

Solid state relays

Scope

Heating

Plasturgy
Furnaces
Power supply distribution systems
Air conditioning
Textile
Home heating
Infrared heating
Drying
Thermoforming
Etc...

Motor starting

Pumps
Compressors
Plasturgy (see above)
Conveyors
Fans
Etc...

Lighting

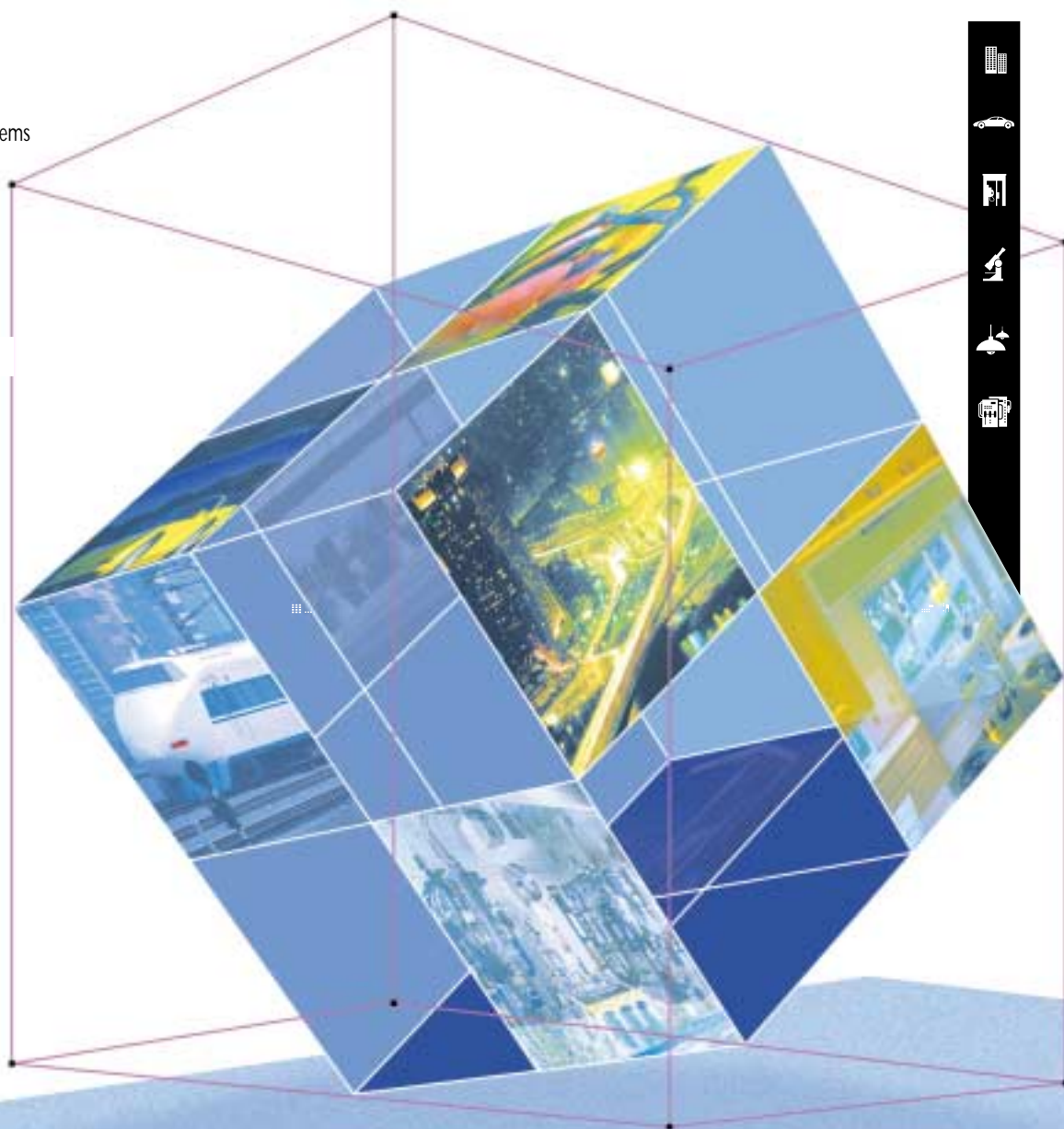
Public Lighting
Cinema
theatre lamps
Airport runway lamps
Road lighting
Etc...

Control

PLC interface
Heating element control
Solenoid valves
Contactor Coils
Optocoupling of sensors

Miscellaneous

Transformer starting
Power factor corrector
Uninterrupted power supplies
Energy source switching



STANDARDS

- The solid-state relays and contactors made by **celduc** are manufactured in compliance with major international standards :
IEC 947-4-2 for motor control
IEC 947-4-3 for the other loads
- **American et Canadian (UL, CSA, cUL)**
- **European : EN 60950/VDE0805**
pr EN 61810xx

Our products also meet the major European directive regarding the CE marking.

- Some of our products fulfil the requirements according to DIN EN60601-1 (VDE 0750) for medical applications and also the requirements for explosive atmospheres ATEX "EX" .
- Our extensive range of relays ranging from 1 to 125A complies with the ISO9001 requirements and quality requirements and incorporates highly reliable components with a very high electromagnetic interference level.



Selection

by

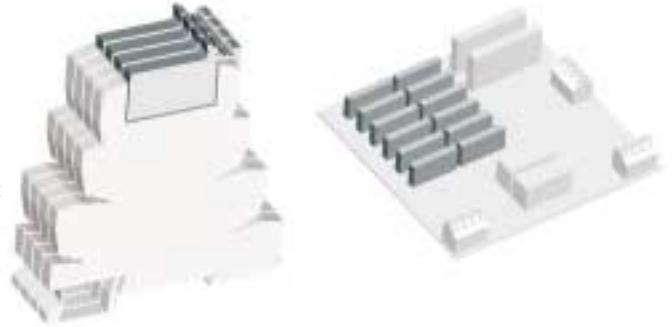
Applications

Function	ON/OFF RELAY									
Number de poles	1 Pole Single phase			1 Pole EMC Optimised (low electromagnetic emission-low RFI)		2 Poles two phase		3 Poles three phase		
Type of mounting	PCB	Rail DIN	Screw	Rail DIN	Screw	Rail DIN	Screw	PCB	Rail DIN	Screw
HEATING ELEMENTS										
AC-51	SKA/SKB SN8 SKL/SKH	XKA/XKH SIL/SIM SWM	SC8/SC9 SIC/SIR SV8	SOL XKX	SVX SCFL	SWB SIB XKM	SCB	SCT SHT	SWT	SCT/SGT SVT
INCANDESCENT LAMPS AND INFRARED LAMPS										
AC-55b	SKA/SKB SN8 SKL/SKH	XKA/XKH SIL/SIM SWM	SC8/SC9 SIC/SIR SV8	SOL XKX	SVX SCFL	SWB SIB	SCB		SWT	SGT SVT
DISCHARGE LAMPS										
AC-55a	SKA/SKL SN8 SKH	XKA/XKH SIL/SIM SWM	SC8 SV8			SIB	SCB			
MOTORS										
AC-53	SKA/SKL SN8 SKH	SWM SIL/SIM XKH	SC7	SOL XKX	SVX SCFL	SIB	SCB	SCT SHT	SWT	SCT/SGT SVT
SOLENOIDS										
AC-14 / AC-15	STN/STA/SPA SN8/SLA SKA/SKB/SSA	STN/STA/SPA XKA/XKH/SSA	SC7/SC8 SF							
DC-13	STN/STD/SPD SLD SLD/SKD/SSC	STN/STD/SPD XKD/SSC	SCC SGC							
INDICATORS										
AC-55b	STN/STA/SPA SN8/SLA SKA/SKB/SSA	STN/STA/SPA XKA/XKH/SSA	SC7/SC8 SF							
DC-6	STN/STD/SPD SLD SLD/SKD/SSC	STN/STD/SPD XKD/SSC	SCC/SGC							
CONTACTORS										
AC-14<72VA	STN/STA/SPA SN8/SLA SKA/SKB/SSA	STN/STA/SPA XKA/XKH/SSA	SC7/SC8 SF							
AC-15>72VA	STA/SPA/SKA/SKB SN8/SLA SSA/SKL/SKH	STA/SPA XKA/XKH/SSA	SC7/SC8 SF							
DC-13	STN/STD/SPD SLD SLD/SKD/SSC	STN/STD/SPD XKD/SSC	SCC/SGC SGD							
DC-14	STN/STD/SPD SLD SLD/SKD/SSC	STN/STD/SPD XKD/SSC	SCC/SGC SGD							
PLC INPUTS/OUTPUTS										
AC input	SEA	SEA								
DC input	SEC	SEC	SF							
AC output	STN/STA/SPA SLA SKA/SKB/SSA	STN/STA/SPA XKA/XKH/SSA				XKM			XKM	
DC output	STN/STD/SPD SLD SLD/SKD/SSC	STN/STD/SPD XKD/SSC								
TRANSFORMERS										
AC-56a	SKA/SKL SKH		SC7 SCP			SIB7	SCB			SVT
CAPACITORS										
AC-56b	SKL SKH	SIL-SIM SWM	SC8 SV8			SIB	SCB			SVT
OTHERS										
->UPS			SC7			SIB7	SCB			SVT
->AIRPORTS			SAS							
->Alarms			SG2							
->Signaling lights		FLASHING	ST3 ST6							

Modules

**100 % compatible
with electromechanical
relays**

- > PCB or socket mount
- > Pin to pin compatible with electromechanical relays
- > No maintenance
- > AC and DC output
- > Withstand high inrush current
- > Integrated VDR
- > Can drive all type of loads
- > High insulation between input to output
- > Low input current
- > Low leakage current



SLIM RANGE (miniature)

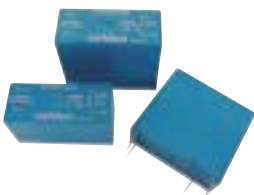


	PRODUCT REFERENCE	Switching Current	Switching Voltage	Control Voltage	Input R	Protec.	Specifications	Dimensions
AC	SLA01220	2A	12-280VAC	3-10VDC	320 Ω	RC	AC output module	28x5x15
	SLA02220	2A	12-280VAC	7-20VDC	1100 Ω	RC	AC output module	28x5x15
	SLA03220	2A	12-280VAC	18-32VDC	3 kΩ	RC	AC output module	28x5x15
DC	SLD01205	4A	0-32VDC	3-10VDC	320 Ω	Transil	DC output module	28x5x15
	SLD01210	2,5A	0-60VDC	3-10VDC	320 Ω	Transil	DC output module	28x5x15
	SLD02205	4A	0-32VDC	7-20VDC	1070 Ω	Transil	DC output module	28x5x15
	SLD02210	2,5A	0-60VDC	7-20VDC	1070 Ω	Transil	DC output module	28x5x15
	SLD03205	4A	0-32VDC	18-32VDC	3 kΩ	Transil	DC output module	28x5x15
	SLD03210	2,5A	0-60VDC	18-32VDC	3 kΩ	Transil	DC output module	28x5x15
	SLD04205	4A	0-32VDC	38-58VDC	10800 Ω	Transil	DC output module	28x5x15
SLD04210	2,5A	0-60VDC	38-58VDC	10800 Ω	Transil	DC output module	28x5x15	

Other miniature solid state relays can be procured (SKM, SKN) : please contact us

SP-ST-SL RANGE (standard)

AC and DC from 1 to 5A, protection by VDR or built-in transil, come in 15,7 mm (ST Series) and 25,4 mm (SP Series).



