



### SO8 range (high voltage)

Typical applications : High voltage and AC-56b loads (capacitive)

Reference	Output voltage	Output current	Vpeak (V)	Control voltage
SO885060	24-690VAC	50A	1600V	3,5-32VDC
SO887060	24-690VAC	75A	1600V	3,5-32VDC
SO888060	24-690VAC	95A	1600V	3,5-32VDC
SO889060	24-690VAC	125A	1600V	3,5-32VDC

- Zero cross with low zero-cross level (<12V)
- Voltage protection on input (transil) with very high immunity according to IEC/EN61000-4-4
- IP20 protection
- Regulated input current
- Control status LED

### SO7 range

Typical applications : Motors (AC-53), inductive loads and phase angle control applications

Reference	Output voltage	Output current	Vpeak (V)	Control voltage
SO745090	12-275VAC	50A	600V	3-32VDC
SO747090	12-275VAC	75A	600V	3-32VDC
SO763090	24-510VAC	35A	1200V	3,5-32VDC
SO765090	24-510VAC	50A	1200V	3,5-32VDC
SO767090	24-510VAC	75A	1200V	3,5-32VDC
SO768090	24-510VAC	95A	1200V	3,5-32VDC
SO769090	24-510VAC	125A	1200V	3,5-32VDC



- Random with turn on time < 50 microseconds
- Voltage protection on input (transil) and output (RC+VDR) with very high immunity according to IEC/EN61000-4-4 and IEC/EN61000-4-5
- IP20 protection
- Regulated input current
- Control status LED

### SO9 range

Typical applications : Resistive loads (AC-51)

SO9 range with input current regulator



- Zero cross
- Regulated input current
- Voltage protection on input (transil)
- Control status LED
- RC and VDR as options
- IP20 protection flaps only on request\*

Reference	Output voltage	Output current	Vpeak (V)	Control voltage
SO941460	12-280VAC	12A	600V	3-32VDC
SO942460	12-280VAC	25A	600V	3-32VDC
SO943460	12-280VAC	35A	600V	3-32VDC
SO945460	12-280VAC	50A	600V	3-32VDC
SO963460	24-600VAC	35A	1200V	3,5-32VDC
SO965460	24-600VAC	50A	1200V	3,5-32VDC
SO967460	24-600VAC	75A	1200V	3,5-32VDC

SO9 range without input current regulator

- Zero cross
- Control status LED
- RC and VDR as options
- IP20 protection flaps only on request\*

Reference	Output voltage	Output current	Vpeak (V)	Control voltage
SO942560	12-280VAC	25A	600V	7-30VDC
SO942860	12-280VAC	25A	600V	15-32 VAC/10-30 VDC
SO942960	12-280VAC	25A	600V	185-265 VAC/DC
SO963560	24-600VAC	35A	1200V	8-30VDC
SO965560	24-600VAC	50A	1200V	8-30VDC
SO967560	24-600VAC	75A	1200V	8-30VDC

\* order the flaps separately for outputs and / or inputs if needed (AC control)



## ACCESSORIES FOR okpac®



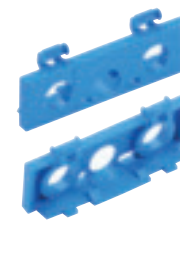
Heatsink 2,2 K/W



DIN Rail adaptor



Thermal pad

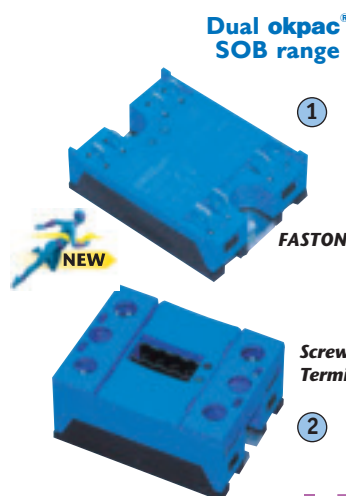


Protection flaps



Heatsink 1,1 K/W

Our okpac® range has been extended :



Dual okpac® SOB range

①

FASTON

②

Screw Terminals

New generation of proportional controllers SO4 and SO5 range

DC relays SOM range

Ready to use okpac®

celduc® relais, expert in Solid State Relays and contactors...



OUR PRODUCTS ARE SUITABLE FOR ALL KINDS OF LOADS :

- PLC Interface,
- Heating,
- Motor starting,
- Lighting,
- Transformers...



