

crydom[®]

The Global Expert in Solid State Switching Technology





Long Life



Ideal for Harsh Environments



Quiet Operation



High Compatibility with Control Systems



Minimum Electrical Noise



Fast Switching



Low Power Consumption



Position Insensitive



Shock & Vibration Resistant



Reduced Weight



Magnetic Noise Immunity



Reduced Energy Cost

Why Use Solid State Switching Technology?



Solid State Relay & Contactor Applications



There are literally thousands of individual uses for Solid State Relays and Contactors. Most can be categorized into the following applications:



Motion Control

Includes conveyor systems, solar trackers, fans, solenoid, valve control, elevators, lifts, hoists, and exercise equipment.



Heating Control

Applications include: professional food equipment, plastic molding/extrusion machinery, HVAC&R and soldering equipment.



Power Control

Includes power supplies, transformers, regulators, inverters, converters, UPS systems, etc. as well as any load that is not specifically for heating, lighting or motion control.



Lighting Control

These applications are usually broken down into three categories: theatrical, warehouse and commercial. Many of the products used in this segment are custom designed.

Ratings by Mounting Type*



PANEL



DIN RAIL



PCB



PLUG-IN

AC Output

Voltage (Volts)	Single	690	660	660	280
	Dual	660	600	280	
Current (Amps)	3 Phase	530	600	280	
	Single	150	65	40	5
	Dual	50	6	15	
	3 Phase	50	25	15	

DC Output

Voltage (Volts)	1000	250	200	100
Current (Amps)	160	30	20	5

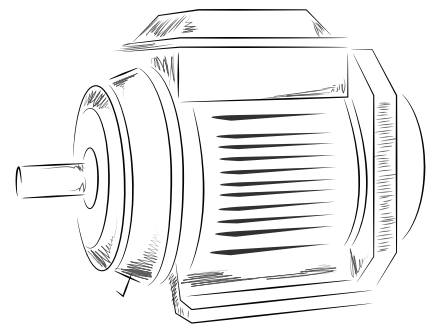
*Crydom's maximum ratings per channel

About Solid State Contactors

What is a Solid State Contactor (SSC)? Remarkably SSCs are not much different from Solid State Relays: they use similar power semiconductors and control circuits, and in some cases, even the same housings, but **to be considered a contactor, the SSR or SSC must be evaluated to and carry ratings appropriate for motor control.** SSCs are generally applied in 3 phase AC heater and motor control applications and some DC applications, although the SSCs themselves can be used successfully in almost any load control application.

Traditionally ratings of contactors, whether Solid State or Mechanical, always include allowed motor load ratings and allowed resistive load ratings, taking into consideration such aspects as Locked Rotor Rating, Full Load Current Ratings and Horse Power Rating, and Inrush Current. As noted above, the one significant differentiator is that **to be considered a contactor, the SSR or SSC must be evaluated to and carry ratings appropriate for motor control.**

So in summary, the major technical difference between an SSR and SSC has to do with the mandatory motor ratings required to be defined as a "Contactor".



Leading the market through Quality & Innovation

Our leadership in Solid State Switching Technology has allowed us to offer only the highest quality products to our customers. Crydom's 45 years' expertise is materialized in the widest range of standard solid state relays and contactors, custom designed products, and related products of the highest quality and level of innovation. We are strongly committed to building the best products and provide our customers the highest levels of service and support all over the world.

DIN Rail Mount



SeriesOne DR
Timer



DRA-CN series



NOVA22
DR22 series



SOLICON
DRC series



DRA3P series



DRA series

AC Output		Rating [Amps]																		
Series	Description	2	2.4	3	4	4.2	4.8	5	6	7.6	8	12	18	20	25	30	35	45	55	65
Solid State Relays																				
DRA-CN	6 mm	■																		
DRA	10/54 mm	■		■	■			■			■									
SeriesOne DR	11/18 mm			■					■			■								
NOVA22 DR22 NEW!	22.5 mm												■			■	■			
CMR	45 mm																■	■	■	■
SeriesOne DR Dual	18 mm								■											
Solid State Relay Timers																				
SeriesOne DR Timers	11 mm								■											
Solid State Contactors																				
DRA3P	3 Phase		■			■														
DRA3R	Reversing		■			■														
CTR	3 Phase														■					
SOLICON DRC3P	3 Phase						■				■									
SOLICON DRC3R	Reversing										■									
DRH NEW!	3 Phase IEC OTP												■	■						

DC Output		Rating [Amps]									
Series	Description	0.1	3	3.5	5	6	10	12	20	30	
Solid State Relays											
DRA-CN	6 mm	■		■							
DRA	10/54 mm		■		■	■	■				
SeriesOne DR	11/18 mm		■			■		■			
NOVA22 DR22 NEW!	22.5 mm								■	■	
Solid State Relay Timers											
SeriesOne DR Timers	11 mm					■					
Solid State Contactors											
DRA4D	Reversing SSC					■		■			