	PRODUCT REFERENCE	Switching Current	Switching Voltage	Control Voltage	Input R	Protec.	Specifications	Dimensions
AC	SPA07420	4A	12-275VAC	12-30VDC 15-30VAC	2100 Ω	VDR	AC output module	29x12,7x25,4
	STA07220	2A	12-275VAC	12-30VDC 15-30VAC	2100 Ω	VDR	AC output module	29x12,7x15,7
DC	SPD03505	5A	0-30VDC	12-30VDC	2100 Ω	transil	DC output module	29x12,7x25,4
	STD03205	2,5A	0-30VDC	12-30VDC	2100 Ω	transil	DC output module	29x12,7x15,7
	STD03505	5A	0-30VDC	12-30VDC	2100 Ω	transil	DC output module	29x12,7x15,7
AC/DC	STN07105	1A	0-30VAC/DC	12-30VDC 15-30VAC	2100 Ω	transil	AC/DC output module	29x12,7x15,7

ESD08000	8 SP in line module base	ESC05000	SP/ST base for PCB for one relay
ESD16000	16 SP in line module base	ESD05000	SP/ST base for DIN rail for one relay
ESD16100	16 SP compact module base		

Our STD03 and SPD03 modules are also available with AC input (12-30VAC/DC): STD07 and SPD07.

Our STD and SPD modules can be developed, on request, with an output voltage of 100VDC.

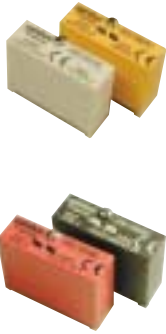
Other control voltage on request.

Interface cardboard



SE-SS RANGE - Input/output modules

Optocoupled input and output modules for control interface. Plug-in relay solution.



PRODUCT REFERENCE	Input voltage	Input R	Logic voltage	Output	Specifications	Dimensions mm						
INPUT MODULE						<table border="1"> <tr> <td rowspan="6">ENCLOSURE COLOR</td> <td>YELLOW</td> <td rowspan="12">44 x 15 x 33</td> </tr> <tr> <td rowspan="6">WHITE</td> </tr> </table>	ENCLOSURE COLOR	YELLOW	44 x 15 x 33	WHITE		
ENCLOSURE COLOR	YELLOW	44 x 15 x 33										
	WHITE											
			SEA05004	36-60VAC/DC	5 k Ω			5VDC (3-8V)			NPN 25mA	AC/DC Input
			SEA05010	90-140VAC/DC	20 k Ω			5VDC (3-8V)			NPN 25mA	AC/DC Input
			SEA05020	180-280VAC/DC	54 k Ω			5VDC (3-8V)			NPN 25mA	AC/DC Input
			SEA24010	90-140VAC/DC	20 k Ω		24VDC (15-30V)	NPN 25mA		AC/DC Input		
SEA24020			180-280VAC/DC	54 k Ω	24VDC (15-30V)		NPN 25mA	AC/DC Input				
SEC05003	10-32VDC		1 k Ω	5VDC (3-8V)	NPN 25mA		DC/ time delay input					
SEC05101	3-10VDC		200 Ω	5VDC (3-8V)	NPN 25mA		DC quick input					
SEC05103	10-32VDC		1 k Ω	5VDC (3-8V)	NPN 25mA		DC quick input					
SEC15003	10-32VDC		1 k Ω	15VDC (8-20V)	NPN 25mA		DC/ time delay input					
SEC15103	10-32VDC		1 k Ω	15VDC (8-20V)	NPN 25mA		DC quick input					
SEC24001	3-10VDC	200 Ω	24VDC (15-30V)	NPN 25mA	DC/ time delay input							
SEC24003	10-32VDC	1 k Ω	24VDC (15-30V)	NPN 25mA	DC/ time delay input							

EBS01000



EBS08000

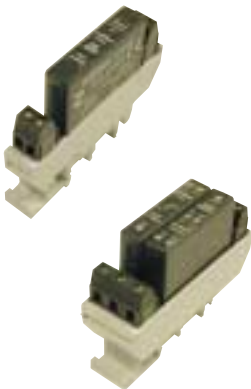


PRODUCT REFERENCE	Switching current	Switching voltage	Control voltage	Input R	Specifications	Dimensions mm				
OUTPUT MODULE						<table border="1"> <tr> <td rowspan="3">ENCLOSURE COLOR</td> <td>BLACK</td> <td rowspan="8">44 x 15 x 33</td> </tr> <tr> <td rowspan="2">RED</td> </tr> </table>	ENCLOSURE COLOR	BLACK	44 x 15 x 33	RED
ENCLOSURE COLOR	BLACK	44 x 15 x 33								
	RED									
			SSA05320	3A	12-280VAC		5VDC (3-8V)	220 Ω		AC output
SSA15320	3A		12-280VAC	15VDC (8-20V)	1 k Ω		AC output			
SSA24320	3A		24-280VAC	24VDC (15-30V)	2200 Ω		AC output			
SSC05120	1A		12-200VDC	5VDC (3-8V)	220 Ω		DC output			
SSC05306	3A		3-60VDC	5VDC (3-8V)	220 Ω		DC output			
SSC15306	3A		3-60VDC	15VDC (8-20V)	1 k Ω	DC output				
SSC24306	3A	3-60VDC	24VDC (15-30V)	2200 Ω	DC output					
SUPPORT										
EBS01000	DIN RAIL BASE for input/output Module									
EBS08000	I/O board for 8 input/output Module									
EBS16000	I/O board for 16 input/output Module									
EBS24000	I/O board for 24 input/output Module									

Only the most common references are given in these tables. Other products with different voltages are available : please contact us.

XK RANGE

Interface relays to control loads such as resistors, indicators, solenoids, transformers, motors, power contactor coils. These Din-rail mounted products come in AC, DC outputs and three phase motor control : 2 and 3 phase switching and rotation reverser. Fitted with LED.



PRODUCT REFERENCE	Switching current	Switching voltage	Control voltage	Input R	Protoc.	Specifications	Dimensions mm
XKA20420	4A	12-275VAC	6-30VDC	1 k Ω	VDR	1 pole AC synchronous output	12,2x76,4x53
XKA70420	4A	12-275VAC	15-30VAC/DC	1800 Ω	VDR	1 pole AC synchronous output	17,2x76,4x53
XKA70440	4A	12-440VAC	15-30VAC/DC	1800 Ω	VDR	1 pole AC synchronous output	17,2x76,4x53
XKA90440	4A	12-440VAC	150-240VAC/DC	41 k Ω	VDR	1 pole AC synchronous output	17,2x76,4x53
XKD10120	1A	2-220VDC	5-30VDC	1 k Ω	diode	1 pole DC output	12,2x76,4x53
XKD10306	3A	2-60VDC	5-30VDC	1 k Ω	diode	1 pole DC output	12,2x76,4x53
XKD11306	3A	2-60VDC	3-30VDC	600 Ω	diode	1 pole DC output	12,2x76,4x53
XKD70306	3A	2-60VDC	10-30VAC/DC	1800 Ω	diode	1 pole DC output	12,2x76,4x53
XKD90306	3A	2-60VDC	90-240VAC	41 k Ω	diode	1 pole DC output	17,2x76,4x53
XKH20120	10A	12-280VAC	10-32VDC	1640 Ω		1 pole AC synchronous output	25x76,4x65
XKM22440	4AC-51/2.5AC-53	24-460VAC	15-40VDC	2 k Ω	VDR	2 pole motor switching control	25,2x76,4x53
XKM23440	4AC-51/2.5AC-53	24-460VAC	12-35VDC	1 k Ω	VDR	3 pole motor switching control	47,5x76,4x53
XKR24440	4AC-51/2.5AC-53	24-460VAC	15-40VDC	2 k Ω	VDR	Motor change-over control	58,2x76,4x53
XKX21640	16AC-51/4AC-53	12-460VAC	20-30VDC	1140 Ω	RC-VDR	AC output + bypass	22,5x76,4x45

Other references available : please consult us.

Our XKA & XKD ranges with pluggable connectors are also available on request.

SK RANGE

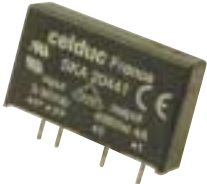
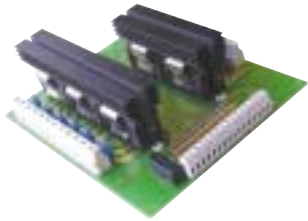
The SK range for PCB mount is available in 2 cases :

SKA / SKB (AC output) or SKD (DC output).

- > SKA up to 6A 230 or 400VAC with built-in voltage protection, ideal for solenoid or motor control
- > SKB up to 4A 230 or 400VAC for resistive loads
- > SKD rated 3A / 60VDC or 1A / 200VDC

SKL for AC output with a ceramic substrate that can be mounted on a heatsink (see picture). The SKL range is ranging from 16A to 75A.

- > For the power element, our SKL use TMS² technology (see the Power relay section introduction) reducing thermal stress and considerably improving life expectancy. Ideal for motor control (I_t up to 5000 A²s) with high inrush current as well as heating application. Easy to protect against short circuit with micro circuit breakers.



