THE GLOBAL EXPERT IN SOLID STATE RELAY TECHNOLOGY



- PCB Mount



- Panel Mount



- DIN Rail Mount



- Control Relays



- I/O Modules



crydom®

CST
CUSTOM SENSORS & TECHNOLOGIES

Solid State Relays • Solid State Control Relays • I/O Modules

crydom®

Crydom has a distinguished record of providing advanced, high quality products with timely delivery and competitive pricing. Your success in today's fastpaced global markets hinges on working with suppliers who respond quickly and appropriately to your every need.

In addition to an extensive selection of catalog off-the-shelf items, Crydom offers custom-designed solid state relays. Fact is we specialize in satisfying the most demanding environmental and performance requirements our customers can devise. Give us your specs, and watch us exceed your expectations!

At Crydom's custom-built **100,000 square foot manufacturing facility,** virtually everything is accomplished in-house to assure complete control over delivery, production, and above all quality. With design, development, manufacturing and management personnel under one roof, we're geared for fast response to your requirements.

In **Design Engineering**, we focus on pushing performance, reliability and quality standards ever higher. Working under a conservative design and rating philosophy, Crydom's seasoned engineering team makes extensive use of CAD to optimize design of mechanical parts.

As a result of these efforts, Crydom has acquired an impressive list of patents in solid state relay technology, while continuing to create new circuit and technology-related inventions as part of our ongoing R & D programs.

Once the design is solidified, **Production Engineering** is responsible for the engineering control of the techniques used throughout manufacturing. This department works closely with our design engineering group, establishes assembly processes, and oversees a comprehensive on-premises machine shop which fabricates our assembly fixtures.

As the work progresses, **Material and Production Control** employ our advanced computer system, upgraded with our customized software to keep manufacturing operations humming. The computer system employs integral MRP and MSP capabilities to generate detailed scheduling and planning information.

Ceramic Hybrid Manufacturing also is performed in-house. Crydom manufactures all metallized ceramic substrates used in our relays — a major factor in product performance and reliability, including direct bond copper substrates.



www.crydom.com

Quality Assurance conducts ongoing product reliability verification tests, gathering precise data on the quality of our power semiconductor vendors and the silicon chips they provide. Additional tests are performed to meet specific customer burn-in requirements.

Crydom tests are exhaustive, including **100% verification** at final test. After units are completely assembled, they must pass a complete set of electrical tests, which are performed twice, once prior to encapsulation and then again afterward.

Because of our dedication to quality, Crydom was one of the first American companies to achieve full certification to the demanding standards of ISO 9001. In addition, most Crydom products are approved by UL, CSA, VDE, TUV and carry the CE Mark signifying conformance with the latest European directives. Certain panel mount and din rail mount relays carry UL 508A SCCR ratings.

Learn how an alliance with the world leader in solid state relays can pay off for you. For details, call your authorized Crydom distributor today.

PCB Mount

ASO	*D2W*	*LS*	*SDV/SDI*
ASPF	*DIP*	*MCX/MCXE*	*SPA*
CMX	*DO/DMO*	*MP*	*SPF*
CTX	*DPA*	*MPDCD3*	*UPD*
CX/CXE	*LC*	*MPF*	
CX241/MCX241	*LR*	*PF*	



PCB Mount

Panel Mount

53TP	*D06D*	*PRG*
CS	*DUAL/QUAD*	*PS*
CMD/CMA	*EZ*	*Series 1*
CW	*H12*	*SMR/SMR-6*
D12/D24, A12/A24	*HD/HA*	*SSC*
D1D/D2D/D4D/D5D	*HD60/HA60*	*Heat Sinks*
DC60	*NTD/NTA*	*Accessories*



Panel Mount

DIN Rail Mount

CKR
CMR
HPF
MS11



DIN Rail Mount

Solid State Control Relays

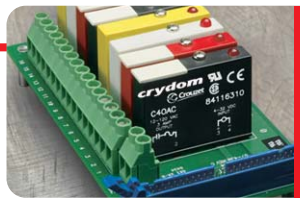
CPV	*PCV*
DSD/DLD	*RPC*
LPCV	*SST*
MC	



Control Relays

I/O Modules & Boards

06	*Quads*
M	*Mounting Boards*
SM	
C4	



I/O Modules

Product Index

Solid State Relays - PCB Mount

pg	model	1.0	1.5	2.0	3.0	3.5	4.0	5.0	6.0	8.0	10	12	15	20	25	40
5	**ASO**		■	■												
7	**ASPF**				■											
7	**CMX**				■			■	■		■			■		
6	**CX/CXE**							■								
5	**CX241**		■													
6	**CTX**								■							
4	**DIP**		■													
7	**DO/DMO**	■			■											
4	**DPA**	■														
5	**D2W**			■	■	■										
5	**LC**		■	■												
6	**LR**														■	■
6	**LS**									■		■				
5	**MP**				■		■									
6	**MPF**						■									
7	**SPF/PF**										■				■	
4	**SDV/SDI**		■													
7	**SPA**	■														
5	**UPD**												■		■	

Solid State Relays - Panel Mount

pg	model	3	5	7	10	12	18	20	25	40	50	60	75	80	90	100	110	125	150
11	**53TP** (3 Phase)								■		■								
8	**CSW**				■				■		■		■		■				
10	**CMD/CMA**								■		■		■		■		■	■	
9	**CWD/CWA**				■				■		■				■			■	
12	**DxD**			■	■	■		■		■									
11	**DC60**	■	■	■															
12	**D06D**											■		■		■			
11	**DUAL**								■	■									
8	**EZ**		■			■	■												
9	**H12**								■		■		■		■			■	
9	**HD/HA**				■				■		■		■		■		■	■	
10	**HD60/HA60**								■		■				■			■	
10	**PRG**																		■
11	**PSD**				■				■		■				■				
11	**QUAD**							■											
8	**Serie 1 A12/A24**				■				■	■	■		■		■		■	■	
8	**Serie 1 D12/D24**				■				■	■	■		■		■		■	■	
9	**SMR/SMR-6**								■		■				■				
12	**SSC**								■										

Solid State Relays - DIN rail Mount

pg	model	3	5	6	10	20	30	35	45	55	60
13	**CKR**				■	■	■				
13	**CMR**							■	■	■	■
13	**HPF**					■	■				
13	**MS11**	■	■	■	■						

Solid State Control Relays

pg	model	0	15	25	40	50	75	90	110
15	**CPV**	■		■	■	■	■	■	
14	**DSD, DLD**	■		■		■			
15	**LPCV**		■	■	■		■		■
16,17	**MC**			■		■		■	
15	**PCV**		■	■		■	■	■	
15	**RPC**		■	■	■				
14	**SST**	■		■	■	■	■	■	

■ - AC Output Relays
■ - DC Output Relays
■ - Ac and DC Outputs Available



DPA
1Amp
120/240 Vac
16-Pin DIP
SCR AC Switch Output
Zero Cross Turn-On

Crydom's DPA solid state relays are compact 16-pin DIP packages that are ideal for high density automated assembled printed circuit boards.

dc input

	Line Voltage Range Vrms	Load Current Range Arms	Control Voltage Range Vdc	Control Current @ 5Vdc mA	Must Release Voltage Vdc	Surge Current 1-Cycle Apk	
DPA4119	20-140	.025-1.0	3.5-10	15	1.0	30	UL, CSA, TUV
DPA6119	20-280	.025-1.0	3.5-10	15	1.0	30	UL, CSA, TUV
	Line Voltage Range Vrms	**Load Current Range Arms**	**Control Current Range mAdc**	**Must Operate Current mAdc**	**Must Release Current mAdc**	**Surge Current 1-Cycle Apk**	
DPA4111	20-140	.025-1.0	10-35	10	1.0	30	UL, CSA, TUV
DPA6111	20-280	.025-1.0	10-35	10	1.0	30	UL, CSA, TUV

Operating Temperature Range: -30˚C to 80˚C Isolation Voltage: 3,750Vrms



DIP
1.5Amp
120/240 Vac
16-Pin DIP
SCR AC Switch Output
Zero Cross or Random Turn-On

Crydom's DIP solid state relays are compact 16-pin DIP packages that are ideal for high density automated assembled printed circuit boards.

dc input

	Line Voltage Range Vrms	Load Current Range Arms	Control Current Range mAdc	Must Operate Current mAdc	Must Release Current mAdc	Surge Current 1-Cycle Apk	
DIP1215	20-140	.025-1.5	10-35	10	1.0	30	CSA
DIP1215R*	20-140	.025-1.5	10-35	10	1.0	30	CSA
DIP2415	20-280	.025-1.5	10-35	10	1.0	30	CSA
DIP2415R*	20-280	.025-1.5	10-35	10	1.0	30	CSA

**** R Suffix denotes random turn-on.***
Operating Temperature Range: -30˚C to 80˚C Isolation Voltage: 3,750Vrms



SDV, SDI
1.5Amp
120/240 Vac
16-Pin DIP
SCR AC Switch Output
Zero Cross or Random Turn-On

The SDV/SDI solid state relays are compact 16-pin DIP packages that are ideal for high density automated assembled printed circuit boards.

dc input

	Line Voltage Range Vrms	Load Current Range Arms	Control Voltage Range Vdc	Control Current @5Vdc mA	Must Release Voltage Vdc	Surge Current 1-Cycle Apk	
SDV2415	12-280	.025-1.5	3.5-10	15	1.0	30	UL, CSA, TUV
SDV2415R*	12-280	.025-1.5	3.5-10	15	1.0	30	UL, CSA, TUV
	Line Voltage Range Vrms	**Load Current Range Arms**	**Control Current Range mAdc**	**Must Operate Current mAdc**	**Must Release Current mAdc**	**Surge Current 1-Cycle Apk**	
SDI2415	12-280	.025-1.5	10-35	10	1.0	30	UL, CSA, TUV
SDI2415R*	12-280	.025-1.5	10-35	10	1.0	30	UL, CSA, TUV

**** R suffix denotes random turn-on.***
Operating Temperature Range: -30˚C to 80˚C Isolation Voltage: 3,750Vrms

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ASO

1.5-2Amp

120/240 Vac
AC Mini-SIP
DC Control, SCR AC Switch Output

US Patent No. 5,134,094

Crydom's ASO solid state relays are SPST-NO miniature SIP packages rated at 1.5A/2.0A. They are designed for switching highly inductive, low current loads such as solenoids. Typical applications include: pumps, gaming, vending machines, security systems, medical equipment and appliances.

dc input

	Line Voltage Range Vrms	Load Current Range Arms	Control Voltage Range Vdc	Control Current @ 5Vdc mA	Must Release Voltage Vdc	Surge Current 1-Cycle Apk	
ASO241	12-280	.025-1.5	4-10	15	1.0	40	UL, CSA
ASO241R*	12-280	.025-1.5	4-10	15	1.0	40	UL, CSA
ASO242	12-280	.06-2.0	4-10	15	1.0	120	UL, CSA
ASO242R*	12-280	.06-2.0	4-10	15	1.0	120	UL, CSA

**** R suffix denotes random turn-on.***

Operating Temperature Range: -30˚C to 80˚C Isolation Voltage: 2500 Vrms



LC241, LC242

1.5 - 2.0 A

120/240 Vac
AC Mini-SIP
DC Control

The LC241/ LC242 offer the popular ASO circuit in cost effective package. Crydom's propretary Triac circuitry makes snubbless operation possible in most applications.

dc input

	Line Voltage Range Vrms	Load Current Range Arms	Control Voltage Range Vdc	Control Current @ 5Vdc mA	Must Release Voltage Vdc	Surge Current 1-Cycle Apk	
LC241	12-280	.025-1.5	4-10	15	1.0	80	UL, CSA
LC241R*	12-280	.025-1.5	4-10	15	1.0	80	UL, CSA
LC242	12-280	.025-2.0	4-10	15	1.0	100	UL
LC242R*	12-280	.025-2.0	4-10	15	1.0	100	UL

****R Suffix denotes random turn-on.***

Operating Temperature Range: -40˚C to 80˚C Isolation Voltage: 2500 Vrms



CX241

1.5Amp

120/240 Vac
AC SIP, SCR AC Switch Output
Zero Cross or Random Turn-On

US Patent No. 5,134,094

The CX241/R AC relays are SPST-NO solid state relays. Both models offer the ASO circuit with the popular CX pinout.

dc input

	Line Voltage Range Vrms	Load Current Range Arms	Control Voltage Range Vdc	Control Current @ 5Vdc mA	Must Release Voltage Vdc	Surge Current 1-Cycle Apk	
CX241	12-280	.025-1.5	4-10	15	1.0	40	UL, CSA, VDE
CX241R*	12-280	.025-1.5	4-10	15	1.0	40	UL, CSA, VDE

****R Suffix denotes random turn-on.***

Operating Temperature Range: -30˚C to 80˚C Isolation Voltage: 4000 Vrms



MCX241

The MCX241/MCX241R offer the same specifications and performance as the the CX241, the only difference is the MP style package. Add a "M" prefix to the above part numbers for this option. Pinouts are compatible with Series 6 and OAC type I/O modules. MCX241 models are UL, CSA and VDE approved.



