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Data sheet

PSSR 24VDC/1PH AC 35A

Weidmüller Interface GmbH & Co. KG
Klingenbergstraße 26
D-32758 Detmold
Germany

www.weidmueller.com

Product image





- 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^2s (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: 23 A (AC51) at 40 °C, 12 A (AC 53)
Order No.	1406210000
Type	PSSR 24VDC/1PH AC 35A
GTIN (EAN)	4050118206845
Qty.	1 pc(s).

Creation date December 15, 2023 11:53:05 AM CET

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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	230 g		

Temperatures

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

Rated data UL

Certificate No. (cURus)	E360862

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	23 A (AC51) at 40 °C, 12 A (AC 53)
Max. switching current	50 A	Load category	AC 51, AC 53
Inrush current	600 A (10 ms)	Pulse load, max. current	1100 A (10 ms), non-recurrent
Load limit integral (I^2t) <10 ms	6,000 A^2s	Switch-on delay	≤ 10 ms
Switch-off delay	≤ 10 ms	Voltage drop at max. load	≤1.35 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 (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	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		

Further details of approvals / standards

Certificate No. (cURus)	E360862

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Technical data

Connection data (control side)

Wire connection method (control side)	Screw connection	Nom. rated connection clamping range (control side)	1.5 mm²
Min. rated connection clamping range (control side)	0.13 mm²	Max. rated connection clamping range (control side)	3.3 mm²
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 mm²
Min. rated connection clamping range (load side)	1.5 mm²	Max. rated connection clamping range (load side)	6 mm²
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	27371014

Approvals

Approvals	
ROHS	Conform
UL File Number Search	UL Website
Certificate No. (cURus)	E360862

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
Brochures	

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Data sheet

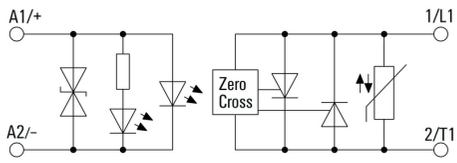
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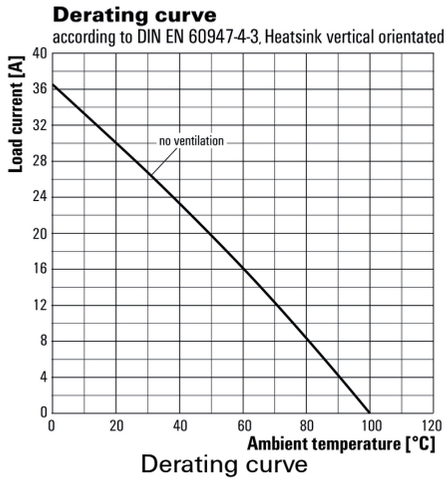
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Drawings

Wiring diagram

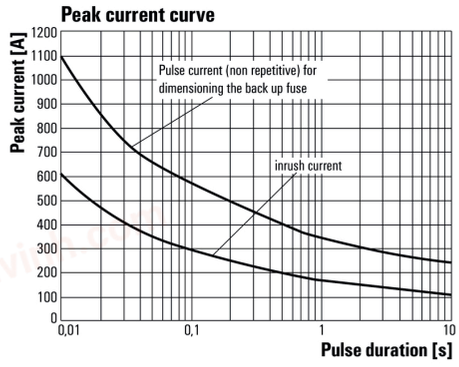


Graph

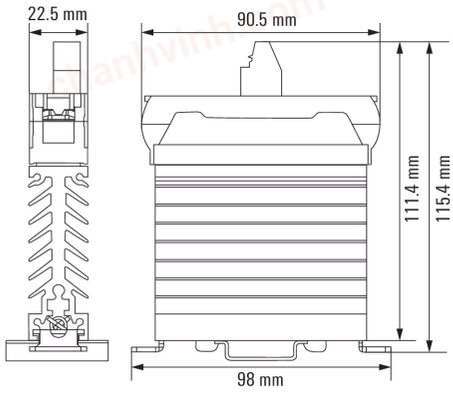


Derating curve

Graph



Dimensional drawing

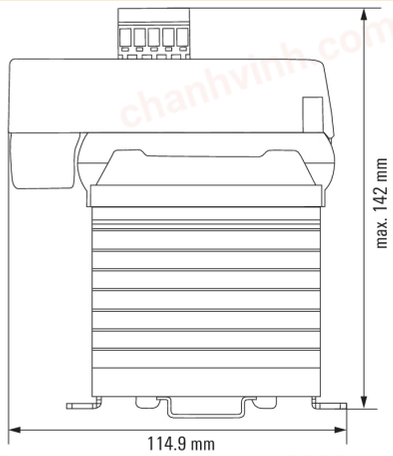


Example of use



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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Data sheet