PRODUCT REFERENCE	Current	Switching voltage	Control voltage	Input R	LED	I _t	Protec	Specifications	Dimensions mm
SK541100	2,5A	12-280VAC	3-30VDC	1 kΩ	no	50A ² s	RC	AC zero-cross output	43,2 x 10,2 x 25,4
SK541101	2,5A	24-280VAC	3-30VDC	1 kΩ	no	50A ² s	-	AC zero-cross output NC	
SKA10420	4A	12-275VAC	2,5-10VDC	330 Ω	no	50A ² s	VDR	AC zero-cross output	
SKA10440	4A	12-460VAC	2,5-10VDC	330 Ω	no	50A ² s	VDR	AC zero-cross output	
SKA10620	6A	12-280VAC	4-14VDC	440 Ω	no	1800A ² s	-	TMS ² ,DCB Technology	
SKA10640	6A	24-600VAC	4-14VDC	440 Ω	no	1800A ² s	-	TMS ² ,DCB Technology	
SKA11440	4A	12-460VAC	3-10VDC	220 Ω	yes	50A ² s	VDR	AC zero-cross output	
SKA20420	4A	12-275VAC	4-30VDC	1 kΩ	no	50A ² s	VDR	AC zero-cross output	
SKA20421	4A	12-275VAC	4-30VDC	1 kΩ	no	50A ² s	VDR	AC random output	
SKA20440	4A	12-460VAC	4-30VDC	1 kΩ	no	50A ² s	VDR	AC zero-cross output	
SKA20441	4A	12-460VAC	4-30VDC	1 kΩ	no	50A ² s	VDR	AC random output	
SKA20460	4A	24-600VAC	5-30VDC	1 kΩ	no	72A ² s	-	AC zero-cross output	
SKA20620	6A	12-280VAC	8-32VDC	1640 Ω	no	1800A ² s	-	TMS ² ,DCB Technology	
SKA20640	6A	24-600VAC	8-32VDC	1640 Ω	no	1800A ² s	-	TMS ² ,DCB Technology	
SKA21420	4A	12-275VAC	7-30VDC	750 Ω	yes	50A ² s	VDR	AC zero-cross output	
SKA21421	4A	12-275VAC	7-30VDC	750 Ω	yes	50A ² s	VDR	AC random output	
SKA21440	4A	12-460VAC	7-30VDC	750 Ω	yes	50A ² s	VDR	AC zero-cross output	
SKA21441	4A	12-460VAC	7-30VDC	750 Ω	yes	50A ² s	VDR	AC random output	
SKB10420	4A	12-280VAC	3-10VDC	330 Ω	no	50A ² s	-	AC zero-cross output	
SKB10440	4A	24-600VAC	3,7-10VDC	270 Ω	no	72A ² s	-	AC zero-cross output	
SKB20420	4A	12-280VAC	8-30VDC	1200 Ω	no	50A ² s	-	AC zero-cross output	
SKB20440	4A	24-600VAC	9-30VDC	1200 Ω	no	72A ² s	-	AC zero-cross output	
SKD10306	3A	2-60VDC	3-30VDC	1 kΩ	no	-	diode	DC output	
SKD10120	1A	2-220VDC	3-30VDC	1 kΩ	no	-	diode	DC output	



PRODUCT REFERENCE	max current with WF032000	Thyristor rating	Switching voltage	Control voltage	Input R	I _t	Dimensions mm
SKL10120	16A	16A	12-280VAC	4-14VDC	440 Ω	128A ² s	43,6 x 6,3 x 24,5
SKL10220	21A	25A	12-280VAC	4-14VDC	440 Ω	312A ² s	
SKL10240	22A	25A	24-600VAC	4-14VDC	440 Ω	450A ² s	
SKL10520	27A	50A	12-280VAC	4-14VDC	440 Ω	1800A ² s	
SKL10540	27A	50A	24-600VAC	4-14VDC	440 Ω	1800A ² s	
SKL10740	30A	75A	24-600VAC	4-14VDC	440 Ω	5000A ² s	
SKL20120	16A	16A	12-280VAC	8-32VDC	1640 Ω	128A ² s	
SKL20220	21A	25A	12-280VAC	8-32VDC	1640 Ω	312A ² s	
SKL20240	22A	25A	24-600VAC	8-32VDC	1640 Ω	450A ² s	
SKL20520	27A	50A	12-280VAC	8-32VDC	1640 Ω	1800A ² s	
SKL20540	27A	50A	24-600VAC	8-32VDC	1640 Ω	1800A ² s	
SKL20740	30A	75A	24-600VAC	8-32VDC	1640 Ω	5000A ² s	

Random models on request.

PRODUCT REFERENCE	Output current	Output current with ventilation	Switching voltage	Control voltage	Input R	I _t	Dimensions mm
SKH10120	10A@20°C	16A	12-280VAC	4-14VDC	440 Ω	128A ² s	43,6 x 22 x 35,7
SKH10240	10A@25°C	25A	24-600VAC	4-14VDC	440 Ω	450A ² s	
SKH20120	10A@20°C	16A	12-280VAC	8-32VDC	1640 Ω	128A ² s	
SKH20240	10A@25°C	25A	24-600VAC	8-32VDC	1640 Ω	450A ² s	

Other reference available : please contact us.

WF032000	Heatsink for SKL L=150mm 2,6-3 K/W	1L941000	Clips for SKL on WF03/04 (clips Max 23 Aavid Thermalloy)
WF042000	Heatsink for SKL L=100mm 3,6-4 K/W	1L942000	Clips for SKL with screw for other heatsinks

heatsink SKL

clip for SKL

6

SN8 RANGE

Ultra miniature package for achieving optimum size / performance goal

- > This relay is designed for PCB board and heatsink to control heavy loads in an ultra-miniature, physically compact package.

PRODUCT REFERENCE	Current	Switching voltage	Control voltage	Input R	I _t	Dimensions mm
SN842500	25A	24-280VAC	15-32VDC	2200 Ω	260A ² s	35,05x12,70x28,32

Other reference available : please contact us.

SHT RANGE

Three phase solid state relay in a single low profile package.

- > This relay is designed for PCB board to provide control of medium power in three phase applications.

PRODUCT REFERENCE	Current	Switching voltage	Control voltage	Input R	I _t	Dimensions mm
SHT842100	3x25A	24-280VAC	3,5-10VDC	250 Ω	260A ² s	81,28x8,26x27,69
SHT842300	3x25A	24-280VAC	10-30VDC	950 Ω	260A ² s	81,28x8,26x27,69

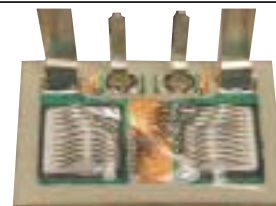
Other reference available : please contact us.



Power Relays



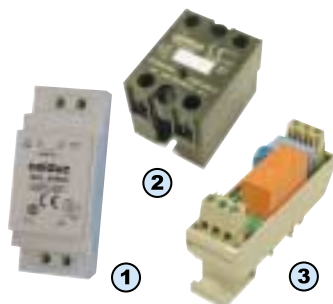
All our solid state relays fitted with back to back thyristors (power products : single phase, two phase, three phase) now use TMS² technology with a very high life expectancy compared to the majority of products on the market (application note on request)



TMS² Technology

SOFTLIFE RANGE - "Get rid of your heatsinks!"

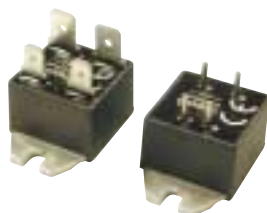
Relays combining the assets of dual technology : solid state and electromechanical. These relays are designed to switch current up to 30A without heatsink and in a very compact sizes. Relays with LED and RC and VDR protection.



PRODUCT REFERENCE	Switching current	Switching voltage	Control voltage	I ^t	Protec.	Specifications	Fig n°	Dimensions mm
SOL42950	25A	24-275VAC	195-253VAC	312A ² s	RC-VDR	domestic	1	35x58x90
SVX963350	30A	12-420VAC	20-30VDC	265A ² s	RC-VDR	mixed relays	2	44,5x61,3x45
XKX21640	16AC1/4AC3	12-460VAC	20-30VAC	72A ² s	RC-VDR	mixed, DIN rail mounted relay	3	22,5x77x45

SF RANGE

Miniature relays with "FASTON" terminals or PCB terminals.



PRODUCT REFERENCE	Switching current	Switching voltage	Control voltage	Input R	Specifications	Dimensions mm
SF441310	10A	12-280VAC	3-30VDC	1 kΩ	Random, "FASTON" terminals	21 x 35,5 x 15
SF541310	10A	12-280VAC	4-30VDC	1 kΩ	zero-crossed, "FASTON" terminals	
SF542310	10A	12-280VAC	4-30VDC	1 kΩ	zero-crossed, PCB terminals	
SF546310	20A	12-280VAC	4-30VDC	1 kΩ	zero-crossed, "FASTON" terminals	

These products should be mounted on heatsinks in order to reach nominal value.

SCF RANGE

To control resistive loads. "FASTON" terminals.



PRODUCT REFERENCE	Switching current	Switching voltage	Peak voltage	Control voltage	Input R	LED	I ^t	Protec.	Dimensions mm
SCF42160	25A	12-280VAC	600V	4-30VDC	600 Ω	yes	312A ² s	-	44,5 x 58,2 x 27
SCF42324	25A	12-280VAC	600V	12-30VDC	1 kΩ	no	312A ² s	VDR	
SCF62160	25A	24-600VAC	1200V	5-30VDC	600 Ω	yes	265A ² s	-	

Other references (corresponding to the SC9 range) are available : please contact us.

These products should be mounted on heatsinks in order to reach nominal value.

SCFL RANGE EMC optimised (low electromagnetic emission - low RFI)

This relay is designed for use in applications where low electromagnetic emission is essential : household and electrical appliances, information technology and medical equipments. In compliance with EN 50081-1 Generic Emission Standards for Residential and meets CISPR 22 requirements.



PRODUCT REFERENCE	Switching current	Switching voltage	Peak voltage	Control voltage	Input R	I ^t	Dimensions mm
SCFL42100	25A	12-280VAC	600V	4-30VDC	1 k.	312A ² s	44,5x58,2x32

These products should be mounted on heatsinks in order to reach nominal value.