D2W

2-3.5Amp

120/240 Vac
AC SIP
Triac Output

The D2W Series features an epoxy-coated package that provides exceptional environmental protection. Pinouts are compatible with Series 6 and OAC type I/O modules.

dc input

	Line Voltage Range Vrms	Load Current Range Arms	Control Voltage Range Vdc	Control Current @ 5Vdc mA	Must Release Voltage Vdc	Surge Current 1-Cycle Apk	
D2W202F	24-280	.06-2.0	3-32	3	1.0	28	UL, CSA
D2W203F	24-280	.06-3.0	3-32	3	1.0	70	UL, CSA
D2W203F-11	24-280	.06-3.5	3-32	3	1.0	80	UL, CSA

Operating Temperature Range: -30˚C to 80˚C Isolation Voltage: 4000 Vrms



UPD

15-25 Amp

120/240Vac
Metal Baseplate
High Surge Rating
Zero Cross or Random Turn-On

Crydom's UPD series solid-state relays are an ideal solution for high-power switching applications with limited panel space. Single phase, dual output, or three phase versions are available with either PCB or quick-connect* terminals, making the UPD series the perfect long-life alternative to many electromechanical relays.

dc input

	Line Voltage Range Vrms	Load Current Range Arms	Control Voltage Range V DC	Control Current** @12Vdc mA	Must Release Voltage V DC	Surge Current 1-Cycle Apk
UPD2415	24-280	.15-15	3-15	10	1.0	120
UPD2415-10	24-280	.15-15	3-15	10	1.0	120
UPD2425	24-280	.15-25	3-15	10	1.0	250
UPD2425-10	24-280	.15-25	3-15	10	1.0	250

Dual

	Line Voltage Range Vrms	Load Current Range Arms	Control Voltage Range V DC	Control Current @12Vdc mA	Must Release Voltage V DC	Surge Current 1-Cycle Apk
UPD2415D	24-280	.15-15	3-15	14/36	1.0	120
UPD2415D-10	24-280	.15-15	3-15	14/36	1.0	120
UPD2425D	24-280	.15-25	3-15	14/36	1.0	250
UPD2425D-10	24-280	.15-25	3-15	14/36	1.0	250

3Phase

	Line Voltage Range Vrms	Load Current Range Arms	Control Voltage Range V DC	Control Current @ 5Vdc mA	Must Release Voltage V DC	Surge Current 1-Cycle Apk
UPD2415TP	24-280	.15-15	4.5-8	14	1.0	120
UPD2415TP-10	24-280	.15-15	4.5-8	14	1.0	120

* Contact factory for availability.
** Input circuit incorporates active current limiter.



MP

3-4Amp

120/240 Vac
Triac AC Output SIP
5, 15 & 24 Volt Logic System Compatible

Available in 3Arms and 4Arms ratings, all are SPST-NO PC-mount relays that provide greater packaging density and compatibility with pinout of Series 6 and OAC output modules. For DC output see page 7 for the MPDCD3.

dc input

	Line Voltage Range Vrms	Load Current Range Arms	Control Voltage Range Vdc	Control Current @ 5Vdc mA	Must Release Voltage Vdc	Surge Current 1-Cycle Apk	
MP240D2	24-280	.02-2.0	3-32	2.6	1.0	50	
MP120D3	12-140	.02-3.0	3-32	2.6	1.0	90	UL, CSA, VDE
MP240D3	24-280	.02-3.0	3-32	2.6	1.0	90	UL, CSA, VDE
MP120D4	12-140	.02-4.0	3-32	2.6	1.0	130	
MP240D4	24-280	.02-4.0	3-32	2.6	1.0	130	CSA, VDE

Operating Temperature Range: -40˚C to 80˚C Isolation Voltage: 4000 Vrms



MPF

4Amp

120/240 Vac
SCR AC Switch Output
Integral Heat sink

US Patent No. 5,134,094

The MPF delivers high ratings ia a single in-line package (SIP). Crydom's patented PowerFIN™ integral heat sink design makes for a cool compact package for PCB mounting. With natural convection in free air, it rates 4Arms at 50˚C ambient.

dc input

	Line Voltage Range Vrms	Load Current Range Arms	Control Voltage Range Vdc	Control Current @5Vdc mA	Must Release Voltage Vdc	Surge Current 1-Cycle Apk	
MPF240D4	12-280	.1-4	4-10	15	1.0	40	UL, CSA
MPF240D4R*	12-280	.1-4	4-10	15	1.0	40	UL, CSA

**** R suffix denotes random turn-on.***

Operating Temperature Range: -30˚C to 80˚C Isolation Voltage: 3750 Vrms



CX, CXE

5Amp

120/240/380/480 Vac
AC SIP, SCR AC Switch Output
Ultra High Surge Rating

US Patent No. 5,134,094

Crydom's family of SPST-NO relays provide a high power switching capability in a PC-mounted air-cooled package. Advanced features include exceptional steady state current, plus ultra-high surge ratings. Models are available to switch up to 660 Vrms with AC or DC control, and either zero-cross or random turn-on ("R") switching versions. Pinout is compatible with Series 6 and OAC type I/O modules.

dc input

	Line Voltage Range Vrms	Load Current Range Arms	Control Voltage Range Vdc	Control Current @ 5/24Vdc mA	Must Release Voltage Vdc	Surge Current 1-Cycle Apk	
CX240D5	12-280	.06-5.0	3-15	15	1.0	250	UL, CSA, VDE
CX240D5R*	12-280	.06-5.0	3-15	15	1.0	250	UL, CSA, VDE
CXE240D5	12-280	.06-5.0	15-32	15	1.0	250	UL, CSA, VDE
CXE240D5R*	12-280	.06-5.0	15-32	15	1.0	250	UL, CSA, VDE
CX380D5	48-530	.06-5.0	4-15	15	1.0	250	UL, CSA, VDE
CX380D5R*	48-530	.06-5.0	4-15	15	1.0	250	UL, CSA, VDE
CXE380D5	48-530	.06-5.0	15-32	15	1.0	250	UL, CSA, VDE
CXE380D5R*	48-530	.06-5.0	15-32	15	1.0	250	UL, CSA, VDE
CX480D5	48-660	.06-5.0	4-15	15	1.0	250	UL, CSA
CX480D5R*	48-660	.06-5.0	4-15	15	1.0	250	UL, CSA
CXE480D5	48-660	.06-5.0	15-32	15	1.0	250	UL, CSA
CXE480D5R*	48-660	.06-5.0	15-32	15	1.0	250	UL, CSA

ac input

	Line Voltage Range Vrms	Load Current Range Arms	Control Voltage Range Vrms	Control Current@ 120/24Vrms mA	Must Release Voltage Vrms	Surge Current 1-Cycle Apk	
CX240A5	12-280	.06-5.0	90-140	10	10.0	250	UL, CSA
CX240A5R*	12-280	.06-5.0	90-140	10	10.0	250	UL, CSA
CXE240A5	12-280	.06-5.0	18-36	10	2.0	250	UL, CSA
CXE240A5R*	12-280	.06-5.0	18-36	10	2.0	250	UL, CSA,

**** R suffix denotes random turn-on. Operating Temperature Range: -30˚C to 80˚C Isolation Voltage: 4000 Vrms***

Normally closed (Form B) versions available (-B suffix)



MCX, MCXE

5Amp

120/240/380/480 Vac
AC SIP
SCR AC Switch Output
Ultra High Surge Rating

The MCX and MCXE offer the same specifications and performance as the the CX and CXE products, the only difference is the MP style package. Add a "M" prefix.



LS

8-12Amp

120/240 Vac
Metal Baseplate
High Surge Rating
Zero Cross or Random Turn-On

Metal baseplate design for direct attachment of external heat sink to achieve maximum current ratings. Applications include; motor, heater, lamp and solenoid switching.

dc input

	Line Voltage Range Vrms	Load Current Range Arms	Control Voltage Range Vdc	Control Current @ 5Vdc mA	Must Release Voltage Vdc	Surge Current 1-Cycle Apk	
LS240D8	24-280	.15-8	4-10	15	1.0	80	UL, cUL,TUV
LS240D8R*	24-280	.15-8	4-10	15	1.0	80	UL, cUL,TUV
LS240D12	24-280	.15-12	4-10	15	1.0	120	UL, cUL,CSA, TUV
LS240D12R*	24-280	.15-12	4-10	15	1.0	120	UL, cUL,CSA, TUV

**** R suffix denotes random turn-on.***

Operating Temperature Range: -30˚C to 80˚C Isolation Voltage: 2500 Vrms
24 Vdc input versions available (LSE series)



LR

25-40Amp

120/240/480 Vac
Zero Cross or Random Turn-On
SCR AC Switch Output
Low Profile

The LR products offer a low profile package that is perfect for printed circuit board mounting. Rated at up to 1200V transient capability. Mounting clip available, order part no. LMC-1.

dc input

	Line Voltage Range Vrms	Load Current Range Arms	Control Voltage Range Vdc	Control Current @ 5Vdc mA	Must Release Voltage Vdc	Surge Current 1-Cycle Apk	
Zero Cross							
LR600240D25	24-280	.15-25	4-32	9	1.0	250	UL, cUL
LR600240D40	24-280	.15-40	4-32	9	1.0	400	UL, cUL
LR1200480D25	48-530	.15-25	4-32	9	1.0	250	UL, cUL
LR1200480D40	48-530	.15-40	4-32	9	1.0	400	UL, cUL
Random Turn-On							
LR600240D25R	24-280	.15-25	4-32	9	1.0	250	UL, cUL
LR600240D40R	24-280	.15-40	4-32	9	1.0	400	UL, cUL
LR1200480D25R	48-530	.15-25	4-32	9	1.0	250	UL, cUL
LR1200480D40R	48-530	.15-40	4-32	9	1.0	400	UL, cUL

Operating Temperature Range: -30˚C to 80˚C Isolation Voltage: 2500 Vrms
AC input versions available



CTX

4 x 2.5Amp

120/240 Vac
TRIAC Output
4 AC Relays in One
Compact Package

The CTX240D3Q offers four independently controlled solid state relays in one compact PCB mount package. Based on the proven Series CX product line, featuring ultra high surge rating, extra low leakage and 4-10 Vdc logic compatible input. The CTX exhibits exceptional steady-state ratings utilizing highly efficient thermal management for increased cycle life.

dc input

	Line Voltage Range Vrms	Load Current Range Arms	Control Voltage Range Vdc	Control Current @ 5Vdc mA	Must Release Voltage Vdc	Surge Current 1-Cycle Apk
CTX240D3Q	24-280	0.1-6.0**	4-10	15	1.0	120
CTX240D3QR*	24-280	0.1-6.0**	4-10	15	1.0	120

**** R suffix denotes random turn-on. Operating Temperature Range: -30˚C to 80˚C Isolation Voltage: 2500 Vrms***
*****1 section ON; 2 sections ON 0.1-4.0; 3 sections ON 0.1-3.0; 4 sections ON 0.1-2.5***

Questions? Call or e-mail **Americas** +1 (877) 502 5500 **sales@crydom.com**
Europe +44 (0) 1202 606030 **sales-europe@crydom.com**



PF

Up to 25Amp

120/240/380/480/600 Vac
SCR AC Switch Output
Ultra High Steady State Current Rating

US Patent No. 5,134,094

Crydom's PowerFin Series delivers the highest ratings of any single in-line package (SIP). With Crydom's integral heat sink design you can run 25 amps RMS in forced air at 85˚C case temp. With natural convection in free air, it rates 10 amps RMS at 25˚C ambient. Built-in advantages include Surface Mount Technology, low off-state leakage and SCR AC switch output.

dc input	Line Voltage Range	Load Current Range**	Control Voltage Range	Control Current@ 5/24Vrms	Must Release Voltage	Surge Current 1-Cycle	
	Vrms	**Arms**	**Vdc**	**mA**	**Vdc**	**Apk**	
PF240D25	12-280	.06-25	3-15	15	1.0	250	UL, cUL, VDE
PF240D25R*	12-280	.06-25	3-15	15	1.0	250	UL, cUL, VDE
PFE240D25	12-280	.06-25	15-32	15	1.0	250	UL, cUL, VDE
PFE240D25R*	12-280	.06-25	15-32	15	1.0	250	UL, cUL, VDE
PF380D25	48-530	.06-25	4-15	15	1.0	250	UL, cUL, VDE
PF380D25R*	48-530	.06-25	4-15	15	1.0	250	UL, cUL, VDE
PFE380D25	48-530	.06-25	15-32	15	1.0	250	UL, cUL, VDE
PFE380D25R*	48-530	.06-25	15-32	15	1.0	250	UL, cUL, VDE
PF480D25	48-660	.06-25	4-15	15	1.0	250	UL, cUL
PF480D25R*	48-660	.06-25	4-15	15	1.0	250	UL, cUL
PFE480D25	48-660	.06-25	15-32	15	1.0	250	UL, cUL
PFE480D25R*	48-660	.06-25	15-32	15	1.0	250	UL, cUL
ac input	Line Voltage Range	Load Current Range**	Control Voltage Range	Control Current @ 120/24Vrms	Must Release Voltage	Surge Current 1-Cycle	
	Vrms	**Arms**	**Vrms**	**mA**	**Vrms**	**Apk**	
PF240A25	12-280	.06-25	90-140	10	10.0	250	UL, cUL
PF240A25R*	12-280	.06-25	90-140	10	10.0	250	UL, cUL
PFE240A25	12-280	.06-25	18-36	10	2.0	250	UL, cUL
PFE240A25R*	12-280	.06-25	18-36	10	2.0	250	UL, cUL

R suffix denotes random turn-on. **Forced Air, .06-10 in convection air.

Operating Temperature Range: -30˚C to 80˚C Isolation Voltage: 4000 Vrms



SPF

Up to 25Amp

120/240/380/480/600 Vac
SCR AC Switch Output
Ultra High Steady State Current Rating
Works in both the vertical en horizontal orientation. US Patent No. 5,134,094

The SPF is identical to the PF products in specifications and performance, the only difference is the package configuration. The SPF utilizes a low profile integral heat sink that provides decreased package width for higher density applications. To order the SPF configuration simply add the "S" prefix to any of the above PF model numbers. All SPF and SPFE models are UL and cUL approved.



