

**PSSR 24VDC/1PH AC 22A I****Weidmüller Interface GmbH & Co. KG**

Klingenbergstraße 26

D-32758 Detmold

Germany

[www.weidmueller.com](http://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 A<sup>2</sup>s (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: 24...510 V AC, Continuous current: 22 A (AC51) at 40 °C, 7 A (AC 53)
Order No.	<a href="#">2531050000</a>
Type	PSSR 24VDC/1PH AC 22A I
GTIN (EAN)	4050118541168
Qty.	1 pc(s).

## PSSR 24VDC/1PH AC 22A I

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## Technical data

## Dimensions and weights

Depth	115.4 mm	Depth (inches)	4.543 inch
Height	98 mm	Height (inches)	3.858 inch
Width	22.5 mm	Width (inches)	0.886 inch
Net weight	250 g		

## Temperatures

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

## Control side

Rated control voltage	3.5...32 V DC	Nominal control current	10...13 mA
Power rating	< 500 mW	Status indicator	LED yellow
Protective circuit	Suppressor diode	Input frequency	10 Hz

## Load side

Rated switching voltage	24...510 V AC	Continuous current	22 A (AC 51) @ 40 °C; 7 A (AC 53)
Max. switching current	50 A	Load category	AC 51, AC 53
Inrush current	290 A (10 ms)	Pulse load, max. current	530 A (10 ms), non-recurrent
Load limit integral ( $I^2t$ ) <10 ms	1,400 A <sup>2</sup> s	Switch-on delay	≤0,1 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 (Thyristor (instantaneous-switching))	Output voltage frequency range	50...60 Hz
max. switching frequency (DC control voltage)	10 Hz		

## General data

Version	Single-phase with mounted heat sink (instantaneous-switching output)	Rail	TS 35
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## Insulation coordination

Insulation coordination according to	EN 60947-4-3:2014	Pollution severity	2
Surge voltage category	III	Dielectric strength for control side - load side	3.3 kV <sub>eff</sub> / 1 min.
Dielectric strength of load side - housing	4 kV <sub>eff</sub>	Impulse withstand voltage	4 kV (1.2/50 µs)
Protection degree	IP20		

## Connection data (control side)

Wire connection method (control side)	Screw connection	Nom. rated connection clamping range (control side)	1.5 mm <sup>2</sup>
Min. rated connection clamping range (control side)	0.13 mm <sup>2</sup>	Max. rated connection clamping range (control side)	3.3 mm <sup>2</sup>
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		

Creation date May 2, 2024 12:55:21 AM CEST

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## Connection data (load side)

Wire connection method (load side)	Screw connection	Nom. rated connection clamping range (load side)	6 mm <sup>2</sup>
Min. rated connection clamping range (load side)	1.5 mm <sup>2</sup>	Max. rated connection clamping range (load side)	6 mm <sup>2</sup>
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

## 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	Lead 7439-92-1
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## Approvals

Approvals



ROHS	Conform
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## Downloads

Approval/Certificate/Document of Conformity	<a href="#">EU Konformitätserklärung / EU Declaration of Conformity</a>
Engineering Data	<a href="#">CAD data – STEP</a>
User Documentation	<a href="#">Beipackzettel / Package Insert – multilingual</a>
Catalogues	<a href="#">Catalogues in PDF-format</a>

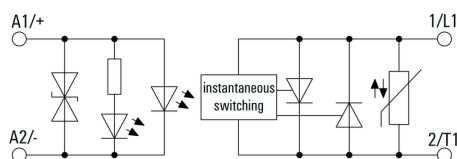
## PSSR 24VDC/1PH AC 22A I

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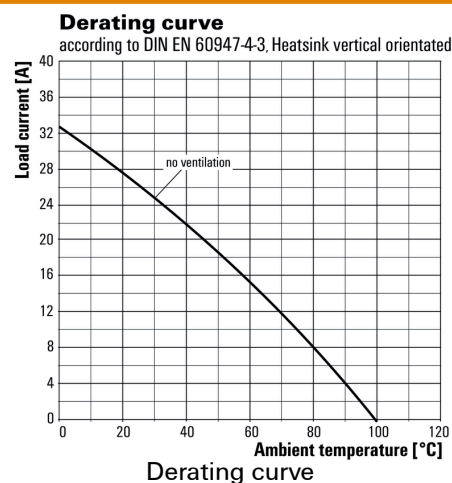
[www.weidmueller.com](http://www.weidmueller.com)