SC7 RANGE

The SC7 range with random or instant switching, integrating a snubber (RC) is especially designed for motor and transformer control. This range is also suitable (with closing times < 50 microseconds) for quick switching for uninterrupted power supplies (UPS, etc).



PRODUCT REFERENCE	Switching current	Switching voltage	Peak voltage	Control voltage	Input R	I ² t	Dimensions mm
SC741110	12A	12-280VAC	600V	3-30VDC	1 kΩ	72A ² s	44,5 x 58,2 x 27
SC742110	25A	12-280VAC	600V	3-30VDC	1 kΩ	312A ² s	
SC744110	40A	12-280VAC	600V	3-30VDC	1 kΩ	612A ² s	
SC745100	50A	12-280VAC	600V	3-30VDC	1 kΩ	1500A ² s	
SC747100	75A	12-280VAC	600V	3-30VDC	1 kΩ	5000A ² s	
SC762110	25A	24-520VAC	1200V	4-30VDC	1 kΩ	265A ² s	
SC764110	50A	24-520VAC	1200V	4-30VDC	1 kΩ	1500A ² s	
SC764910	50A	24-520VAC	1200V	90-240VAC/DC	30 kΩ	1500A ² s	
SC767110	75A	24-520VAC	1200V	4-30VDC	1 kΩ	5000A ² s	
SC768110	95A	24-520VAC	1200V	4-30VDC	1 kΩ	11000A ² s	
SC769110	125A	24-520VAC	1200V	4-30VDC	1 kΩ	20000A ² s	

Other reference (AC control...) are available. All our products can be made with 1600V peak : please contact us. These products should be mounted on heatsink in order to reach nominal value.

SC8 RANGE

The SC8 range with zero-cross switching, integrating a snubber (RC), is recommended for all types of applications. The sc8xxxx products with 1600V peak are especially designed for capacity control : power factor corrector.



Protective cover and heatsinks : see accessories

PRODUCT REFERENCE	Switching current	Switching voltage	Peak voltage	Control voltage	Input R	I ² t	Dimensions mm
* SC800010	25A	24-520VAC	1200V	5-30VDC	1 kΩ	265A ² s	44,5 x 58,2 x 27
SC841110	12A	12-280VAC	600V	4-30VDC	1 kΩ	72A ² s	
SC841114	12A	12-280VAC	600V	4-30VDC	1 kΩ	72A ² s	
SC841810	12A	12-280VAC	600V	17-80VAC/DC	3 kΩ	72A ² s	
SC841910	12A	12-280VAC	600V	90-240VAC/DC	30 kΩ	72A ² s	
SC842110	25A	12-280VAC	600V	4-30VDC	1 kΩ	312A ² s	
SC842114	25A	12-280VAC	600V	4-30VDC	1 kΩ	312A ² s	
SC842810	25A	12-280VAC	600V	17-80VAC/DC	3 kΩ	312A ² s	
SC842910	25A	12-280VAC	600V	90-240VAC/DC	30 kΩ	312A ² s	
SC844110	40A	12-280VAC	600V	4-30VDC	1 kΩ	612A ² s	
SC844810	40A	12-280VAC	600V	17-80VAC/DC	3 kΩ	612A ² s	
SC844910	40A	12-280VAC	600V	90-240VAC/DC	30 kΩ	612A ² s	
SC861110	12A	24-520VAC	1200V	5-30VDC	1 kΩ	72A ² s	
SC862110	25A	24-520VAC	1200V	5-30VDC	1 kΩ	265A ² s	
SC862810	25A	24-520VAC	1200V	17-80VAC/DC	3 kΩ	265A ² s	
SC862910	25A	24-520VAC	1200V	90-240VAC/DC	30 kΩ	265A ² s	
SC864110	50A	24-520VAC	1200V	5-30VDC	1 kΩ	1500A ² s	
SC864810	50A	24-520VAC	1200V	17-80VAC/DC	3 kΩ	1500A ² s	
SC864910	50A	24-520VAC	1200V	90-240VAC/DC	30 kΩ	1500A ² s	
SC867110	75A	24-520VAC	1200V	5-30VDC	1 kΩ	5000A ² s	
SC867910	75A	24-520VAC	1200V	90-240VAC/DC	30 kΩ	5000A ² s	
SC868110	95A	24-520VAC	1200V	5-30VDC	1 kΩ	11000A ² s	
SC868910	95A	24-520VAC	1200V	90-240VAC/DC	30 kΩ	11000A ² s	
SC869110	125A	24-520VAC	1200V	5-30VDC	1 kΩ	20000A ² s	
SC869810	125A	24-520VAC	1200V	17-80VAC/DC	3 kΩ	20000A ² s	
SC869910	125A	24-520VAC	1200V	90-240VAC/DC	30 kΩ	20000A ² s	
SC885100	50A	24-690VAC	1600V	7-30VDC	1 kΩ	1500A ² s	
SC887100	75A	24-690VAC	1600V	7-30VDC	1 kΩ	5000A ² s	
SC888100	95A	24-690VAC	1600V	7-30VDC	1 kΩ	11000A ² s	
SC889100	125A	24-690VAC	1600V	7-30VDC	1 kΩ	20000A ² s	

* For PCB mounting.

other references (built-in VDR, LED...) can be made to minimum quantity.

These products should be mounted on heatsink in order to reach nominal value.

Some of our references fulfil the requirements according to DIN EN60601-1 (VDE 0750) for medical applications.

SC9 RANGE

The SC9 series with zero-cross switching is optimized for resistive load control (heating application)



Protective cover and heatsinks : see accessories

PRODUCT REFERENCE	Switching current	Switching voltage	Peak voltage	Control voltage	Input R	LED	I ^{ft}	Protec.	Dimensions mm
SC941110	12A	12-280VAC	600V	4-30VDC	1 kΩ	no	72A ² s		44,5 x 58,2 x 27
SC941160	12A	12-280VAC	600V	4-30VDC	600 Ω	yes	72A ² s		
SC942110	25A	12-280VAC	600V	4-30VDC	1 kΩ	no	312A ² s		
SC942120	25A	12-275VAC	600V	4-30VDC	1 kΩ	no	312A ² s	VDR	
SC942160	25A	12-280VAC	600V	4-30VDC	600 Ω	yes	312A ² s		
SC942900	25A	12-280VAC	600V	90-240VAC/DC	30 kΩ	no	312A ² s		
SC942920	25A	12-275VAC	600V	90-240VAC/DC	30 kΩ	no	312A ² s	VDR	
SC944110	40A	12-280VAC	600V	4-30VDC	1 kΩ	no	612A ² s		
SC944160	40A	12-280VAC	600V	4-30VDC	600 Ω	yes	612A ² s		
SC945060	50A	12-280VAC	600V	3-32VDC	600 Ω	Led	1500A ² s		
SC945100	50A	12-280VAC	600V	4-30VDC	1 kΩ	no	1500A ² s		
SC945160	50A	12-280VAC	600V	4-30VDC	600 Ω	yes	1500A ² s		
SC945900	50A	12-280VAC	600V	90-240VAC/DC	30 kΩ	no	1500A ² s		
SC947100	75A	12-280VAC	600V	4-30VDC	1 kΩ	no	5000A ² s		
SC947160	75A	12-280VAC	600V	4-30VDC	600 Ω	yes	5000A ² s		
SC947900	75A	12-280VAC	600V	90-240VAC/DC	30 kΩ	no	5000A ² s		
SC948100	95A	12-280VAC	600V	4-30VDC	1 kΩ	no	11000A ² s		
SC949100	125A	12-280VAC	600V	4-30VDC	1 kΩ	no	20000A ² s		
SC961110	12A	24-600VAC	1200V	5-30VDC	1 kΩ	no	72A ² s		
SC961160	12A	24-600VAC	1200V	5-30VDC	600 Ω	yes	72A ² s		
SC962110	25A	24-600VAC	1200V	5-30VDC	1 kΩ	no	265A ² s		
SC962114	25A	24-600VAC	1200V	5-30VAC	1 kΩ	no	265A ² s		
SC962160	25A	24-600VAC	1200V	5-30VDC	600 Ω	yes	265A ² s		
SC962800	25A	24-600VAC	1200V	17-80VAC/DC	3 kΩ	no	265A ² s		
SC962960	25A	24-600VAC	1200V	90-240VAC/DC	30 kΩ	yes	265A ² s		
SC965100	50A	24-600VAC	1200V	5-30VDC	1 kΩ	no	1500A ² s		
SC965160	50A	24-600VAC	1200V	5-30VDC	600 Ω	yes	1500A ² s		
SC967100	75A	24-600VAC	1200V	5-30VDC	1 kΩ	no	5000A ² s		
SC967160	75A	24-600VAC	1200V	5-30VDC	600 Ω	yes	5000A ² s		

All the products come in 800V peak (SC95xxxx).

This SC9 range can be made with a self-protection device in the event of high energy overvoltage : please contact us.

These products should be mounted on heatsink in order to reach nominal value.

SIC/SIR RANGE

New Solid State Relay compact size pitch 22,5mm.
SIR model with spring terminals.

-> These relays are designed for power application where we want to save space and time with modern terminals.



Spring terminals : easy to connect !

PRODUCT REFERENCE	Switching current	Switching voltage	Peak voltage	Control voltage	Input R	LED	I ^{ft}	Protec.	Dimensions mm
SIC841500	12A	12-280VAC	600V	7-30VDC	1 kΩ	no	72A ² s		22,5x80x31
SIC864520	32A	24-600VAC	1200V	7-30VDC	1 kΩ	no	610A ² s	VDR	22,5x80x37
SIC865560	32A	24-600VAC	1200V	7-30VDC	1 kΩ	yes	1500A ² s		22,5x80x37
SIR841500	12A	12-280VAC	600V	7-30VDC	1 kΩ	no	72A ² s		22,5x80x33
SIR842500	(16A)25A	12-280VAC	600V	7-30VDC	1 kΩ	no	312A ² s		22,5x80x33

Other references available : please contact us.

These products should be mounted on heatsink in order to reach nominal value.

POWER SSRs with diagnostic

Status of the SSR and the load without external power supply. This range is patented. Status output can be chained.