Panel Mount

AC Output

Series	Description	5	10	12	15	18	20	25	40	50	75	90	95	110	125	150
Solid State Relays																
Series 1	Signature family, 530 VAC		■						■	■	■	■	■	■	■	
HA/HD	530 VAC			■				■	■	■	■	■	■	■	■	
H1	1200 / 1600 V blocking, 690 VAC							■		■	■	■			■	
CW	Heavy Duty SSR, 660 VAC		■					■		■		■			■	
CSW	Heavy Duty SSR, 280 VAC		■					■		■	■	■				
CL	Low Current SSR, 280 VAC	■	■													
NOVA22 PM22 NEW!	22.5mm SSR, 600 VAC							■		■				■		
EL	Mini-Puck SSR, 280 VAC	■	■				■	■								
EZ	Low Profile SSR, 660 VAC	■		■		■										
Control Solid State Relays																
MCBC	Burst Fire Controller / SSR							■		■		■				
MCPC	Phase Angle Controller / SSR							■		■		■				
PCV	Proportional (Phase Angle) Ctrl			■				■		■	■	■				
LPCV	Linear Proportional (Phase Angle) Ctrl		■					■	■						■	
RPC	Resistive Input Proportional Ctrl			■				■	■							
SMR-6	Current Monitoring & Diagnostics							■		■		■				
Solid State Dual Relays																
Evolution Duals	Screw Termination, 3 Connector options							■		■						
Series 1 Duals	Quick Connect & Pin Termination							■	■							
Solid State Contactors																
53TP	3 Phase SSC, IP00 & IP20							■		■						
53RV	Reversing SSC, IP20							■		■						
HAC NEW!	High Current SSC															■

DC Output

Series	Description	Rating [Amps]															
		3	5	7	10	12	20	25	40	60	80	100	120	160			
Solid State Relays																	
DC60	Economical, 1 - 60 VDC																
DO6D	Economical MOSFET Output, 1 - 60 VDC																
PowerPlus DC	Enhanced Switching, 1 - 500 VDC																
Series 1-DC	Low Impedance MOSFET, 1 - 500 VDC																
EL	Mini-Puck SSR, 1 - 100 VDC																
SSC	High Voltage IGBT Output, 1 - 1000 VDC																
LVD	Low Voltage Disconnect																
Solid State Contactors																	
DP	Reversing SSC, IP00																
HDC	High Current, 1 - 200 VDC																



EL series



NOVA22
PM22 series



H1 series



Evolution Duals



CW series



MCPC series



DP series



53 series



HDC series

For more information about these and other crydom products, visit www.crydom.com

PCB Mount



AS0 series



CX series



PF series

AC Output

Series	Description	Rating [Amps]									
		1	1.5	2	3	4	5	25	40		
AS0	Mini SIP SSR with ratings up to 2 Amps @ 12 - 280 VAC	■	■								
MP	SIP SSR with ratings up to 4 Amps @ 24 - 280			■	■						
CX	SIP SSR with ratings up to 5 Amps @ 48 - 660 VAC						■				
MCX	SIP SSR with ratings up to 5 Amps @ 48 - 660 VAC						■				
LR	SIP SSR with ratings up to 40 Amps @ 48 - 530 VAC							■	■		
PF	SIP SSR with ratings up to 25 Amps @ 48 - 660 VAC							■			
DPA	DIP SSR with ratings up to 1 Amps @ 20 - 280 VAC	■									
SDV	DIP SSR with ratings up to 1.5 Amps @ 12 - 280 VAC	■									

DC Output

Series	Description	Rating [Amps]					
		3	5	6	10	20	
DMO	Mini SIP SSR with ratings up to 3 Amps @ 60 VDC	■					
CMX	SIP SSR with ratings up to 20 Amps @ 60 VDC or 10 Amps @ 100 VDC	■	■	■	■	■	
MP	SIP SSR with ratings up to 3 Amps @ 60 VDC	■					

Plug-In Mount



CN series



LifePlus ED series

AC Output

Series	Description	Rating [Amps]		
		2	3	5
CN	Slim SSR with ratings up to 2 Amps @ 24 - 280 VAC	■		
LifePlus ED	SSR in industry standard EMR package with ratings up to 5 Amps @ 24 - 280 VAC		■	■

DC Output

Series	Description	Rating [Amps]		
		0.1	3.5	5
CN	Slim SSR with ratings up to 3.5 Amps @ 1 - 60 VDC	■	■	
LifePlus ED	SSR in industry standard EMR package with ratings up to 5 Amps @ 1 - 100 VDC			■

