

- 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.

MODEL NUMBERS	AC CONTROL (120Vac) (24Vac)	EZZ240D5	EZ240A12 EZE240A12	EZ240A18 EZE240A18	EZ480A12 EZE480A12	EZ480A18 EZE480A18
	DC CONTROL (5Vdc) (24Vdc)		EZ240D12 EZE240D12	EZ240D18 EZE240D18	EZ480D12 EZE480D12	EZ480D18 EZE480D18
<b>OUTPUT SPECIFICATIONS</b> 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>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
					EZE240D12 EZE240D18	EZ240A12 EZE240A18	EZE240A12 EZE240A18
	EZZ240D5	EZ240D12 EZE240D18	EZ480D12 EZE480D18	EZ480D12 EZE480D18	EZE480D12 EZE480D18	EZ480A12 EZE480A18	EZE480A12 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 mA <sub>dc</sub>	15 mA <sub>dc</sub>	15 mA <sub>dc</sub>	15 mA <sub>dc</sub>	10 mA <sub>Arms</sub>	10 mA <sub>Arms</sub>	

## 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 snubbed version (suffix S) is 10.0 mA<sub>Arms</sub>.
- 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

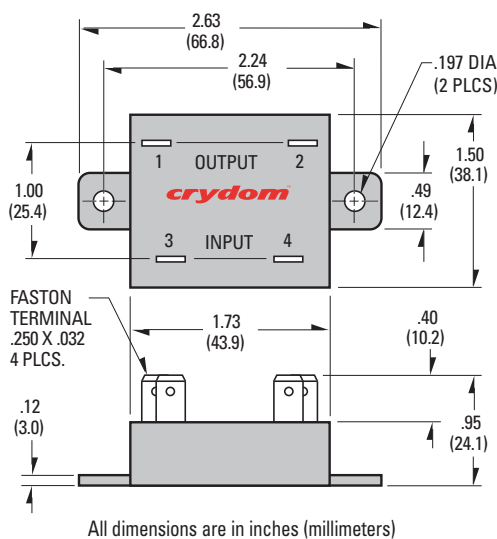
### MECHANICAL SPECIFICATIONS

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**

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.



\*240V, DC Control Models Only.

#### DC CONTROL

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

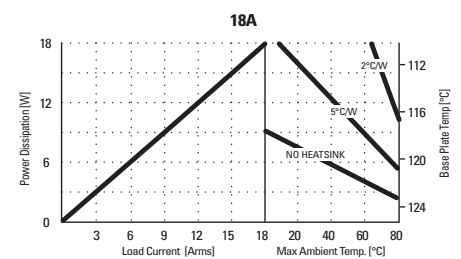
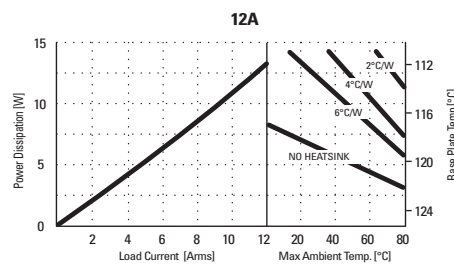
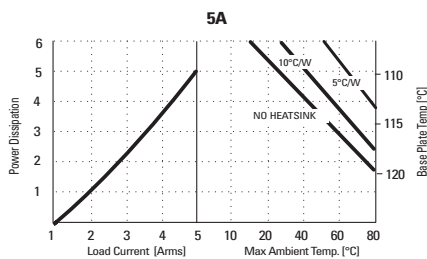
#### AC CONTROL

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

#### 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)



**DANGER / PELIGRO / DANGER /GEFAHR / PERICOLO / PERIGO**

<p><b>HAZARD OF ELECTRIC SHOCK, EXPLOSION, OR ARC FLASH.</b></p> <ul style="list-style-type: none"> <li>• Disconnect all power before installing or working with this equipment.</li> <li>• Verify all connections and replace all covers before turning on power.</li> </ul> <p><b>Failure to follow these instructions will result in death or serious injury.</b></p>	<p><b>RIESGO DE DESCARGA ELECTRICA O EXPLOSION.</b></p> <ul style="list-style-type: none"> <li>• Desconectar todos los suministros de energia a este equipo antes de trabajar con este equipo.</li> <li>• Verificar todas las conexiones y colocar todas las tapas antes de energizar el equipo.</li> </ul> <p><b>El incumplimiento de estas instrucciones puede provocar la muerte o lesiones serias.</b></p>	<p><b>RISQUE DE DESCARGE ELECTRIQUE OU EXPLOSION</b></p> <ul style="list-style-type: none"> <li>• Eteindre toutes les sources d'énergie de cet appareil avant de travailler dessus de cet appareil</li> <li>• Vérifier tous connections, et remettre tous couverts en place avant de mettre sous</li> </ul> <p><b>De non-suivi de ces instructions provoquera la mort ou des lésions sérieuses.</b></p>	<p><b>GEFAHR EINES ELEKTRISCHEN SCHLAGES ODER EINER EXPLOSION.</b></p> <ul style="list-style-type: none"> <li>• Stellen Sie jeglichen Strom ab, der dieses Gerät versorgt, bevor Sie an dem Gerät Arbeiten durchführen</li> <li>• Vor dem Drehen auf Energie alle Anschlüsse überprüfen und alle Abdeckungen ersetzen.</li> </ul> <p><b>Unterlassung dieser Anweisungen können zum Tode oder zu schweren Verletzungen führen.</b></p>	<p><b>RISCHIO DI SCOSSA ELETTRICA O DELL'ESPLOSIONE.</b></p> <ul style="list-style-type: none"> <li>• Spenga tutta l'alimentazione e che fornisce questa apparecchiatura prima del lavorare a questa apparecchiatura</li> <li>• Verificare tutti i collegamenti e sostituire tutte le coperture prima della rotazione sull'alimentazione</li> </ul> <p><b>L'omissione di seguire queste istruzioni provocherà la morte o di lesioni serie</b></p>	<p><b>RISCO DE DESCARGA ELÉTRICA OU EXPLOÇÃO</b></p> <ul style="list-style-type: none"> <li>• Desconectar o equipamento de toda a energia antes de instalar ou trabalhar com este equipamento</li> <li>• Verificar todas as conexões e recolocar todas as tampas antes de religar o equipamento</li> </ul> <p><b>O não cumprimento destas instruções pode levar à morte ou lesões sérias.</b></p>
--	--	---	---	---	---

