency	1		Hz

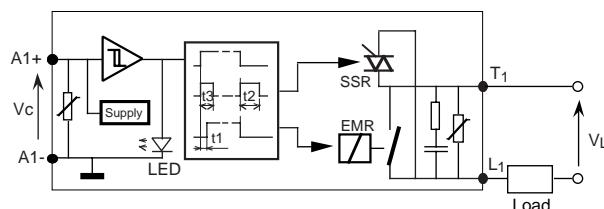
**TYPICAL APPLICATION**


Figure 2 – XV relay


**FEATURES/BENEFITS**

- Industry standard package
- Combines the best of solid-state and electromechanical relays
- Tight zero-cross window for low EMI
- Control LED
- Internal output protection
- High immunity to surges

**DESCRIPTION**

The Series XV relay combines the best of solid-state and electromechanical technology. The relay is designed in a touch-proof hockey puck package. The XV relay switches current up to 30A without a heat sink. Visual control status is provided as a standard. Elimination of the heat sink conserves space and makes the XV ideal for numerous applications.

**APPLICATIONS**

- Interface applications
- Heating Control
- Light/Lamp control
- Contactor driver
- Fan speed control
- HVAC controls

**APPROVALS**

All models are UL recognized.  
UL File Number: E128555.

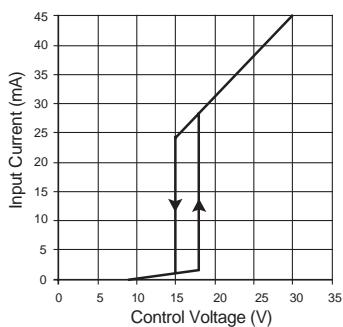
**CONTROL CHARACTERISTIC**


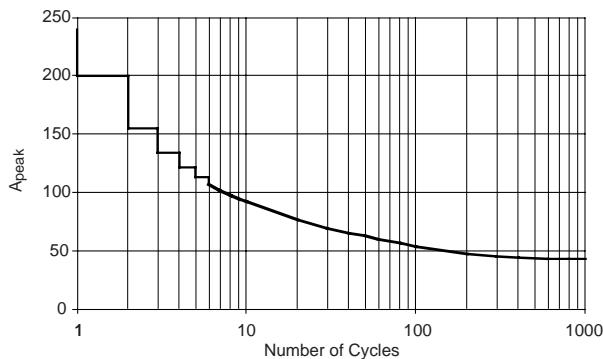
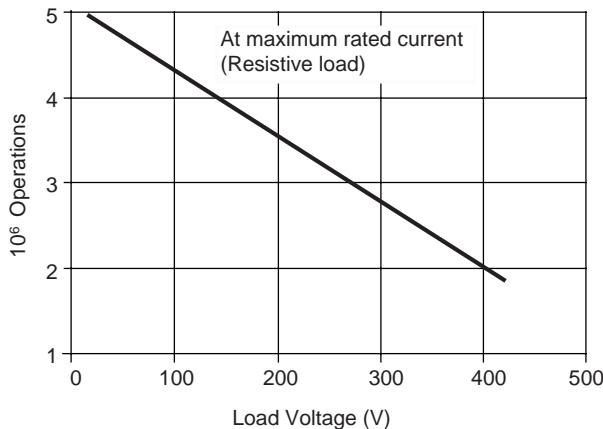
Figure 3 – XV relay

**OUTPUT (LOAD) SPECIFICATION**

	Min	Max	Unit
Operating Range	12	420	Vrms
Peak Voltage		800	Vpeak
Load Current Range	0.1	30	Arms
Motor Load Current		7.5	Arms
Maximum Surge Current Rating (Non-Repetitive)			
(See Figure 4)	240		Apeak
On-State Voltage Drop		0.3	V
Zero Cross Window (Typical)		$\pm 12$	V
Off-State Leakage Current (60Hz)	2		mA
Turn-On Time (60Hz)		12	ms
Turn-Off Time (60Hz)		20	ms
Off-State dv/dt		500	V/μs
Maximum di/dt (Non-repetitive)		50	A/μs
Operating Frequency	40	440	Hz
I <sup>2</sup> t for fuse matching (<8.3ms)		288	A <sup>2</sup> S

**ENVIRONMENTAL SPECIFICATION**

	Min	Max	Unit
Operating Temperature	-40	90	°C
Storage Temperature	-40	100	°C
Input-Output Isolation		4000	Vrms
Output-Case Isolation		4000	V
Life Expectancy	See Figure 5		

**SURGE CURRENT**

*Figure 4 – XV relay*
**LIFETIME EXPECTANCY**

*Figure 5 – XV relay*
**NOTES:**

1. Electrical Specifications at 25°C unless otherwise specified.
2. For 800Hz applications, contact factory.
3. For additional/custom options, contact factory.