

## Solid State Relays - Panel Mount: EZ



### Features

SCR output • 5-18 Amps • 240/480 Vrms • AC Switching • DC/AC control with 1/4" Fast-on terminals • Compact design.

Product	INPUT SPECIFICATIONS		OUTPUT SPECIFICATIONS		
	Control Voltage Range	Load Current	Switching Voltage Type	Turn On	Load Voltage Range
<a href="#">EZ240D12</a>	3-15 Volts DC	0.15-12 Amps RMS	AC	Zero cross	24-280 Volts RMS
<a href="#">EZ240D12R</a>	3-15 Volts DC	0.15-12 Amps RMS	AC	Random	24-280 Volts RMS
<a href="#">EZ240D12RS</a>	3-15 Volts DC	0.15-12 Amps RMS	AC	Random	24-280 Volts RMS
<a href="#">EZ240D12S</a>	3-15 Volts DC	0.15-12 Amps RMS	AC	Zero cross	24-280 Volts RMS
<a href="#">EZ240D18</a>	3-15 Volts DC	0.15-18 Amps RMS	AC	Zero cross	24-280 Volts RMS
<a href="#">EZ240D18R</a>	3-15 Volts DC	0.15-18 Amps RMS	AC	Random	24-280 Volts RMS
<a href="#">EZ240D18RS</a>	3-15 Volts DC	0.15-18 Amps RMS	AC	Random	24-280 Volts RMS

<b>EZE480D12S</b>	15-32 Volts DC	0.15-12 Amps RMS	AC	Zero cross	48-660 Volts RMS
<b>EZE480D18</b>	15-32 Volts DC	0.15-18 Amps RMS	AC	Zero cross	48-660 Volts RMS
<b>EZE480D18S</b>	15-32 Volts DC	0.15-18 Amps RMS	AC	Zero cross	48-660 Volts RMS
<b>EZ240A12</b>	90-140 Volts RMS	0.15-12 Amps RMS	AC	Zero cross	24-280 Volts RMS
<b>EZ240A12R</b>	90-140 Volts RMS	0.15-12 Amps RMS	AC	Random	24-280 Volts RMS
<b>EZ240A12RS</b>	90-140 Volts RMS	0.15-12 Amps RMS	AC	Random	24-280 Volts RMS
<b>EZ240A12S</b>	90-140 Volts RMS	0.15-12 Amps RMS	AC	Zero cross	24-280 Volts RMS
<b>EZ240A18</b>	90-140 Volts RMS	0.15-18 Amps RMS	AC	Zero cross	24-280 Volts RMS
<b>EZ240A18R</b>	90-140 Volts RMS	0.15-18 Amps RMS	AC	Random	24-280 Volts RMS
<b>EZ240A18RS</b>	90-140 Volts RMS	0.15-18 Amps RMS	AC	Random	24-280 Volts RMS
<b>EZ240A18S</b>	90-140 Volts RMS	0.15-18 Amps RMS	AC	Zero cross	24-280 Volts RMS
<b>EZ480A12</b>	90-140 Volts RMS	0.15-12 Amps RMS	AC	Zero cross	48-660 Volts RMS
<b>EZ480A12S</b>	90-140 Volts RMS	0.15-12 Amps RMS	AC	Zero cross	48-660 Volts RMS
<b>EZ480A18</b>	90-140 Volts RMS	0.15-18 Amps RMS	AC	Zero cross	48-660 Volts RMS
<b>EZ480A18S</b>	90-140 Volts RMS	0.15-18 Amps RMS	AC	Zero cross	48-660 Volts RMS
<b>EZE240A12</b>	18-36 Volts RMS	0.15-12 Amps RMS	AC	Zero cross	24-280 Volts RMS
<b>EZE240A12R</b>	18-36 Volts RMS	0.15-12 Amps RMS	AC	Random	24-280 Volts RMS
<b>EZE240A12RS</b>	18-36 Volts RMS	0.15-12 Amps RMS	AC	Random	24-280 Volts RMS

