

PSSR 24VDC/1PH AC 25A

Weidmüller Interface GmbH & Co. KG

Klingenbergstraße 26

D-32758 Detmold

Germany

www.weidmueller.com

Product image



Similar to illustration

- Load circuit: 1-phase 12...275 V AC / 25 A or 24...510 V AC / 35 A
- Zero-cross switch or instantaneous-switching
- Ready-to-use: snap on - connect - ready
- Wear-free and silent switching
- High capacity for handling surge currents (I^2t) up to 6000 A²s (10 ms)
- Plug-in current-monitoring module

General ordering data

Version	Power Solid-State Relais, Solid state contactor, Rated control voltage: 3.5...32 V DC , Rated switching voltage: 12...275 V AC, Continuous current: 17 A (AC51) at 40 °C, 3.5 A (AC 53), Screw connection
Order No.	1406200000
Type	PSSR 24VDC/1PH AC 25A
GTIN (EAN)	4050118206821
Qty.	1 pc(s).

Creation date April 20, 2022 2:57:30 PM CEST

Catalogue status 08.04.2022 / We reserve the right to make technical changes.

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Technical data

Dimensions and weights

Depth	115.9 mm	Depth (inches)	4.563 inch
Height	98 mm	Height (inches)	3.858 inch
Width	22.5 mm	Width (inches)	0.886 inch
Net weight	244 g		

Temperatures

Storage temperature	-55 °C...125 °C	Operating temperature	-55 °C...100 °C
Humidity	40...85 % (indoor) no condensation		

Environmental Product Compliance

REACH SVHC	Lead 7439-92-1
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Rated data UL

Certificate No. (cURus)	E360862
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Control side

Rated control voltage	3.5...32 V DC	Nominal control current	13.4 mA DC ±20 %
Power rating	< 500 mW	Pull-in/drop-out voltage, typ.	3 V / 2 V DC
Status indicator	LED yellow	Protective circuit	Suppressor diode

Load side

Rated switching voltage	12...275 V AC	Continuous current	17 A (AC51) at 40 °C, 3.5 A (AC 53)
Max. switching current	25 A	Load category	AC 51, AC 53
Inrush current	140 A (10 ms)	Pulse load, max. current	250 A (10 ms), non-recurrent
Load limit integral (I^2t) <10 ms	340 A ² s	Switch-on delay	≤ 10 ms
Switch-off delay	≤ 10 ms	Voltage drop at max. load	≤1.25 V
Leakage current	≤ 1 mA	Min. switching current	5 mA
Short-circuit-proof	No	Protective circuit, load side	Varistor
Contact type	1 NO contact (Triac (zero-cross switch))	Output voltage frequency range	50...60 Hz
max. switching frequency (DC control voltage)	10 Hz		

General data

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

Insulation coordination

Insulation coordination according to	EN 60947-4-3:2014	Pollution severity	2
Surge voltage category	III	Clearance and creepage distances for control side - load side	≥ 6,5 mm
Dielectric strength for control side - load side	4 kV _{eff}	Dialectric strength of load side - housing	4 kV _{eff}
Impulse withstand voltage	4 kV (1.2/50 μs)	Protection degree	IP20

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Technical data**Further details of approvals / standards**

Standards	EN 60947-4-3, EN 60950, IEC 60335-1	Certificate No. (cURus)	E360862
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Connection data (control side)

Wire connection method (control side)	Screw connection	Nom. rated connection clamping range (control side)	1.5 mm ²
Min. rated connection clamping range (control side)	0.13 mm ²	Max. rated connection clamping range (control side)	3.3 mm ²
Min. tightening torque (control side)	0.4 Nm	Max. tightening torque (control side)	0.5 Nm
Blade size (control side)	0.6 x 3.5 mm		

Connection data (load side)

