OUR SOLUTIONS

okpac®

# Single phase Solid State Relays up to 125A / 690Vac

celduc® relais

TRUST THE MOST ICONIC
SSR WORLDWIDE !

10-2021

okpac® range of panel mount solid state relays is celduc's well known family of SSRs. Its 45 mm hockey puck industrial housing is quick to install. More than 20 million okpac® Solid State Relays are used worldwide.

All the key features you are looking for are available.

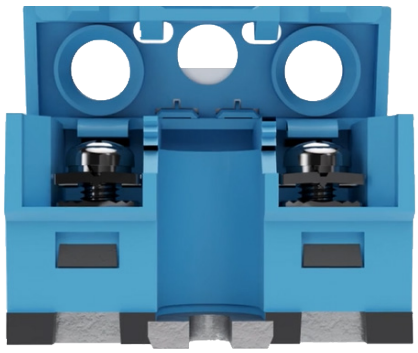
okpac®

TRUST THE MOST ICONIC
**SSR WORLWIDE!**

MORE THAN **20 MILLION** OF OKPAC®
SOLID STATE RELAYS **USED WORLDWIDE**!

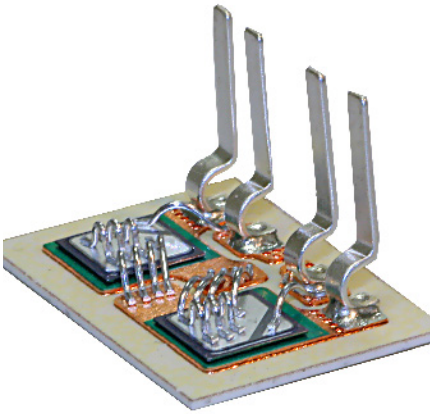
# 1-Integrated removable covers for IP20 protection

IP20 protection is in standard for our okpac® range of panel mount solid state relays, thanks to their removable flaps.



# 2- Very long life expectancy

Very long life expectancy thanks to our TMS² technology. All our solid state relays are fitted with back-to-back thyristors and use fourth generation TMS² technology with a very long service life compared to the majority of products on the market.



celduc's Solid State Relays are manufactured with Wire bonding Technology. The copper clips of the "Standard" technology, used by the majority of Solid State Relay manufacturers, are replaced by bonding wires with several anchor points that can withstand significant overload currents.

Wire bonding Technology is fully automatic, giving rise to total control of the production process. In addition, the connections between the wires and the chip are tested after connection (pull test) and by sampling (pull and shear tests). This increases the product's reliability.

These differences in Technologies explain why **celduc's SSRs last longer** (lifetime tests results on request)..

# 3- Multiple, simple and fast connections

POWER WIRING

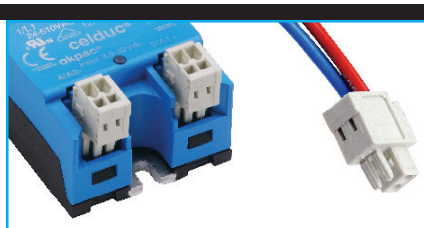
**Direct connection by wire or tip**
2 x 6 mm2 (AWG10) fine strand i.e. 32A
2 x 10 mm2 (AWG8) solid i.e. 50A

**With tips with contained palm**
Up to 50mm² (AWG1) with or without special adaptations i.e. 150A

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

CONTROL WIRING

**Screws connection**
(SO7 / SO8 / SO9 / SOL)



**Removable spring terminals**
(SOR)

# 4- A wide range up to 125 amps and 660V for every application

Our okpac® range of panel mount solid state relays is available **up to 125 amps with an output voltage from 24 to 690 VAC** (600V-1200V-1600V peak). Solid State Relays must be mounted on heatsinks in order to reach nominal performances.

celduc® supplies «ready to use» solutions with built-in heatsinks.

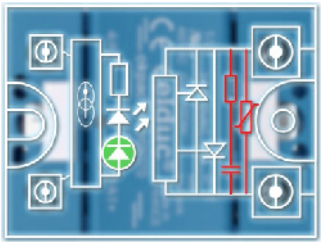
## REMINDER

**SO7** RANDOM
**SO8** ZERO-CROSS FOR ALL KINDS OF LOADS / HEAVY DUTY LOADS
**SO9** ZERO-CROSS FOR STANDARD INDUSTRIAL LOADS / RESISTIVE LOADS

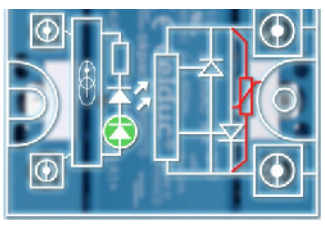
**For resistive or capacitive loads, it is preferable to use zero-cross relays** which can limit the di/dt, disturbances on the network and increase the service life of the load and the relay.

**Random relays are used for all inductive loads** where the phase shift between voltage and current can cause problems with zero-crossing relays. They are also used in applications where precise control of power to the load is required (phase-control applications).

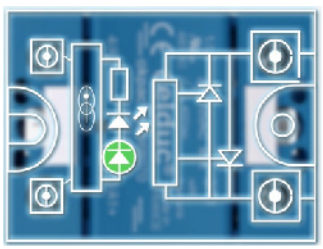
Our SO7 series is Random (or instantaneous) control.



Our SO8 series is Zero-cross and can handle several load types (heavy duty loads) thanks to its higher immunity levels (to burst transients & surges). This product series also offers Varistor protection on the input and output.



Our SO9 series is Zero-cross and suitable for standard industrial loads such as AC-51resistive loads.



# 5- Part numbering system


**Case**

**O** : Standard single phase
**OP** : Peak starting
**OR** : Spring terminals
**OD** : Diagnostic
**OL** : Flatpac

**Options**

**0**: Without
**4**: TRANSIL on the gate with LED
**6**: LED
**7**: LED+ VDR
**8**: RC+LED
**9**: RC+VDR+LED

**Output voltage**

**4** : 230Vac (600Vp)
**6**: 400Vac (1200Vp)
**8** : 690Vac (1600Vp)

**Others**

**0**: Standard
**4**: 4kV insulation or VDE (for I<40A only)
**H**: High efficency
**T**: Thermal Pad

**Series**

**4** : Phase angle controller
**3** : Burst control mode
**7** : Random
**8** : Zero-cross (heavy duty loads)
**9** : Zero-cross (resistive loads)

**Output curent**

**1**: 10/12A
**2**: 25A
**3**: 35A
**5**: 50A
**7**: 75A
**8**: 95A
**9**: 125A

**Control voltage**

**0**: 3(3,5) → 32Vdc
**4**: 3(3,5) → 32Vdc
**8**: 15 → 32 Vac
**9**: 20 → 265Vac/dc

Thanks for reading


www.celduc-relais.com