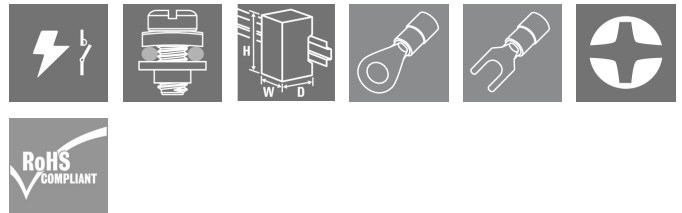


PSSRN K 24VDC 1Z K 240VAC 20A**Weidmüller Interface GmbH & Co. KG**

Klingenbergstraße 26

D-32758 Detmold

Germany

www.weidmueller.com**Product image**

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

- Load circuit 1-phase: 24...230 V AC / 20 A, 42...600 V AC / 30 A or 24...1000 V DC / 15 A
- Compact design with a width from 17.8 mm
- Optional version with integrated current monitoring allows the current monitoring
- 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, Solid state contactor, Rated control voltage: 3...32 V DC, Rated switching voltage: 24...230 V AC +10% -15%, Continuous current: 20 A
Order No.	2986890000
Type	PSSRN K 24VDC 1Z K 240VAC 20A
GTIN (EAN)	4099986853010
Qty.	1 pc(s).

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Technical data

Dimensions and weights

Depth	103 mm	Depth (inches)	4.055 inch
Height	110 mm	Height (inches)	4.331 inch
Width	17.8 mm	Width (inches)	0.701 inch
Net weight	206 g		

Temperatures

Storage temperature	-40 °C...100 °C	Operating temperature	-40 °C...80 °C
Humidity	95% relative humidity, non-condensing @ 40°C		

Probability of failure

MTTF	28 a
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Control side

Rated control voltage	3...32 V DC	Nominal control current	7.5 mA...11 mA
Status indicator	Green LED		

Load side

Rated switching voltage	24...230 V AC +10% -15%	Continuous current	5 A (AC 53) ; 20 A (AC 53) @ 40 °C
Max. switching current	20 A	Load category	AC 51, AC 53
Inrush current	51 A	Pulse load, max. current	325 A (10 ms, non-recurrent)
Load limit integral (I^2t) <10 ms	525 A ² s	Switch-on delay	≤ 10 ms
Switch-off delay	≤ 10 ms	Leakage current	<3 mA
Min. switching current	150 mA	Short-circuit-proof	No
Protective circuit, load side	Integrated varistor, RC element	Contact type	1 NO contacts (Thyristor (zero-cross switch))
Output voltage frequency range	45...65 Hz		

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	4 kV _{eff}	Dielectric strength of load side - housing	4 kV _{eff}
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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Technical data

Connection data (control side)

Wire connection method (control side)	Screw connection	Min. rated connection clamping range (control side)	0.75 mm ²
Max. rated connection clamping range (control side)	2.5 mm ²	Wire connection method (control side)	M3 screw with captivated washer
Min. tightening torque (control side)	0.5 Nm	Max. tightening torque (control side)	0.6 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 ²
Max. rated connection clamping range (load side)	6 mm ²	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

Environmental Product Compliance

REACH SVHC

/

Approvals

Approvals



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

Downloads

Approval/Certificate/Document of Conformity	EU Konformitätserklärung / EU Declaration of Conformity
Engineering Data	CAD data – STEP
User Documentation	Beipackzettel / Package Insert – multilingual
Catalogues	Catalogues in PDF-format

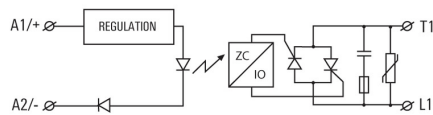
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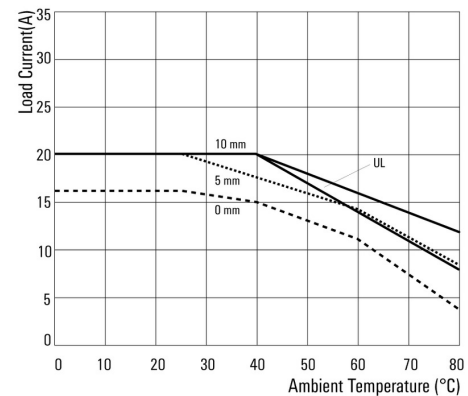
Drawings

