

PSSR 24VDC/1PH AC50A HP
Weidmüller Interface GmbH & Co. KG

Klingenbergstraße 26

D-32758 Detmold

Germany

www.weidmueller.com

Product image


- Load circuit: 1-phase 26...600 V AC / 50 A or 75 A
- Zero-cross switch
- Wear-free and silent switching
- High capacity for handling surge currents (I^2t) up to 6000 A²s (10 ms)
- Plug-in current-monitoring module
- Compact design for direct mounting on a metal surface or heat sink

General ordering data

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
Order No.	1406240000
Type	PSSR 24VDC/1PH AC50A HP
GTIN (EAN)	4050118206746
Qty.	2 pc(s).

Creation date March 23, 2021 9:24:56 PM CET

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Technical data

Dimensions and weights

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

Temperatures

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

Environmental Product Compliance

REACH SVHC	Lead 7439-92-1
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Rated data UL

Certificate No. (cURus)	E360862
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Control side

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

Load side

Continuous current	52 A (AC 51) @ 40 °C mounted on heatsink with 0.75 K/W	Inrush current	400 A (10 ms)
Leakage current	≤ 1 mA	Load category	AC 51
Load limit integral (I^2t) <10 ms	2,450 A ² s	Max. switching current	60 A
Min. switching current	5 mA	Output voltage frequency range	50 / 60 Hz
Protective circuit, load side	Varistor	Pulse load, max. current	700 A (10 ms), non-recurrent
Rated switching voltage	24...600 V AC	Short-circuit-proof	No
Switch-off delay	≤ 10 ms	Switch-on delay	≤ 10 ms
Voltage drop at max. load	≤ 1.35 V	max. switching frequency (DC control voltage)	10 Hz

Contact data

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

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

Insulation coordination

Clearance and creepage distances for control side - load side $\geq 8 \text{ mm}$ Dielectric strength for control side - load side $4 \text{ kV}_{\text{eff}}$

Pollution severity 2

Surge voltage category III

Dielectric strength of load side - housing $4 \text{ kV}_{\text{eff}}$ Impulse withstand voltage $4 \text{ kV (1.2/50 } \mu\text{s)}$

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	ECLASS 11.0	27-37-10-14

Approvals

Approvals



ROHS	Conform
UL File Number Search	E360862

Downloads

Approval/Certificate/Document of Conformity	EU Konformitätserklärung / EU Declaration of Conformity
Engineering Data	EPLAN, WSCAD
User Documentation	Beipackzettel / Package Insert - multilingual

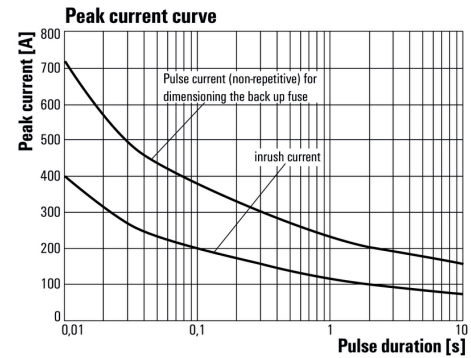
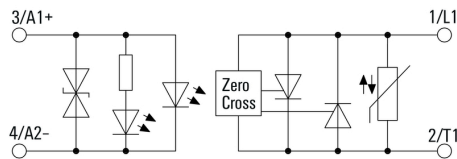
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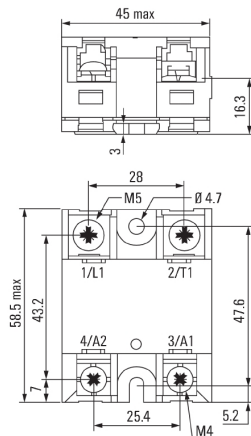
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Drawings

Wiring diagram



Dimensional drawing



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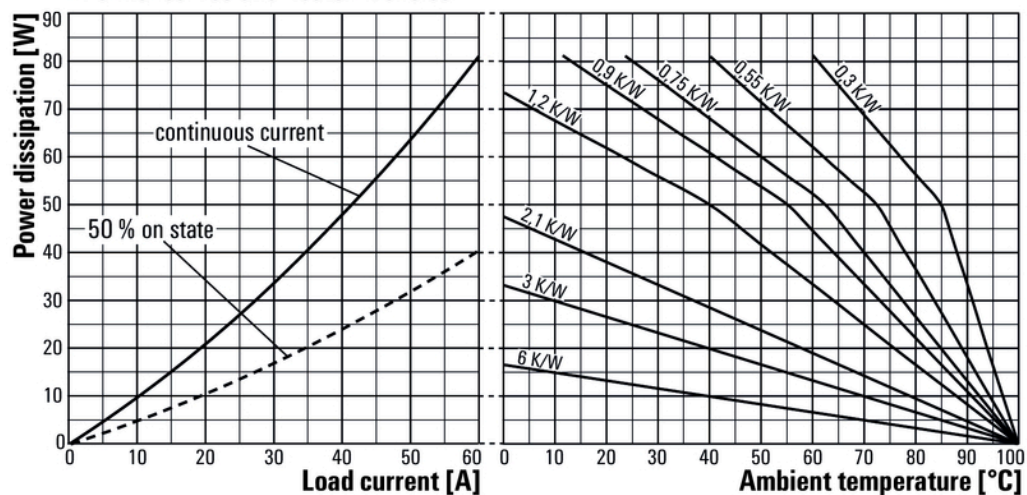
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Drawings

Derating curve

Thermal curves and heatsink choice



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www.weidmueller.com**Drawings****Signal characteristics of zero cross switching PSSR**

shown at an example with resistive load

