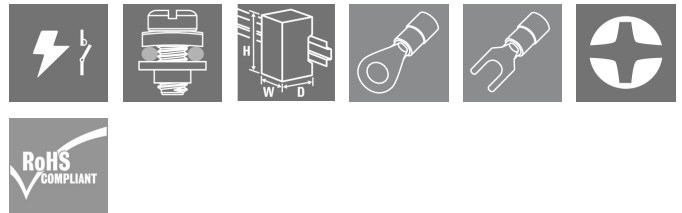


**PSSRN S 24VDC 1M K 600VAC 30A T****Weidmüller Interface GmbH & Co. KG**

Klingenbergstraße 26

D-32758 Detmold

Germany

[www.weidmueller.com](http://www.weidmueller.com)**Product image**

Switch high AC loads up to 30 A completely wear-free, reliable and noiseless.

- Load circuit 1-phase: 42...600 V AC / 30 A
- The integrated current monitoring allows the current monitoring of the load
- Compact design with a width from 22.5 mm
- Ready to use with integrated heat sink and mounting rail base for mounting on DIN rail TS35
- Short circuit protection with circuit breakers possible
- Output connections ring lug suitable

**General ordering data**

Version	Power Solid-State Relais, Rated control voltage: 4...32 V DC , Rated switching voltage: 42...600 V AC +10% -15%, Continuous current: 30 A
Order No.	<a href="#">2986920000</a>
Type	PSSRN S 24VDC 1M K 600VAC 30A T
GTIN (EAN)	4099986853041
Qty.	1 pc(s).

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## Technical data

### Dimensions and weights

Depth	167.5 mm	Depth (inches)	6.594 inch
Height	110 mm	Height (inches)	4.331 inch
Width	22.5 mm	Width (inches)	0.886 inch
Net weight	370 g		

### Temperatures

Storage temperature	-40 °C... 100 °C	Operating temperature	-25 °C... 70 °C
Humidity	95% relative humidity, non-condensing @ 40°C		

### Probability of failure

MTTF	10 a
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### Control side

Rated control voltage	4...32 V DC	Nominal control current	7.8 mA... 10.4 mA
Status indicator	Green LED, Yellow LED, Red LED		

### Load side

Rated switching voltage	42...600 V AC +10% -15%	Continuous current	30 A (AC 51) @ 40 °C
Max. switching current	30 A	Load category	AC 51
Pulse load, max. current	1150 A (10 ms, non-recurrent)	Load limit integral ( $I^2t$ ) <10 ms	6,600 A <sup>2</sup> s
Switch-on delay	≤ 10 ms	Switch-off delay	≤ 10 ms
Voltage drop at max. load	≤20 V	Leakage current	<3 mA
Min. switching current	1.2 A	Short-circuit-proof	No
Protective circuit, load side	Integrated varistor	Contact type	1 NO contacts (Thyristor (zero-cross switch))
Output voltage frequency range	45...65 Hz		

### Alarm output

Connection designation (Alarm output)	11+, 12-	Solid-state type (Alarm output)	Bipolar transistor
Status indicator (Alarm output)	Red LED: device detects a fault	Voltage drop at max. load (Alarm output)	3 V
output current, max. (Alarm output)	50 mA		

### TEACH input

Connection designation (TEACH input)	IN1
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### Input supply

Connection designation (Input supply)	A1+, A2-	Current consumption (Input supply)	50 mA
Protective circuit (Input supply)	Reverse polarity protection		

## PSSRN S 24VDC 1M K 600VAC 30A T

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## Technical data

## General data

Version	Single-phase with mounted heat sink (zero-voltage switch output)	Rail	TS 35
Colour	black		

## Insulation coordination

Pollution severity	2	Surge voltage category	III
Dielectric strength for control side - load side	2.5 kV <sub>eff</sub>	Dielectric strength of load side - housing	4 kV <sub>eff</sub>
Impulse withstand voltage	6 kV (1.2/50 µs)	Protection degree	IP20

## Further details of approvals / standards

Certificate no. (cULus)	E537615
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## Connection data (control side)

Wire connection method (control side)	Box clamp connection	Min. rated connection clamping range (control side)	1 mm <sup>2</sup>
Max. rated connection clamping range (control side)	2.5 mm <sup>2</sup>	Wire connection method (control side)	M3 screw with captivated washer
Min. tightening torque (control side)	0.4 Nm	Max. tightening torque (control side)	0.5 Nm
Blade size (control side)	PZ 1		

## Connection data (load side)

Wire connection method (load side)	Screw connection	Min. rated connection clamping range (load side)	2.5 mm <sup>2</sup>
Max. rated connection clamping range (load side)	6 mm <sup>2</sup>	Wire connection method (load side)	M4 screw with captivated washer
Min. tightening torque (load side)	1.5 Nm	Max. tightening torque (load side)	2 Nm
Blade size (load side)	Gr. PZ2		