Rue Ampère - BP4 - 42290 Sorbiers - France  
Tél : +33 (0)4 77 53 90 20 - Fax : +33 (0)4 77 53 85 51  
Tél. export : +33 (0)4 77 53 90 21

www.celduc.com celduc-relais@celduc.com



Our distributor



# okpac®

## Innovative power Solid State Relays



INSTALL IT - FORGET IT

PROUD TO SERVE YOU

All technical characteristics are subject to change without previous notice. Imprimerie du Forez - Freynet Frères - PLAQ.S002 - Janvier 2005 - 5000 ex.

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relais

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# Solid State Relays okpac®



## Innovation, Performance & Design !

okpac® range designed for professionals

### Innovation



- Screw connection up to 50mm<sup>2</sup>
- Removable control terminals
- Removable IP20 flaps
- Versatile, easy and quick connections
- Same screwdriver for outputs and inputs
- Tightening on metal baseplate not on plastic
- SSR, mains and load status
- Less potting resin : environmentally friendly
- 25 to 30% lighter than standard series
- Only 29mm high
- Screw with brake washers : better shocks and vibrations withstand

### • Versatile, easy and quick connections



**Direct connection by wire or tip**  
2 x 6 mm<sup>2</sup> (AWG10) fine strand i.e. 32A  
2 x 10 mm<sup>2</sup> (AWG8) solid i.e. 50A



**With tips with contained palm**  
Up to 25mm<sup>2</sup> (AWG4) i.e. 85A  
Up to 50mm<sup>2</sup> (AWG1)  
with or without special adaptations i.e. 150A



**Screw with brake washers**  
Better behaviour with shocks and vibrations



**Fastons on request**

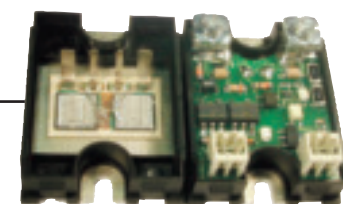


**Screws connection**



**Removable spring terminals**

### Performance



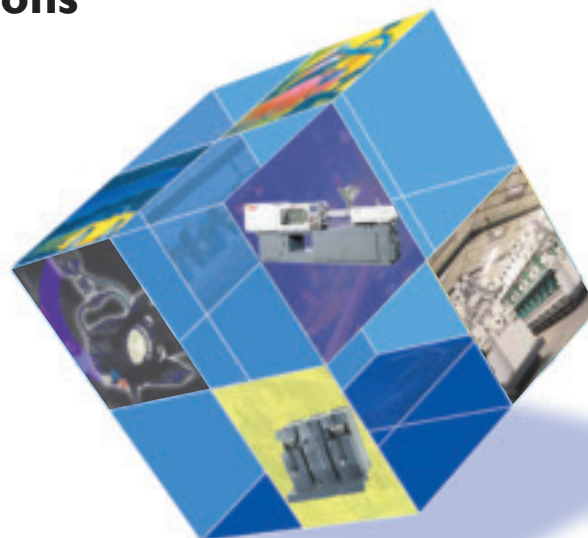
- Designed for all types of loads
- Currents from 12 to 125A
- TMS<sup>2</sup> technology with very long life time expectancy
- Output voltage from 24 to 690VAC (600V-1200V-1600V peak)
- Very low zero-cross level
- Large and regulated AC and DC input voltage
- Control status LED
- High immunity opto-couplers
- Very high immunity according IEC/EN61000-4-4 (bursts) and IEC/EN61000-4-5 (spikes) : 4KV with no change of state
- EMC compatible for industrial environment
- UL/cUL, VDE (EN60950), IEC/EN60947-4-3, CE marking
- I<sub>tsm</sub> up to 2000A and I<sup>2</sup>t up to 24 000A<sup>2</sup>s allowing loads with high inrush current and protection against short-circuits by circuit breaker

