

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

Klingenbergstraße 26

D-32758 Detmold

Germany

www.weidmueller.com


- 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: 24...510 V AC, Continuous current: 22 A (AC51) at 40 °C, 7 A (AC 53)
Order No.	2531050000
Type	PSSR 24VDC/1PH AC 22A I
GTIN (EAN)	4050118541168
Qty.	1 items
Delivery status	Discontinued
Available until	2025-03-27T00:00:00+01:00

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Technical data

Approvals

Approvals



ROHS

Conform

Dimensions and weights

Depth	115.4 mm	Depth (inches)	4.5433 inch
Height	98 mm	Height (inches)	3.8583 inch
Width	22.5 mm	Width (inches)	0.8858 inch
Net weight	222.4 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	Lead 7439-92-1

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	1400 A ² 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)	Mounting 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 kVeff / 1 min.
Dielectric strength of load side - housing	4 kVeff	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 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 (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 8.0	EC002055	ETIM 9.0	EC002055
ETIM 10.0	EC002055	ECLASS 14.0	27-37-10-14
ECLASS 15.0	27-37-10-14		

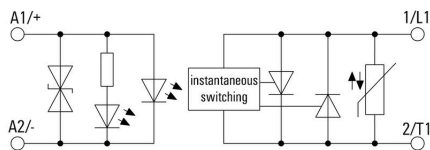
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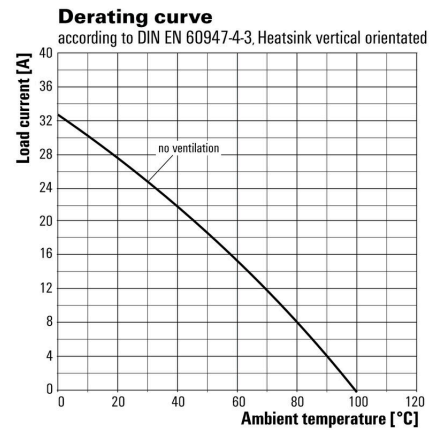
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Drawings

Wiring diagram

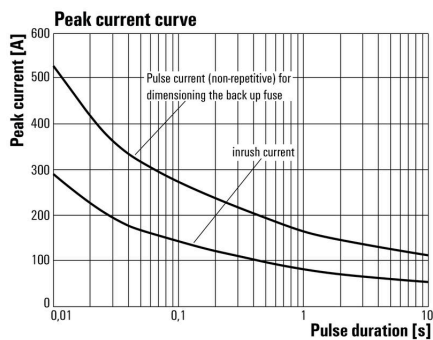


Graph

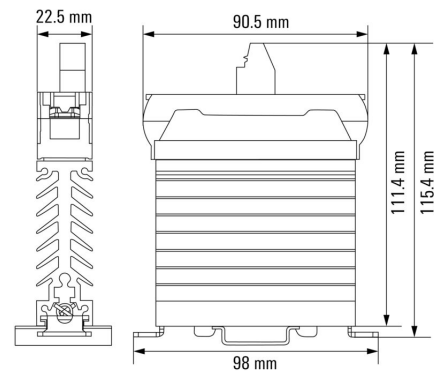


Derating curve

Graph



Dimensional drawing



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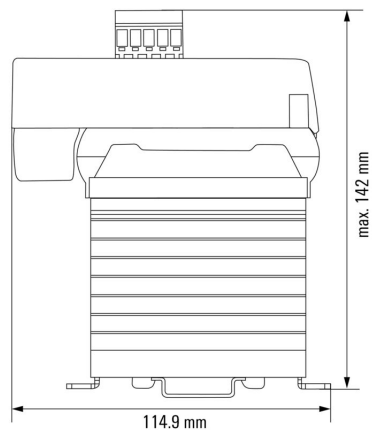
Drawings