## Drawings

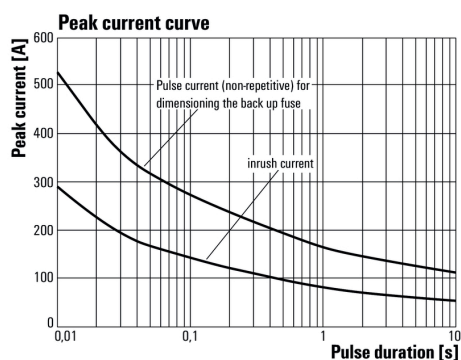
### Wiring diagram



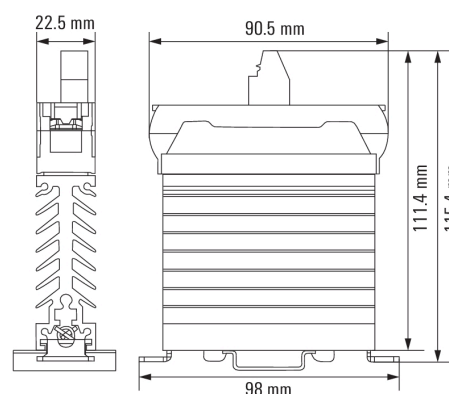
### Graph



### Graph



### Dimensional drawing

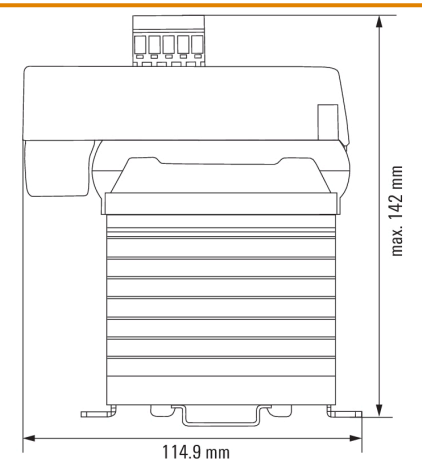


### Example of use



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

### Dimensional drawing



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

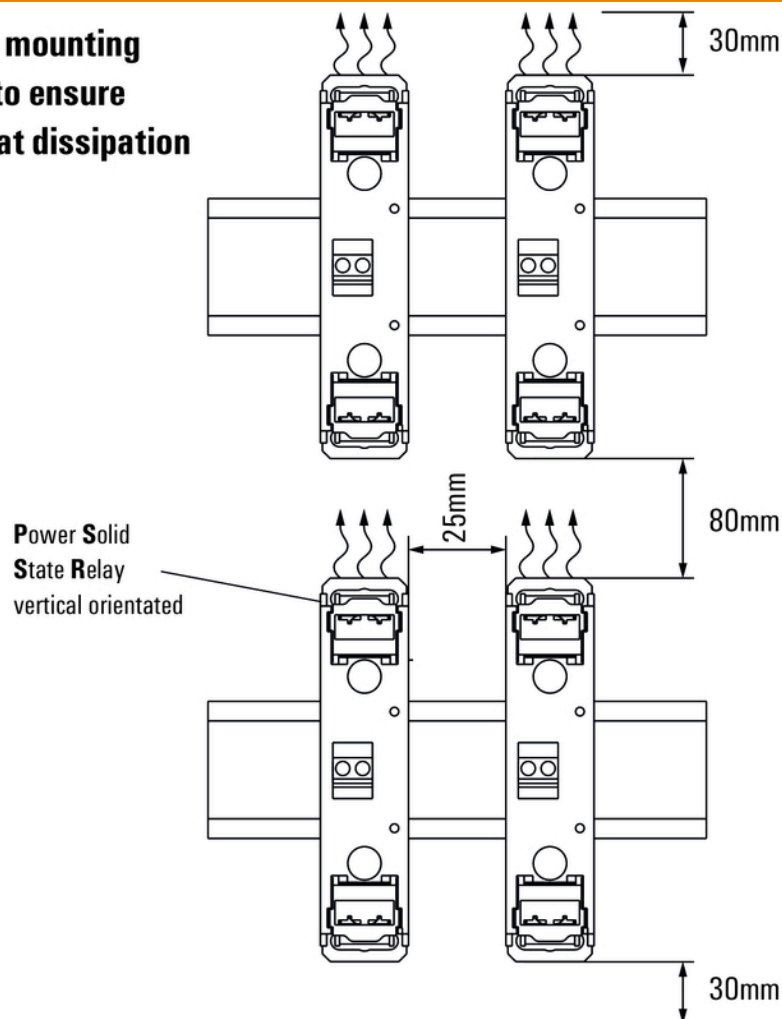
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**Drawings****Miscellaneous**

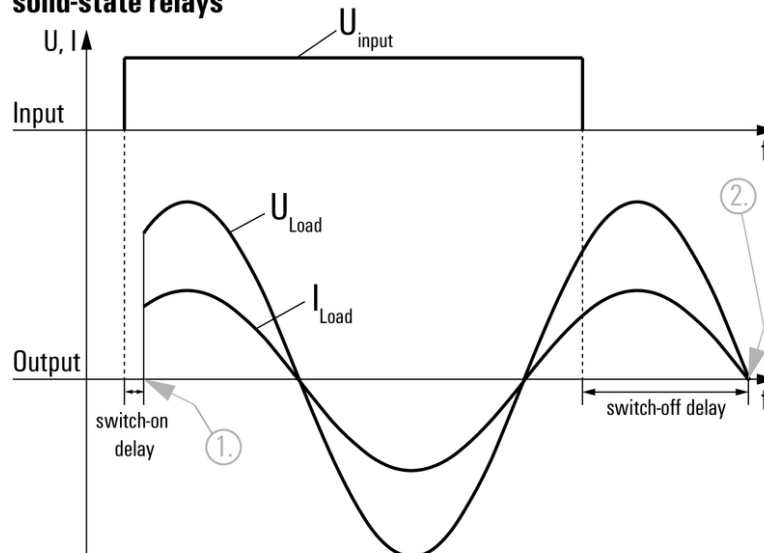
**Suggested mounting  
distances to ensure  
optimal heat dissipation**



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**Drawings**
**Signal characteristics of instantaneous switching solid-state relays**


Shown at an example with resistive load.

1. Switches on instantaneous with switch on delay when 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.

**Type codes**