Wire connection method (load side)	Screw connection	Nom. rated connection clamping range (load side)	6 mm ²
Min. rated connection clamping range (load side)	1.5 mm ²	Max. rated connection clamping range (load side)	6 mm ²
Wire connection method (load side)	M5 ring cable lug (insulated)	Min. tightening torque (load side)	2 Nm
Max. tightening torque (load side)	3 Nm	Blade size (load side)	Gr. PZ2

Connection data

Wire connection method	Screw connection
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Classifications

ETIM 6.0	EC002055	ETIM 7.0	EC002055
ETIM 8.0	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		

Approvals

Approvals



ROHS	Conform
UL File Number Search	E360862

Downloads

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

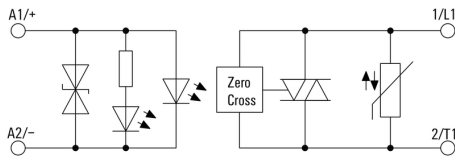
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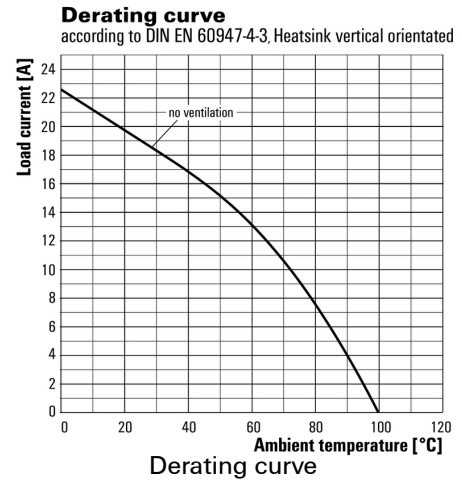
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Drawings

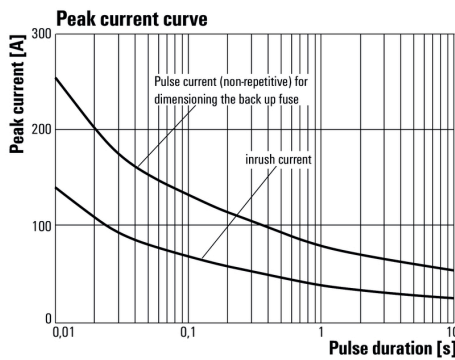
Wiring diagram



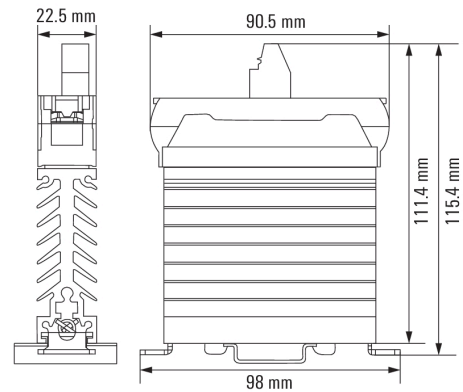
Graph



Graph



Dimensional drawing

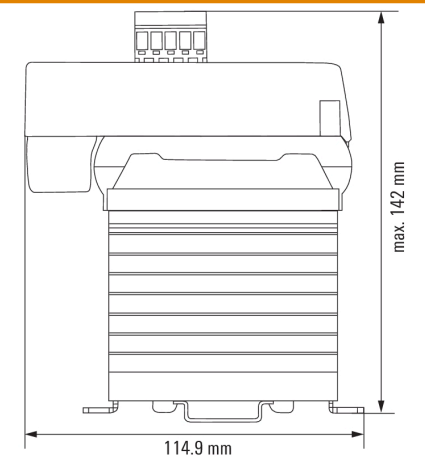


Example of use



Optional plug-in current-monitoring module (item no.: 1406230000)