Example of use



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

Dimensional drawing

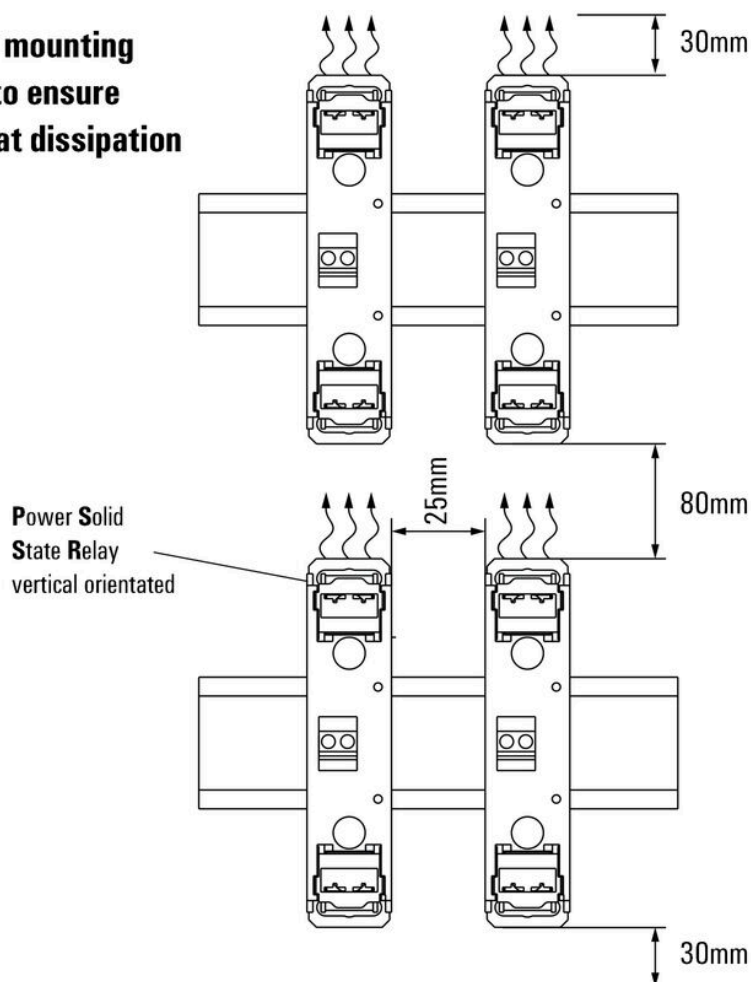


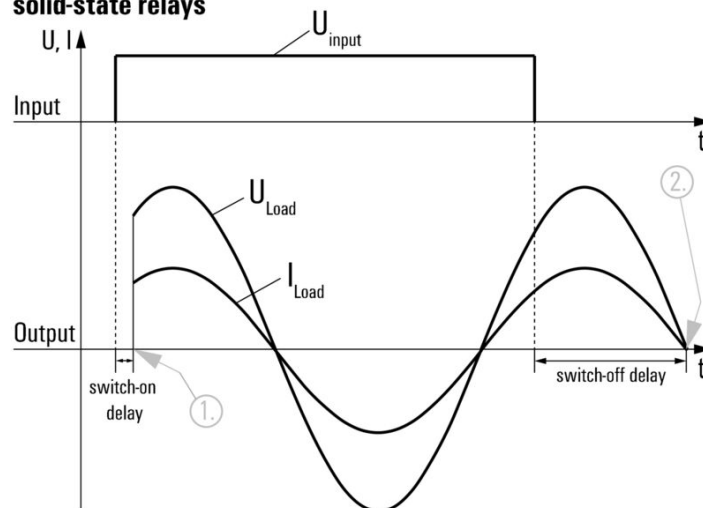
Dimensions of a 1-phase PSSR with current monitoring module attached

Drawings

Miscellaneous

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

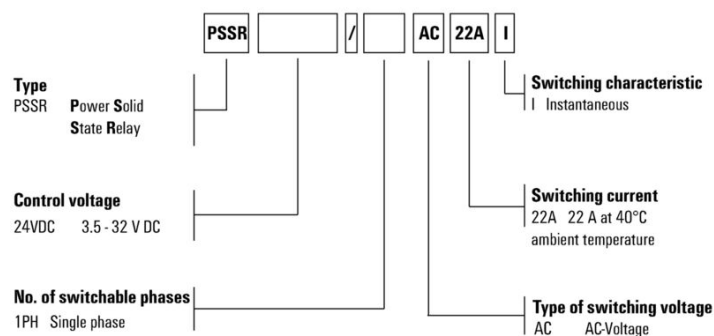


**Signal characteristics of instantaneous switching
solid-state relays**


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


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Accessories

Current-monitoring modules



- Monitoring of up to 5 consumers connected in parallel
- Monitoring of single failure and short-circuit
- Can be plugged into the single-phase PSSRs with heat sink
- Feedback output for error message
- Teach button on the module and external teach input
- Undercurrent switching threshold: $0.84 \times I_{teach}$

General ordering data

Type	PSSR 1PH CONTROL UNIT	Version
Order No.	1406230000	
GTIN (EAN)	4050118206739	
Qty.	1 ST	

Crosshead screwdriver Pozidriv



Crosshead screwdriver, Pozidriv, SDK PZ DIN 5262, ISO 8764/2-PZ, output to ISO 8764/1-PZ, ChromTop tip, SoftFinish grip

General ordering data

Type	SDK PZ2 X 100	Version
Order No.	2749450000	Screwdriver, Blade width (B): 6 mm, 100 mm, Blade thickness (A): 2
GTIN (EAN)	4050118895674	
Qty.	1 ST	
Type	SDIK PZ2 X 100	Version
Order No.	2749930000	Screwdriver, Blade width (B): 2 mm, 100 mm, Blade thickness (A): 2
GTIN (EAN)	4050118897234	
Qty.	1 ST	

Crosshead screwdriver, Pozidrive



VDE insulated screwdriver sets, for working on live parts up to 1000 V AC and 1500 V DC, DIN EN 60900. IEC 900. Each piece is "GS" safety tested. Blade made from fully hardened, high-alloy chromium-vanadium-molybdenum steel, gun-metal finish.

