

- 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 Controllable) versions.

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

| AC CONTROL (120Vac)<br>(24Vac)                                        |                              | EZ240A12<br>EZE240A12                      | EZ240A18<br>EZE240A18 | EZ480A12<br>EZE480A12 | EZ480A18<br>EZE480A18 |                       |
|-----------------------------------------------------------------------|------------------------------|--------------------------------------------|-----------------------|-----------------------|-----------------------|-----------------------|
| MODEL NUMBERS                                                         | DC CONTROL (5Vdc)<br>(24Vdc) | EZ240D5<br>EZE240D12                       | EZ240D12<br>EZE240D12 | EZ240D18<br>EZE240D18 | EZ480D12<br>EZE480D12 | EZ480D18<br>EZE480D18 |
| OUTPUT SPECIFICATIONS ①                                               |                              |                                            |                       |                       |                       |                       |
| 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>θJC</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 @<br>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                   |

| INPUT SPECIFICATIONS ①                  |          | DC CONTROL             |                      |                        | AC CONTROL             |                        |
|-----------------------------------------|----------|------------------------|----------------------|------------------------|------------------------|------------------------|
| Nominal Voltage                         | 5Vdc     | 5Vdc                   | 5Vdc                 | 24Vdc                  | 120Vac                 | 24Vac                  |
| MODEL NUMBERS                           |          |                        |                      | EZE240D12              | EZE240A12              | EZE240A12              |
|                                         |          |                        |                      | EZE240D18              | EZE240A18              | EZE240A18              |
|                                         |          |                        |                      | EZE480D12              | EZE480A12              | EZE480A12              |
|                                         | EZ240D5  | EZE240D12<br>EZE240D18 | EZ480D12<br>EZ480D18 | EZE480D12<br>EZE480D18 | EZE480A12<br>EZE480A18 | EZE480A12<br>EZE480A18 |
| Control Voltage Range                   | 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

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- 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).

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For recommended applications and more information contact:

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## 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        |

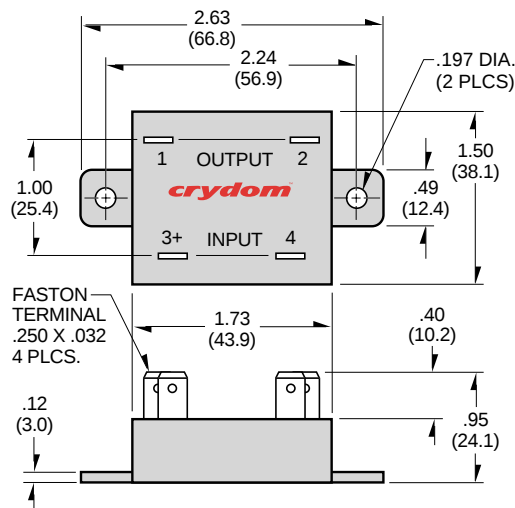
## MECHANICAL SPECIFICATIONS

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

## AVAILABLE OPTIONS

- S** Internal Snubber  
Example: **EZ240D12S**
- R** Random Turn-On Switching  
Example: **EZ240D12R, EZ240D12RS**  
**EZ240D5R**

\*240V, DC Control Models Only.

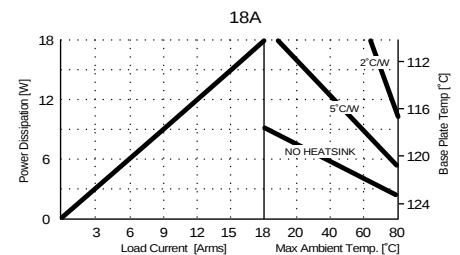
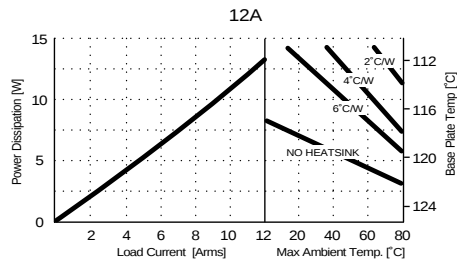
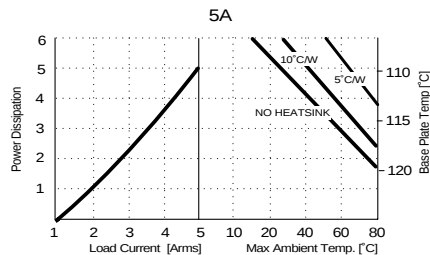


PIN 1: AC LOAD  
PIN 2: AC LOAD  
PIN 3: +DC CONTROL  
PIN 4: -DC CONTROL

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)

## CURRENT DERATING CURVES



## APPROVALS

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



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