<b>EZ240D18S</b>	3-15 Volts DC	0.15-18 Amps RMS	AC	Zero cross	24-280 Volts RMS
<b>EZ240D5</b>	4-15 Volts DC	0.15-5 Amps RMS	AC	Zero cross	24-280 Volts RMS
<b>EZ240D5R</b>	4-15 Volts DC	0.15-5 Amps RMS	AC	Random	24-280 Volts RMS
<b>EZ240D5RS</b>	4-15 Volts DC	0.15-5 Amps RMS	AC	Random	24-280 Volts RMS
<b>EZ240D5S</b>	4-15 Volts DC	0.15-5 Amps RMS	AC	Zero cross	24-280 Volts RMS
<b>EZ480D12</b>	4-15 Volts DC	0.15-12 Amps RMS	AC	Zero cross	48-660 Volts RMS
<b>EZ480D12S</b>	4-15 Volts DC	0.15-12 Amps RMS	AC	Zero cross	48-660 Volts RMS
<b>EZ480D18</b>	4-15 Volts DC	0.15-18 Amps RMS	AC	Zero cross	48-660 Volts RMS
<b>EZ480D18S</b>	4-15 Volts DC	0.15-18 Amps RMS	AC	Zero cross	48-660 Volts RMS
<b>EZE240D12</b>	15-32 Volts DC	0.15-12 Amps RMS	AC	Zero cross	24-280 Volts RMS
<b>EZE240D12R</b>	15-32 Volts DC	0.15-12 Amps RMS	AC	Random	24-280 Volts RMS
<b>EZE240D12RS</b>	15-32 Volts DC	0.15-12 Amps RMS	AC	Random	24-280 Volts RMS
<b>EZE240D12S</b>	15-32 Volts DC	0.15-12 Amps RMS	AC	Zero cross	24-280 Volts RMS
<b>EZE240D18</b>	15-32 Volts DC	0.15-18 Amps RMS	AC	Zero cross	24-280 Volts RMS
<b>EZE240D18R</b>	15-32 Volts DC	0.15-18 Amps RMS	AC	Random	24-280 Volts RMS
<b>EZE240D18RS</b>	15-32 Volts DC	0.15-18 Amps RMS	AC	Random	24-280 Volts RMS
<b>EZE240D18S</b>	15-32 Volts DC	0.15-18 Amps RMS	AC	Zero cross	24-280 Volts RMS
<b>EZE480D12</b>	15-32 Volts DC	0.15-12 Amps RMS	AC	Zero cross	48-660 Volts RMS

<b>EZE240A12S</b>	18-36 Volts RMS	0.15-12 Amps RMS	AC	Zero cross	24-280 Volts RMS
<b>EZE240A18</b>	18-36 Volts RMS	0.15-18 Amps RMS	AC	Zero cross	24-280 Volts RMS
<b>EZE240A18R</b>	18-36 Volts RMS	0.15-18 Amps RMS	AC	Random	24-280 Volts RMS
<b>EZE240A18RS</b>	18-36 Volts RMS	0.15-18 Amps RMS	AC	Random	24-280 Volts RMS
<b>EZE240A18S</b>	18-36 Volts RMS	0.15-18 Amps RMS	AC	Zero cross	24-280 Volts RMS
<b>EZE480A12</b>	18-36 Volts RMS	0.15-12 Amps RMS	AC	Zero cross	48-660 Volts RMS
<b>EZE480A12S</b>	18-36 Volts RMS	0.15-12 Amps RMS	AC	Zero cross	48-660 Volts RMS
<b>EZE480A18</b>	18-36 Volts RMS	0.15-18 Amps RMS	AC	Zero cross	48-660 Volts RMS
<b>EZE480A18S</b>	18-36 Volts RMS	0.15-18 Amps RMS	AC	Zero cross	48-660 Volts RMS

- Low Leakage
- Quick Connect Terminals
- SCR Output
- 24V Control Available (EZE Models)

The Series EZ SPST-NO AC output relays offer a low profile package with the convenience of quick con-

nect terminals. The Series EZ is the preferred choice for replacement of 120V and 240V Electro-mechanical relays. Output consists of an SCR switch and is available in Zero-Cross and Random Turn-On (Phase Controlable) versions.