Fault condition alarms:

- Line or load open
- Short circuit output

REF DESC	Switching current	Switching voltage	Peak voltage	Control voltage	Input R	I ² t	Dimensions mm
SCD845110	50A	70-280VAC	600V	7-32VDC	1 kΩ	1500A ² s	45,5x58,2x35
SCD847110	75A	70-280VAC	600V	7-32VDC	1 kΩ	5000A ² s	45,5x58,2x35
SCD865110	50A	150-510VAC	1200V	8-32VDC	1 kΩ	1500A ² s	45,5x58,2x35
SCD867110	75A	150-510VAC	1200V	8-32VDC	1 kΩ	5000A ² s	45,5x58,2x35
SILD845160	25A	70-280VAC	600V	3-32VDC	I _c <10mA	1500A ² s	22,5x80x116
SILD865170	25A	150-510VAC	1200V	3,5-32VDC	I _c <10mA	1500A ² s	22,5x80x116
SILD867170	35A	150-510VAC	1200V	3,5-32VDC	I _c <10mA	5000A ² s	22,5x80x116

The SCD products should be mounted on heatsink in order to reach nominal value.

SCP RANGE - Transformer starting

The SCP relays are designed for the start-up of transformer primary circuits and all saturated inductance coil loads preventing magnetising current peaks (application note on request)

PRODUCT REFERENCE	Switching current	Switching voltage	Peak voltage	Control voltage	Input R	I ² t	Sp cifications	Dimensions mm
SCP49110	40A*	180-280VAC	600V	4-30VDC	1 kΩ	610A ² s	peak starting	44,5x58,2x27
SCP69110	40A*	300-480VAC	1200V	4-30VDC	1 kΩ	610A ² s		

*See application note on data sheet.

These products can be procured with high rating current on request.

For the start-up of three phase transformers, use our new range of SOFTSTARTERS SMCW or our SVTA / SWTA range : please consult us.

These products should be mounted on heatsink in order to reach nominal value.

SV8 RANGE

Synchronous single phase relays, all options : LED, IP20, RC, VDR terminal protection, identification tag, cage terminals.

PRODUCT REFERENCE	Switching current	Switching voltage	Peak voltage	Control voltage	Input R	LED	I ² t	Protec.	Dimensions mm
SV841394	12A	12-275VAC	600V	10-32VDC	1250 Ω	yes	72A ² s	RC-VDR	44,5 x 61,3 x 45
SV841994	12A	12-275VAC	600V	150-240VAC	21 kΩ	yes	72A ² s	RC-VDR	
SV842170	25A	12-275VAC	600V	4-30VDC	600 Ω	yes	288A ² s	VDR	
SV844394	45A	12-275VAC	600V	10-32VDC	1250 Ω	yes	1500A ² s	RC-VDR	
SV844994	45A	12-275VAC	600V	150-240VAC	21 kΩ	yes	1500A ² s	RC-VDR	
SV845170	50A	12-275VAC	600V	4-30VDC	600 Ω	yes	1500A ² s	VDR	
SV861394	12A	24-500VAC	1200V	10-32VDC	1250 Ω	yes	72A ² s	RC-VDR	
SV861994	12A	24-500VAC	1200V	150-240VAC	21 kΩ	yes	72A ² s	RC-VDR	
SV865160	50A	24-600VAC	1200V	5-30VAC	600 Ω	yes	1500A ² s	no	
SV865394	50A	24-500VAC	1200V	10-32VDC	1250 Ω	yes	1500A ² s	RC-VDR	
SV865994	50A	24-500VAC	1200V	150-240VAC	21 kΩ	yes	1500A ² s	RC-VDR	
SV867130	75A	24-500VAC	1200V	5-30VDC	1 kΩ	no	5000A ² s	Transil	
SV867170	50A	24-500VAC	1200V	5-30VDC	600 Ω	yes	5000A ² s	VDR	
SV867160	75A	24-600VAC	1200V	5-30VDC	600 Ω	yes	5000A ² s	Led	
SV867470	75A	24-510VAC	1200V	3,5-32VDC		no	5000A ² s	Led + VDR	

The whole SC range can be made in SV size (other controls, currents, random, etc) : please contact us.

These products should be mounted on heatsink in order to reach nominal voltage.

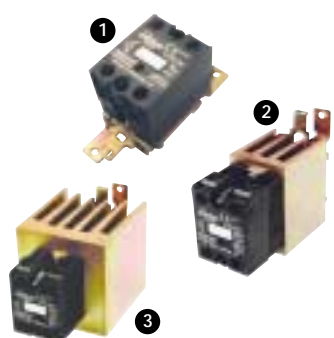
SWM RANGE - Solid state contactor

Single phase ready-to-use contactor integrating heatsink, DIN-rail mounting, IP20 terminal protection, LED, VDR, cage terminals... these products are defined with temperature rises of 50°C and permanent 8-hour operation (operating cycles = 100%) in compliance with the European standards

PRODUCT REFERENCE	Switching current	Switching voltage	Peak voltage	Control voltage	Input R	I ² t	Dimensions mm	Fig n°
SWM841080	9A	12-280VAC	600V	17-60VAC/DC	1700 Ω	610A ² s	45x65x60	1
SWM841830	30A	12-280VAC	600V	10-30VDC	1250 Ω	1500A ² s	48x72x120	2
SWM862080	30A	24-510VAC	1200V	17-60VAC/DC	1700 Ω	1500A ² s	48x72x120	2
SWM864530	50A	24-500VAC	1200V	10-30VDC	1250 Ω	11000A ² s	83x90x143	3
SWM865080	50A	24-510VAC	1200V	17-60VAC/DC	1700 Ω	5000A ² s	83x90x143	3



celpac™



celpac® RANGE

**INSTALL IT
FORGET IT**



- > 22,5 and 45mm Pitch.
- > Large control range : 3-32VDC with an input current <10mA whatever the rating voltage and temperature range. AC control models available.
- > Green LED visualization on the input.
- > Very high immunity : Voltage protection on output and input : 4kV according to IEC61000-4-4 & 5.
- > Models SILD845, SIL855 and SIM855 switch ON in case of overvoltage : autoprotection on AC-51 loads only.
- > TMS² Technology with very long lifetime.
- > I² t value between 312 and 5000A²s hence protection against short-circuit on the load possible by Miniature Circuit Breakers (MCB).
Low leakage current (<1mA) and low zero cross voltage (<10V) for zero cross SSR. Turn on time for random models.
- > IP20 housing.
- > Use screw clamp terminals.
- > No tools needed for mounting and dismounting on DIN rail or direct mounting on panel.
- > Designed in conformity with EN60947-4-3 (IEC947-4-3) and EN60950 -UL-cUL.
CE mark : made in France with high quality level.



Single Phase SIL 22,5 mm

PRODUCT REFERENCE	Switching current	Switching voltage	Peak voltage	Control voltage	Input R	I ² t	Protec.	Dimensions mm
SIL765170	35A (22A)	24-510VAC	1200V	3,5-32VDC	Ic<10mA	1500A ² s	Random	22,5x80x116
SIL841170	12A (12A)	12-275VAC	600V	3-32VDC	Ic<10mA	72A ² s	Zero-cross	22,5x80x116
SIL842170	25A (20A)	12-275VAC	600V	3-32VDC	Ic<10mA	312A ² s	Zero-cross	22,5x80x116
SIL842770	25A (20A)	12-275VAC	600V	17-60VAC/DC	Ic<10mA	312A ² s	Zero-cross	22,5x80x116
SIL842970	25A (20A)	12-275VAC	600V	150-240VAC/DC	Ic<10mA	312A ² s	Zero-cross	22,5x80x116
SIL855160	35A (22A)	12-480VAC	1200V	3-32VDC	Ic<10mA	1500A ² s	Zero-cross	22,5x80x116
SIL865170	35A (22A)	24-510VAC	1200V	3,5-32VDC	Ic<10mA	1500A ² s	Zero-cross	22,5x80x116
SIL865770	35A (22A)	24-510VAC	1200V	17-60VAC/DC	Ic<10mA	1500A ² s	Zero-cross	22,5x80x116
SIL865970	35A (22A)	24-510VAC	1200V	150-240VAC/DC	Ic<10mA	1500A ² s	Zero-cross	22,5x80x116
SIL867170	35A (28A)	24-510VAC	1200V	3,5-32VDC	Ic<10mA	5000A ² s	Zero-cross	22,5x80x116

* () UL and AC-51



Single Phase SIM 45 mm

SIM765170	40A (32A)	24-510VAC	1200V	3,5-32VDC	Ic<10mA	1500A ² s	Random	45X80X116
SIM855160	40A (32A)	24-510VAC	1200V	3,5-32VDC	Ic<10mA	1500A ² s	Zero-cross	45X80X116
SIM865170	40A (32A)	24-510VAC	1200V	3,5-32VDC	Ic<10mA	1500A ² s	Zero-cross	45X80X116
SIM865770	40A (32A)	24-510VAC	1200V	17-60VAC/DC	Ic<10mA	1500A ² s	Zero-cross	45X80X116
SIM865970	40A (32A)	24-510VAC	1200V	150-240VAC/DC	Ic<10mA	1500A ² s	Zero-cross	45X80X116
SIM867170	45A (35A)	24-510VAC	1200V	3,5-32VDC	Ic<10mA	5000A ² s	Zero-cross	45X80X116

Products also available in this range :

• **SILD model with diagnostic** (see page 10) : status of the SSR and the load.

Without external power supply. Normally closed status output. Status visualization by LED. Status output can be chained. This range is patented.

• **SIB two phase relays** (see page 12) : can be used in three phase applications by switching two phases only.

Two phase relays

SCB RANGE

This two phase range provides two solid state relays in a compact standard 45 mm enclosure. They are perfectly adapted to three phase applications with breaking of two phases only.



