

Power Solid-State Relais PSSR 24VDC/1PH AC50A HP

Weidmüller Interface GmbH & Co. KG
Klingenbergstraße 26
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Germany
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Product image



- Load circuit: single-phase 24...600 VAC / 50 A or 75 A
- No-voltage switching
- Wear-free and silent switching
- High capacity for handling surge currents (I^2t) up to 6000 A²s (10 ms)
- Compact design

General ordering data

Type	PSSR 24VDC/1PH AC50A HP
Order No.	1406240000
Version	Power Solid-State Relais, Solid state contactor, 1 NO contact (Thyristor (zero-cross switch)), Rated control voltage: 3.5...32 V DC , Rated switching voltage: 24...600 V AC, Continuous current: 52 A (AC51) at 40 °C, mounted on heatsink with 0.75 K/W
GTIN (EAN)	4050118206746
Qty.	2 pc(s).

Creation date May 3, 2020 9:30:02 AM CEST

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Technical data**Dimensions and weights**

Width	45 mm	Width (inches)	1.772 inch
Height	58.5 mm	Height (inches)	2.303 inch
Depth	29 mm	Depth (inches)	1.142 inch
Net weight	87 g		

Temperatures

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

Environmental Product Compliance

REACH SVHC Lead 7439-92-1

Rated data UL

Certificate No. (cURus) E360862

Control side

Rated control voltage	3.5...32 V DC	Nominal control current	13.4 mA DC ±20 %
Power rating	≤ 280 mW	Cut-in / dropout voltage	3 V / 2 V DC
Status indicator	Green LED	Protective circuit	Suppressor diode

Load side

Rated switching voltage	24...600 V AC	Continuous current	52 A (AC51) at 40 °C, mounted on heatsink with 0.75 K/W
Max. switching current	60 A	Load category	AC 51
Inrush current	400 A (10 ms)	Pulse load, max. current	700 A (10 ms), non-recurrent
Load limit integral (I ² t) <10 ms	2,450 A ² s	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
Output voltage frequency range	50 / 60 Hz	max. switching frequency (DC control voltage)	10 Hz

Contact data

Contact type 1 NO contact (Thyristor (zero-cross switch))

General data

Version	Single-phase without heat sink (zero-voltage switch output)	Colour	black
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Technical data**Insulation coordination**

Pollution severity	2	Surge voltage category	III
Clearance and creepage distances for control side - load side	≥ 8 mm	Dielectric strength for control side - load side	4 kV _{eff}
Dielectric 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

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)	0.75 mm ²	Max. rated connection clamping range (control side)	2.5 mm ²
Wire connection method (control side)	M4 ring cable lug (insulated)	Min. tightening torque (control side)	1.2 Nm
Max. tightening torque (control side)	2 Nm	Blade size (control side)	Gr. PZ2

Connection data (load side)

Wire connection method (load side)	Screw connection	Nom. rated connection clamping range (load side)	10 mm ²
Min. rated connection clamping range (load side)	1.5 mm ²	Max. rated connection clamping range (load side)	10 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

Classifications

ETIM 6.0	EC002055	ETIM 7.0	EC002055
eClass 9.0	27-37-10-14	eClass 9.1	27-37-10-14
eClass 10.0	27-37-10-14		

Approvals

Approvals



ROHS Conform

Downloads

Approval/Certificate/Document of Conformity	EU Konformitätserklärung / EU Declaration of Conformity
Brochure/Catalogue	CAT 4.2 ELECTR 18/19 EN
Engineering Data	EPLAN, WSCAD
User Documentation	Beipackzettel / Package Insert - multilingual

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Catalogue status 17.04.2020 / We reserve the right to make technical changes.

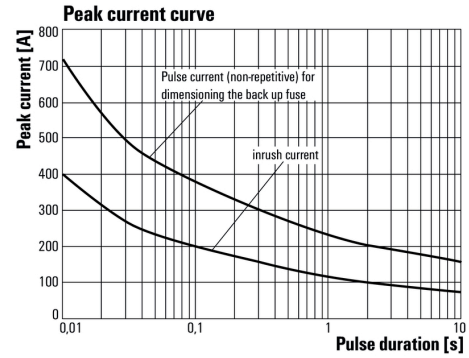
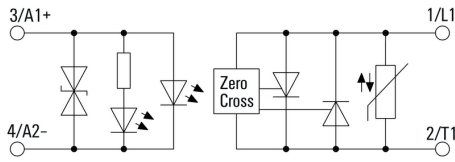
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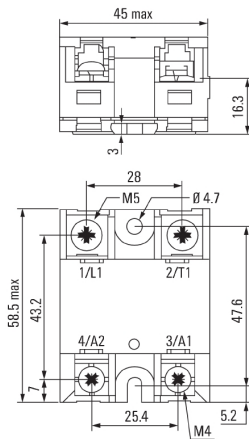
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Drawings

Wiring diagram



Dimensional drawing



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Accessories

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 the following manufacturers:

- Siemens
- Télémecanique
- ABB
- Beckhoff
- Lumberg
- Tags for all-purpose usage; self-adhesive or clip-on tags, depending on the type

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.

Please note that these markers are not intended for printing with the SpeedMarking laser.

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 pc(s).	

Data sheet

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Accessories

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	Version
Order No.	9008540000	Screwdriver, Blade width (B): 6 mm, Blade length: 100 mm
GTIN (EAN)	4032248056538	
Qty.	1 pc(s).	

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

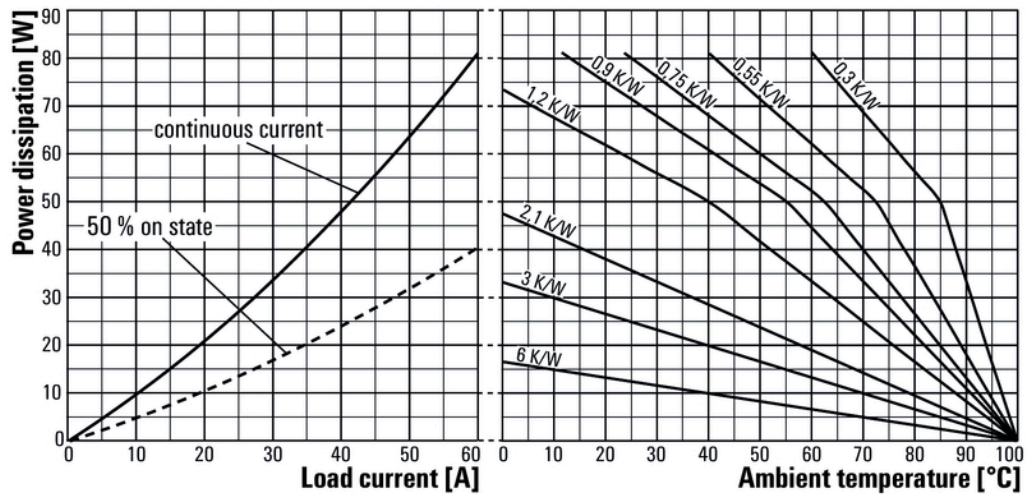
Type	SDS 0.5X3.0X80	Version
Order No.	9008320000	Screwdriver, Blade width (B): 3 mm, Blade length: 80 mm, Blade thickness (A): 0.5 mm
GTIN (EAN)	4032248056262	
Qty.	1 pc(s).	

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Derating curve

Thermal curves and heatsink choice



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Signal characteristics of zero crossing PSSR
 shown at an example with resistive load

