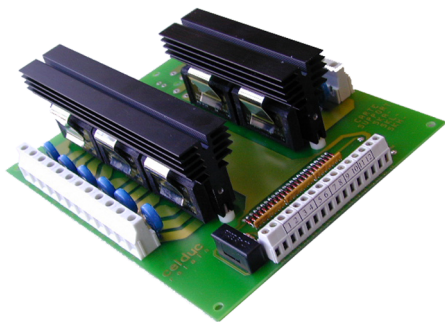


PCB mount Solid State relays



As industrial equipment becomes more compact and efficient, PCB mount Solid State Relays (SSRs) offer an ideal switching solution. Combining a small footprint with long service life, silent operation, zero-cross switching, low power consumption, and outstanding resistance to shock and vibration, they help designers optimize both performance and space.

celduc® relais PCB mount SSRs are available in a variety of AC and DC switching configurations, providing flexible and reliable solutions for demanding industrial applications.



Advantages

High Performance

- Designed to support increasingly compact and efficient industrial systems, **celduc® relais** PCB mount Solid State Relays combine proven reliability, long-term durability, and high switching performance. Decades of application expertise and continuous innovation ensure dependable operation in demanding environments.

New generation TMS² technology

- Selected **celduc® relais** PCB mount SSRs feature our proprietary fourth-generation TMS² technology, based on back-to-back thyristors mounted on a ceramic substrate with bonded-wire connections. This advanced design minimizes thermal stress, enhances reliability, and significantly extends product lifetime. Continuous improvements in our manufacturing processes further increase endurance and switching cycle performance.

Integrated Voltage Protection

- Built-in voltage protection helps safeguard the relay and the connected equipment against electrical transients and overvoltage events, contributing to improved system reliability and longer service life.

Exceptional EMC Immunity

- **celduc® relais** PCB mount Solid State Relays are engineered to provide outstanding immunity to electromagnetic disturbances. Their robust design ensures reliable operation in electrically noisy industrial environments while helping maintain compliance with EMC requirements.

100% Tested for Reliability

- Every **celduc® relais** Solid State Relay undergoes comprehensive functional and insulation testing before shipment. This 100% testing policy guarantees reliable operation and secure isolation between control and power circuits, ensuring maximum product quality and performance.

1- AC output models

SK5

Normally closed contact

Solid State Relays are usually designed to be “Normally Open – NO” devices. However, “Normally Closed – NC” Solid State Relay solutions are also possible for both AC and DC switching. A NO Solid State Relay allows the output current to flow when there is a voltage present on the control input. An NC Solid State Relay has the inverse operation, i.e. the output contact(s) are initially closed and they open when a control signal is applied.



● Dim. 40 x 11 x 21 mm

Product reference	Max. switching current	Switching voltage	Control voltage	LED	I ² t	Protec.	Specifications
SK541101	2.5A	24-280VAC	3-30VDC	non	50A ² s	–	Zero-cross / Normally closed

- SKA can switch currents up to 5A, switch voltages of 230 or 400VAC and it has built-in voltage protection. This range is ideal for motor control applications, electrovalves and resistive loads.
- SKB can switch currents up to 5A, switch voltages of 230 or 400VAC and is only used for controlling resistive loads.



Dim. 43.2 x 10.2 x 25.4 mm

Product reference	Max. switching current	Switching voltage	Control voltage	LED	I ² t	Protec.	Specifications
SKA10420	5A	12-275VAC	2.5-10VDC	no	50A ² s	VDR	Zero-cross / most types of loads
SKA10440	5A	12-460VAC	2.5-10VDC	no	50A ² s	VDR	Zero-cross / most types of loads
SKA11440	5A	12-460VAC	3-10VDC	yes	50A ² s	VDR	Zero-cross / most types of loads
SKA20420	5A	12-275VAC	4-30VDC	no	50A ² s	VDR	Zero-cross / most types of loads
SKA20421	5A	12-275VAC	3-30VDC	no	50A ² s	VDR	Random / most types of loads
SKA20440	5A	12-460VAC	4-30VDC	no	50A ² s	VDR	Zero-cross / most types of loads
SKA20441	5A	12-460VAC	3-30VDC	no	50A ² s	VDR	Random / most types of loads
SKA20460	5A	24-600VAC	5-30VDC	no	72A ² s	—	Zero-cross / most types of loads
SKA21441	5A	12-460VAC	7-30VDC	yes	50A ² s	VDR	Random / most types of loads
SKB10420	5A	12-280VAC	3-10VDC	no	50A ² s	—	Zero-cross / resistive loads
SKB10440	5A	24-600VAC	3.7-10VDC	no	72A ² s	—	Zero-cross / resistive loads
SKB20420	5A	12-280VAC	8-30VDC	no	50A ² s	—	Zero-cross / resistive loads