All our SCB products are now available with LED

PRODUCT REFERENCE	Switching current	Switching voltage	Peak voltage	Control voltage	Input R	I't	Specifications	Dimensions mm	Fig n°
SCB345100	2X50A	12-280VAC	600V	4-30VDC	1 kΩ	1500A ² s	random / 2 controls	44,8 x 58 x 27	1
SCB445100	2X50A	12-280VAC	600V	4-30VDC	1 kΩ	1500A ² s	random / 2 controls		2
SCB564310	2X40A	24-510VAC	1200V	5-30VDC	1 kΩ	610A ² s	zero-cross / 2 controls		3
SCB865300	2X50A	24-600VAC	1200V	10-30VDC	1400 Ω	1500A ² s	zero-cross / 1 control		4
SCB865600	2X50A	24-600VAC	1200V	10-30VDC	1800 Ω	1500A ² s	zero-cross / 2 controls		5
SCB665300	2X50A	24-600VAC	1200V	8-35VDC	1800 Ω	1500A ² s	zero-cross / 2 controls		2
SCB745300	2X50A	12-280VAC	600V	10-30VDC	1400 Ω	1500A ² s	random / 1 control		4
SCB765200	2X50A	24-600VAC	1200V	5-30VDC	1 kΩ	1500A ² s	random / 2 controls		5
SCB867300	2X75A	24-600VAC	1200V	10-30VDC	1400 Ω	1500A ² s	zero-cross / 1 control		4
SCB867600	2X75A	24-600VAC	1200V	10-30VDC	1800 Ω	5000A ² s	zero-cross / 2 controls		5
SCB941300	2X12A	12-280VAC	600V	8-30VDC	1000 Ω	72A ² s	zero-cross / 1 control		4
SCB941600	2X12A	12-280VAC	600V	8-30VDC	1 K Ω	72A ² s	zero-cross / 2 controls		5
SCB942300	2X25A	12-280VAC	600V	8-30VDC	1000 Ω	288A ² s	zero-cross / 1 control		4
SCB942600	2X25A	12-280VAC	600V	8-30VDC	1 K Ω	288A ² s	zero-cross / 2 controls		5
SCB944300	2X40A	12-280VAC	600V	8-30VDC	1000 Ω	612A ² s	zero-cross / 1 control		4
SCB944600	2X40A	12-280VAC	600V	8-30VDC	1 K Ω	612A ² s	zero-cross / 2 controls		5
SCB945600	2X50A	12-280VAC	600V	8-30VDC	1 K Ω	1500A ² s	zero-cross / 2 controls		5
SCB962600	2X25A	24-600VAC	1200V	8-30VDC	1 K Ω	265A ² s	zero-cross / 2 controls		5
SCB965600	2X50A	24-600VAC	1200V	8-30VDC	1 K Ω	1500A ² s	zero-cross / 2 controls		5

Protection Cover : see accessories (1K470000).

These products should be mounted on heatsink in order to reach nominal value.



①



②



③



④



⑤

celpac® RANGE

They are perfectly adapted to three phase applications with breaking of two phases only.



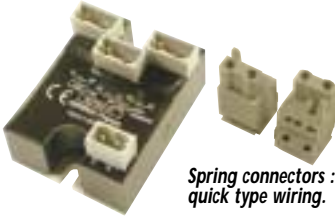
Two phase SIB 45 mm

PRODUCT REFERENCE	Switching current	Switching voltage	Peak voltage	Control voltage	Input R	I't	Specifications	Dimensions mm
SIB765170	2x25A	24-510VAC	1200V	3,5-32VDC	Ic<10mA	1500A ² s	random	45 x 80 x 116
SIB865170	2x25A	24-510VAC	1200V	3,5-32VDC	Ic<10mA	1500A ² s	zero-cross	
SIB865970	2x25A	24-510VAC	1200V	150-240VAC/DC	Ic<10mA	1500A ² s	zero-cross	
SIB867170	2x25A	24-510VAC	1200V	3,5-32VDC	Ic<10mA	5000A ² s	zero-cross	

Three phase relays

SCT RANGE

Three phase solid state relays in a single phase relay enclosure.



Spring connectors : quick type wiring.

PRODUCT REFERENCE	Switching current	Switching voltage	Peak voltage	Control voltage	Input R	I ^{ft}	Specifications	Dimensions mm
SCT32110	3X10A	12-440VAC	800V	4-30VDC	330 Ω	72A ² s	random	44,8 x 58 x 27
SCT62110	3X10A	12-440VAC	800V	4-30VDC	330 Ω	72A ² s	zero-cross	

These products also come with PCB terminals.

These product should be mounted with heatsink in order to reach nominal value.

SGT RANGE

Standard three phase range to control resistive loads (AC-51) or for motor control (AC-53). These relays have LED



PRODUCT REFERENCE	Switching current AC-51	Current AC-53	Switching voltage	Peak voltage	Control voltage	Input R	I ^{ft}	Specifications	Dimensions mm
SGT369350A	3X40A	3X7,5A	24-520VAC	1200V	5-30VDC	270 Ω	610A ² s	random	100x73,5x39,5
SGT669350A	3X40A	3X7,5A	24-520VAC	1200V	5-30VDC	270 Ω	612A ² s		
SGT765370	3X50A	3X12A	24-520VAC	1200V	8.5-30VDC	620 Ω	1500A ² s		
SGT767370	3X75A	3X16A	24-520VAC	1200V	8.5-30VDC	620 Ω	5000A ² s		
SGT865350	3X50A	3X12A	24-520VAC	1200V	8.5-30VDC	620 Ω	1500A ² s		
SGT867350	3X75A	3X16A	24-520VAC	1200V	8.5-30VDC	620 Ω	5000A ² s		
SGT961360	3X12A	-	24-600VAC	1200V	8.5-30VDC	620 Ω	72A ² s		
SGT962360	3X25A	-	24-600VAC	1200V	8.5-30VDC	620 Ω	265A ² s		
SGT965360	3X50A	-	24-600VAC	1200V	8.5-30VDC	620 Ω	1500A ² s		
SGT965960	3X50A	-	24-600VAC	1200V	90-240VAC	21 kΩ	1500A ² s		
SGT967360	3X75A	-	24-600VAC	1200V	8.5-30VDC	620 Ω	5000A ² s		

These product should be mounted with heatsink in order to reach nominal value.

SVT RANGE

Three phase IP20 protection range to control resistive loads (AC-51) or for motor control (AC-53). Please consult us for other loads. These relays have LED.

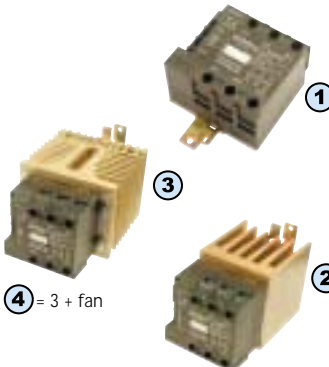


PRODUCT REFERENCE	Switching current AC-51	Current AC-53	Switching voltage	Calibre Thyristor	Control voltage	Input R	I ^{ft}	Protec.	Specifications	Dimensions mm
SVT764394	3X50A	3X12A	24-520VAC	50A	8.5-30VDC	620 Ω	1500A ² s	RC-VDR	random	100 x 76 x 56,5
SVT861394	3X12A	3X2,5A	24-520VAC	12A	8.5-30VDC	620 Ω	72A ² s	RC-VDR	zero-cross	
SVT861994	3X12A	3X2,5A	24-520VAC	12A	90-240VAC	21 kΩ	72A ² s	RC-VDR		
SVT864374	3X50A	3X12A	24-520VAC	50A	10-32VDC	580 Ω	1500A ² s	VDR		
SVT864394	3X50A	3X12A	24-520VAC	50A	8.5-30VDC	620 Ω	1500A ² s	RC-VDR		
SVT864994	3X50A	3X12A	24-520VAC	50A	90-240VAC	21 kΩ	1500A ² s	RC-VDR		
SVT867394	3X50A	3X16A	24-520VAC	75A(90A)	8.5-30VDC	620 Ω	5000A ² s	RC-VDR		
SVT867994	3X50A	3X16A	24-520VAC	75A(90A)	90-240VAC	21 kΩ	5000A ² s	RC-VDR		
SVT868394	3X50A	3X24A	24-520VAC	95A	8.5-30VDC	620 Ω	11000A ² s	RC-VDR		
SVT868994	3X50A	3X24A	24-520VAC	95A	90-240VAC	21 kΩ	11000A ² s	RC-VDR		
SVT869394	3X50A	3X32A	24-520VAC	125A	8.5-30VDC	620 Ω	20000A ² s	RC-VDR		
SVT869994	3X50A	3X32A	24-520VAC	125A	90-240VAC	21 kΩ	20000A ² s	RC-VDR		
SVT961360	3X12A	-	24-600VAC	12A	8.5-30VDC	620 Ω	72A ² s	-		
SVT965360	3X50A	-	24-600VAC	50A	8.5-30VDC	620 Ω	1500A ² s	-		
SVT965760	3X50A	-	24-600VAC	50A	10-30VAC/DC	410 Ω	1500A ² s	-		
SVT965960	3X50A	-	24-600VAC	50A	90-240VAC	21 kΩ	1500A ² s	-		
SVT967360	3X75A	-	24-600VAC	75A	8.5-30VDC	620 Ω	5000A ² s	-		

These product should be mounted with heatsink in order to reach nominal value.

SWT RANGE - Solid state contactors

Three phase contactor with heatsink and DIN rail mounting. Fitted with a LED and RC and VDR network protection designed to control resistive loads (AC-51) or for motor control (AC-53).

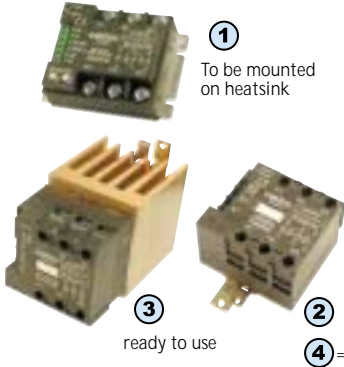


PRODUCT REFERENCE	Switching current AC-51	Current AC-53	Switching voltage	Peak voltage	Control voltage	Input R	I ^{ft}	Specifications	Dimensions mm	Fig n°
SWT860330	3X5A	3X5A	24-520VAC	1200V	10-30VAC/DC	410 Ω	265A ² s	zero-cross	83x76x72	1
SWT860390	3X5A	3X5A	24-520VAC	1200V	90-240VAC	21 kΩ	265A ² s		83x76x72	1
SWT861230	3X22A	3X12A	24-520VAC	1200V	10-30VAC/DC	410 Ω	1500A ² s		83x90x155	2
SWT861290	3X22A	3X12A	24-520VAC	1200V	90-240VAC	21 kΩ	1500A ² s		83x90x155	2
SWT861730	3X28A	3X16A	24-520VAC	1200V	10-30VAC/DC	410 Ω	5000A ² s		110x90x172	3
SWT861790	3X28A	3X16A	24-520VAC	1200V	90-240VAC	21 kΩ	5000A ² s		110x90x172	3
SWT862030	3X32A	3X24A	24-520VAC	1200V	10-30VAC/DC	410 Ω	11000A ² s		110x90x172	3
SWT862090	3X32A	3X24A	24-520VAC	1200V	90-240VAC	21 kΩ	11000A ² s		110x145x172	3
SWT865080	3X50A	-	24-520VAC	1200V	10-30VAC/DC	410 Ω	5000A ² s		83x90x155	4

These products are defined with temperature rises of 50°C and permanent operation (operating cycle = 100%) of 8 hours in compliance with the European standards.