ASPF

3Amp

120/240 Vac
AC Mini-SIP, Integral Heat Sink
SCR AC Switch Output

US Patent No. 5,134,094

The ASPF Series delivers high ratings in a single in-line package (SIP). Crydom's patented PowerFIN™ integral heat sink design makes for a cool package with high ratings. With natural convection in free air, it rates 3 Arms at 45˚C ambient.

dc input	Line Voltage Range	Load Current Range	Control Voltage Range	Control Current @5Vdc	Must Release Voltage	Surge Current 1-Cycle	
	Vrms	**Arms**	**Vdc**	**mA**	**Vdc**	**Apk**	
ASPF240D3	24-280	.1-3	4-10	15	1.0	40	UL, CSA
ASPF240D3R*	24-280	.1-3	4-10	15	1.0	40	UL, CSA

*R suffix denotes random turn-on.

Operating Temperature Range: -30˚C to 80˚C Isolation Voltage: 3750 Vrms



SPA

1Amp

120/240 Vac
AC Mini-SIP, Zero Cross Turn-On
SCR AC Switch Output

US Patent No. 5,134,094

The SPA package is perfect for high density printed circuit boards. Typical applications include: pumps, gaming, vending machines, security systems, medical equipment and appliances.

dc input	Line Voltage Range	Load Current Range	Control Current Range	Must Operate Current	Must Release Current	Surge Current 1-Cycle
	Vrms	**Arms**	**mA**	**mA**	**mA**	**Apk**
SPA4191	20-140	.025-1.0	10-35	10	1.0	30
SPA6191	20-280	.025-1.0	10-35	10	1.0	30

Operating Temperature Range: -30˚C to 80˚C Isolation Voltage: 2500 Vrms

PCB Mount SSRs - DC Output



DO, DMO

1-3Amp

60 Vdc
DC Mini-SIP
DC Control
Bipolar or MOSFET Output

SPST-NO DC output relays in epoxy-coated packages utilize the popular .10" grid lead spacing. They are available with either bipolar transistor output (DO), or the DMO063 with MOSFET output is rated at 3A/60 VDC.

dc input	Line Voltage Range	Load Current Range	Control Voltage Range	Control Current @ 5Vdc	Must Release Voltage	Surge Current 1 Sec
	Vdc	**Adc**	**Vdc**	**mA**	**Vdc**	**Adc**
DO061A	3-60	.02-1.0	3-9	15	1.0	5.0
DO061B	3-60	.02-1.0	1.7-9	15	0.8	5.0
DMO063	0-60	0-3.0	3-10	20	1.0	12 (@ 10msec)

Operating Temperature Range: -30˚C to 80˚C Isolation Voltage: 2500 Vrms, 4000 Vrms (DO)
Normally closed (Form B) versions available for DO series (-B suffix)



MPDCD3

3Amp

60 Vdc
DC Output SIP
5, 15 & 24 Volt Logic System Compatible

A SPST-NO PC-mount relay that provide greater packaging density and compatibility with pinout of Series 6 and ODC output modules.

dc input	Line Voltage Range	Load Current Range	Control Voltage Range	Control Current @ 5Vdc	Must Release Voltage	Surge Current 1 sec.	
	Vdc	**Adc**	**Vdc**	**mA**	**Vdc**	**Adc**	
MPDCD3	3-60	.02-3	3-32	2.6	1.0	5.0	UL, cUL

Operating Temperature Range: -40˚C to 80˚C Isolation Voltage: 4000 Vrms



CMX

3-20Amp

60/100/200 Vdc
DC SIP, MOSFET Output
Extra Low On-state Resistance

US Patent No. 5,134,094

DC output SPST-NO solid state relays use MOSFET output for high switching capabilities in a PC-mount air-cooled package. Pinouts are compatible with Series 6 and ODC type I/O modules.

dc input	Line Voltage Range	Load Current Range	Control Voltage Range	Control Current @ 5Vdc	Must Release Voltage	Surge Current 10 ms	
	Vdc	**Adc**	**Vdc**	**mA**	**Vdc**	**Adc**	
CMX60D5	0-60	0-5	3-10	15	1.0	60	
CMX60D10	0-60	0-10	3-10	15	1.0	100	UL, cUL
CMX60D20	0-60	0-20	3-10	15	1.0	200	
CMX100D6	0-100	0-6	3-10	15	1.0	100	UL, cUL
CMX200D3	0-200	0-3	4-10	15	1.0	30	UL, cUL

Operating Temperature Range: -30˚C to 80˚C Isolation Voltage: 2500 Vrms



EZ

5-18Amp

120/240/480 Vac
SCR AC Switch Output
Low Profile - Quick Connect Terminals
24V Control Available (EZE)

The Series EZ is a SPST-NO AC output relays offer a low profile package and is the preferred choice for replacement of Electro-mechanical relays. Random Turn-On models (R suffix) are available.

dc input

	Line Voltage Range Vrms	Load Current Range Arms	Control Voltage Range Vdc	Control Current @5/24Vdc mA	Must Release Voltage Vdc	Surge Current 1-Cycle Apk	
EZ240D5	24-280	.15-5	4-15	13	1.0	40	UL, cUL
EZ240D12	24-280	.15-12	3-15	15	1.0	150	UL, CSA, VDE
EZ240D18	24-280	.15-18	3-15	15	1.0	200	UL, CSA, VDE
EZE240D12	24-280	.15-12	15-32	15	1.0	150	UL, CSA, VDE
EZE240D18	24-280	.15-18	15-32	15	1.0	200	UL, CSA, VDE
EZ480D12	48-660	.15-12	4-15	15	1.0	150	UL, CSA
EZ480D18	48-660	.15-18	4-15	15	1.0	200	UL, CSA
EZE480D12	48-660	.15-12	15-32	15	1.0	150	UL, CSA
EZE480D18	48-660	.15-18	15-32	15	1.0	200	UL, CSA

ac input

	Line Voltage Range Vrms	Load Current Range Arms	Control Voltage Range Vrms	Control Current @ 120/24Vrms mA	Must Release Voltage Vrms	Surge Current 1-Cycle Apk	
EZ240A12	24-280	.15-12	90-140	10	10.0	150	UL, CSA
EZ240A18	24-280	.15-18	90-140	10	10.0	200	UL, CSA
EZE240A12	24-280	.15-12	18-36	10	2.0	150	UL, CSA
EZE240A18	24-280	.15-18	18-36	10	2.0	200	UL, CSA
EZ480A12	48-660	.15-12	90-140	10	10.0	150	UL, CSA
EZ480A18	48-660	.15-18	90-140	10	10.0	200	UL, CSA
EZE480A12	48-660	.15-12	18-36	10	2.0	150	UL, CSA
EZE480A18	48-660	.15-18	18-36	10	2.0	200	UL, CSA

Operating Temperature Range: -40˚C to 80˚C, Isolation Voltage: 4000 Vrms



NTD, NTA

5-25Amp

120/240 Vac
Zero Cross or Random Turn-On (-10)

The NT products are available with either DC control (NTD) or AC control (NTA) with a wide output range (24-280 Vrms).

dc input

	Line Voltage Range Vrms	Load Current Range Arms	Control Voltage Range Vdc	Control Current @5Vdc mA	Must Release Voltage Vdc	Surge Current 1-Cycle Apk	
NTD2405	24-280	.15-5	4-15	13	1.0	40	CSA, CSAus
NTD2410	24-280	.15-10	3-32	10	1.0	120	UL, CSA
NTD2425	24-280	.15-25	3-32	10	1.0	250	UL, CSA

ac input

	Line Voltage Range Vrms	Load Current Range Arms	Control Voltage Range Vrms	Control Current @ 120Vrms mA	Must Release Voltage Vrms	Surge Current 1-Cycle Apk	
NTA2410	24-280	.15-10	90-140	10	10	120	UL, CSA
NTA2425	24-280	.15-25	90-140	10	10	250	UL, CSA

Operating Temperature Range: -40˚C to 80˚C, Isolation Voltage: 3750 Vrms
Random turn-on, phase controllable (-10 suffix)



Series 1

10-125Amp

120/240 Vac
SCR AC Switch Output
Zero Voltage or Random Turn-On

Featuring state-of-the-art Surface Mount Technology, these SPST-NO relays deliver proven reliability in the most demanding applications. Relay output consists of an SCR AC switch and is available in either AC or DC (coil) control. Options include; zero-cross, random turn-on, phase controllable (add "-10" suffix); normally closed (Form B) version (add "-B" suffix); 24 Vac control models (add "E" suffix). UL 508A SCCR Approved, consult Crydom for actual ratings.

D12, D24

dc input

	Line Voltage Range Vrms	Load Current Range Arms	Control Voltage Range Vdc	Control Current @ 5Vdc mA	Must Release Voltage Vdc	Surge Current 1-Cycle Apk	
D1210	24-140	.04-10	3-32	3.4	1.0	120	UL, CSA, VDE
D1225	24-140	.04-25	3-32	3.4	1.0	250	UL, CSA, VDE
D1240	24-140	.04-40	3-32	3.4	1.0	625	UL, CSA, VDE
D2410	24-280	.04-10	3-32	3.4	1.0	120	UL, CSA, VDE
D2425	24-280	.04-25	3-32	3.4	1.0	250	UL, CSA, VDE
D2450	24-280	.04-50	3-32	3.4	1.0	625	UL, CSA, VDE
D2475	24-280	.04-75	3-32	3.4	1.0	1000	UL, CSA, VDE
D2490	24-280	.04-90	3-32	3.4	1.0	1200	UL, CSA, VDE
D24110	24-280	.15-110	3-32	3.4	1.0	1500	UL, cUL
D24125	24-280	.15-125	3-32	3.4	1.0	1750	UL, cUL

A12, A24

ac input

	Line Voltage Range Vrms	Load Current Range Arms	Control Voltage Range Vrms	Control Current@ 120Vrms mA	Must Release Voltage Vrms	Surge Current 1-Cycle Apk	
A1210	24-140	.04-10	90-280	2.0	10.0	120	UL, CSA, VDE
A1225	24-140	.04-25	90-280	2.0	10.0	250	UL, CSA, VDE
A1240	24-140	.04-40	90-280	2.0	10.0	625	UL, CSA, VDE
A2410	24-280	.04-10	90-280	2.0	10.0	120	UL, CSA, VDE
A2425	24-280	.04-25	90-280	2.0	10.0	250	UL, CSA, VDE
A2450	24-280	.04-50	90-280	2.0	10.0	625	UL, CSA, VDE
A2475	24-280	.04-75	90-280	2.0	10.0	1000	UL, CSA, VDE
A2490	24-280	.04-90	90-280	2.0	10.0	1200	UL, CSA, VDE
A24110	24-280	.15-110	90-280	2.0	10.0	1500	UL, cUL
A24125	24-280	.15-125	90-280	2.0	10.0	1750	UL, cUL

Operating Temperature Range: -40˚C to 80˚C, Isolation Voltage: 4000 Vrms, Minimum Off-State dv/dt: 500V/µsec



CSW

10-90Amp

120/240 Vac
Low Leakage
SCR AC Switch Output

The Series CSW has an SCR AC switch output featuring low off-state leakage (1mA, snubberless), zero-voltage switching and a broadened operating range (24-280Vrms). This wide range permits optimum performance at both 120Vac and 240Vac line voltages.

dc input

	Line Voltage Range Vrms	Load Current Range Arms	Control Voltage Range Vdc	Control Current @ 5Vdc mA	Must Release Voltage Vdc	Surge Current 1-Cycle Apk	
CSW2410	24-280	.15-10	3-32	13	1.0	120	UL, CSA, VDE
CSW2425	24-280	.15-25	3-32	13	1.0	250	UL, CSA, VDE
CSW2450	24-280	.15-50	3-32	13	1.0	625	UL, CSA, VDE
CSW2475	24-280	.25-75	3-32	13	1.0	1000	UL, CSA, VDE
CSW2490	24-280	.25-90	3-32	13	1.0	1200	UL, CSA, VDE

Operating Temperature Range: -40˚C to 80˚C, Isolation Voltage: 4000 Vrms Minimum Off-State dv/dt 500V/µsec
Random turn-on, phase controllable (-10 suffix)

Questions? Call or e-mail **Americas** +1 (877) 502 5500 **sales@crydom.com**
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CWD, CWA

10-125Amp

120/240/480/600 Vac
SCR AC Switch Output
Integrated IP20 Fingerproof Cover
EMC Compliant Design

The CW series offers a SCR AC switch output featuring low off-state leakage (1mA, snubberless), zero cross or random turn-on (-10) switching and a wide operating range (28-280Vrms) for optimum performance at 120V ac and 240Vac line voltages. High thermal ratings with reduced power dissipation result in reduced heat sink requirements for optimum performance. Additional features include; integrated, removable finger-proof cover, LED status indication and user-friendly connectors. UL 508A SCCR Approved, consult Crydom for actual ratings.

