

Solid State Relays & Contactors

celpac[®] 2G

The 22,5mm pitch SSR solution !



MADE
IN FRANCE

Smart Solid State Relays
with optional modules



www.celduc-relais.com

Our range of Solid State Relays & Contactors

The requirement for enhanced design, ease of installation, optimum life and the most competitive price is delivered by the new generation of celpac products.

Performance & reliability :

- Fixing screws compatible with all hockey puck style relays (celduc SO and SC range),
- Maximum peak voltage up to 1600V (690VRMS), 600V and 1200V as standard,
- Thyristor rating up to 75A,
- Large input range : 3-32VDC with regulated current models,
- AC input control available,
- Input status yellow LED,
- Over-voltage protection on input,
- New generation of TMS² technology for thyristors for a longer life expectancy,
- Quick and easy connections,
- Designed according to European standards EN60947-4-3 (IEC947-4-3) and EN60950 (VDE0805 reinforced insulation) - IEC62314-UL-cUL,
- IP20 protection with removable flaps (SU range) or cover (SA range),
- Other protection devices available as an option : RC snubber, VDR, self turn-on.



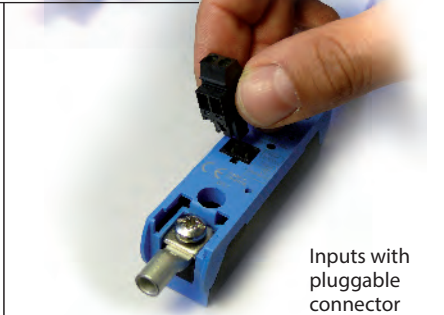
Price-effective and compact solution :

- The 22,5 mm pitch of our Solid State contactors reduces space to the minimum,
- Reduced assembling time, easy cabling,
- Reduced maintenance thanks to a very long life expectancy,
- One single screw driver for input and output.

Quick and easy connections :

SA range

SU range

Power connections		
Input connections	 <p>Inputs with screws</p>	 <p>Inputs with pluggable connector</p>

- Removable flaps for protection
- For mounting on your heatsink or panel mount

SU7 : designed for motors AC-53 and inductive loads.
Also use in phase angle control systems.
SU8 : designed for most types of loads / Integrated VDR protection
SU9 : typical applications : resistive loads AC-51

Reference	Thyristor rating	Switching voltage	V peak (V)	Control voltage	I ² t	Dimensions mm
SU765070	50A	24-510VAC	1200V	3,5-32VDC	1680A ² s	22,5 x 90 x 42
SU842070	25A	12-275VAC	600V	3-32VDC	600A ² s	
SU842970	25A	12-275VAC	600V	180-240VAC	600A ² s	
SU865070	50A	24-510VAC	1200V	3,5-32VDC	1680A ² s	
SU865970	50A	24-510VAC	1200V	180-240VAC	1680A ² s	
SU867070	75A	24-510VAC	1200V	3,5-32VDC	7200A ² s	
SU942460	25A	12-280VAC	600V	3-32VDC	600A ² s	
SU963460	35A	24-600VAC	1200V	3,5-32VDC	882A ² s	
SU965460	50A	24-600VAC	1200V	3,5-32VDC	1680A ² s	
SU967460	75A	24-600VAC	1200V	3,5-32VDC	7200A ² s	



SUL/SUM/SUH

- Removable flaps for protection
- "Ready to use" on 22,5 and 45mm heatsinks

SUx7 : designed for motors AC-53 and inductive loads.
Also use in phase angle control systems.
SUx8 : designed for most types of loads / Integrated VDR protection
SUx9 : typical applications : resistive loads AC-51

Reference	Thyristor rating	Max. switching current at 25°C	Switching voltage	V peak (V)	Control voltage	I ² t	Dimensions mm
SUL765070	50A	32A	24-510VAC	1200V	3,5-32VDC	1680A ² s	22,5 x 90 x 112
SUL842070	25A	23A	12-275VAC	600V	3-32VDC	600A ² s	
SUL842770	25A	23A	12-275VAC	600V	18-30VAC/DC	600A ² s	
SUL842970	25A	23A	12-275VAC	600V	160-240VAC	600A ² s	
SUL865070	50A	32A	24-510VAC	1200V	3,5-32VDC	1680A ² s	
SUL865770	50A	32A	24-510VAC	1200V	18-30VAC/DC	1680A ² s	
SUL865970	50A	32A	24-510VAC	1200V	160-240VAC	1680A ² s	
SUL867070	75A	35A	24-510VAC	1200V	3,5-32VDC	7200A ² s	
SUL942460	25A	23A	12-280VAC	600V	3-32VDC	600A ² s	
SUL963460	35A	30A	24-600VAC	1200V	3,5-32VDC	882A ² s	
SUL965460	50A	32A	24-600VAC	1200V	3,5-32VDC	1680A ² s	
SUL967460	75A	35A	24-600VAC	1200V	3,5-32VDC	7200A ² s	
SUM865070	50A	45A	24-510VAC	1200V	3,5-32VDC	1680A ² s	45 x 90 x 112
SUM867070	75A	45A	24-510VAC	1200V	3,5-32VDC	7200A ² s	
SUH967460	75A	50A	24-600VAC	1200V	3,5-32VDC	7200A ² s	50 x 120 x 118



Two modules are available directly pluggable on our SU and SUL
Save room / Save costs / Add more functions !