Motor control

SG9 - SW9 - Reversing switches



① To be mounted on heatsink

③ ready to use

④ = SG969300 in SV IP20 enclosure

This relay is used to reverse the rotational direction of a motor. The SW9 series is ready to use with heatsink and DIN rail mounting integrated. They all come with LED and protection against simultaneous controls.

PRODUCT REFERENCE	Switching current AC-53	Switching voltage	Control voltage	I ² t	Protec.	Specifications	Dimensions mm	Fig n°
SG969100	3X6,6A	24-520VAC	10-30VDC	612A ² s	reversing + time delay	3 phase switching	100x73,5x39,5	1
SG969300	3X8,5A	24-520VAC	12-30VDC	1500A ² s		2 phase switching	100x73,5x39,5	1
SV969300	3X8,5A	24-520VAC	12-30VDC	1500A ² s		2 phase switching IP20 enclosure	100x76x56,5	4
SV969500	3X16A	24-550VAC	12-30VDC	5000A ² s		2 phase switching IP20 enclosure	100x76x56,5	4
SW960330	3X4,5A	24-520VAC	12-30VDC	1500A ² s		2 phase switching	100x76x72	2
SW961230	3X8,5A	24-520VAC	12-30VDC	1500A ² s		2 phase switching	83x90x155	3

SOFT STARTER SMCV - SMCW

Make the most of all its advantages !



Motor control :

- > Efficient reduction of torque and starting current

Incandescent or infrared lamp starting :

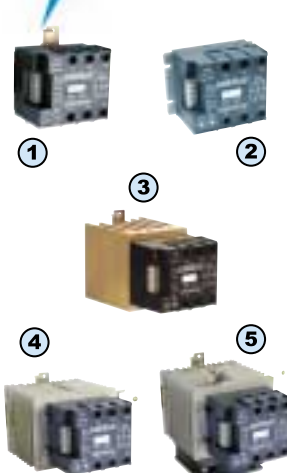
- > Reduction of inrush current
- > Increase in life expectancy

Transformer control (loaded) :

- > Elimination of saturation current
- > Improved control and protection

Whatever your application :

- > Diagnosis of network, load and state of product
- > Better balance of and less interference on starters (full control of the 3 phases!)
- > Simple use facilitating implementation and adjustments
- > As compact as an electronic contactor



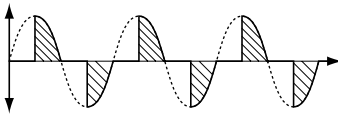
PRODUCT REFERENCE	P _{max} motor 400VAC		P _{max} motor 230VAC		Max. Current AC53a		Specifications	Dimensions mm	Fig n°
	Y	D	Y	D	Max.	EN60947-4-2			
SMCV6080	7,5kW	13kW	4,3kW	7,5kW	16A	11,5A	Heatsink not provided	100x76x58,5	2
SMCV6110	11kW	19kW	6,4kW	11kW	25A	15,5A			
SMCV6150	15kW	26kW	8,6kW	15kW	30A	22,5A	Supplied with built-in heatsink	83x100x74	1
SMCW6020	2,5kW	4,3kW	1,4kW	2,5kW	5,6A	4A		83x110x155	3
SMCW6080	7,5kW	13kW	4,3kW	7,5kW	16A	11,5A		110x110x180	4
SMCW6110	11kW	19kW	6,4kW	11kW	25A	15,5A		110x141x180	5
SMCW6150	15kW	26kW	8,6kW	15kW	30A	22,5A		83x100x74	1
SMCW6151	15kW	26kW	8,6kW	15kW	30A(AC53b)	22,5A(AC53b)	Ext. bypass required		

Common characteristics	Range of voltage and network frequency	Control	Diagnostic output	Operating Temp rature	Insulation	Max section of wires
Values given at 40°C ambient	200-480VAC 40-65Hz	10-24VDC ou contact	0-24V 1A AC/DC	-40 - +100°C	4kV	E=2,5mm ² S=10mm ²

The star assembly (Y) corresponds to in-line wired starter. The delta assembly (D) corresponds to the starter wired in the triangle coupling of the motor. Each channel is wired in series with a winding of the motor.

SG4 RANGE - Phase angle controller

This relay is designed to proportionally vary the switching moment on a sinusoidal mains at an analog output thereby varying the RMS voltage at the terminals of the load. Applications : light dimmer, heating regulation single phase variable speed control (vibrating feeders, etc). Model with LED and RC and VDR network



PRODUCT REFERENCE	Switching current	Switching voltage	Control voltage	Input R	I ² t	Dimensions mm
SG441020	10A	115-265VAC	0-10VDC	400 kΩ	72A ² s	100 x 73,5 x 39,5
SG444020	40A	115-265VAC	0-10VDC	400 kΩ	1500A ² s	
SG444120	40A	115-265VAC	Potentiometer	200 kΩ	1500A ² s	
SG444420	40A	115-265VAC	4-20mA	250 Ω	1500A ² s	
SG464020	40A	200-460VAC	0-10VDC	400 kΩ	1500A ² s	
SG464120	40A	200-460VAC	Potentiometer	200 kΩ	1500A ² s	
SG464420	40A	200-460VAC	4-20mA	250 Ω	1500A ² s	
SG468020	70A	200-460VAC	0-10VDC	400 kΩ	5000A ² s	
SG468120	70A	200-460VAC	Potentiometer	200 kΩ	5000A ² s	
SG468420	70A	200-460VAC	4-20mA	250 Ω	5000A ² s	
SG469020	110A	200-460VAC	0-10VDC	400 kΩ	20000A ² s	
SG469120	110A	200-460VAC	Potentiometer	200 kΩ	20000A ² s	
SG469420	110A	200-460VAC	4-20mA	250 Ω	20000A ² s	

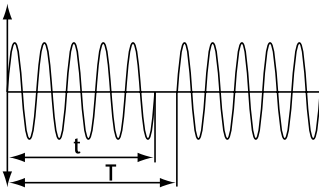
These products should be mounted on heatsink in order to reach nominal value.

SG5 RANGE - Full wave pulse controller

This relay has an analog input isolated from the mains to proportionally vary the cyclic operating ratio of a load (t/T). Control and mains are synchronous and output only has full periods. Models with LED and RC and VDR network protection.

These series of relays is suitable for many characteristics:

- Main voltage: 230VAC or 400VAC (50 ou 60Hz)
- Load current 10A, 40A
- Analog input 0 à 10V, 4 à 20mA, 0 à 5V or potentiometric (3rd terminal available).



PRODUCT REFERENCE	Switching current	Switching voltage	Control voltage	Input R	I ² t	Dimensions mm
SG541020	10A	230VAC	0-10VDC	250 kΩ	72A ² s	100 x 73,5 x 39,5
SG541120	10A	230VAC	Potentiometer	1 MΩ	72A ² s	
SG541420	10A	230VAC	4-20mA	350 Ω	72A ² s	
SG544020	40A	230VAC	0-10VDC	350 Ω	610A ² s	
SG544120	40A	230VAC	Potentiometer	1 MΩ	610A ² s	
SG564020	40A	400VAC	0-10V	250 kΩ	610A ² s	
SG564120	40A	400VAC	Potentiometer	1 MΩ	610A ² s	
SG564420	40A	400VAC	4-20mA	350 Ω	610A ² s	

For higher power ratings and three phases, ask for our application notes.

These products should be mounted on heatsink in order to reach nominal value.

Power under control!



- > Allows controlling any kind of loads (except capacitive) 3 or 4 wires (neutral), delta or star connection :
 - Resistive loads for temperature control (infrared lamps, kilns, resistors, ...)
 - Resistive loads for lighting control (bulbs, halogen, UV, scenes, ...)
 - Loads including a transformer, a coil or a rectifier for voltage control (power supplies, high voltage generators, ...)
 - Motors for voltage speed control (Possibility to reduce the speed depending on the type of motor and machine, motor fans, ...)
- > Six thyristor proportional phase angle controller (Three phase positive and negative cycle control) : Balanced currents, less harmonics, ...
- > Softstart and softstop ramps (Increases the lifetime expectancy of the assembly)
- > Diagnostic functions
- > Compact housing

SVTA - SWTA RANGE



READY TO USE - VALUES GIVEN AT 25°C AMBIENT

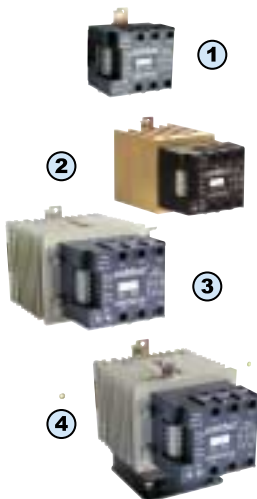
PRODUCT REFERENCE	Max. current AC51	Max. current AC53a	Control	Dimensions mm	Fig n _i
SVTA4610	7A	7A	0-10V	83x110x74	1
SVTA4620	22A	16A	0-10V	83x110x155	2
SVTA4630	32A	25A	0-10V	110x110x180	3
SVTA4631			Potentiometer		
SVTA4634			4-20mA		
SVTA4650	50A	30A	0-10V	110x141x180	4
SVTA46501 (*)					

* Fan 24 VDC.

PRODUCTS TO BE MOUNTED ON A HEATSINK

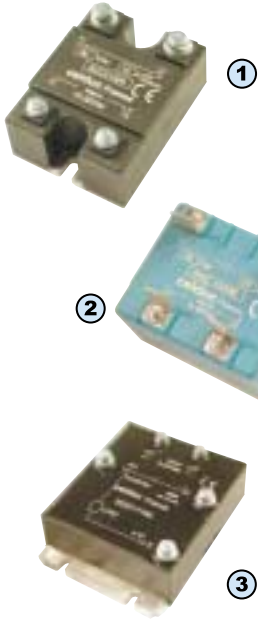
PRODUCT REFERENCE	Max. current AC511	Max. current AC53a	Control	Dimensions mm
SVTA4650	50A	16A	0-10V	100x76x58,5
SVTA4651			Potentiometer	
SVTA4684	95A(**)	25A	4-20mA	100x76x58,5
SVTA4690	125A(**)	30A	0-10V	100x76x58,5
SVTA4694			4-20mA	

** Max. wire size = 10mm² : double wires or use special adaptors for current > 50A.
Please refer to the mounting instructions.