## Classifications

ETIM 6.0	EC002055	ETIM 7.0	EC002055
ETIM 8.0	EC002055	ETIM 9.0	EC002055
ECLASS 9.0	27-37-10-14	ECLASS 9.1	27-37-10-14
ECLASS 10.0	27-37-10-14	ECLASS 11.0	27-37-10-14
ECLASS 12.0	27-37-10-14	ECLASS 13.0	27-37-10-14

## Approvals

Approvals



ROHS	Conform
UL File Number Search	UL Website
Certificate no. (cULus)	E537615

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## Technical data

### Downloads

Approval/Certificate/Document of Con-  
formity

[EU Konformitätserklärung / EU Declaration of Conformity](#)

Engineering Data

[CAD data – STEP](#)

User Documentation

[Beipackzettel / Package Insert – multilingual](#)

Catalogues

[Catalogues in PDF-format](#)

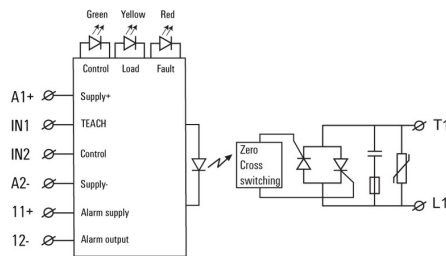
## PSSRN S 24VDC 1M K 600VAC 30A T

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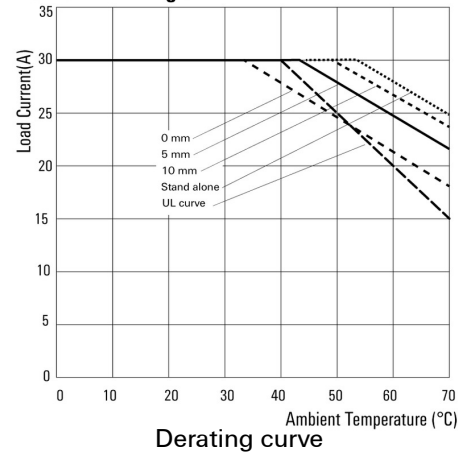
## Drawings