dc input

	Line Voltage Range Vrms	Load Current Range Arms	Control Voltage Range Vdc	Control Current @ 12Vdc mA	Must Release Voltage Vdc	Surge Current 1-Cycle Apk	
CWD2410	24-280	.15-10	3-32	10	1.0	400	UL, CSA, VDE
CWD2425	24-280	.15-25	3-32	10	1.0	600	UL, CSA, VDE
CWD2450	24-280	.15-50	3-32	10	1.0	850	UL, CSA, VDE
CWD2490	24-280	.25-90	3-32	10	1.0	1350	UL, CSA, VDE
CWD24125	24-280	.25-125	3-32	10	1.0	2000	UL, CSA, VDE
CWD4810	48-660	.15-10	4-32	10	1.0	400	UL, CSA, VDE
CWD4825	48-660	.15-25	4-32	10	1.0	600	UL, CSA, VDE
CWD4850	48-660	.15-50	4-32	10	1.0	850	UL, CSA, VDE
CWD4890	48-660	.25-90	4-32	10	1.0	1350	UL, CSA, VDE
CWD48125	48-660	.25-125	4-32	10	1.0	2000	UL, cUL

ac input

	Line Voltage Range Vrms	Load Current Range Arms	Control Voltage Range Vrms	Control Current @120Vrms mA	Must Release Voltage Vrms	Surge Current 1-Cycle Apk	
CWA2410	24-280	.15-10	90-280	6.0	10.0	400	UL, CSA, VDE
CWA2425	24-280	.15-25	90-280	6.0	10.0	600	UL, CSA, VDE
CWA2450	24-280	.15-50	90-280	6.0	10.0	850	UL, CSA, VDE
CWA2490	24-280	.25-90	90-280	6.0	10.0	1350	UL, CSA, VDE
CWA24125	24-280	.25-125	90-280	6.0	10.0	2000	UL, CSA, VDE
CWA4810	48-660	.15-10	90-280	6.0	10.0	400	UL, CSA, VDE
CWA4825	48-660	.15-25	90-280	6.0	10.0	600	UL, CSA, VDE
CWA4850	48-660	.15-50	90-280	6.0	10.0	850	UL, CSA, VDE
CWA4890	48-660	.25-90	90-280	6.0	10.0	1350	UL, CSA, VDE
CWA48125	48-660	.25-125	90-280	6.0	10.0	2000	UL, cUL

Operating Temperature Range: -40˚C to 80˚C , isolation Voltage: 4000 Vrms, Minimum Off-State dv/dt: 500V/µsec
24 Vac input versions available (E suffix)



SMR, SMR-6

25-90Amp

120/240/480 Vac
SCR AC Switch Output
Versatile System Monitoring SSR
LED Status Indicators, Alarm Output

The SMR system monitoring SSR's offer a wide range of built-in fault condition alarms to the end-user. Loss of voltage, open circuit load, relay damage and loss of DC supply are constantly monitored. LED status indicators complete the package for early detection of equipment problems. SMR-6 models offer the user the capability to configure the relay with either inverting or non-inverting control and alarm. The alarm circuit can sink or source up to 100mA.

dc input

	Line Voltage Range Vrms	Load Current Range Arms	Control Voltage Range Vdc	Control Current @ 12Vdc mA	Alarm Output Current mA (max.)	Surge Current 1-Cycle Apk	
SMR2425	60-280	.04-25	8-32	6	100	250	UL, CSA, VDE
SMR2450	60-280	.04-50	8-32	6	100	625	UL, CSA, VDE
SMR2490	60-280	.04-90	8-32	6	100	1200	UL, CSA, VDE
SMR2425-6	60-280	.04-25	8-32	6	100	250	UL, CSA, VDE
SMR2450-6	60-280	.04-50	8-32	6	100	625	UL, CSA, VDE
SMR2490-6	60-280	.04-90	8-32	6	100	120	UL, CSA, VDE
SMR4825-6	96-530	.04-25	8-32	6	100	250	CSA, VDE
SMR4850-6	96-530	.04-50	8-32	6	100	625	CSA, VDE
SMR4890-6	96-530	.04-90	8-32	6	100	1200	CSA, VDE

Operating Temperature Range: -40˚C to 80˚C, Isolation Voltage: 4000 Vrms, Minimum Off-State dv/dt: 500V/µsec



H12

25-125Amp

480/600 Vac
SCR AC Switch Output
1200 Volt Blocking

High voltage relays use IC driven circuits for switching loads up to 660 VAC. All models come with 1200 Volts blocking standard. Types CA, CD and WD are snubberless and feature low off-state leakage. UL 508A SCCR Approved, consult Crydom for actual ratings.

dc input

	Line Voltage Range Vrms	Load Current Range Arms	Control Voltage Range Vdc	Control Current @ 5Vdc mA	Must Release Voltage Vdc	Surge Current 1-Cycle Apk	
H12WD4825	48-660	.15-25	4-32	15	1.0	250	UL, VDE
H12WD4850	48-660	.15-50	4-32	15	1.0	625	UL, CSA, VDE
H12WD4875	48-660	.15-75	4-32	15	1.0	1000	VDE
H12WD4890	48-660	.15-90	4-32	15	1.0	1200	UL, CSA, VDE
H12WD48125	48-660	.15-125	4-32	15	1.0	1750	UL, cUL
H12D4825	48-530	.15-25	4-32	15	1.0	250	UL, cUL, VDE
H12D4850	48-530	.15-50	4-32	15	1.0	625	UL, CSA, VDE
H12D4875	48-530	.15-75	4-32	15	1.0	1000	VDE
H12D4890	48-530	.15-90	4-32	15	1.0	1200	UL, CSA, VDE
H12CD4825	48-660	.15-25	4-15	15	1.0	250	UL, CSA, VDE
H12CD4850	48-660	.15-50	4-15	15	1.0	625	UL, CSA, VDE
H12CD4890	48-660	.15-90	4-15	15	1.0	1200	UL, CSA, VDE

ac input

	Line Voltage Range Vrms	Load Current Range Arms	Control Voltage Range Vrms	Control Current @120Vrms mA	Must Release Voltage Vrms	Surge Current 1-Cycle Apk	
H12CA4825	48-660	.15-25	90-140	15	10.0	250	UL, CSA, VDE
H12CA4850	48-660	.15-50	90-140	15	10.0	625	UL, CSA, VDE
H12CA4890	48-660	.15-90	90-140	15	10.0	1200	UL, CSA, VDE

Operating Temperature Range: -40˚C to 80˚C, Isolation Voltage: 4000 Vrms, Minimum Off-State dv/dt: 500V/µsec
Random turn-on, phase controllable (-10 suffix)



HD, HA

12-125Amp

480Vac
Zero Voltage or Random Turn-on
Ultra Low Control Current

Crydom's HD (DC control) and HA (AC control) relays incorporate the same proven technologies as our Series 1. All models come with 1200 volts blocking as standard and are available in either zero-cross or random turn-on and phase controllable (-10) switching versions.

dc input

	Line Voltage Range Vrms	Load Current Range Arms	Control Voltage Range Vdc	Control Current @ 5Vdc mA	Must Release Voltage Vdc	Surge Current 1-Cycle Apk	
HD4812	48-530	.04-12	3-32	2.0	1.0	140	UL, CSA, VDE
HD4825	48-530	.04-25	3-32	2.0	1.0	250	UL, CSA, VDE
HD4850	48-530	.04-50	3-32	2.0	1.0	625	UL, CSA, VDE
HD4875	48-530	.04-75	3-32	2.0	1.0	1000	UL, CSA, VDE
HD4890	48-530	.04-90	3-32	2.0	1.0	1200	UL, CSA, VDE
HD48110	48-530	.15-110	3-32	2.0	1.0	1500	UL, cUL
HD48125	48-530	.15-125	3-32	2.0	1.0	1750	UL, cUL

ac input

	Line Voltage Range Vrms	Load Current Range Arms	Control Voltage Range Vrms	Control Current @120Vrms mA	Must Release Voltage Vrms	Surge Current 1-Cycle Apk	
HA4812	48-530	.04-12	90-280	2.0	10.0	140	UL, CSA, VDE
HA4825	48-530	.04-25	90-280	2.0	10.0	250	UL, CSA, VDE
HA4850	48-530	.04-50	90-280	2.0	10.0	625	UL, CSA, VDE
HA4875	48-530	.04-75	90-280	2.0	10.0	1000	UL, CSA, VDE
HA4890	48-530	.04-90	90-280	2.0	10.0	1200	UL, CSA, VDE
HA48110	48-530	.15-110	90-280	2.0	10.0	1500	UL, cUL
HA48125	48-530	.15-125	90-280	2.0	10.0	1750	UL, cUL

Operating Temperature Range: -40˚C to 80˚C, Isolation Voltage: 4000 Vrms, Minimum Off-State dv/dt: 500V/µsec
24 Vac input versions available (E suffix)



HD60, HA60

25-125Amp

600 Vac
Zero Voltage or Random Turn-on
Ultra Low Control Current

Crydom's HD60 (DC control) and HA60 (AC control) relays incorporate the same proven technologies as the HD/HA products with up to 660 Vac load voltage range, preferred choice in Canada. All models come with 1200 volts blocking as standard and are available in either zero-cross or random turn-on and phase controllable (-10) switching versions.

dc input	Line Voltage Range Vrms	Load Current Range Arms	Control Voltage Range Vdc	Control Current @ 5Vdc mA	Must Release Voltage Vdc	Surge Current 1-Cycle Apk	
HD6025	48-660	.04-25	3-32	2.0	1.0	250	UL, CSA, VDE
HD6050	48-660	.04-50	3-32	2.0	1.0	625	UL, CSA, VDE
HD6090	48-660	.04-90	3-32	2.0	1.0	1200	UL, CSA, VDE
HD60125	48-660	.15-125	3-32	2.0	1.0	1750	UL, CSA

ac input	Line Voltage Range Vrms	Load Current Range Arms	Control Voltage Range Vrms	Control Current @120Vrms mA	Must Release Voltage Vrms	Surge Current 1-Cycle Apk	
HA6025	48-660	.04-25	90-280	2.0	10.0	250	UL, CSA, VDE
HA6050	48-660	.04-50	90-280	2.0	10.0	625	UL, CSA, VDE
HA6090	48-660	.04-90	90-280	2.0	10.0	1200	UL, CSA, VDE
HA60125	48-660	.15-125	90-280	2.0	10.0	1750	UL, CSA

Operating Temperature Range: -40˚C to 80˚C, Isolation Voltage: 4000 Vrms, Minimum Off-State dv/dt: 500V/µsec
24 Vac input versions available (E suffix)



PRG

150Amp

120/240/480 Vac
SCR AC Switch Output
High Steady-State Current
Internal Snubber

Designed for the most demanding application, the PRG SPST-NO Solid State Relays offer an exceptionally high (150 Arms current rating). They are designed for a wide range of applications including; high-intensity incandescent lamp dimming, motor speed control, reversing and switching, heater or pump controls and more.

dc input	Line Voltage Range Vrms	Load Current Range Arms	Control Voltage Range Vdc	Control Current @ 5Vdc mA	Must Release Voltage Vdc	Surge Current 1-Cycle Apk
PRGD24150	24-280	.15-150	3-15	15	1.0	1750
PRGD24150-10	24-280	.15-150	3-15	15	1.0	1750
PRGD48150	48-530	.15-150	4-15	15	1.0	1750
PRGD48150-10	48-530	.15-150	4-15	15	1.0	1750

ac input	Line Voltage Range Vrms	Load Current Range Arms	Control Voltage Range Vrms	Control Current @ 120Vrms mA	Must Release Voltage Vrms	Surge Current 1-Cycle Apk
PRGA24150	24-280	.15-150	90-140	10	10	1750
PRGA24150-10	24-280	.15-150	90-140	10	10	1750
PRGA48150	48-530	.15-150	90-140	10	10	1750
PRGA48150-10	48-530	.15-150	90-140	10	10	1750

-10 suffix denotes random turn-on.
Operating Temperature Range: -30˚C to 80˚C Isolation Voltage: 4000 Vrms



CMD, CMA

25-125Amp

120/240/480/600 Vac
SCR AC Switch Output
Zero Cross or Random Turn-on

These Propack SPST-NO solid state relays offer box clamp connections for safety and ease-of-use. The on-board LED provides visible status indication. Also available with DIN rail mount and integral heat sink, (see CMR products on page 14). Model choices include zero-voltage or random turn-on (phase controllable) switching (add suffix -10).

dc input	Line Voltage Range Vrms	Load Current Range Arms	Control Voltage Range Vdc	Control Current @ 5Vdc mA	Must Release Voltage Vdc	Surge Current 1-Cycle Apk	
CMD2425	24-280	.15-25	3-32	17	1.0	250	UL, CSA, VDE
CMD2450	24-280	.15-50	3-32	17	1.0	625	UL, CSA, VDE
CMD2475	24-280	.25-75	3-32	17	1.0	1000	UL, CSA, VDE
CMD2490	24-280	.25-90	3-32	17	1.0	1200	UL, CSA, VDE
CMD24110	24-280	.25-110	3-32	17	1.0	1500	UL, CSA
CMD24125	24-280	.25-125	3-32	17	1.0	1750	UL, CSA
CMD4825	48-530	.15-25	4-32	14	1.0	250	UL, CSA, VDE
CMD4850	48-530	.15-50	4-32	14	1.0	625	UL, CSA, VDE
CMD4875	48-530	.25-75	4-32	14	1.0	1000	UL, CSA, VDE
CMD4890	48-530	.25-90	4-32	14	1.0	1200	UL, CSA, VDE
CMD48110	48-530	.25-110	4-32	14	1.0	1500	UL, CSA
CMD48125	48-530	.25-125	4-32	14	1.0	1750	UL, CSA
CMD6025	48-660	.15-25	4-32	14	1.0	250	UL, CSA, VDE
CMD6050	48-660	.15-50	4-32	14	1.0	625	UL, CSA, VDE
CMD6075	48-660	.25-75	4-32	14	1.0	1000	UL, CSA, VDE
CMD6090	48-660	.25-90	4-32	14	1.0	1200	UL, CSA, VDE
CMD60110	48-660	.25-110	4-32	14	1.0	1500	UL, CSA
CMD60125	48-660	.25-125	4-32	14	1.0	1750	UL, CSA

ac input	Line Voltage Range Vrms	Load Current Range Arms	Control Voltage Range Vrms	Control Current @120Vrms mA	Must Release Voltage Vrms	Surge Current 1-Cycle Apk	
CMA2425	24-280	.15-25	90-140	15	10	250	UL, CSA, VDE
CMA2450	24-280	.15-50	90-140	15	10	625	UL, CSA, VDE
CMA2475	24-280	.25-75	90-140	15	10	1000	UL, CSA, VDE
CMA2490	24-280	.25-90	90-140	15	10	1200	UL, CSA, VDE
CMA24110	24-280	.25-110	90-140	15	10	1500	UL, CSA
CMA24125	24-280	.25-125	90-140	15	10	1750	UL, CSA
CMA4825	48-530	.15-25	90-140	15	10	250	UL, CSA, VDE
CMA4850	48-530	.15-50	90-140	15	10	625	UL, CSA, VDE
CMA4875	48-530	.25-75	90-140	15	10	1000	UL, CSA, VDE
CMA4890	48-530	.25-90	90-140	15	10	1200	UL, CSA, VDE
CMA48110	48-530	.25-110	90-140	15	10	1500	UL, CSA
CMA48125	48-530	.25-125	90-140	15	10	1750	UL, CSA
CMA6025	48-660	.15-25	90-140	15	10	250	UL, CSA, VDE
CMA6050	48-660	.15-50	90-140	15	10	625	UL, CSA, VDE
CMA6075	48-660	.25-75	90-140	15	10	1000	UL, CSA, VDE
CMA6090	48-660	.25-90	90-140	15	10	1200	UL, CSA, VDE
CMA60110	48-660	.25-110	90-140	15	10	1500	UL, CSA
CMA60125	48-660	.25-125	90-140	15	10	1750	UL, CSA

