Three-phase Solid State Relays & Contactors

A visionary range

cel3pac

sightpac

MADE IN FRANCE

World leader in Solid-State power switching & control !

celduc® relais

www.celduc-relais.com

Three-phase Solid State Relays & Contactors

Superior design, easy to install, optimum lifespan and price-effectiveness are delivered with the new generation of three-phase Solid State Relays : cel3pac and sightpac ranges.

Performance & reliability :

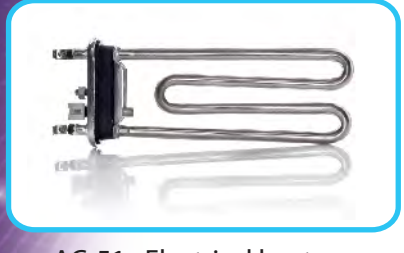
- Maximum peak voltage up to 1600V,
- Thyristor rating up to 125A,
- Using TMS^2 technology thyristors and RVF process (RoHs Void Free Process) for a longer lifespan (+40%),
- AC or DC input control available,
- IP20 protection on terminals with removable flaps,
- Protections available : RC snubber, VDR, TVS.

In conformity with :

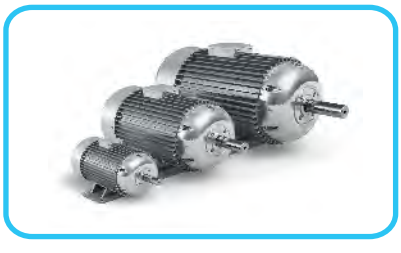
- IEC/EN60947-4-2 for motor control
- IEC/EN60947-4-3 for the other loads
- IEC 62314

CE RoHS COMPLIANT c UL us (End of 2017) CSA (End of 2017)

Typical applications :



• AC-51 : Electrical heaters



• AC-53 : Motors with a high rate of operations

• AC-55b : Infrared Lamps

Quick and easy connections :

	cel3pac	sightpac
	• 100mm version, • Low profile : Height 34.7mm, • Better performance terminals to reach higher thermal current limits, • Large power connections : up to 50mm^2 (AWG1)	• Compact 45mm version, • Fixing screws compatible with okpac® and celpac® ranges, • A visionary range with open future for optional modules.
Power wiring	With screws connection With spring terminals	With screws terminals With spring terminals
Control wiring	In standard with screws connection or with 4 pins pluggable spring connector (others on request)	With pluggable connector

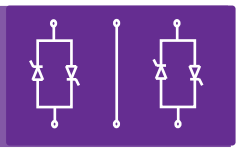
Other connections available on request

cel3pac Performance & Reliability

SGB 2G (2nd generation)

- 2 leg three-phase SSRs

This range is designed for controlling three phase loads connected in delta or, if balanced, connected in star without the neutral connection. Two of the three phases are switched by the SSR, the third being directly connected.



Reference	Max. Thyristor current	I^2t	Switching current AC-51 (at 40°C)	Switching current AC-53 (at 40°C)	Switching voltage	V peak	Control voltage	Protections
SGB8850200	2x50A	2 800A²s	3x50A	3x12A	24-640VAC	1600V	4-30VDC	VDR
SGB8890200	2x125A	22 000A²s	3x85A	3x32A	24-640VAC	1600V	4-30VDC	VDR

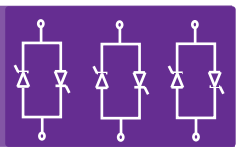
These products should be mounted on heatsink in order to reach nominal current.

Dim. 100 x 76,5 x 35,5 mm

SGT 2G (2nd generation)

- Three-phase SSRs
- Screws or spring connections

SGT7 : Random or instant switching.
SGT8 : Zero cross for most types of loads.
SGT9 : Zero cross for resistive loads AC-51



Reference	Max. Thyristor current	I^2t	Switching current AC-51 (at 40°C)	Switching current AC-53 (at 40°C)	Switching voltage	V peak	Control voltage	Protections	Fig. nr
SGT7650500	3x50A	2 800A²s	3x42A	3x12A	24-520VAC	1600V	4-30VDC	RC - VDR	1
SGT7690500	3x125A	22 000A²s	3x64A	3x32A	24-520VAC	1600V	4-30VDC	RC - VDR	