**WARNING / AVERTISSEMENT / WARNUNG /ADVERTENCIA / AVVERTENZA / AVISO**

<p><b>RISK OF MATERIAL DAMAGE AND HOT ENCLOSURE</b></p> <ul style="list-style-type: none"> <li>• The product's side panels may be hot, allow time for product to cool before touching.</li> <li>• Follow proper mounting instructions including torque values.</li> <li>• Do not allow liquids or foreign objects to enter this product.</li> </ul> <p><b>Failure to follow this instruction can result in serious injury, or equipment damage.</b></p>	<p><b>RISQUE DE DOMMAGE MATERIEL ET DE SURCHAUFFE DU BOITIER</b></p> <ul style="list-style-type: none"> <li>• Les panneaux latéraux du produit peuvent être chauds. Laisser le produit refroidir avant de le toucher.</li> <li>• Respecter les consignes de montage, et notamment les couples de serrage.</li> <li>• Ne pas laisser pénétrer de liquide ni de corps étrangers à l'intérieur du produit.</li> </ul> <p><b>Le non-respect de cette directive peut entraîner, des lésions corporelles graves ou des dommages matériels.</b></p>	<p><b>GEFAHR VON MATERIALSCHÄDEN UND GEHÄUSEERHITZUNG</b></p> <ul style="list-style-type: none"> <li>• Die Seitenwände können heiß sein. Lassen Sie das Produkt abkühlen, bevor Sie es berühren.</li> <li>• Beachten Sie die Montageanweisungen,</li> <li>• Führen Sie keine Flüssigkeiten oder Fremdkörper in das Produkt ein.</li> </ul> <p><b>Die Nichtbeachtung dieser Anweisung kann Körperverletzung oder Materialschäden zur Folge haben.</b></p>
<p><b>RIESGO DE DAÑOS MATERIALES Y DE SOBRECIENTAMIENTO DE LA UNIDAD</b></p> <ul style="list-style-type: none"> <li>• Los paneles laterales del producto pueden estar calientes. Esperar que el producto se enfríe antes de tocarlo.</li> <li>• Respetar las instrucciones de montaje, y en particular los pares de apretado.</li> <li>• No dejar que penetren líquidos o cuerpos extraños en el producto.</li> </ul> <p><b>Si no se respetan estas precauciones pueden producirse graves lesiones, daños materiales.</b></p>	<p><b>RISCHIO DI DANNI MATERIALI E D'INVOLUCRO CALDO</b></p> <ul style="list-style-type: none"> <li>• I pannelli laterali dell'apparecchio possono scottare; lasciar quindi raffreddare il prodotto prima di toccarlo.</li> <li>• Seguire le istruzioni di montaggio corrette.</li> <li>• Non far entrare liquidi o oggetti estranei in questo apparecchio.</li> </ul> <p><b>La mancata osservanza di questa precauzione può causare gravi rischi per l'incolumità personale o danni alle apparecchiature.</b></p>	<p><b>RISCO DE DANO MATERIAL E DE AQUECIMENTO</b></p> <ul style="list-style-type: none"> <li>• Os painéis laterais do produto podem estar quentes; dê tempo ao produto para arrefecer antes de lhe tocar.</li> <li>• Siga devidamente as instruções de montagem.</li> <li>• Não permita a entrada de líquidos e de objectos estranhos no produto.</li> </ul> <p><b>A não observância destas precauções pode provocar a morte, ferimentos graves ou danos materiais.</b></p>

## ANNEX – ENVIRONMENTAL INFORMATION:

The environmental information disclosed in this annex including the EIP Pollution logo are in compliance with People's Republic of China Electronic Industry Standard SJ/T11364 – 2006, Marking for Control of Pollution Caused by Electronic Information Products.

Part Name	Toxic or hazardous Substance and Elements					
	Lead (Pb)	Mercury (Hg)	Cadmium (Cd)	Hexavalent Chromium (Cr (VI))	Polybrominated biphenyls (PBB)	Polybrominated diphenyl ethers (PBDE)
Semiconductor die	X	O	O	O	O	O
Solder	X	O	O	O	O	O

### 附件 - 环保信息:

此附件所标示的包括电子信息产品污染图标的环保信息符合中华人民共和国电子行业标准 **SJ/T11364 - 2006**, 电子信息产品污染控制标识要求

部件名称	有毒有害物质或元素					
	铅 (Pb)	汞 (Hg)	镉 (Cd)	六价铬 (Cr (VI))	多溴联苯 (PBB)	多溴二苯醚 (PBDE)
半导体芯片	X	O	O	O	O	O
焊接点	X	O	O	O	O	O