Operating Temperature Range: -40˚C to 80˚C, Isolation Voltage: 4000 Vrms, Minimum Off-State dv/dt: 500V/µsec
24 Vac input versions available (E suffix)



Dual Relays, Quad Relays

120/240/480 Vac

SCR AC Switch Output
Industry Standard Package
Zero Cross or Random Turn-On

Two (Dual) or four (Quad) independent AC output relays come in a single standard panel-mount package. Utilizing an AC switch output with internal snubber, relays provide greater protection against false triggering. Model choices include zero cross or random turn-on (phase controllable) switching (add suffix -10). For 24Vdc Control (add suffix E). UL 508A SCCR Approved, consult Crydom for actual ratings.

Duals

dc input	Line Voltage Range Vrms	Load Current Range Arms	Control Voltage Range Vdc	Control Current @ 5Vdc mA	Must Release Voltage Vdc	Surge Current 1-Cycle Apk	
D2425D	24-280	.15-25	4-15	13	1.0	250	UL, CSA, VDE
D2440D	24-280	.15-40	4-15	13	1.0	625	UL, CSA, VDE
H12D4825D	48-530	.15-25	4-15	13	1.0	250	UL, cUL, VDE
H12D4840D	48-530	.15-40	4-15	13	1.0	625	UL, cUL, VDE

Quads

dc input	Line Voltage Range Vrms	Load Current Range Arms	Control Voltage Range Vdc	Control Current @ 5Vdc mA	Must Release Voltage Vdc	Surge Current 1-Cycle Apk	
TD2420Q	24-280	.15-20	4-15	12	1.0	250	UL, CSA
TD2420Q-10	24-280	.15-20	4-15	12	1.0	250	UL, CSA

Operating Temperature Range: -40˚C to 80˚C, Isolation Voltage: 4000 Vrms (Dual), 2500 Vrms (Quad)



53TP

25-50Amp 3 PHASE

120/240/480 Vac
SCR AC Switch Output
LED Status Indicator

Three-phase solid state relays switch up to 530 Vrms directly to loads such as motors, transformers, heating elements, etc. Available with either AC or DC input (coil) control in zero-voltage or random turn-on switching versions (add suffix -10). For 24Vac Control (add suffix E).

dc input	Line Voltage Range Vrms	Load* Current Range Arms	Control Voltage Range Vdc	Control Current @ 5Vdc mA	Must Release Voltage Vdc	Surge* Current 1-Cycle Apk	
D53TP25D	48-530	.05-25	3-32	10	1.0	250	UL, CSA, VDE
D53TP50D	48-530	.05-50	3-32	10	1.0	625	UL, CSA, VDE
D53DP25D**	48-530	.05-25	4-32	20	1.0	250	UL, cUL, VDE
D53DP50D**	48-530	.05-50	4-32	20	1.0	625	UL, cUL, VDE

ac input	Line Voltage Range Vrms	Load* Current Range Arms	Control Voltage Range Vrms	Control Current @ 120Vrms mA	Must Release Voltage Vrms	Surge* Current 1-Cycle Apk	
A53TP25D	48-530	.05-25	90-280	2.2	10.0	250	UL, CSA, VDE
A53TP50D	48-530	.05-50	90-280	2.2	10.0	625	UL, CSA, VDE
A53DP25D**	48-530	.05-25	90-280	5	10.0	250	UL, cUL, VDE
A53DP50D**	48-530	.05-50	90-280	5	10.0	625	UL, cUL, VDE

**Current and Surge Ratings are per phase.*
*** DP is two controlled phases with the third connected straight through (A1 - A2).*
Operating Temperature Range: 40˚C to 80˚C, Isolation Voltage: 4000 Vrms



PSD

10-90Amp

120/240/480 Vac
Peak Switching
Internal Snubber

Output consists of an SCR AC switch turning on at the next peak of sinusoidal AC wave form after the input has been activated. Continuing to conduct normally until the input is deactivated and then turning off at the next current zero cross. Suitable for switching transformers and other highly inductive loads where significant inrush current may otherwise cause problems.

dc input	Line Voltage Range Vrms	Load Current Range Arms	Control Voltage Range Vdc	Control Current @5Vdc mA	Must Release Voltage Vdc	Surge Current 1-Cycle Apk	
PSD2410	90-280	.04-10	3-32	2.0	1.0	120	UL, cUL
PSD2425	90-280	.04-25	3-32	2.0	1.0	250	UL, cUL
PSD2450	90-280	.04-50	3-32	2.0	1.0	625	UL, cUL
PSD2490	90-280	.04-90	3-32	2.0	1.0	1200	UL, cUL
PSD4810	48-530	.04-10	4-32	8	1.0	140	
PSD4825	48-530	.04-25	4-32	8	1.0	250	
PSD4850	48-530	.04-50	4-32	8	1.0	625	
PSD4890	48-530	.04-90	4-32	8	1.0	1200	

Operating Temperature Range: -40˚C to 80˚C, Isolation Voltage: 4000 Vrms, Minimum Off-State dv/dt: 500V/µsec

Panel Mount - DC Output



DC60

3-7Amp

60 Vdc
DC Bipolar Output
AC or DC Control
Economical Panel Mount Package

The DC60 products provide bipolar transistor DC output switching with high (4000 Vrms) isolation voltage. Only Crydom offers AC input/DC output relays in this economical standard panel-mount package.

dc input	Line Voltage Range Vdc	Load Current Range Adc	Control Voltage Range Vdc	Control Current @ 5Vdc mA	Must Release Voltage Vdc	Surge Current 1 sec. Adc	
DC60S3	3-60	.02-3	3.5-32	2.2	1.0	6	UL, cUL
DC60S5	3-60	.02-5	3.5-32	2.2	1.0	10	UL, cUL
DC60S7	3-60	.02-7	3.5-32	2.2	1.0	14	UL, cUL

ac input	Line Voltage Range Vdc	Load Current Range Adc	Control Voltage Range Vrms	Control Current @120Vrms mA	Must Release Voltage Vrms	Surge Current 1 sec. Adc	
DC60SA3	3-60	.02-3	90-280	2	10	6	UL, cUL
DC60SA5	3-60	.02-5	90-280	2	10	10	UL, cUL
DC60SA7	3-60	.02-7	90-280	2	10	14	UL, cUL

Operating Temperature Range: -30˚C to 80˚C Isolation Voltage:4000 Vrms
Normally closed (Form B) versions available (-B suffix)



D06D

60-100Amp

60 Vdc
DC MOSFET Output
Low On-State Resistance

The D06D products feature MOSFET technology and the proven durability of the D1D models with up to 100 Amps output in a single industry standard package.

	Line Voltage Range Vdc	Load Current Range Adc	Control Voltage Range Vdc	Control Current @ 5Vdc mA	Must Release Voltage Vdc	Surge Current 10 ms Adc
D06D60	0-60	.005-60	3.5-32	1.6	1.0	180
D06D80	0-60	.005-80	3.5-32	1.6	1.0	220
D06D100	0-60	.005-100	3.5-32	1.6	1.0	270

Operating Temperature Range: -30˚C to 80˚C Isolation Voltage:2500 Vrms



SSC

25Amp

High Voltage, 0-1000 Vdc
Solid State DC Contactor

SSC solid state DC contactors feature IGBT technology for high voltage DC switching applications.

	Line Voltage Range Vdc	Load Current Range Adc	Control Voltage Range Vdc	Control Current @12/24/36Vdc mA	Must Release Voltage Vdc	Surge Current 10 ms Adc
SSC800-25-12	0-800	.02-25	8-16	15	1.0	75
SSC800-25-24	0-800	.02-25	20-28	15	1.0	75
SSC800-25-36	0-800	.02-25	32-40	15	1.0	75
SSC1000-25-12	0-1000	.02-25	8-16	15	1.0	75
SSC1000-25-24	0-1000	.02-25	20-28	15	1.0	75
SSC1000-25-36	0-1000	.02-25	32-40	15	1.0	75

SSC 800, includes overvoltage protection
Operating Temperature Range: -30˚C to 80˚C, Isolation Voltage: 2500 Vrms



D1D, D2D, D4D, D5D

7-40Amp

0-500 Vdc
MOSFET Output
Low On-State Resistance
Paralleling Capability for Higher Currents

DC output relays feature MOSFET technology for low on-state resistance, assuring easy paralleling and switching capabilities to 40 amps at 100 Vdc. Lower current models are also available to 500 Vdc.

	Line Voltage Range Vdc	Load Current Range Adc	Control Voltage Range Vdc	Control Current @ 5Vdc mA	Must Release Voltage Vdc	Surge Current 10 ms Adc	
D1D07	0-100	.02-7	3.5-32	1.6	1.0	15	UL
D1D12	0-100	.02-12	3.5-32	1.6	1.0	28	UL
D1D20	0-100	.02-20	3.5-32	1.6	1.0	42	UL
D1D40	0-100	.02-40	3.5-32	1.6	1.0	106	UL
D2D07	0-200	.02-7	3.5-32	1.6	1.0	22	
D2D12	0-200	.02-12	3.5-32	1.6	1.0	27	
D2D40	0-200	.02-40	3.5-32	1.6	1.0	106	
D4D07	0-400	.02-7	3.5-32	1.6	1.0	17	
D4D12	0-400	.02-12	3.5-32	1.6	1.0	36	
D5D07	0-500	.02-7	3.5-32	1.6	1.0	19	
D5D10	0-500	.02-10	3.5-32	1.6	1.0	29	

Operating Temperature Range: -30˚C to 80˚C Isolation Voltage:2500 Vrms

Panel Mount - Accessories

Crydom Heat Sinks

Meet or Exceed Crydom's Heat Dissipation Requirements
Pre-Drilled and Tapped

Thermal management is a important consideration in the use of panel solid state relays due to the contact dissipation (typically 1W per Amp). Crydom heat sinks are engineered to match the heat dissipation requirements of Crydom solid state relays. Pre-drilled and tapped for quick, seamless installations.

	K/W	SSR	Mounting
HS-1	2.1	Single Phase	Panel Mount
HS-2	1.5	Single Phase	Panel Mount
HE-54	0.7	Single Phase	Panel Mount
HE-90	0.4	(3) Single Phase or (1) Three Phase	Panel Mount
HS8.1	2.0	Single Phase	DIN Mount
HS8.3	3.5	Single Phase	DIN Mount
HE13DR	0.8	(3) Single Phase or (1) Three Phase	DIN Mount
MS1	1.4	Single Phase	DIN Mount
MS2	2.5	Single Phase	DIN Mount
MS3	1.0	(3) Single Phase or (1) Three Phase	DIN Mount
MS4	4.5	Single Phase	DIN Mount

Heat Transfer Pads

TP01, TP03, TPEZ, TPCM

Maximize Thermal Conductivity, 100% Grease-Free

Crydom Heat Transfer Pads offer a clean, easy-to-use and grease-free alternative to conventional mica or grease while maximizing the thermal conductivity. Installation is simple, pads are die cut to fit perfectly with Crydom SSRs. To order heat transfer pad attached to panel mount relays, add suffix "H" to part number.

TP01 All Single Phase Panel Mount SSRs and Auxiliary Function Modules and M50 Power Modules, non-adhesive

TP03 Three Phase (53TP)
TPEZ EZ
TPCM CMD, CMA



Protective Covers

KS100, KS300, KS100-SMR

Protects Terminals for Safety
Custom Fit for Most Crydom SSRs

Made of durable, clear polycarbonate, these removable covers provide additional protection from electrical shock by covering the SSR terminals.

KS100 Standard Package, Single Phase SSRs
KS300 Three Phase (53TP)
KS100-SMR SMR, SMR-6 Series and MC Series



SSR Filters

Single and Three Phase

Suppresses EMI Noise
Simple Installation

All AC Solid State Relays generate low frequency thyristor noise which may exceed some industrial standards (e.g. EN50061) at the lower end of the frequency spectrum (150-250kHz). Crydom's patented filter design connects easily and offer up to 50% reduction in thyristor noise

1F25 SSR Filter - Single Phase
3F20 SSR Filter - Three Phase (53TP)
3F20-4 SSR Filter - Three Phase (with neutral)

Questions? Call or e-mail **Americas** +1 (877) 502 5500 **sales@crydom.com**
Europe +44 (0) 1202 606030 **sales-europe@crydom.com**



MS11

LED Status Indicator (Input)
DIN rail Mount for PCB products

Designed specifically for a variety of Crydom's PCB mount solid state relays, the MS11 provides a secure and convenient DIN rail mount with an input status LED.