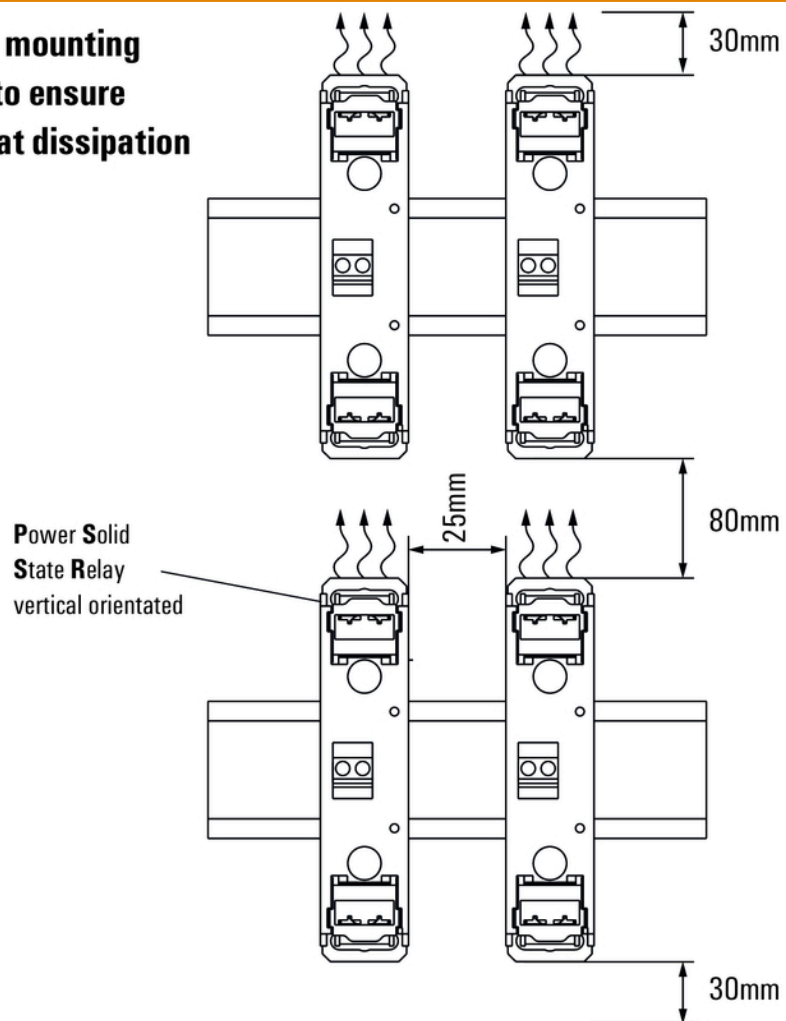
Dimensional drawing

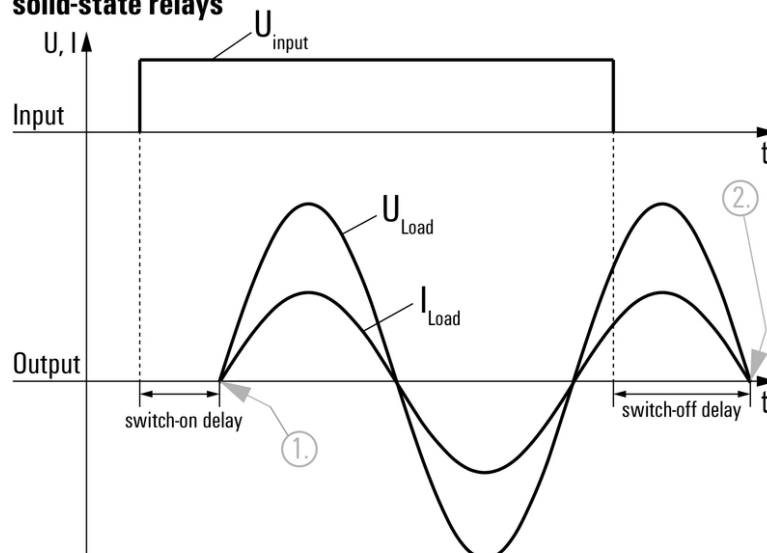


Dimensions of a 1-phase PSSR with current monitoring module attached

Miscellaneous

Suggested mounting distances to ensure optimal heat dissipation



**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.