Dim. 100 x 76,5 x 35,5 mm

SGT8658500	3x50A	2 800A²s	3x42A	3x12A	24-520VAC	1600V	24-255VAC/DC	RC - VDR	1
SGT8670500	3x75A	7 200A²s	3x54A	3x16A	24-520VAC	1600V	4-30VDC	RC - VDR	
SGT8678500	3x75A	7 200A²s	3x54A	3x16A	24-520VAC	1600V	24-255VAC/DC	RC - VDR	
SGT8690500	3x125A	22 000A²s	3x64A	3x32A	24-520VAC	1600V	4-30VDC	RC - VDR	
SGT8698500	3x125A	22 000A²s	3x64A	3x32A	24-520VAC	1600V	24-255VAC/DC	RC - VDR	
SGT8850200	3x50A	2 800A²s	3x42A	3x12A	24-640VAC	1600V	4-30VDC	VDR	2
SGT8858200	3x50A	2 800A²s	3x42A	3x12A	24-640VAC	1600V	24-255VAC/DC	VDR	
SGT8859200	3x50A	2 800A²s	3x42A	3x12A	24-640VAC	1600V	90-280VAC/DC	VDR	
SGT8879200	3x75A	7 200A²s	3x54A	3x16A	24-640VAC	1600V	90-280VAC/DC	VDR	

Dim. 100 x 76,5 x 35,5 mm

SGT9834300	3x35A	1 250A²s	3x30A	-	24-660VAC	1600V	4-30VDC	TVS	1
SGT9854300	3x50A	2 800A²s	3x42A	-	24-660VAC	1600V	4-30VDC	TVS	
SGT9874300	3x75A	7 200A²s	3x54A	-	24-660VAC	1600V	4-30VDC	TVS	

SGT9854320	3x50A	2 800A²s	3x24A	-	24-660VAC	1600V	4-30VDC	TVS	2

SGT8650810	3x50A	2 800A²s	3x42A	3x12A	24-520VAC	1600V	4-30VDC	RC - VDR Temperature alarm	3

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

Version with internal temperature alarm

Dim. 100 x 76,5 x 35,5 mm

SGT 2G (2nd generation)

- "Ready to use" with heatsink
- Other models on request

SGT7 : Random or instant switching.
SGT8 : Zero cross for most types of loads.
SGT9 : Zero cross for resistive loads AC-51

Reference	Max. Thyristor current	I^2t	Switching current AC-51 (at 40°C)	Switching current AC-53 (at 40°C)	Switching voltage	V peak	Control voltage	Protec.	Dimensions mm	Fig. nr
SGT8658502	3x50A	2 800A^2s	3x24A	3x12A	24-520VAC	1600V	24-255VAC/DC	RC - VDR	98 x 89,8 x 104,7	1
SGT8698503	3x125A	22 000A^2s	3x48A	3x32A	24-520VAC	1600V	24-255VAC/DC	RC - VDR	110 x 110 x 150,2	2
SGT8698504	3x125A	22 000A^2s	3x64A	3x32A	24-520VAC	1600V	24-255VAC/DC	RC - VDR	145 x 110 x 149,7	3

Model numbers :

S	G	T	8	6	5	8	5	0	0

SSR

Series
G : 100mm
M : 45mm

Function
T : Three-phase
B : 2-leg 3-phase
R : Reverser

Specifications
7 : Random
8 : Zero-cross most type pf loads
9 : Zero-cross AC-51

Peak voltage
4 : 600V
6 : 1200V or 1600V
8 : 1600V

Thyristor rating
2 : 25A
3 : 35A
5 : 50A
7 : 75A
8 : 95A
9 : 125A

Control
0 : 4-30VDC high immunity
1 : 12-30VDC
4 : 4-30VDC standard
8 : 24-255VAC/DC
9 : 90-280VAC/DC

Options
0 : none
1 : RC
2 : VDR
3 : TVS
5 : RC+VDR
8 : Temperature+RC+VDR
9 : Auxiliary contact + RC + VDR

Connections
0 : Screw connections
1 : Control connector & screw terminals
2 : Control connector & spring terminals
3 :Control connector & screw power connector

Heatsink
0 : none
1 : 2K/W
2 : 1,1K/W
3 : 0,9K/W
4 : 0,3K/W

(For other models than those presented in this leaflet, please consult us)

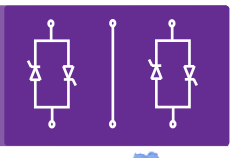
sightpac

New 45mm version
a visionary range

SMB

- 2 leg three-phase SSRs

This range is designed for controlling three phase loads connected in delta or, if balanced, connected in star without the neutral connection. Two of the three phases are switched by the SSR, the third being directly connected.