Wiring diagram



Graph

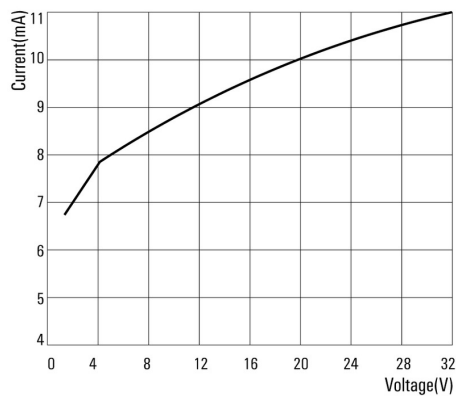
Current Derating Curve



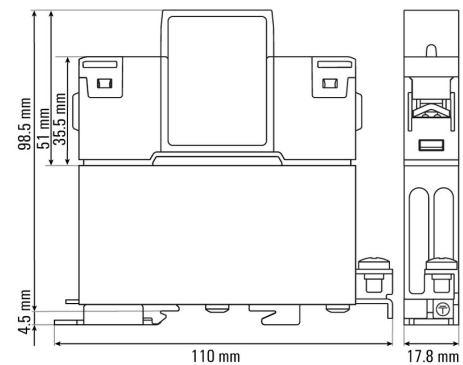
Derating curve

Graph

Control current Curve

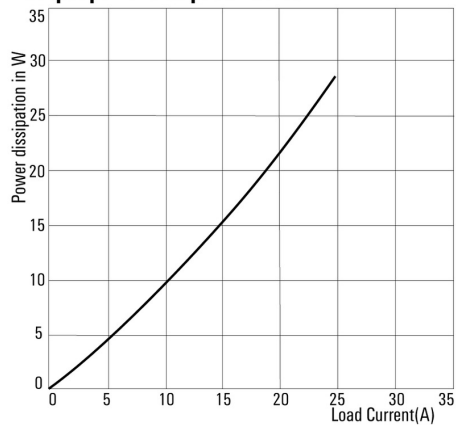


Dimensional drawing



Graph

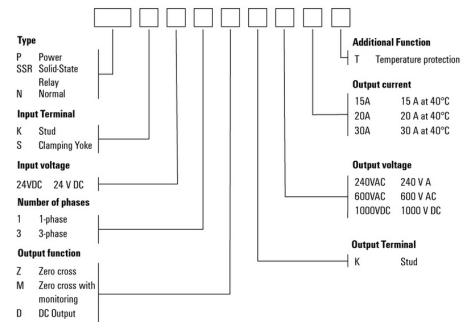
Output power dissipation Curve



PSSRN K 24VDC 1Z K 240VAC 20A

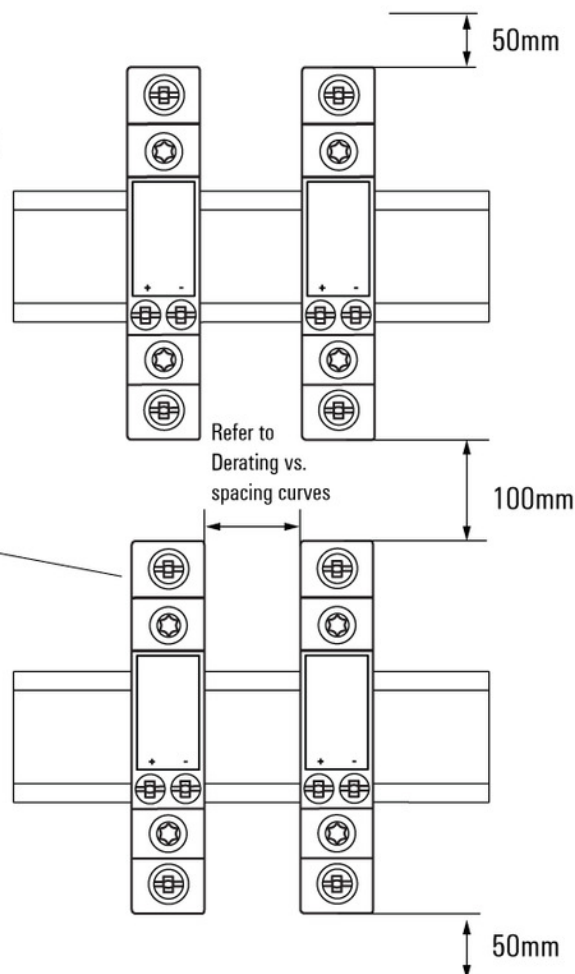
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Drawings
Miscellaneous
Power Solid-State Relay (PSSR)

Type codes
Miscellaneous

Suggested mounting distances to ensure optimal heat dissipation

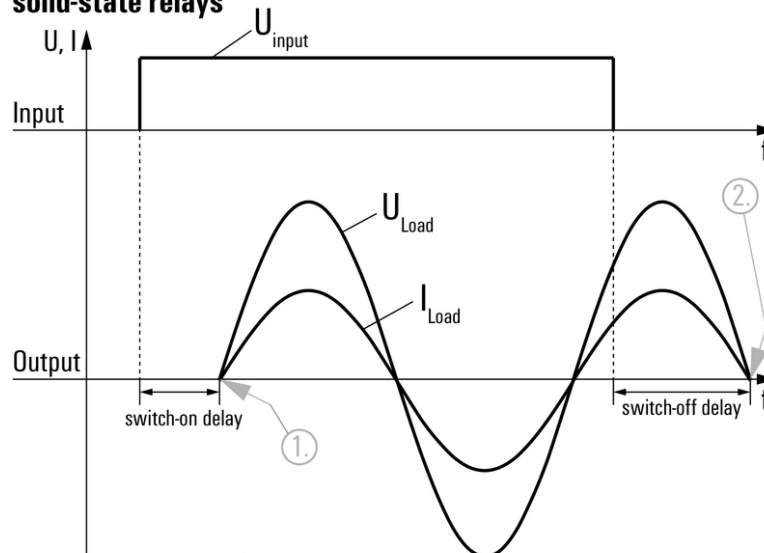
Power Solid State Relay vertical orientated



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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.