SKL

The SKL Series is manufactured with a ceramic substrate which allows the relay to be mounted on a heatsink for maximum thermal dissipation. The power element of our SKL uses TMS² technology. This design reduces thermal stress and considerably improves the life expectancy of the product. The SKL Series is available with current ratings from 16A to 75A and is ideal for motor or lamp control with high inrush currents (I²t up to 5000 A²s) as well as heating applications. This product range can easily be protected against short circuits by adding micro circuit breakers in the system design.



Dim. 43.2 x 6.3 x 24.5 mm

Product reference	Thyristor rating	Max. switching current with heatsink	Switching voltage	Control voltage	I ² t	Specifications
SKL10120	16A	16A	12-280VAC	4-14VDC	128A ² s	Zero-cross
SKL10220	25A	21A	12-280VAC	4-14VDC	312A ² s	Zero-cross
SKL10240	25A	22A	24-600VAC	4-14VDC	450A ² s	Zero-cross
SKL10260	40A	22A	24-690VAC	4-14VDC	1150A ² s	Zero-cross
SKL10521	50A	27A	12-280VAC	3-14VDC	2450A ² s	Random
SKL10540	50A	27A	24-600VAC	4-14VDC	1800A ² s	Zero-cross
SKL10560	50A	27A	24-690VAC	4-14VDC	1800A ² s	Zero-cross
SKL20120	16A	16A	12-280VAC	8-32VDC	128A ² s	Zero-cross
SKL20220	25A	21A	12-280VAC	8-32VDC	312A ² s	Zero-cross
SKL20240	25A	22A	24-600VAC	8-32VDC	450A ² s	Zero-cross
SKL20241	25A	22A	24-600VAC	8-32VDC	450A ² s	Random
SKL20740	75A	30A	24-600VAC	8-32VDC	5000A ² s	Zero-cross

SLA

Miniature size

SLA solid state relays are 100% compatible with 5 mm wide electromechanical relays. They can be soldered directly on to PCBs or plugged into all types of DIN rail standard bases. These relays can switch all types of loads and they can withstand significant current surges from loads in electrovalves, motors, contactor coils, LEDs, etc. The switching power for SLA relays is 2A/280VAC.

Product reference	Max. switching current	Switching voltage	Control voltage	Protec. / Specifications
SLA03220	2A	12-280VAC	18-32VDC	RC / AC Random output
SLA03220L	2A	12-280VAC	18-32VDC	RC / AC Random output*

*Very low leakage current model



SLA
● Dim. 28 x 5 x 15mm

SPA/STA

Standard size

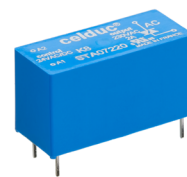
AC range from 1 to 5A, with built-in protection (VDR or Transil), available in heights of 15.7 mm (ST Series) and 25.4 mm (SP Series).

CE EAC UK

UL US CE EAC UK



SPA
● Dim. 29 x 12.7 x 25.4 mm



STA
● Dim. 29 x 12.7 x 15.7 mm

Product reference	Max. switching current	Switching voltage	Control voltage	Protec. / Specifications
SPA01420	4A	12-275VAC	4-16VDC	VDR / AC zero-cross output
SPA07420	4A	12-275VAC	12-30VAC/DC	VDR / AC zero-cross output
STA07220	2A	12-275VAC	12-30VAC/DC	VDR / AC zero-cross output

SF5

Miniature relays available with pins for printed circuits.

Product reference	Max. switching current	Switching voltage	Control voltage	Specifications
SF542310	12A	12-280VAC	4-30VDC	Zero-cross, PCB terminals

UL US DVE CE EAC UK



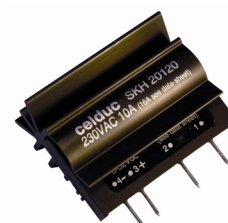
● Dim. 21 x 35.5 x 15 mm

SKH

SKH is a "ready to use" range of solid state relays for printed circuits. Each relay has a built-in heatsink.