Accessories



Product	Description
Sockets	DIN Rail mountable socket for 1 (DRS1) & 4 (DRS4) PCB mount relays
	DIN Rail mountable sockets for CN Series SSRs (DRSCN30) NEW!
	DIN Rail mountable socket for ED Series SSRs, finger safe IP10 (DRSED) ①
	PCB mountable socket for ED Series SSRs (PCBSED)
Covers	Clear plastic covers for Gen3 (KS100 & KS100-SMR), Gen4 (KS101) ① & 3 Phase SSRs (KS300)
Thermal Pads	For mini (HSP-6), hockey (HSP-2) ① & large (HSP-5) puck SSRs with adhesive on one side
	For hockey (HSP-1) & large (HSP-3) puck SSRs, non adhesive
	For half-puck PM22 Series SSRs (HSP-7) NEW!
Lug Terminals	Copper wire lugs for AWG 6 to 0 (TRM1), AWG 14 to 6 (TRM6) and AWG 4 to 3/0 (TRM3/0) wire sizes
	Copper wire lugs for Gen 4 screw terminals & NOVA22 elevator screw SSRs, for AWG 6 to 0 wire size (TRM0) ① NEW!
ID Marker Strips	Plastic strips (CNLB, 10 pack) unprinted ①
	Plastic strips (CNLN, 10 pack) printed from 1 to 10 & (CNL2, 10 pack) printed from 11 to 20
Input Connectors	Plug-in input connector for contactor configuration NOVA22 SSRs, screw (CP201) & spring cage (CP202) ① terminals NEW!
Filters	EMI noise suppression filter for SSR in AC single phase (1F25), 3 Phase (3F20) & 3 Phase with neutral (3F20-4) ① systems

Heat Sinks & Other Accessories



Product	Description
Hardware kits	Mounting screws 8-32 x 3/8 in (HK1, 2 per bag), M4 x 9mm (HKM1, 2 per bag)
	1 Ground screw 10-32 x 3/8 in & 2 bracket screws 6-32 x 1/4 in (HK2)
	Mounting screws 8-32 x 3/8 in for PM22 Series SSRs, Hex Socket Cap (HK8) (NEW)
DIN Rail Bracket	DIN Rail bracket and 2 screws 6-32 x 1/4 in (DRK1) (1)

The use of heat sinks allows the solid state relay to operate properly by dissipating the heat into the surrounding ambient air, this suitable operating temperature maintains a reliable performance for a very long time.

Crydom heat sinks are available for mounting onto a panel or, depending on the model, into a standard 35mm DIN rail. Custom heat sinks and SSR/heat sink assemblies are also available upon request.

Thermal Resistance [°C/W]	Part no.		Relay Capacity			Complementary Accessories
	Panel Mount	DIN Rail Mount	Half Puck 22.5 mm	Hockey Puck 45 mm	Large Puck 74 mm	
5.0	-	HS501DR		1		HKM1
3.0	HS301	HS301DR		1		HK1, HK2, DRK1
2.5	-	(NEW) HS259DR	1			HK8
2.5	HS251	-		1		HK1
2.0	HS202	HS202DR		2		HK1, HK2, DRK1
2.0	HS201	HS201DR (1)		1		HK1, HK2, DRK1
1.7	HS172	-		2		HK1, HK2
1.5	HS151	HS151DR		1		HK1, HK2, DRK1
1.2	HS122	HS122DR		2		HK1, HK2, DRK1
1.0	HS103	HS103DR		3	1	HK1
1.0	HS101	-		1	1	HKM1
0.7	HS073	-	3	3	1	HK1
0.7	HS072	-	1	2		HK1
0.5	HS053	-	3	3	1	HK1
0.36	HS033	-	3	3	1	HK1
0.25	HS023	-	3	3	1	HK1

** All heat sinks include the necessary hardware to mount the relay(s) onto the heat sink. The number of hardware kits (HK1 or HKM1) included depends upon the number and type of SSRs possible to install on each heat sink.



Custom Solutions (1)

Our Custom Solutions Division (CSD) is 100% dedicated to designing OEM custom products to meet specific application requirements. A wide variety of modifications that can be applied, from a simple SSR/heat sink to a totally customized solution.

(1) International Standards

Crydom products are manufactured and/or approved according to a wide range of international safety standards and comply with the latest legal environmental directives. For specific information visit our website or contact Crydom Tech Support.





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About us

Crydom, global expert in solid state switching technology, combines technology, quality and innovation to provide customers a wide range of standard Solid State Relays and Solid State Contactors, and specializes in custom designed solid state switching solutions for any load control application.

Crydom is a brand of Sensata Technologies.

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