	Line Voltage Range	Load Current Range	Control Voltage Range	Control Curre nt @5/24Vdc	Must Release Voltage	Surge Current 1-Cycle
AC Output	**Vrms**	**Arms**	**Vdc**	**mA**	**Vdc**	**Apk**
MS11-CX240D5	12-280	.06 -5	3-15	15	1.0	250
MS11-CXE240D5	12-280	.06 -5	15-32	15	1.0	250

	Line Voltage Range	Load Curre Range	Control Voltage Range	Control Curre nt @5Vdc	Must Release Voltage	Surge Current 10ms
DC Output	**Vdc**	**Adc**	**Vdc**	**mA**	**Vdc**	**Apk**
MS11-CMX60D5	0-60	0-5	3-10	15	1.0	60
MS11-CMX60D10	0-60	0-10	3-10	15	1.0	100
MS11-CMX100D6	0-100	0-6	3-10	15	1.0	100
MS11-CMX200D3	0-200	0-3	3-10	15	1.0	30



CKR

10-30Amp

120/240/480/600 Vac
SCR AC Switch Output
Zero Cross or Random Turn-on
LED Status Indicator
Slim Package, Only 22mm Wide

Crydom's proprietary thermal management technology makes for an efficient and compact package. Safe and easy-to-use box clamp terminals with integral heat sink complete the package. Model choices include zero-voltage or random turn-on (phase controllable) switching (add suffix -10). UL 508A SCCR Approved, consult Crydom for actual ratings.

dc input

	Line Voltage Range	Load Current Range	Control Voltage Range	Control Current @ 12Vdc	Must Release Voltage	Surge Current 1-Cycle	
	Vrms	**Arms**	**Vdc**	**mA**	**Vdc**	**Apk**	
CKRD2410	24-280	.15-10	4.5-32	15	1.0	120	UL, CSA, VDE
CKRD2420	24-280	.15-20	4.5-32	15	1.0	250	UL, CSA, VDE
CKRD2430	24-280	.15-30	4.5-32	15	1.0	625	UL, CSA, VDE
CKRD4810	48-530	.15-10	4.5-32	15	1.0	120	UL, CSA, VDE
CKRD4820	48-530	.15-20	4.5-32	15	1.0	250	UL, CSA, VDE
CKRD4830	48-530	.15-30	4.5-32	15	1.0	625	UL, CSA, VDE
CKRD6010	48-660	10	4.0-32	12	1.0	120	UL, CSA, VDE
CKRD6020	48-660	20	4.0-32	12	1.0	250	UL, CSA, VDE
CKRD6030	48-660	30	4.0-32	12	1.0	625	UL, CSA, VDE

ac input

	Line Voltage Range	Load Current Range	Control Voltage Range	Control Current @120Vrms	Must Release Voltage	Surge Current 1-Cycle	
	Vrms	**Arms**	**Vrms**	**mA**	**Vrms**	**Apk**	
CKRA2410	24-280	.15-10	90-280	2	10	120	UL, CSA, VDE
CKRA2420	24-280	.15-20	90-280	2	10	250	UL, CSA, VDE
CKRA2430	24-280	.15-30	90-280	2	10	625	UL, CSA, VDE
CKRA4810	48-530	.15-10	90-280	2	10	120	UL, CSA, VDE
CKRA4820	48-530	.15-20	90-280	2	10	250	UL, CSA, VDE
CKRA4830	48-530	.15-30	90-280	2	10	625	UL, CSA, VDE
CKRA6010	48-660	10	90-280	2	10	120	UL, CSA, VDE
CKRA6020	48-660	20	90-280	2	10	250	UL, CSA, VDE
CKRA6030	48-660	30	90-280	2	10	625	UL, CSA, VDE

Operating Temperature Range: -40˚C to 80˚C Isolation Voltage: 4000 Vrms
24Vac input versions available (E suffix)



CMR

35-65Amp

120/240/480/600 Vac
SCR AC Switch Output
Zero Cross or Random Turn-on

Crydom's Coolpak™ integral heat sink technology creates a package that is efficient with the convenience of DIN rail mounting. These SPST-NO solid state relays offer box clamp connections for safety and ease-of-use. The on-board LED provides visible status indication. Model choices include zero-voltage or random turn-on (phase controllable) switching (add suffix -10). UL 508A SCCR Approved, consult Crydom for actual ratings

dc input

	Line Voltage Range	Load Current Range	Control Voltage Range	Control Current @ 5Vdc	Must Release Voltage	Surge Current 1-Cycle	
	Vrms	**Arms**	**Vdc**	**mA**	**Vdc**	**Apk**	
CMRD2435	24-280	.15-35	3-32	17	1.0	250	UL, CSA, VDE
CMRD2445	24-280	.15-45	3-32	17	1.0	625	UL, CSA, VDE
CMRD2455	24-280	.25-55	3-32	17	1.0	1000	UL, CSA, VDE
CMRD2465	24-280	.25-65	3-32	17	1.0	1200	UL, CSA, VDE
CMRD4835	48-530	.15-35	4-32	14	1.0	250	UL, CSA, VDE
CMRD4845	48-530	.15-45	4-32	14	1.0	625	UL, CSA, VDE
CMRD4855	48-530	.25-55	4-32	14	1.0	1000	UL, CSA, VDE
CMRD4865	48-530	.25-65	4-32	14	1.0	1200	UL, CSA, VDE
CMRD6035	48-660	.15-35	4-32	14	1.0	250	UL, CSA, VDE
CMRD6045	48-660	.15-45	4-32	14	1.0	625	UL, CSA, VDE
CMRD6055	48-660	.25-55	4-32	14	1.0	1000	UL, CSA, VDE
CMRD6065	48-660	.25-65	4-32	14	1.0	1200	UL, CSA, VDE

ac input

	Line Voltage Range	Load Current Range	Control Voltage Range	Control Current @120Vrms	Must Release Voltage	Surge Current 1-Cycle	
	Vrms	**Arms**	**Vrms**	**mA**	**Vrms**	**Apk**	
CMRA2435	24-280	.15-35	90-140	15	10	250	UL, CSA, VDE
CMRA2445	24-280	.15-45	90-140	15	10	625	UL, CSA, VDE
CMRA2455	24-280	.25-55	90-140	15	10	1000	UL, CSA, VDE
CMRA2465	24-280	.25-65	90-140	15	10	1200	UL, CSA, VDE
CMRA4835	48-530	.15-35	90-140	15	10	250	UL, CSA, VDE
CMRA4845	48-530	.15-45	90-140	15	10	625	UL, CSA, VDE
CMRA4855	48-530	.25-55	90-140	15	10	1000	UL, CSA, VDE
CMRA4865	48-530	.25-65	90-140	15	10	1200	UL, CSA, VDE
CMRA6035	48-660	.15-35	90-140	15	10	250	UL, CSA, VDE
CMRA6045	48-660	.15-45	90-140	15	10	625	UL, CSA, VDE
CMRA6055	48-660	.25-55	90-140	15	10	1000	UL, CSA, VDE
CMRA6065	48-660	.25-65	90-140	15	10	1200	UL, CSA, VDE

Operating Temperature Range: -40˚C to 80˚C Isolation Voltage: 4000 Vrms
24Vac input versions available (E suffix)



HPF

20-30Amp

120/240/480 Vac
SCR AC Switch Output
Zero Cross or Random Turn-on
Low Leakage

The HPF series offers an efficient and compact package capable of switching up to 660Vac. Box clamp terminals with integral heat sink complete the package. Options include zero-voltage or random turn-on (R suffix) phase controllable switching.

dc input

	Line Voltage Range	Load Current Range	Control Voltage Range	Control Current @ 5Vdc	Must Release Voltage	Surge Current 1-Cycle	
	Vrms	**Arms**	**Vdc**	**mA**	**Vdc**	**Apk**	
HPF240D20	12-280	.15-20	4-32	5	1.0	250	UL, CSA
HPF240D30	12-280	.15-30	4-32	5	1.0	625	CSA
HPF480D20	48-660	.15-20	4.5-32	5	1.0	250	CSA
HPF480D30	48-660	.15-30	4.5-32	5	1.0	625	CSA

Operating Temperature Range: -40˚C to 80˚C Isolation Voltage: 4000 Vrms

Solid State Control Relays

Crydom's recognized global leadership in solid-state relays (SSRs) is taken a step further with our extensive line of solid state control relays. They can incorporate control circuitry, intelligence, indication and feedback to an SSR function, further enhancing the cost-performance benefits for the end user. Housed in familiar electrically isolated-base packages, many commonly used power switching/control functions are incorporated into a single relay. Crydom's renowned advanced thermal management techniques are utilized to ensure ease of mounting and cooling for long life and reliable operation. Significant cost savings are realized from reductions in design, volume, cooling, filed maintenance, parts count, acquisition and inventory costs.

Typical Applications

Appliances
Blow Molding Equipment
Centrifuges
Closed Loop Control
Conveyors
DC-choppers
Elevator controls
Furnaces
Gaming Equipment
Heater controls
HVAC controls
Incubators
Inverters
Lamp controls
Light Dimmers
Marine Equipment
Medical electronics
Motor controls, AC
Motor controls, Induction
Motor controls, Universal
Motor-starter
Ovens
Polishing Equipment
Power supplies
Printing Equipment
Pump Controls
Reflow Soldering
Slow-start controls
Steamers
Sterilizers
Temperature Controls
Three-phase switching
Traction
Transformer Switching
Transportation
UPS systems
Welding

Custom Designs

Crydom's Sales and Technical Support teams will work closely with you to define and develop customized solutions for your unique requirements. We can help you get that competitive edge necessary to be a leader in your industry. In-house capabilities include ceramic substrate production, SMT (surface mount technology) placement/insertion robotics assembly and elevated/low temperature monitored testing. All this interprets into fast-track design, prepare prototypes, test, evaluate, adjust and finalize as necessary to achieve the stated performance criteria. Upon final customer approval we can quickly gear up to meet your production schedules in our ISO9001 certified manufacturing environment.



SST

Solid State Soft-Start Control Module/Relay

10-90Amp
SCR AC Switch Output
120/240 Vac

Models SST120 and SST240 control modules gradually apply power to the load when energized by the control voltage. They must be used with Crydom Series 1 random turn-on solid state relays. Consult factory for SST wiring diagrams and about use with 480 Vac loads. For a complete set (control module and solid state relay) order 10SST120, 25SST120, etc.

	Line Voltage Range **Vrms**	Load Current Range **Arms**	Control Voltage Range **Vdc**	Control Current @ 5Vdc **mA**	Must Release Voltage **Vdc**	Surge Current 1-Cycle **Apk**	Crydom Solid State Relay (Incl.) **Part No.**	
SST120*	90-140	*	3.5-10	1.6	1.0	*	none	UL, cUL
10SST120	90-140	.04-10	3.5-10	1.6	1.0	120	D2410-10	UL, cUL
25SST120	90-140	.04-25	3.5-10	1.6	1.0	250	D2425-10	UL, cUL
50SST120	90-140	.04-50	3.5-10	1.6	1.0	625	D2450-10	UL, cUL
SST240*	180-280	*	3.5-10	1.6	1.0	*	none	UL, cUL
10SST240	180-280	.04-10	3.5-10	1.6	1.0	120	D2410-10	UL, cUL
25SST240	180-280	.04-25	3.5-10	1.6	1.0	250	D2425-10	UL, cUL
50SST240	180-280	.04-50	3.5-10	1.6	1.0	625	D2450-10	UL, cUL
75SST240	180-280	.04-75	3.5-10	1.6	1.0	1000	D2475-10	
90SST240	180-280	.04-90	3.5-10	1.6	1.0	1200	D2490-10	

* Control Module Only, Must be used with -10 (Series 1) DC input relay
Operating Temperature Range: -30˚C to 80˚C Isolation Voltage: 4000 Vrms



DSD, DLD

Solid State Time Delay Control Relay

10-50Amp
120/240 Vac
SCR AC Switch Output
Externally Adjustable

These "on-operate" (pull-in) time-delay solid state relays are housed in a single industry standard package. AC output is controlled by a DC input and has an externally adjustable time delays. Choices include models with two time-delay ranges (DSD models: 0.1 sec to 8.3 sec.; DLD models: 1.6 sec. to 133 sec.)

	Line Voltage Range **Vrms**	Load Current Range **Arms**	Control Voltage Range **Vdc**	Control Current @ 5Vdc **mA**	Must Release Voltage **Vdc**	Surge Current 1-Cycle **Apk**	
DSD2410	48-280	.04-10	3.5-15	3.4	1.0	120	UL, cUL
DSD2425	48-280	.04-25	3.5-15	3.4	1.0	250	UL, cUL
DSD2450	48-280	.04-50	3.5-15	3.4	1.0	625	UL, cUL
DLD2410	48-280	.04-10	3.5-15	3.4	1.0	120	UL, cUL
DLD2425	48-280	.04-25	3.5-15	3.4	1.0	250	UL, cUL
DLD2450	48-280	.04-50	3.5-15	3.4	1.0	625	UL, cUL

Timing Resistances

	0 (Short)	**10KΩ**	**100KΩ**	**470KΩ**	**1.0MΩ**
DSD	0.10 sec	0.19 sec	0.94 sec	4.0 sec	8.3 sec
DLD	1.6 sec	3.1sec	15 sec	64 sec	133 sec

Operating Temperature Range: -30˚C to 80˚C Isolation Voltage: 4000 Vrms

Questions? Call or e-mail **Americas** +1 (877) 502 5500 **sales@crydom.com**
Europe +44 (0) 1202 606030 **sales-europe@crydom.com**



LPCV

Solid State Linear Proportional Control Relay

15-110Amp
120/240 Vac
SCR AC Switch Output
Precise Proportional Load Control

The LPCV solid state linear proportional control relays control loads up to 110 amps. Changes in the input signal linearly vary the firing angle of the thyristor load control device.