Reference	Max. Thyristor current	I^2t	Switching current AC-51 (at 40°C)	Switching current AC-53 (at 40°C)	Switching voltage	V peak	Control voltage	Protections
SMB8650510	2x50A	2 800A^2s	3x30A	3x12A	24-520VAC	1600V	4-30VDC	RC - VDR
SMB8850210	2x50A	2 800A^2s	3x30A	3x12A	24-640VAC	1600V	4-30VDC	VDR
SMB8670910	2x75A	7 200A^2s	3x35A	3x16A	150-520VAC	1600V	4-30VDC	RC - VDR + auxiliary contact

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

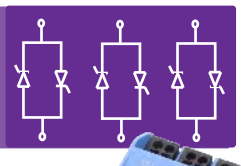
A SIL3 product with status or diagnostic

Dim. 45 x 100 x 48 mm

SMT

- Three-phase SSRs
- Input connector and spring power terminals

SMT7 : Random or instant switching.
SMT8 : Zero cross for most types of loads.
SMT9 : Zero cross for resistive loads AC-51



Reference	Max. Thyristor current	I^2t	Switching current AC-51 (at 40°C)	Switching current AC-53 (at 40°C)	Switching voltage	V peak	Control voltage	Protections
SMT8620520	3x25A	380A^2s	3x20A	3x5A	24-520VAC	1200V	4-30VDC	RC - VDR
SMT8628520	3x25A	380A^2s	3x20A	3x5A	24-520VAC	1200V	24-255VAC/DC	RC - VDR

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

Dim. 45 x 100 x 48 mm

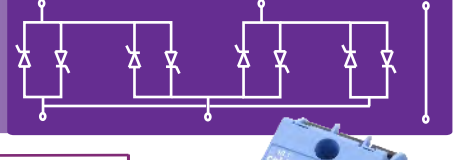
"Ready to use" version with integrated heatsink

SMT8628521	3x25A	380A^2s	3x17A	3x5A	24-520VAC	1200V	24-255VAC/DC	RC - VDR

SMR

- Three-phase motor reverser
- Input connector and spring power terminals

This range is used to reverse the rotational direction of a motor.

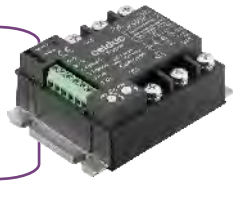


Reference	Max. Thyristor current	I^2t	Switching current AC-53 (at 40°C)	Switching voltage	V peak	Control voltage	Protections
SMR8621520	3x25A	380A^2s	3x5A	24-520VAC	1200V	12-30VDC	RC - VDR

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

Dim. 45 x 100 x 48 mm

See also our SG9, SV9 and SW9 products of AC Reversers up to 3x16A AC-53



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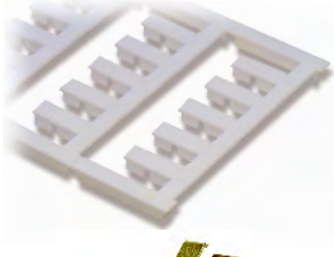
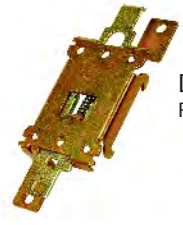
Accessories for cel3pac and sightpac



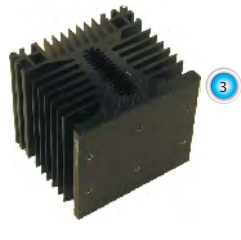
Marking labels to be mounted
on protection flaps or cover.
Ref : 1MZ09000



DIN-Rail adaptor (available for sightpac range)
Ref : 1LD00500

A large range of heatsinks

Reference	Thermal characteristics	Specifications	Dimensions in mm	Relay type	Fig. n°
WF031100	0,3K/W	ventilated for DIN rail or screw - fan supply 230Vac	110 x 120 x 145	SG, SM	1
WF031200	0,3K/W	ventilated for DIN rail or screw - fan supply 24Vdc	110 x 120 x 145	SG, SM	1
WF050000	0,55K/W	DIN rail adaptor not included	110 x 100 x 200	SG, SM	2
WF070000	0,75K/W	DIN rail adaptor not included	110 x 100 x 100	SG, SM	3
WF115100	0,9K/W	for DIN rail or screw	110 x 100 x 90	SG, SM	4
WF108110	1,1K/W	for DIN rail or screw	89,8 x 81 x 98,02	SM	5
WF121000	1,2K/W	for DIN rail or screw	96 x 41 x 55	SG, SM	6



Coming soon :
New range of heatsinks

Our distributor

www.celduc-relais.com

5, rue Ampère - BP 30004 - 42290 SORBIERS - FRANCE

Sales department for France - Tel : +33 (0)4 77 53 90 20
Sales department for Asia - Tel : +33 (0)4 77 53 90 19
Sales department for Europe - Tel : +33 (0)4 77 53 90 21
Sales department for America - Tel : +33 (0)4 77 53 90 19

Fax : +33 (0)4 77 53 85 51

celduc-relais@celduc.com

All technical characteristics are subject to change without previous notice - PLAQCEL3PACUK - April 2017