Product reference	Max. switching current (at 40°C)	Max. switching current with ventilation	Switching voltage	Control voltage	I ² t
SKH10120	8A	16A	12-280VAC	4-14VDC	128A ² s
SKH10240	9A	25A	24-600VAC	4-14VDC	450A ² s
SKH20120	8A	16A	12-280VAC	8-32VDC	128A ² s
SKH20240	9A	25A	24-600VAC	8-32VDC	450A ² s

UL US CE EAC UK



● Dim. 43.6 x 22 x 35.7 mm

2- DC output models

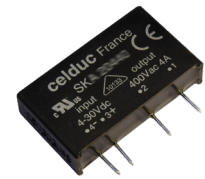
SKD

BIPOLAR technology

Can switch currents up to 3A. DC Bipolar Solid State Relays are recommended for applications where a low control current is required.



● SKD
Dim. 28 x 5 x 15 mm



Product reference	Switching current	Switching voltage	Peak voltage	Control voltage	Protection
SKD10306	3A	2-60VDC	60V	3-30VDC	Backward diode

SKLD

MOSFET technology

Can switch currents up to 10A. DC MOSFET Solid State Relays are recommended for applications requiring high transient overcurrent capability, such as motor control. Integrated Transil diodes provide effective protection against output overvoltage conditions.



● SKLD
Dim. 43.6 x 6.3 x 24.5 mm



Product reference	Switching current	Switching voltage	Peak voltage	Control voltage	Protection
SKLD11006	10A	7-36VDC	60V	3-10VDC	TVS
SKLD30520	8A	12-100VDC	200V	18-32VDC	TVS
SKLD31006	10A	7-36VDC	60V	7-30VDC	TVS

SLD / SPD / STD

MOSFET technology

These models are 100% compatible with electromechanical relays. This range is ideal for motor or lighting control.

Product reference	Switching current	Switching voltage	Peak voltage	Control voltage	Protection
SLD01205	4A	0-32VDC	60V	3-10VDC	TVS
SLD02205	4A	0-32VDC	60V	7-20VDC	TVS
SLD03205	4A	0-32VDC	60V	18-32VDC	TVS
SLD03210	2.5A	0-60VDC	60V	18-32VDC	TVS
STD03205	2.5A	0-30VDC	60V	10-30VDC	TVS
STD03505	5A	0-30VDC	60V	10-30VDC	TVS
STD03510	5A	0-68VDC	60V	10-30VDC	TVS
STD07205	2.5A	0-30VDC	60V	12-30VDC 15-30VAC	TVS
SPD03505	5A	0-30VDC	60V	10-30VDC	TVS
SPD07505	5A	0-30VDC	60V	12-30VDC 15-30VAC	TVS



● SLD
Dim. 28 x 5 x 15 mm



● STD
Dim. 29 x 12.7 x 15.7 mm



● SPD
Dim. 29 x 12.7 x 25.4 mm



3- Three-phase models



Three-phase solid state relay in a single low profile package for printed circuits. This relay is designed for PCB applications. Complete with a heatsink, it provides control of medium power in three-phase networks.

Product reference	Max. switching current	Switching voltage	Control voltage	I ² t
SHT842300	3x25A	24-280VAC	10-30VDC	260A²s



• Dim. 81.28 x 8.30 x 27.70 mm

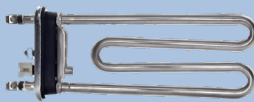
4- Typical Applications

Thanks to their versatility and reliability, PCB Mount Solid State Relays are ideal for numerous applications such as heating control, motor switching, lighting systems, vending machines, medical equipment, HVAC installations, and domestic appliances.





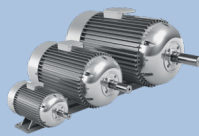
Electrovalves, LEDs, contactors $I_d = 1.4 \times I_n$	SKA
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Heating elements $I_d = I_n$	SKB / SKL
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Infrared lamps or lighting $I_d = 10 \times I_n$	SKL / SKH
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Motors $I_d = 8 \times I_n$	SKL / SKH
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I_d = Starting current | I_n = Nominal current

Thank you for your attention
and interest



www.celduc-relais.com