Data sheet

PSSR 24VDC/1PH AC 25A

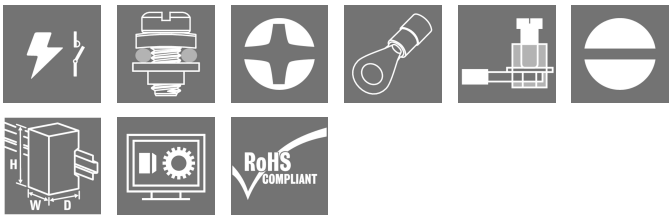
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Klingenbergstraße 26
D-32758 Detmold
Germany

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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^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: 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 items
Delivery status	This article will no longer be available in the future.
Available until	2025-03-27T00:00:00+01:00
Alternative product	PSSRN K 24VDC 1Z K 240VAC 20A

Creation date 02.11.2025 11:15:47 MEZ

Data sheet

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Technical data

Approvals

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

Dimensions and weights

Depth	115.9 mm	Depth (inches)	4.563 inch
Height	98 mm	Height (inches)	3.8583 inch
Width	22.5 mm	Width (inches)	0.8858 inch
Net weight	244 g		

Temperatures

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

Environmental Product Compliance

RoHS Compliance Status	Compliant
REACH SVHC	No SVHC above 0.1 wt%

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	12...275 V AC	Continuous current	17 A (AC 51) @ 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^2s	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		

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Technical data

General data

Version	Single-phase with mounted heat sink (zero-voltage switch output)	Mounting 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 kVeff
Dialectric strength of load side - housing	4 kVeff	Impulse withstand voltage	4 kV (1.2/50 µs)
Protection degree	IP20		

Further details of approvals / standards

Certificate No. (cURus)	E360862

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 (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

Classifications

ETIM 6.0	EC002055	ETIM 7.0	EC002055
ETIM 8.0	EC002055	ETIM 9.0	EC002055
ETIM 10.0	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	ECLASS 14.0	27-37-10-14
ECLASS 15.0	27-37-10-14		

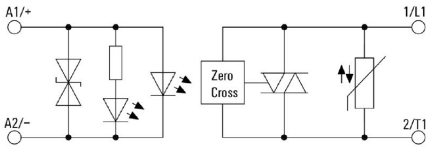
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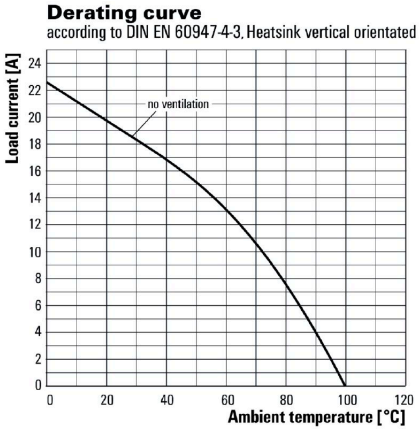
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Drawings

Wiring diagram

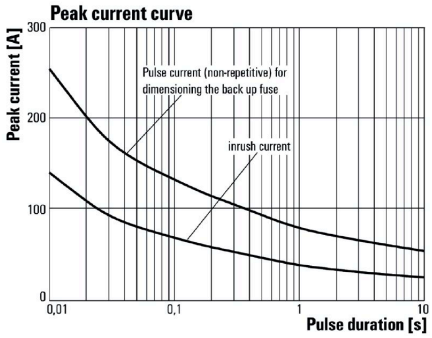


Graph

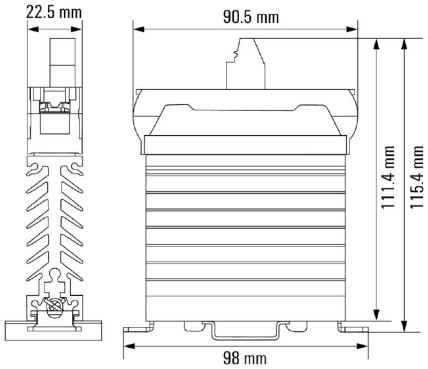


Derating curve

Graph



Dimensional drawing



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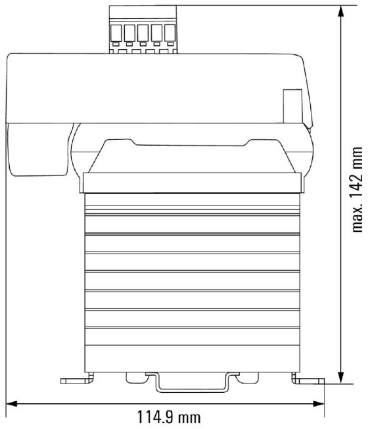
Drawings