Control circuitry and power switch are in a single package.

PS-120 (120V), PS-240 (240V) These power supplies are designed for use with the Series LPCV control relays to provide the 20Vac required in addition to the control voltage.

	Line Voltage Range **Vrms**	Load Current Range **Arms**	Control Range	Turn-On Threshold	Input Impedance **Ohms**	Surge Current 1-Cycle **Apk**
5LPCV2415	20-300	.10-15	0-5Vdc	.25Vdc	12.7K	150
5LPCV2425	20-300	.10-25	0-5Vdc	.25Vdc	12.7K	250
5LPCV2440	20-300	.10-40	0-5Vdc	.25Vdc	12.7K	625
5LPCV2475	20-300	.15-75	0-5Vdc	.25Vdc	12.7K	1000
5LPCV24110	20-300	.20-110	0-5Vdc	.25Vdc	12.7K	1500
10LPCV2415	20-300	.10-15	0-10Vdc	.5Vdc	25K	150
10LPCV2425	20-300	.10-25	0-10Vdc	.5Vdc	25K	250
10LPCV2440	20-300	.10-40	0-10Vdc	.5Vdc	25K	625
10LPCV2475	20-300	.15-75	0-10Vdc	.5Vdc	25K	1000
10LPCV24110	20-300	.20-110	0-10Vdc	.5Vdc	25K	1500
20LPCV2415	20-300	.10-15	4-20mA	4.5mA	460	150
20LPCV2425	20-300	.10-25	4-20mA	4.5mA	460	250
20LPCV2440	20-300	.10-40	4-20mA	4.5mA	460	625
20LPCV2475	20-300	.15-75	4-20mA	4.5mA	460	1000
20LPCV24110	20-300	.20-110	4-20mA	4.5mA	460	1500

Operating Temperature Range: -30˚C to 80˚C, Isolation Voltage: 2500 Vrms



CPV

Solid State Phase Control Module/Relay

10-90Amp
120/240 Vac
0-5Vdc Phase Control

Models CPV120 and CPV240 solid state control modules provide control of the phased turn-on of a solid state relay, in response to the application of a 0-5 Vdc control signal. They must be used with Crydom Series 1 random turn-on solid state relays. Consult factory for wiring diagrams and about use with 480 Vac loads. For acomplete set (control relay and solid state relay) order 10CPV120, 25CPV120, etc.

	Line Voltage Range **Vrms**	Load Current Range **Arms**	Logic Supply Voltage **Vdc**	Control Voltage Range **Vdc**	Surge Current 1-Cycle **Apk**	Crydom Solid State Relay (Incl.) **Part No.**
CPV120*	90-140	*	3.5-10	0-5	*	none
10CPV120	90-140	.04-10	3.5-10	0-5	120	D1210-10
25CPV120	90-140	.04-25	3.5-10	0-5	250	D1225-10
40CPV120	90-140	.04-40	3.5-10	0-5	625	D1240-10
CPV240*	180-280	*	3.5-10	0-5	*	none
10CPV240	180-280	.04-10	3.5-10	0-5	120	D2410-10
25CPV240	180-280	.04-25	3.5-10	0-5	250	D2425-10
50CPV240	180-280	.04-50	3.5-10	0-5	625	D2450-10
75CPV240	180-280	.04-75	3.5-10	0-5	1000	D2475-10
90CPV240	180-280	.04-90	3.5-10	0-5	1200	D2490-10

* Control Module Only, Must be used with -10 (Series 1) DC input relay
Operating Temperature Range: -30˚C to 80˚C Isolation Voltage: 4000 Vrms



RPC

Solid State Proportional Control

15-40Amp
120/240/480 Vac
Economical Potentiometer Control

The RPC series provides a cost effective method of controlling power in many different application such as heaters or incandescent lamps. A customer provided potentiometer is all that is required for control. All RPC products are supplied with KS100 protective cover.

	Line Voltage Range **Vrms**	Load Current Range **Arms**	Off-State Leakage **mA**	Potentiometer Resistance **Ohms**	Potentiometer Wattage **W**	Surge Current 1-Cycle **Apk**
RPC1215	90-130	.07-15	10	150K	1	150
RPC1225	90-130	.08-25	10	150K	1	250
RPC1240	90-130	.09-40	10	150K	1	625
RPC2415	200-240	.07-15	7	1 Meg	.5	150
RPC2425	200-240	.08-25	7	1 Meg	.5	250
RPC2440	200-240	.09-40	7	1 Meg	.5	625
RPC4815	400-480	.07-15	3	1 Meg	.5	150
RPC4825	400-480	.08-25	3	1 Meg	.5	250
RPC4840	400-480	.09-40	3	1 Meg	.5	625

Operating Temperature Range: -30˚C to 80˚C Isolation Voltage: 2500 Vrms (Load to baseplate only)
Note: Control to load is not isolated, exercise care in handling this product to avoid the risk of electric shock.



PCV

Solid State Analog Input Power Control Relays

15-90Amp
120/240 Vac
SCR AC Switch Output

The PCV Series solid state proportional control relays are self contained power control relays integrating a complete phase fired logic control system and a solid state relay in the same standard package.

	Line Voltage Range **Vrms**	Load Current Range **Arms**	Off-State Leakage **mA**	Control Voltage Range **Vdc**	Control Current @ 5Vdc **mA**	Surge Current 1-Cycle **Apk**	
7PCV2415	100-240	.15-15	10	2-7	4	150	UL, CSA
7PCV2425	100-240	.15-25	15	2-7	4	250	UL, CSA
10PCV2415	100-240	.15-15	10	2-10	4	150	UL, CSA
10PCV2425	100-240	.15-25	15	2-10	4	250	UL, CSA
10PCV2450	100-240	.15-50	20	2-10	4	625	UL, CSA
10PCV2475	100-240	.15-75	20	2-10	4	1000	UL, CSA
10PCV2490	100-240	.15-90	20	2-10	4	1200	UL, CSA

Operating Temperature Range: -30˚C to 80˚C Isolation Voltage: 2500 Vrms



MCTC

Solid State Temperature Control Relay

25-90Amp
120/480 Vac
AC Output

- Temperature Control/SSR in One Package
- Direct J or K Internally Compensated Thermocouple Input
- Four Heating Ranges Available with Burst Fire Control
- Setpoint is Adjustable by Voltage or 4-20mA Control
- Separate Output Enable/Disable Control
- SCR Based Output Load Switching
- Open Thermocouple Protection Feature
- One Refrigeration Range Available with Built-In 2 Minute Short-Cycle Protection

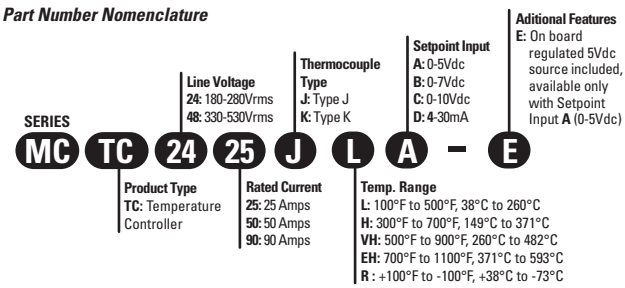
The Crydom MCTC is a unique self-contained state of the art basic Temperature Control Relay that combines all the necessary functions into one easy to set up and use standard size package. The MCTC is ideal for temperature control users that do not need multiple built-in options, displays, and functions that they will never use.

The MCTC requires only a single, non-regulated low current DC source, (10-32Vdc at 32mA max.), and a type J or K thermocouple, to be able to accurately control heater and cooling compressor loads up to 530Vac at 90A. The unit incorporates an internally compensated thermocouple input, 5 available temperature ranges including an inverse function refrigeration version, with adjustable setpoint using analog low voltage or 4-20mA inputs, separate output enable/disable control, and built in Crydom Solid State Relay technology for load control. With integrated zerocross burst firing, and proportional derivative control to avoid set-point overshoott, the unit also includes 2 LED status indicators for visual reference of operation and setpoint conditions.

	Line Voltage Range	Load Current Range	Thermocouple Type	Temp. Range °F	Setup Input Range	
	Vrms	Arms			Vdc	
MCTC2425JLA	24-280	.15-25	J	100 to 500	0-5	UL
MCTC2450JLA	24-280	.15-50	J	100 to 500	0-5	UL
MCTC2490JLA	24-280	.15-90	J	100 to 500	0-5	UL
MCTC2425JHB	24-280	.15-25	J	300 to 700	0-7	UL
MCTC2450JHB	24-280	.15-50	J	300 to 700	0-7	UL
MCTC2490JHB	24-280	.15-90	J	300 to 700	0-7	UL
MCTC2425JHC	24-280	.15-25	J	300 to 700	0-10	UL
MCTC2450JHC	24-280	.15-50	J	300 to 700	0-10	UL
MCTC2490JHC	24-280	.15-90	J	300 to 700	0-10	UL
MCTC4825JLA	48-530	.15-25	J	100 to 500	0-5	UL
MCTC4850JLA	48-530	.15-50	J	100 to 500	0-5	UL
MCTC4890JLA	48-530	.15-90	J	100 to 500	0-5	UL
MCTC4825JHB	48-530	.15-25	J	300 to 700	0-7	UL
MCTC4850JHB	48-530	.15-50	J	300 to 700	0-7	UL
MCTC4890JHB	48-530	.15-90	J	300 to 700	0-7	UL
MCTC4825JHC	48-530	.15-25	J	300 to 700	0-10	UL
MCTC4850JHC	48-530	.15-50	J	300 to 700	0-10	UL
MCTC4890JHC	48-530	.15-90	J	300 to 700	0-10	UL

Other ranges available

Part Number Nomenclature





MCPC

Solid State Proportional Control Relay

25-90Amp
120/480 Vac
AC Output

- Phase Angle Control/SSR in One Package
- Low Voltage, Current or Potentiomer Control
- Output Status Indicator (Load Open, No Voltage)
- 0-100% Control Range
- Separate Output Enable/Disable Control
- SCR Based Output Load Switching
- Internal Snubber Network

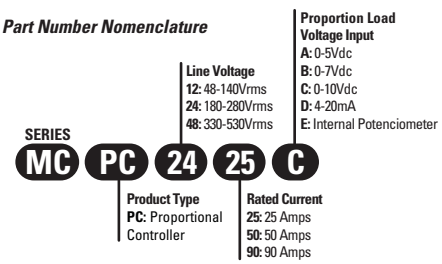
The Crydom MCPC series of Proportional Control Relays incorporate a complete phase-fired logic system and Solid State Relay in one small industry standard package. The MCPC uses microprocessor control relay logic, accepts a wide range input logic power supply, provides an output load status indicator, and five modes of analog control input along with an Enable/Disable control.

The MCPC does not require any calibration adjustment, is optically isolated to 4000Vrms, includes an internal snubber network, and is available in load ratings up to 90A and 530Vac. The Crydom MCPC series is particularly suited to applications such as tungsten lamp dimming, vibratory feeders, universal motor control, and resistive heating element control.

	Line Voltage Range	Load Current Range	Analog Input Range	
	Vrms	**Arms**	**Vdc**	
MCPC2425A	180-280	.15-25	0-5	UL
MCPC2450A	180-280	.15-50	0-5	UL
MCPC2490A	180-280	.15-90	0-5	UL
MCPC2425B	180-280	.15-25	0-7	UL
MCPC2450B	180-280	.15-50	0-7	UL
MCPC2490B	180-280	.15-90	0-7	UL
MCPC2425C	180-280	.15-25	0-10	UL
MCPC2450C	180-280	.15-50	0-10	UL
MCPC2490C	180-280	.15-90	0-10	UL
MCPC4825A	330-530	.15-25	0-5	UL
MCPC4850A	330-530	.15-50	0-5	UL
MCPC4890A	330-530	.15-90	0-5	UL
MCPC4825B	330-530	.15-25	0-7	UL
MCPC4850B	330-530	.15-50	0-7	UL
MCPC4890B	330-530	.15-90	0-7	UL
MCPC4825C	330-530	.15-25	0-10	UL
MCPC4850C	330-530	.15-50	0-10	UL
MCPC4890C	330-530	.15-90	0-10	UL

Other ranges available

Part Number Nomenclature



Questions? Call or e-mail **Americas** +1 (877) 502 5500 **sales@crydom.com**
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MCS

Solid State Soft-Start / Soft-Stop Control Relay

25-90Amp
120/480 Vac
AC Output

- Soft-Start/Stop Control and SSR in One Package
- Microcontroller Based Technology
- Adjustable Ramp Rates
- Low Voltage, 4-20mA, or Potentiometer Control
- LED Status Indicator
- SCR Based Output Load Switching
- Built-In Internal Snubber

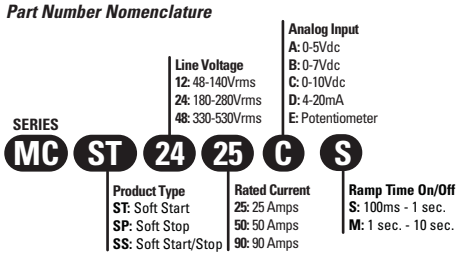
The MCST, MCSP and MCSS series of controls is designed to provide adjustable surge reducing soft-start and soft-stop control for any load which would benefit from a gradual application or shutdown of power, and provide Crydom SSR switching within one package.