### • Typical applications

✓ Injection moulding machines for plastic or rubber

✓ Industrial ovens / soldering machines

✓ Coffee machines



✓ Medical equipment

✓ Packaging machines

✓ Machines for the textile industry

✓ Industrial or scene lighting

### • Standard characteristics

	SOxx1xxx	SOxx2xxx	SOxx3xxx	SOxx5xx	SOxx7xxx	SOxx8xxx	SOxx9xxx
Nominal current	12 A	25 A	35 A	50 A	75 A	95 A	125 A
I <sub>tsm</sub> (10ms) min	120 A	250 A	400 A	550 A	1000 A	1500 A	2000 A
I <sub>2t</sub> (A2s) < 10ms (typical)	128A <sup>2</sup> s	600A <sup>2</sup> s	1250A <sup>2</sup> s	2500A <sup>2</sup> s	7200A <sup>2</sup> s	14400A <sup>2</sup> s	24000A <sup>2</sup> s
R <sub>thj/c</sub>	2,3K/W	1,7K/W	0,6K/W	0,45K/W	0,4K/W	0,3K/W	0,25K/W
Operating temperature	-55 to +80°C			-40 to +80°C			
Storage temperature	-55 to +125°C			-40 to +125°C			
Input/Output insulation	4000VMRS						
U <sub>imp</sub>	4000V						
Pollution level	2						

### okpac® range with system diagnostics

PATENTED

SSR, mains and load status

Typical applications : Heating (AC-51) and incandescent or infrared lamps (AC-55b)



- Zero cross with low zero-cross level (<12V)
- Voltage protection on output (RC)
- IP20 protection
- Control status LED and system diagnostics LED
- Diagnostic output without external power supply. These outputs can be chained

Reference	Output voltage	Output current	V <sub>peak</sub> (V)	Control voltage
SOD843180	50-265VAC	35A	600V	7-30VDC
SOD845180	50-265VAC	50A	600V	7-30VDC
SOD865180	150-510VAC	50A	1200V	7-30VDC
SOD867180	150-510VAC	75A	1200V	7-30VDC

### SOR range

With removable input connector – Spring terminals :  
Designed for most types of loads.

Reference	Output voltage	Output current	V <sub>peak</sub> (V)	Control voltage
SOR842074	12-275VAC	25A	600V	3-32VDC
SOR863070	24-510VAC	35A	1200V	3,5-32VDC
SOR865070	24-510VAC	50A	1200V	3,5-32VDC
SOR867070	24-510VAC	75A	1200V	3,5-32VDC
SOR967560	24-600VAC	75A	1200V	8-30VDC

- Zero cross with low zero-cross level (<12V)
- Voltage protection on input (transil) and output (VDR) with very high immunity according to IEC/EN61000-4-4 and IEC/EN61000-4-5
- IP20 protection
- Regulated input current
- Control status LED
- Double inputs

Our SO7, SO8 and SO9 ranges can be designed with this type of connection on request.

### SO8 range

Designed for most types of loads.  
(For three phase motors or very inductive loads we recommend the use of our SO7 random range).

- Zero cross with low zero-cross level (<12V)
- Voltage protection on input (transil) and output (VDR) with very high immunity according to IEC/EN61000-4-4 and IEC/EN61000-4-5. For SO8xxx40 : transient proof by self-protection (Triacs turn on in case of overvoltage)
- IP20 protection
- Regulated input current
- Control status LED

Reference	Output voltage	Output current	V <sub>peak</sub> (V)	Control voltage
SO842074	12-275VAC	25A	600V	3-32VDC
SO842974	12-275VAC	25A	600V	20-265VAC/DC
SO843070	12-275VAC	35A	600V	3-32VDC
SO843970	12-275VAC	35A	600V	20-265VAC/DC
SO845070	12-275VAC	50A	600V	3-32VDC
SO847070	12-275VAC	75A	600V	3-32VDC
SO848070	12-275VAC	95A	600V	3-32VDC
SO849070	12-275VAC	125A	600V	3-32VDC
SO863070	24-510VAC	35A	1200V	3,5-32VDC
SO863970	24-510VAC	35A	1200V	20-265VAC/DC
SO865040	24-510VAC	50A	1200V	3,5-32VDC
SO865070	24-510VAC	50A	1200V	3,5-32VDC
SO865970	24-510VAC	50A	1200V	20-265VAC/DC
SO867040	24-510VAC	75A	1200V	3,5-32VDC
SO867070	24-510VAC	75A	1200V	3,5-32VDC
SO867970	24-510VAC	75A	1200V	20-265VAC/DC
SO868070	24-510VAC	95A	1200V	3,5-32VDC
SO868970	24-510VAC	95A	1200V	20-265VAC/DC
SO869070	24-510VAC	125A	1200V	3,5-32VDC
SO869970	24-510VAC	125A	1200V	20-265VAC/DC