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

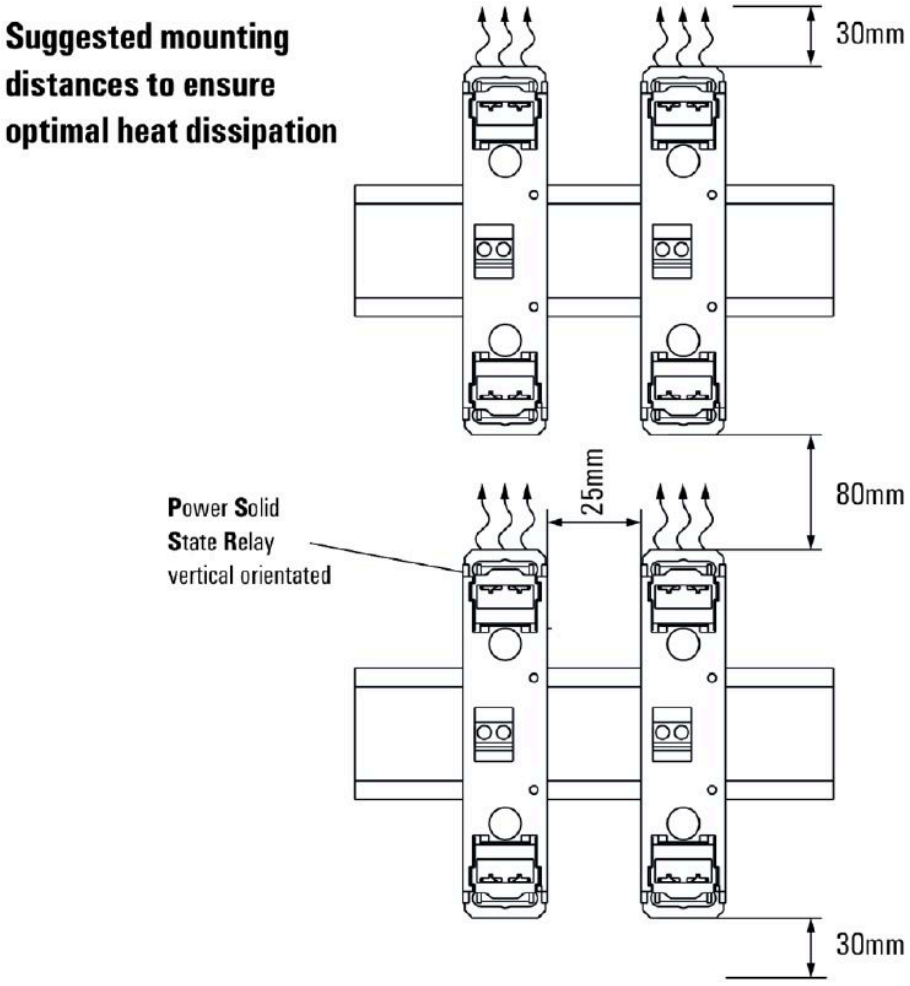
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Drawings

Miscellaneous

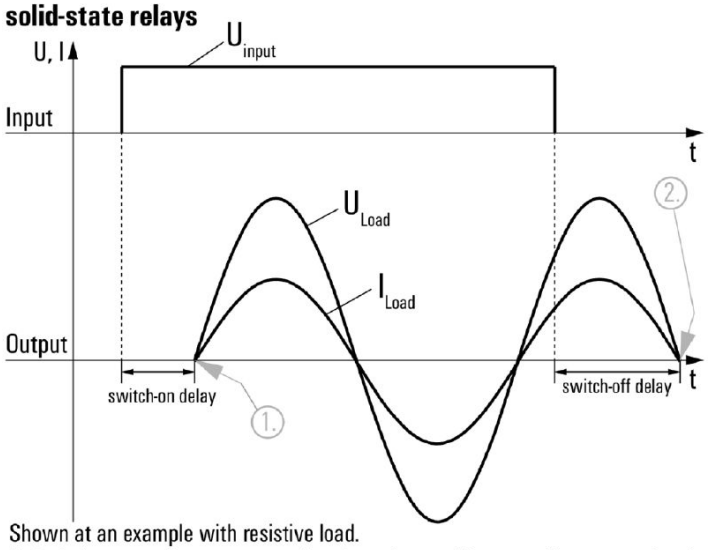


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Drawings

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.