ESUC - Current monitoring module

ESUC module allows to make a diagnostic up to 5 heating elements in parallel.

- Permanent load current monitoring,
- Current teaching function,
- Two alarm thresholds (+/-16%),
- Partial load break detection,
- Open load detection,
- Detection of short-circuited SSR.

Product Ref.	Current range	Control
ESUC0450	2-40A	8-30VDC
ESUC0480	2-40A	24-45VDC



ECOM0010 - Temperature controller PID, current monitor and communication interface in one unit

The ECOM is the most compact solution available on the market that puts together the latest measuring and control technology. Pluggable on a celduc[®] relais SSR type SU and SUL, it can answer the needs of cost reduction of electrical cabinets (smaller), PLC (less analogue and digital I/O's) and wiring (bus communication).

- Temperature controller with thermocouple input, loop and heater break alarms, heating and cooling PID autotuning ...
- Current monitoring and alarms up to 50A with current transformer (CT)
- RS485 communication with MODBUS RTU (others on request)
- Pluggable module on a 22,5mm pitch SSR
- J, K, T, E thermocouples
- Auxiliary output for cooling, alarm or 3 phase application control

Main features

Box	Module 22,5mm celduc relais SU and SUL ranges
Power supply	24Vdc +/- 10% (galvanically isolated from RS485 and input)
Sealing	IP20 (Box and Terminal blocks)
Quick set-up options	Software LABSOFTVIEW (in cooperation with Pixsys)
Thermocouple input	1 selectable input TC : K, J, T, E
Current Transformer	Integrated C.T. with 50A - resolution 0,1A
1 auxiliary output (alarm...)	Configurable, 24 Vdc - 50mA max.
Serial communication	RS485 Modbus RTU - Slave (9600... 115200 Baud)
Control algorithms	ON-OFF with hysteresis, P., P.I., P.I.D., P.D. time proportioned
Tuning	Manual or automatic
Alarm mode	Absolute / Threshold, band, High / Low deviation. Loop Break Alarm function
Auto/Man function	Output percentage command with automatic change in case of sensor failure
Double P.I.D.	Heating / Cooling P.I.D.

SA

- Transparent protective cover
- For mounting on your heatsink or panel mount

SA8 : Designed for most types of loads
Integrated VDR protection

SA9 : Typical applications : resistive loads AC-51

Reference	Thyristor rating	Switching voltage	V peak (V)	Control voltage	I ² t	Dimensions mm
SA842070	25A	12-275VAC	600V	3-32VDC	600A ² s	22,5 x 90 x 42
SA941460	12A	12-280VAC	600V	3-32VDC	128A ² s	
SA942460	25A	12-280VAC	600V	3-32VDC	450A ² s	
SA945460	50A	12-280VAC	600V	3-32VDC	1680A ² s	
SA963460	35A	24-600VAC	1200V	3,5-32VDC	882A ² s	
SA965460	50A	24-600VAC	1200V	3,5-32VDC	1680A ² s	



SAL/SAM

- Transparent protective cover
- "Ready to use" on 22,5 and 45mm heatsinks

SA9 : Typical applications : resistive loads AC-51

Reference	Thyristor rating	Max. switching current at 25°C	Switching voltage	V peak (V)	Control voltage	I ² t	Dimensions mm
SAL941460	12A	12A	12-280VAC	600V	3-32VDC	128A ² s	22,5 x 90 x 112
SAL942460	25A	23A	12-280VAC	600V	3-32VDC	450A ² s	
SAL963460	35A	30A	24-600VAC	1200V	3,5-32VDC	882A ² s	
SAL965460	50A	32A	26-600VAC	1200V	3,5-32VDC	1680A ² s	
SAM943460	35A	32A	12-280VAC	600V	3-32VDC	882A ² s	45 x 90 x 112

SAL



SAL/SAM with low input current - control current < 10mA

SAL961360	15A	15A	24-600VAC	1200V	6-32VDC	882A ² s	22,5 x 90 x 112
SAL962360	25A	23A	24-600VAC	1200V	6-32VDC	882A ² s	
SAM963360	35A	32A	24-600VAC	1200V	6-32VDC	882A ² s	45 x 90 x 112
SAM965360	50A	45A	26-600VAC	1200V	6-32VDC	1680A ² s	

SAM



Accessories for celpac[®]



Removable protection flaps
(for SA and SU ranges)
Standard for SU range
Ref : 1K523000



Protection cover
(standard for SA range)
Ref : 1K522000



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



Removable connectors (screw terminals, spring terminals)

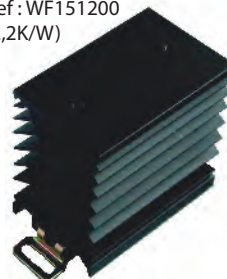


A large range of heatsinks

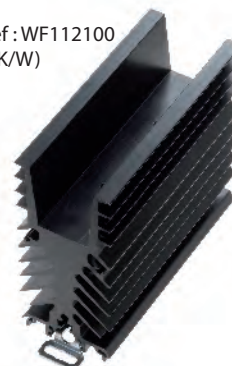
Ref : WF311100
(3K/W)



Ref : WF151200
(2,2K/W)



Ref : WF112100
(1K/W)



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