Manufactured in Crydom's ISO 9001 Certified facility for optimum product performance and reliability.

MODEL NUMBERS	AC CONTROL	(120Vac)		EZ240A12	EZ240A18	EZ480A12	EZ480A18	
	DC CONTROL	(24Vac)	EZ240D5	EZE240A12	EZE240A18	EZE480A12	EZE480A18	
OUTPUT SPECIFICATIONS ①		(5Vdc)		EZ240D12	EZ240D18	EZ480D12	EZ480D18	
		(24Vdc)		EZE240D12	EZE240D18	EZE480D12	EZE480D18	
Operating Voltage (47-63 Hz) [Vrms]			24-280	24-280	24-280	48-660	48-660	
Max. Load Current ④ [Arms]			5	12	18	12	18	
Min. Load Current, [mArms]			150	150	150	150	150	
Transient Overvoltage [Vpk]			600	600	600	1200	1200	
Max. Surge Current, (16.6ms) [Apk]			40	150	200	150	200	
Max. On-State Voltage Drop @ Rated Current [Vpk]			1.5	1.5	1.5	1.5	1.5	
Thermal Resistance Junction to Case (R <sub>qJC</sub> ) [°C/W]			2.0	2.0	1.1	2.0	1.1	
Maximum I <sup>2</sup> t for Fusing, (8.3 msec.) [A <sup>2</sup> sec]			95	95	170	95	170	
Max. Off-State Leakage Current @ Rated Voltage [mArms] ⑤			0.1	0.1	0.1	0.1	0.1	
Min. Off-State dv/dt @ Max. Rated Voltage [V/μsec] ②			500	500	500	500	500	
Max. Turn-On Time ⑥			1/2 Cycle (DC Input), 10.0 msec (AC Input)					
Max. Turn-Off Time			1/2 Cycle (DC Input), 40.0 msec (AC Input)					
Power Factor (Min.) with Max. Load			0.5	0.5	0.5	0.5	0.5	

MODEL NUMBERS	DC CONTROL				AC CONTROL		
	Nominal Voltage	5Vdc	5Vdc	5Vdc	24Vdc	120Vac	24Vac
					EZE240A12	EZE240A12	
					EZE240A18	EZE240A18	
					EZE480A12	EZE480A12	
					EZE480A18	EZE480A18	
Control Voltage Range	EZ240D5	4-15 Vdc	3-15 Vdc	4-15 Vdc	15-32 Vdc	90-140 Vrms	18-36 Vrms
Max. Turn-On Voltage		4.0 Vdc	3.0 Vdc	4.0 Vdc	15.0 Vdc	90.0 Vrms	18.0 Vrms
Min. Turn-Off Voltage		1.0 Vdc	1.0 Vdc	1.0 Vdc	1.0 Vdc	10.0 Vrms	2.0 Vrms
Nominal Input Impedance		300 Ohms	300 Ohms	240 Ohms	1500 Ohms	10.6k Ohms	1.8k Ohms
Typical Input Current @ Nominal Voltage		13 mAdc	15 mAdc	15 mAdc	15 mAdc	10 mArms	10 mArms

## 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 240V, DC control models only, all others 2500Vrms.
- ④ Heat sinking required, for derating curves see page 2.
- ⑤ Off-State leakage for snubbered version (suffix S) is 10.0 mArms.
- ⑥ Turn-on time for random turn-on versions is 0.1 msec (DC Control Models).