SCC, SGC, SGD RANGE... DC Relays

This range of relays is designed to switch loads on DC networks such as solenoids, brakes, indicators... under voltages from 2 to 200 VDC with currents from 6 to 60A. 2 types of connections : screw on "FASTON" terminals.



PRODUCT REFERENCE	Switching current	Switching voltage	Control voltage	Input R	Specifications	Dimensions mm	Fig n°
SCC10506	5A	2-60VDC	3-16VDC	470 Ω	bipolar transistor DC output	44,5x58,2x27	①
SCC11506	15A	2-60VDC	3-16VDC	470 Ω			
SCC20506	5A	2-60VDC	10-32VDC	2200 Ω			
SCC21506	15A	2-60VDC	10-32VDC	2200 Ω			
SCC21520	15A	2-200VDC	10-32VDC	2200 Ω			
SGC12006	20A	2-60VDC	3-16VDC	470 Ω			
SGC20420	20A	2-200VDC	3-30VDC	1 kΩ	MOS transistor output	67x38x37,5	②
SGC22006	20A	2-60VDC	10-32VDC	2200 Ω			
SGD15100	30A	10-32VDC	3-32VDC	1500 Ω			
SGD17100	60A	10-32VDC	3-32VDC	1500 Ω			
SGD25100	30A	18-60VDC	3-32VDC	1500 Ω			
SGD27100	60A	18-60VDC	3-32VDC	1500 Ω			



Other DC relays under development : with MOSFET and IGBT 's technologies :

Output: 50 VDC → 150 A
 100 VDC → 100 A
 200 VDC → 100 A
 600 VDC → 20 A → Please contact us

FOUR-LEG SOLID STATE RELAYS

4 single phase SSRs in a SC case - save place in control panels (width 45 mm).



PRODUCT REFERENCE	Switching current	Switching voltage	Peak voltage	Control voltage	Input R	I't	Dimensions mm	Led
SCQ842000	4x25A	12-280VAC	600V	3-32VDC	I ≤ 10mA	288A²s	44,5x58,2x27	no
SCQ842060	4x25A	12-280VAC	600V	3-32VDC	I ≤ 10mA	288A²s	44,5x58,2x27	yes

These products should be mounted on heatsink in order to reach nominal value.

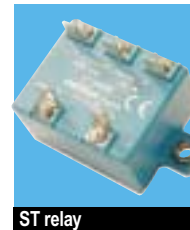
SPECIAL RELAYS



SAS relays
 Airport beacon relay.
 If a lamp fails, the relays short circuit this lamp.
 Different configurations available.



SG241010 relay
 230VAC mains.
 12A output voltage.
 Control by PLA type insulated contact
 Typical applications : heating breaking, etc



ST relay
 ST645000: flashing 1/2Hz 230VAC 10A.
 ST647000: flashing 1/2Hz 230VAC 25A.
 ST323000: flashing 1/2Hz 30-60VDC 10A.

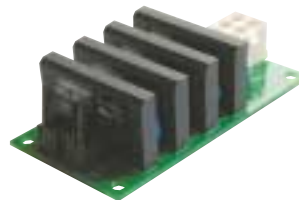


ECD05000 module
 Current detection module 0,5A. to 16A, 50-60Hz.
 Alarm output 30VDC 10ma.

celduc[®] relais is the specialist of typical customers applications.



4 SKLS
 5000 A² S on DIN Rail adaptators.



4 SKL
 on compact card.



This device using SSRs controls AC motors in hazardous area. Control by push-buttons with embedded magnet actuating Reed switches.

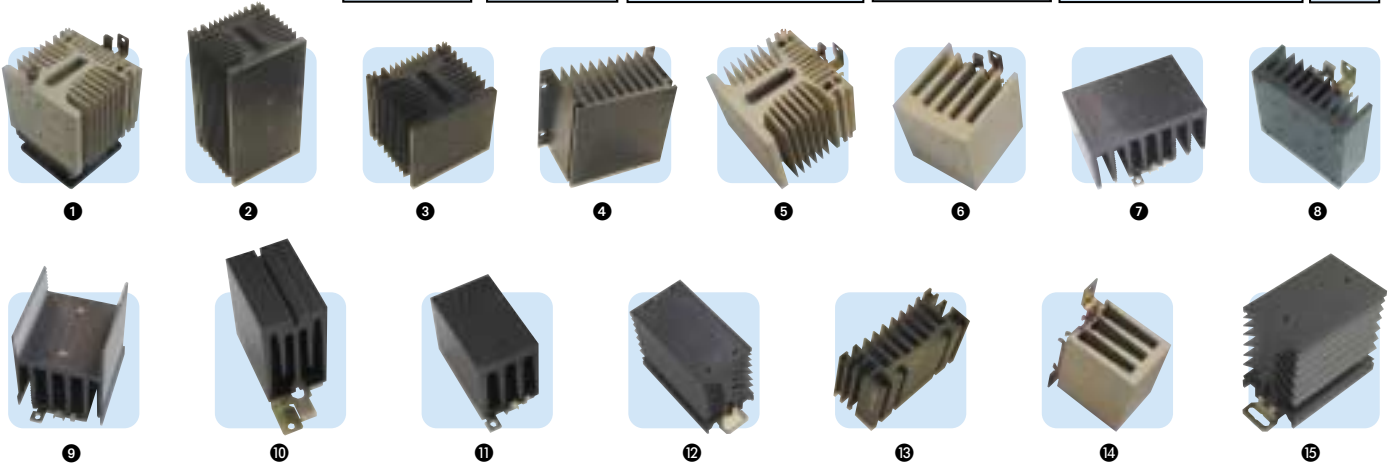
HEATSINKS

WF 23/27 ▶ see 1LWD.

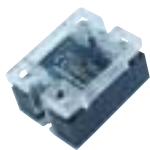
* The Rth value are given for a temperature of 50°C in calm air

** Other dimensions available on request

PRODUCT REFERENCE	Thermal characteristics	Specifications	Dimensions mm	Relay type	Fig n°
WF031100 *	0,3K/W	ventiled for DIN rail or screw	110x120x145	SC,SV, SG, SGT, SVT	1
WF050000	0,55K/W	DIN rail adaptator as option	110x100x200	SC,SV, SG, SGT, SVT	2
WF070000	0,75K/W	DIN rail adaptator as option	110x100x100	SC,SV, SG, SGT, SVT	3
WF092000	0,9K/W	to be screwed	120x75x120	SC,SV, SG, SGT, SVT	4
WF115100	0,9K/W	For DIN rail or screw	110x100x90	SC,SV, SG, SGT, SVT	5
WF131100	1,1K/W	For DIN rail or screw	83x90x90	SC, SV	6
WF120100	1,2K/W	For DIN rail or screw	112x60x80	SC,SV, SG, SGT, SVT	7
WF121000	1,2K/W	For DIN rail or screw	100x40x100	SC,SV, SG, SGT, SVT	8
WF129100	1,3K/W	For DIN rail or screw	74x91x77	SC, SV	9
WF141100	1,5K/W	For DIN rail or screw	45x84x65	SC, SV	10
WF191100	1,95K/W	For DIN rail or screw	48x65x80	SC, SV	11
WF152100	2,4K/W	For DIN rail or screw	45x73x70	SC, SV	12
WF210000**	2,1K/W	DIN rail adaptator as option	96x41x55	SC, SV	13
WF262100	2,2K/W	For DIN rail or screw	48x60x72	SC, SV	14
WF151200	2,2K/W	For DIN rail or screw	45x73x80	SC, SV	15



Accessories



PROTECTION COVERS

1K199000	ON SGT/SG9/SMC relays
1K460000	on SC relays (except SCB et SC 125A)
1K470000	assembling on all SC/SCB relays



SYMMETRICAL DIN RAIL ADAPTATORS

1LD00000	DIN rail adaptator for SC/SV8 horizontal mounting
1LD00400	DIN rail adaptator for WF21/16/13/07/05
1LD00500	DIN rail adaptator for SG/SVT/SV969300
1LD12020	DIN rail adaptator for SC/SV8 montage vertical

SCREW KIT

1LK00100	mounting on SC-SF-SV8/heatsink or SC-SV8/1LD12020
1LK00200	mounting on SG-SVT-SV9/heatsink or 1LD00500
1LK00300	mounting on heatsink/1LD00400 or SC-SV8/1LD00000

MOUNTING + HEATSINK + DIN ADAPTATOR OPTION

1LW23100	SC/SV mounting on WF23 + WF23100 + 1LD12020
1LW27100	SC/SV mounting on WF27 + WF27100 + 1LD12020
1LWD1202	SC/SV mounting on 1LD12020

RELAY/HEATSINK THERMAL SEALS

5TH15000	Thermal grease for 30 relays SG/SVT ou 60 relays SC/SV8
5TH21000	Thermal precut film for SC/SV

MOUNTING OPTION ONLY IF QUANTITY>10 (SCREW KIT INCLUDED)

1LW00000	mounting of relay on heatsink
1LWD00000	mounting of heatsink on DIN rail adaptator

APPLICATION NOTES

-> Application notes on request : a certain number of application notes are available to **celduc** customers

- Principle of solid state relays.
- Life expectancy of solid state relays: TMS² technology.
- Short circuit protection of solid state relays : fuses and circuit breakers.
- Application of solid state relays.
- Solid state relays on resistive loads (heating application).
- Three phase motor.
- Transformer control.
- Incandescent lamp control.
- Discharge lamp control.
- Refrigerated unit control.
- Categories of use of solid state relays.
- Solid state relays in emergency power supplies (UPS).
- Solid state relays on capacitive loads : power factor corrector (PFC) application.
- SCB relays in injection presses.
- Application of SKL et SKH relays.
- Softstart and reversing relays.
- Softstart relays in transformer control.
- Softstart relays in incandescent and infrared lamp control.
- Etc....