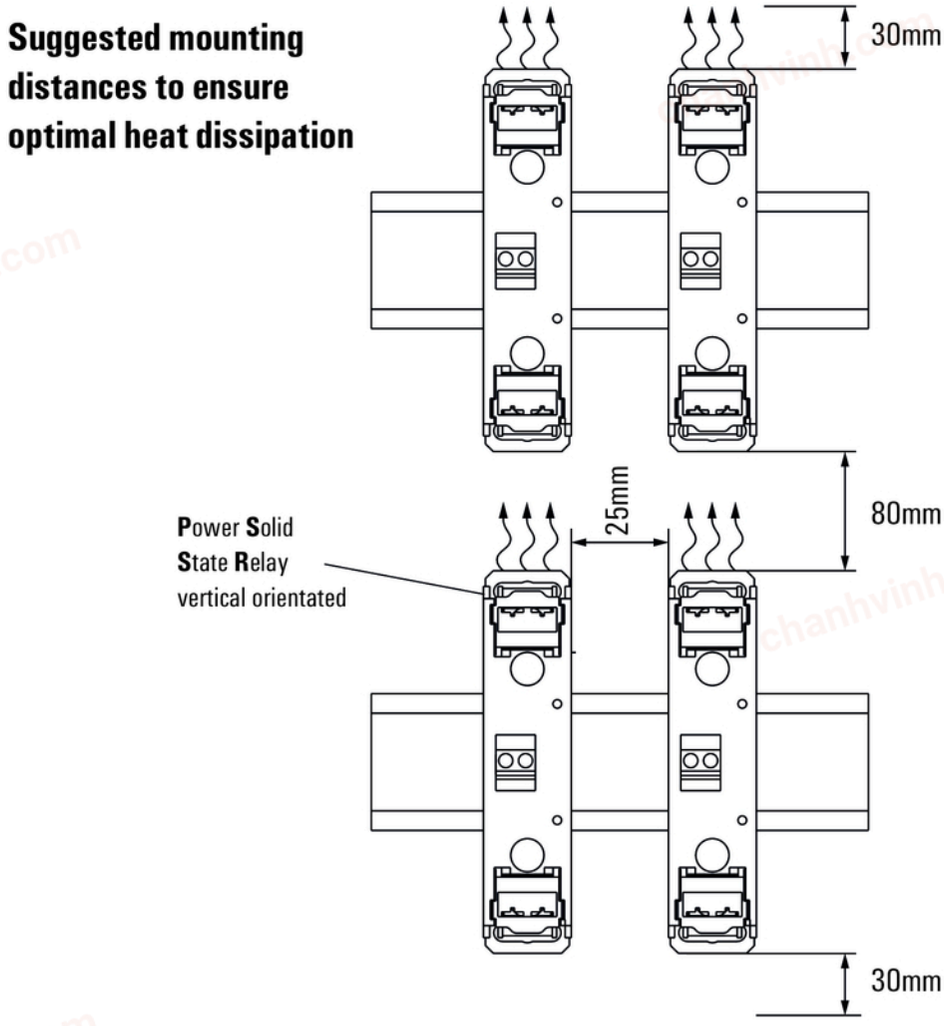
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Drawings

Miscellaneous



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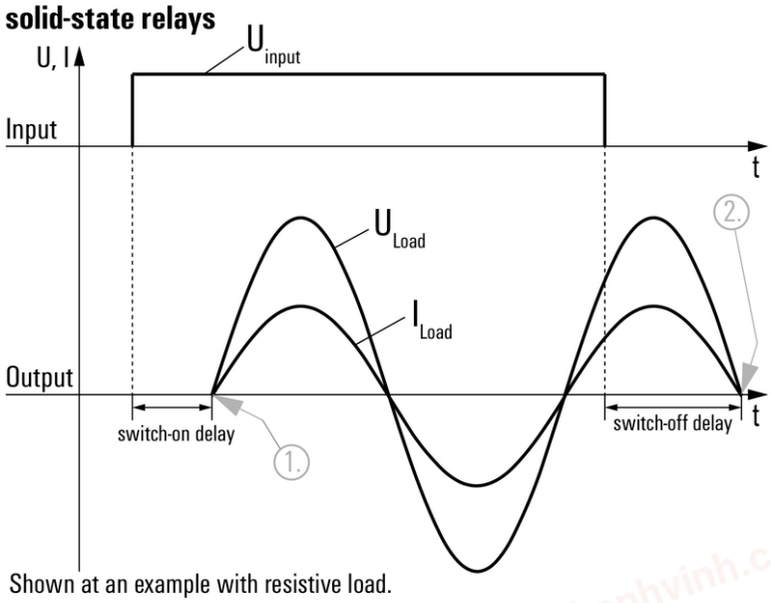
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Drawings

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.