© 2007 CRYDOM Inc., Specifications subject to change without notice.

### GENERAL SPECIFICATIONS

Dielectric Strength ③ 50/60Hz Input/Output/Base	4000 Vrms*
Insulation Resistance (Min.) @ 500 Vdc	10 <sup>9</sup> Ohm
Max. Capacitance Input/Output	8 pF
Ambient Operating Temperature Range	-40 to 80°C
Ambient Storage Temperature Range	-40 to 125°C

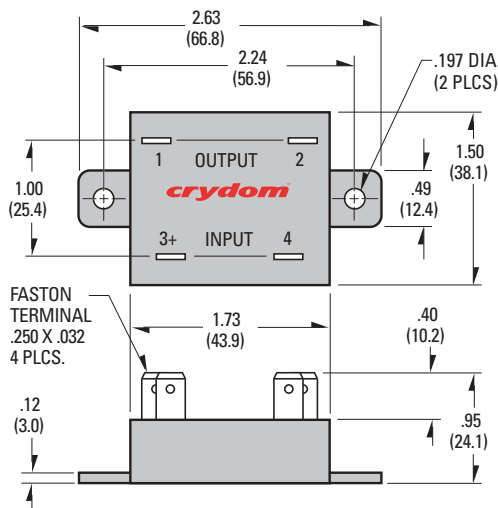
### MECHANICAL SPECIFICATIONS

Weight: (typical)	1.5 oz. (43g)
Encapsulation:	Thermally Conductive Epoxy
Terminals:	.25 Inch Faston

### AVAILABLE OPTIONS

- S** Internal Snubber (Operating Voltage 530 Vrms max.)  
Example: **EZ240D12S**
- R** Random Turn-On Switching  
Example: **EZ240D12R, EZ240D12RS**  
**EZ240D5R**

\*240V, DC Control Models Only.



- PIN 1: AC LOAD
- PIN 2: AC LOAD
- PIN 3: +DC CONTROL
- PIN 4: -DC CONTROL

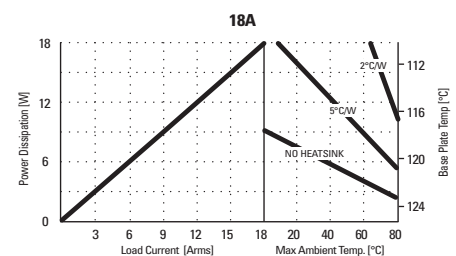
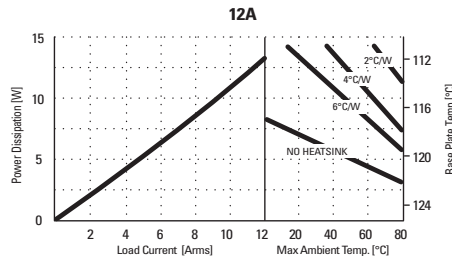
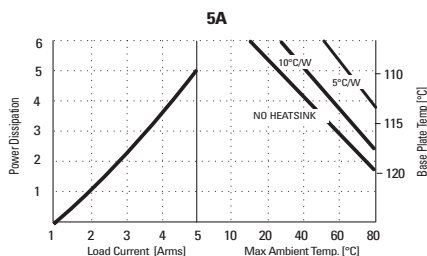
Crydom Heat Sinks offer excellent thermal management and are perfectly matched to the load current ratings of Crydom panel mount relays. Request Crydom's Heat Sink specification sheet for all the details.

All dimensions are in inches (millimeters)

**Note:**

Recommended torque for mounting screw is 8 - 14 in lb (1.1 - 1.6 Nm). This assumes a standard #8-32 UNC screw

### CURRENT DERATING CURVES



### APPROVALS

UL E116950  
 CSA LR81689  
 VDE 10139 UG (240V DC Control Only)



© 2007 CRYDOM Inc., Specifications subject to change without notice.