### Wiring diagram



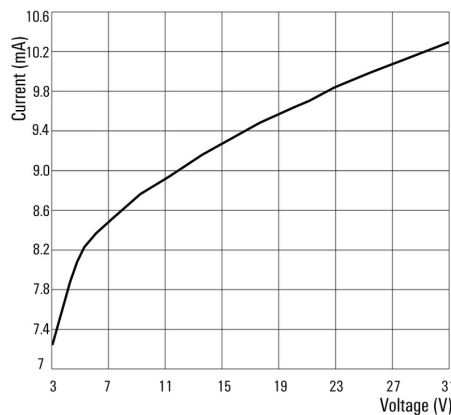
### Graph

**Current Derating Curve**

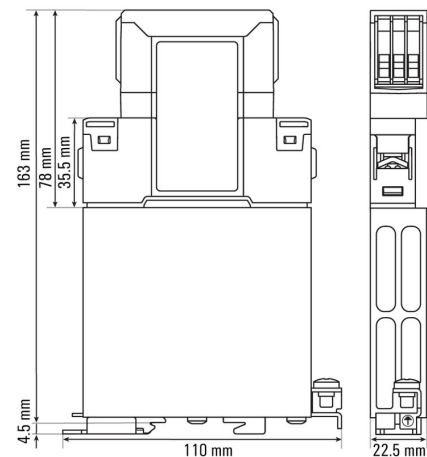


### Graph

**Control current Curve**

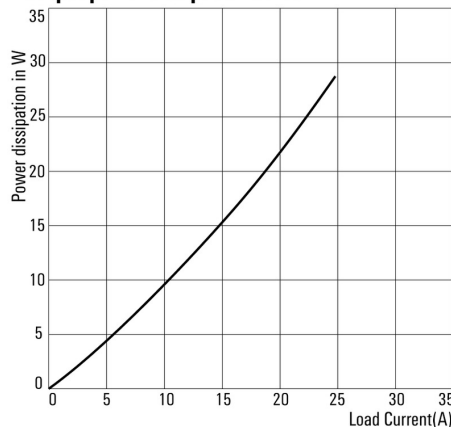


### Dimensional drawing



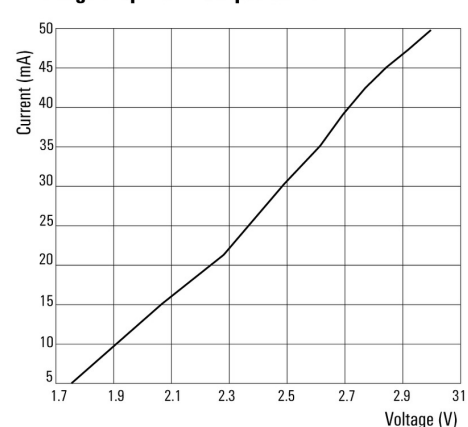
### Graph

**Output power dissipation Curve**



### Graph

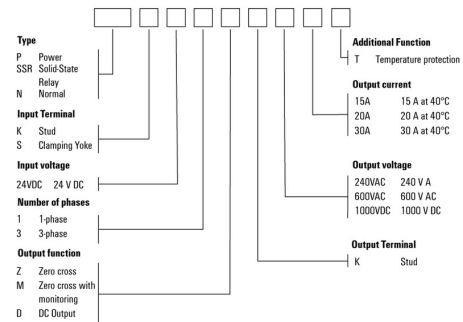
**Voltage drop Alarm Output Curve**



**PSSRN S 24VDC 1M K 600VAC 30A T**

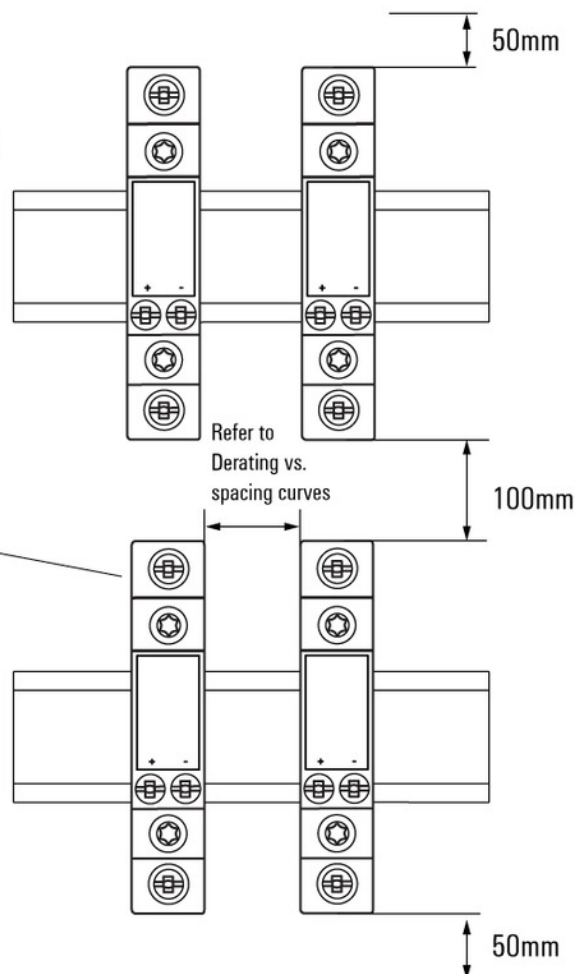
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**Drawings**
**Miscellaneous**
**Power Solid-State Relay (PSSR)**

**Type codes**
**Miscellaneous**

**Suggested mounting distances to ensure optimal heat dissipation**

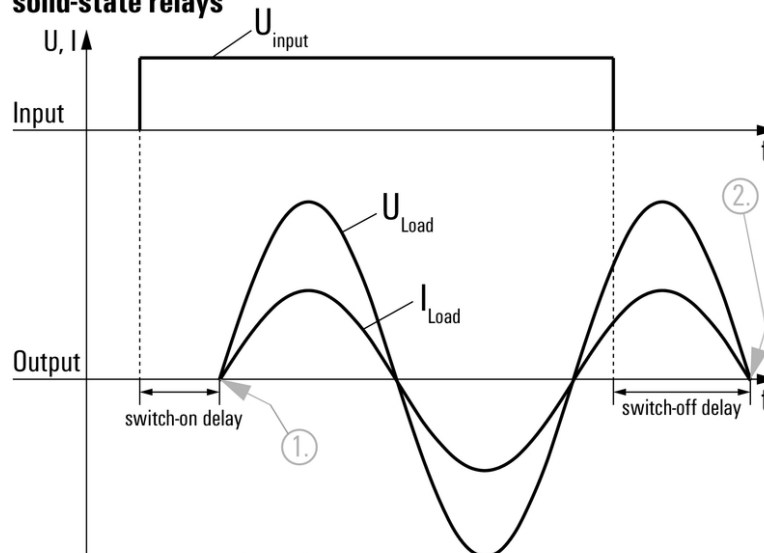
Power Solid State Relay vertical orientated



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**Drawings****Miscellaneous****Signal characteristics of zero cross switching  
solid-state relays**

Shown at an example with resistive load.

1. Switches on at first zero cross of mains voltage while control input gets signal.
2. Switches off at next zero cross of mains current after control input signal was switched off.

Switching DC voltages is not possible with this solid-state relays.