The MCS Control Relays are available with either soft-start, or soft-stop functions separately, or as a combined soft-start/soft-stop control. With adjustable ramp times from 100ms to 10 seconds in two ranges, these controls are ideal for reducing starting current surges in motors, in preventing saturation when switching transformers, or in reducing reverse EMF surges when de-energizing large inductive loads. Incorporating 4000 volt isolation from input to output, the MCS series allows real time adjustment of the ramp rates from a remote source using analog voltage or current control. Once the desired ramp rate is set using the analog input, a simple digital signal applied to the ON/OFF control input will operate the control. The MCS is also available with a built-in potentiometer for use where remote or continuous adjustment is not needed.

	Line Voltage Range	Load Current Range	Analog Input Range	Ramp Time On/Off	Type	
	Vrms	**Arms**	**Vdc**	**Sec.**		
MCST2425AS	180-280	.15-25	0-5	.1-1	Soft Start	UL
MCST2450AS	180-280	.15-50	0-5	.1-1	Soft Start	UL
MCST2490AS	180-280	.15-90	0-5	.1-1	Soft Start	UL
MCSP2425BM	180-280	.15-25	0-7	1-10	Soft Stop	UL
MCSP2450BM	180-280	.15-50	0-7	1-10	Soft Stop	UL
MCSP2490BM	180-280	.15-90	0-7	1-10	Soft Stop	UL
MCSS2425CM	180-280	.15-25	0-10	1-10	Soft Start/Stop	UL
MCSS2450CM	180-280	.15-50	0-10	1-10	Soft Start/Stop	UL
MCSS2490CM	180-280	.15-90	0-10	1-10	Soft Start/Stop	UL
MCST4825AS	300-530	.15-25	0-5	.1-1	Soft Start	UL
MCST4850AS	300-530	.15-50	0-5	.1-1	Soft Start	UL
MCST4890AS	300-530	.15-90	0-5	.1-1	Soft Start	UL
MCSP4825BM	300-530	.15-25	0-7	1-10	Soft Stop	UL
MCSP4850BM	300-530	.15-50	0-7	1-10	Soft Stop	UL
MCSP4890BM	300-530	.15-90	0-7	1-10	Soft Stop	UL
MCSS4825CM	300-530	.15-25	0-10	1-10	Soft Start/Stop	UL
MCSS4850CM	300-530	.15-50	0-10	1-10	Soft Start/Stop	UL
MCSS4890CM	300-530	.15-90	0-10	1-10	Soft Start/Stop	UL

Other ranges available

Part Number Nomenclature





MCBC

Solid State Burst Fire Control Relay

25-90Amp
120/480 Vac
AC Output

- Burst Fire Control/SSR in One Package
- Low Voltage, Current, or Potentiometer Control
- Output Status Indicator (Load Open, No Voltage)
- 0-100% Control Range
- 2 Time Base Periods Available
- Separate Output Enable / Disable Control
- SCR Based Output Load Switching
- Internal Snubber Network Included

The Crydom MCBC series of Burst fire Controls, incorporate a complete burst Fire logic system and Solid State Relay in one small industry standard package. The MCBC uses microprocessor control relay logic, accepts a wide range input logic power supply, provides an output load status indicator, and five modes of analog input control along with an Enable / Disable control.

With 2 time base periods available, (10 and 20 AC cycles), the MCBC provides a smooth proportional control that minimizes electrical noise by utilizing zero-cross detection and switching, firing only complete AC cycles.

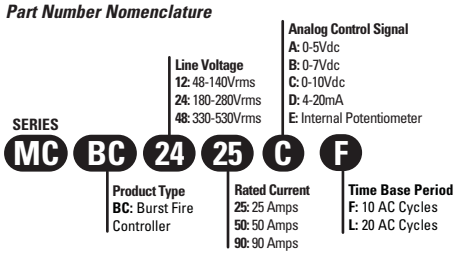
The MCBC does not require any calibration adjustment, is optically isolated up to 4000 Vrms, and is available in load rating up to 90 A and 530 Vac. In addition, specialized AC Phase Detection Circuitry allows the MCBC to be connected to only one side of the load, minimizing installation wiring.

The MCBC series is particularly suited to electrical heating applications where the electrical noise generated by typical phase angle controller can not be tolerated.

	Line Voltage Range	Load Current Range	Analog Input Range	
	Vrms	**Arms**	**Vdc**	
MCBC2425A	180-280	.15-25	0-5	UL
MCBC2450A	180-280	.15-50	0-5	UL
MCBC2490A	180-280	.15-90	0-5	UL
MCBC2425B	180-280	.15-25	0-7	UL
MCBC2450B	180-280	.15-50	0-7	UL
MCBC2490B	180-280	.15-90	0-7	UL
MCBC2425C	180-280	.15-25	0-10	UL
MCBC2450C	180-280	.15-50	0-10	UL
MCBC2490C	180-280	.15-90	0-10	UL
MCBC4825A	330-530	.15-25	0-5	UL
MCBC4850A	330-530	.15-50	0-5	UL
MCBC4890A	330-530	.15-90	0-5	UL
MCBC4825B	330-530	.15-25	0-7	UL
MCBC4850B	330-530	.15-50	0-7	UL
MCBC4890B	330-530	.15-90	0-7	UL
MCBC4825C	330-530	.15-25	0-10	UL
MCBC4850C	330-530	.15-50	0-10	UL
MCBC4890C	330-530	.15-90	0-10	UL

Other ranges available

Part Number Nomenclature





I/O Modules

Industry Standard Packaging
UL Recognized, CSA Certified,
CE Compliant

Crydom offers a broad line of digital I/O modules and mounting boards. Designed for long, reliable service in demanding industrial environments, these modules provide optical isolation between logic-level control systems and external loads, such as motors, valves, solenoids, resistive heating elements, etc.. Output modules within the offer can switch loads up to 5 Amps at 24-280 VAC (Form A, SPST-NO, zero-crossing output), or up to 5A/3A at 100/200 VDC (Form A SPST-NO). Input modules provide digital feedback to the control system when the load is energized and are available with inputs up to 280Vac / 48 VDC, with either a 5 VDC or 24 VDC logic-level output.

Mounting boards available

	Number of Modules					
	4	6	8	16	24	32
0.6" Modules	■		■	■	■	■
M Series			■	■	■	■
SM Series			■	■	■	■
C4 Series	■		■	■	■	■
Quads	■	■	■			

0.6" Modules
- AC Inputs for 24 V, 120 V, 240 V
- DC Inputs for 3.3 to 32 V, 10 to 48 V
- 4 kV Optical Isolation
- Plugs into 0.6" Mounting boards

M Series
- AC Inputs for 24 V, 120 V, 240 V
- DC Inputs for 3.3 to 32 V, 10 to 48 V
- 4 kV Optical Isolation
- Plugs into M Series Mounting boards

SM Series
- AC Inputs for 24 V, 120 V, 240 V
- DC Inputs for 3.3 to 32 V, 10 to 48 V
- 4 kV Optical Isolation
- Plugs into SM Series Mounting boards

C4 Series
- Built-in LED Status Indicator
- Regulated Supply Voltage
- 4 kV Optical Isolation
- Replaceable 2 AG Type Fuse (output modules)
- Plugs into C4 Series Mounting boards

Quads
- 4 Input Circuits per module
- AC Inputs for 24 V, 120 V, and 240 V
- DC Inputs for 4 to 32 V, 10 to 60 V
- 4kV Optical Isolation
- Plugs into mounting boards for quad-pack modules

Terminology

Control Voltage Range - the range of voltage when applied across the SSR Input terminals, will maintain an ON condition across the Output terminals.

Control Current - Current drain on the control source at specified SSR input voltages and On/Off conditions.

dv/dt - Maximum rate of rise of voltage applied across the output terminals that the SSR can withstand without turning ON. A characteristic of thyristors used in AC SSRs.

dv/dt Off State (Static) - Specified as a minimum dv/dt withstand capability of SSRs in the off or blocking state.

Form, Contact - Contact or output configuration, as in Form A for Single Pole, Single Throw, Normally Open (SPST-NO)

Holding Current - The minimum load current required to maintain a thyristor in its conducting state.

Input Current (Maximum) - Current drain on the control source at specified SSR input voltages and On/Off conditions.

Isolation Voltage - The value of dielectric strength measured between the input and output, input to base, or output to base.

LED - Light Emitting Diode, commonly used for status indication on some models of SSRs and as the light source in a photocoupler .

Line Voltage Range - The range of voltages applied to the output, over which the SSR will continuously block or switch and otherwise perform as specified.

Load Current Range - The range of current applied to the output, over which the SSR will continuously block or switch and otherwise perform as specified.

MOSFET - Metal Oxide Semiconductor Field-Effect Transistor. The control electrode (gate) is generally isolated from the source electrode by a layer of silicon oxide. A voltage applied between the gate and the source will provide a current flow between the drain and the source.

Normally Open (NO) - A contact or SSR output that is open when no control power is present at the input (coil). This is a Form A device.

Normally Closed (NC) - A contact or SSR output that is closed when no control power is present at the input (coil). This is a Form B device.

Off-State Voltage - The maximum transient voltage that an SSR output can withstand without malfunction or damage.

On-State Voltage (Maximum) - The peak voltage that appears across the SSR output terminals at full rated load current.

Phase Control - Turn-On of a non-zero switching SSR (each half cycle), at a phase angle determined by the control signal source.

Photocoupler/Isolator - A combination of light-emitting diode and light-sensitive semiconductor used to transmit information optically while providing electrical isolation. Commonly used isolating element for coupling the control signal to the output in an SSR.

Power Dissipation - The maximum average power dissipation (Watts) resulting from the effective voltage drop (power loss) in the SSR output semiconductor.

Rectifier - Asemiconductor used to convert AC power to DC.It allows current to flow in one direction (forward) and prevents the flow of current in the opposite directions (reverse).

SCR - Silicon Controlled Rectifier. Unidirectional semiconductor of the thyristor family with latching properties.

Snubber - A resistor-capacitor combination placed across the SSR output terminals to reduce dv/dt and transients in thyristor circuits.

Solid State Relay (SSR) - Isolated On-Off switch composed of non-moving electrical parts (primarily semiconductors, transformers and passive components).

Surge Current - The maximum allowable SSR momentary current flow for a specific time duration. Typically specified as a peak value for one line cycle for AC.

Thermal Resistance - Expressed in degrees Celsius per watt (°C/W). This value defines the temperature gradient in the path between the power generated in the output SSR semiconductor and the final dissipating medium (heat sink/air).

Thyristor - A semiconductor bistable device comprising three or more junctions (PNPN, etc). The generic name for a family of gate controlled switches including SCRs and triacs.

Triac - Bidirectional semiconductor of the thyristor family. Performance is similar to that of an inverse pair of SCRs, triggered by a single gate electrode.

Trigger - To turn on an SCR or triac.

Turn-Off Voltage (Must Release) - The voltage applied to the SSR input at or below which the output must be in the Off-State (Normally-Open).

Turn-On Voltage (Must Operate) - The voltage applied to the SSR input at or above which the output must be in the on state (Normally-Open).

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European Union RoHS Directive Compliance

European Union (EU) Directive 2002/95/EC (Restriction of Hazardous Materials) places restrictions on certain hazardous substances in electrical and electronic equipment.

Requirements for concentration limits for certain hazardous substances in electronic information products:

Crydom products do not contain Cadmium, Mercury, Hexavalent Chromium, Poly-brominated Biphenyls (PBB), or Polybrominated Diphenyl Ethers (PBDE) as either intentionally added ingredients or as unintended impurities in concentrations exceeding EU regulatory limits.

The Crydom products listed below comply with the requirements of the Directive, including any relevant exemptions contained therein.

1-DC/DCL Series
1F/2F/3F Series Filters
53TP Series
A48/D48 Series
AO/ASO Series
ASPF Series
B Series
CKM Series
CKR/CMR Series
CMA/CMD Series
CMX/MCMX Series
CPV Series
CRO
CS Series
CSW Series
CTD Series
CTX Series
CWA/CWD Series
CX/CX241 Series
D/H12D Dual SSRs
D06D Series
D1D/D2D/D4D/D5D
D2W Series
DC60Series
DO/DMO Series
DPA Series
DSD/DLD Series
EZ Series
F18 Series
H10/H12 Series
HA/HD Series
HPF Series
HS/HE Series SSR Accessories
HSD2440 Series
I/O Module Mounting Boards
KS Series SSR Accessories
L Series
LC Series
LPCV Series
LR/LS Series
M25 Series
M50 Series
MC Series
MCX/MCX241 Series
MP/MPF Series
MS11
NTA/NTD Series
PCV Series
PF Series
PS
PS120
PS240
PSD Series
Quad Series SSRs
RPC Series
S1 Series
S2 Series
S3 Series
SDV Series
Single Point I/O Modules
SMR Series
SPA Series
SPF Series
SSC Series
SST
T Series

Additional Information on the RoHS Directive can be found at the following site:

www.orgalime.org/pdf/RoHS_guide.pdf

Please direct any additional inquiries or questions to: support@crydom.com

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Approvals

CE - Conformité Européenne (French for European Conformity). The CE marking signifies conformance to the latest European Directives and that the device can be sold in the European Union (EU).

CSA - Canadian Standards Association. An independent testing laboratory that establishes commercial and industrial standards, and tests/certifies products in Canada.

UL, cUL - Underwriters Laboratory. An independent testing laboratory that establishes commercial and industrial standards, and tests/certifies products in the United States (UL) and Canada (cUL).

VDE - Verband Deutscher Elektrotechniker. An independent German testing and certification institute that establishes commercial and industrial standards concerned with the safety of electrical products.

TUV - Globally recognized testing, inspection and certification organization.

CUSTOM SENSORS & TECHNOLOGIES

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Across the Globe



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08/2008