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Accessories

General ordering data

Type	SDIK SLIM PZ2 X 100	Version
Order No.	2749680000	Screwdriver, Blade width (B): 2 mm, 100 mm, Blade thickness (A): 2
GTIN (EAN)	4050118896428	
Qty.	1 ST	

Slotted screwdriver

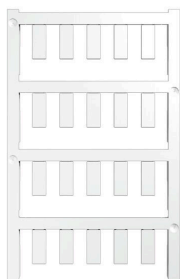


Slotted screwdriver with rounded blade SD DIN 5265, ISO 2380/2, output to DIN 5264, ISO 2380/1. ChromTop tip, SoftFinish grip

General ordering data

Type	SDS 0.6X3.5X100	Version
Order No.	2749340000	Screwdriver, Blade width (B): 3.5 mm, Blade length: 100 mm, Blade thickness (A): 0.6 mm
GTIN (EAN)	4050118895568	
Qty.	1 ST	
Type	SDIS 0.6X3.5X100	Version
Order No.	2749810000	Screwdriver, Blade width (B): 3.5 mm, Blade length: 100 mm, Blade thickness (A): 0.6 mm
GTIN (EAN)	4050118897012	
Qty.	1 ST	
Type	SDIS SLIM 0.6X3.5X100	Version
Order No.	2749610000	Mounting tool, Blade width (B): 3.5 mm, Blade length: 100 mm, Blade thickness (A): 0.6 mm
GTIN (EAN)	4050118896350	
Qty.	1 ST	

Blank



ESG is the tried-and-tested marker in MultiCard format for use on many well-known electrical devices. The result is high-quality device marking with a high-contrast appearance.

Various types are available for devices from manufacturers like Siemens, ABB, Beckhoff etc.

Advantages at a glance:

- Tags for universal usage, self-adhesive or clip-on tags, depending on type
- For aligned equipment, e.g. circuit breakers, we supply ESG markers for clipping onto tag rails
- Individual laser-quality printing according to specifications

For custom printing: Please send us a file of our labeling software M-Print PRO or M-Print PRO Online (without installation) for your labeling specifications.

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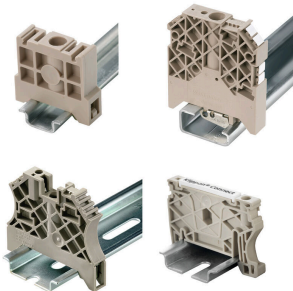
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Accessories

General ordering data

Type	ESG 6/15 RIDER MC NE WS	Version
Order No.	1881280000	ESG, Device markers x 15 mm, PA 66, Colour: white, pluggable
GTIN (EAN)	4032248482276	
Qty.	200 ST	

End bracket



Weidmüller's range of products includes end brackets that guarantee a permanent, reliable mounting on the terminal rail and prevent sliding. Versions with and without screws are available. The end brackets include marking options, also for group markers, and also a test plug holder.

General ordering data

Type	MEW 35/1	Version
Order No.	1805610000	End bracket, grey, TS 35, None, metal, Width: 12.5 mm, 100 °C
GTIN (EAN)	4032248287017	
Qty.	10 ST	

ESG 6/15



Guaranteed long service life: ESG

The multi-colour and multi-format labels have a strong adhesive layer to ensure the best possible adhesion to the underlying surface. Double laminated polyester makes the basic material very thin and yet extremely tear-resistant. Your benefits with MultiMark

- "Different materials for various requirements"
- Can be used with equipment from many manufacturers
- Device markers with a familiar design

General ordering data

Type	ESG 6/15 MM WS	Version
Order No.	2619940000	ESG, Device markers, 6 x 15 mm, white
GTIN (EAN)	4050118626148	
Qty.	3000 ST	

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www.weidmueller.com**Accessories****ESG 6/17****Guaranteed long service life: ESG**

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- Device markers with a familiar design

General ordering data

Type	ESG 6/17 MM WS	Version
Order No.	2005100000	ESG, Device markers, 6 x 17 mm, white
GTIN (EAN)	4050118390728	
Qty.	3000 ST	