

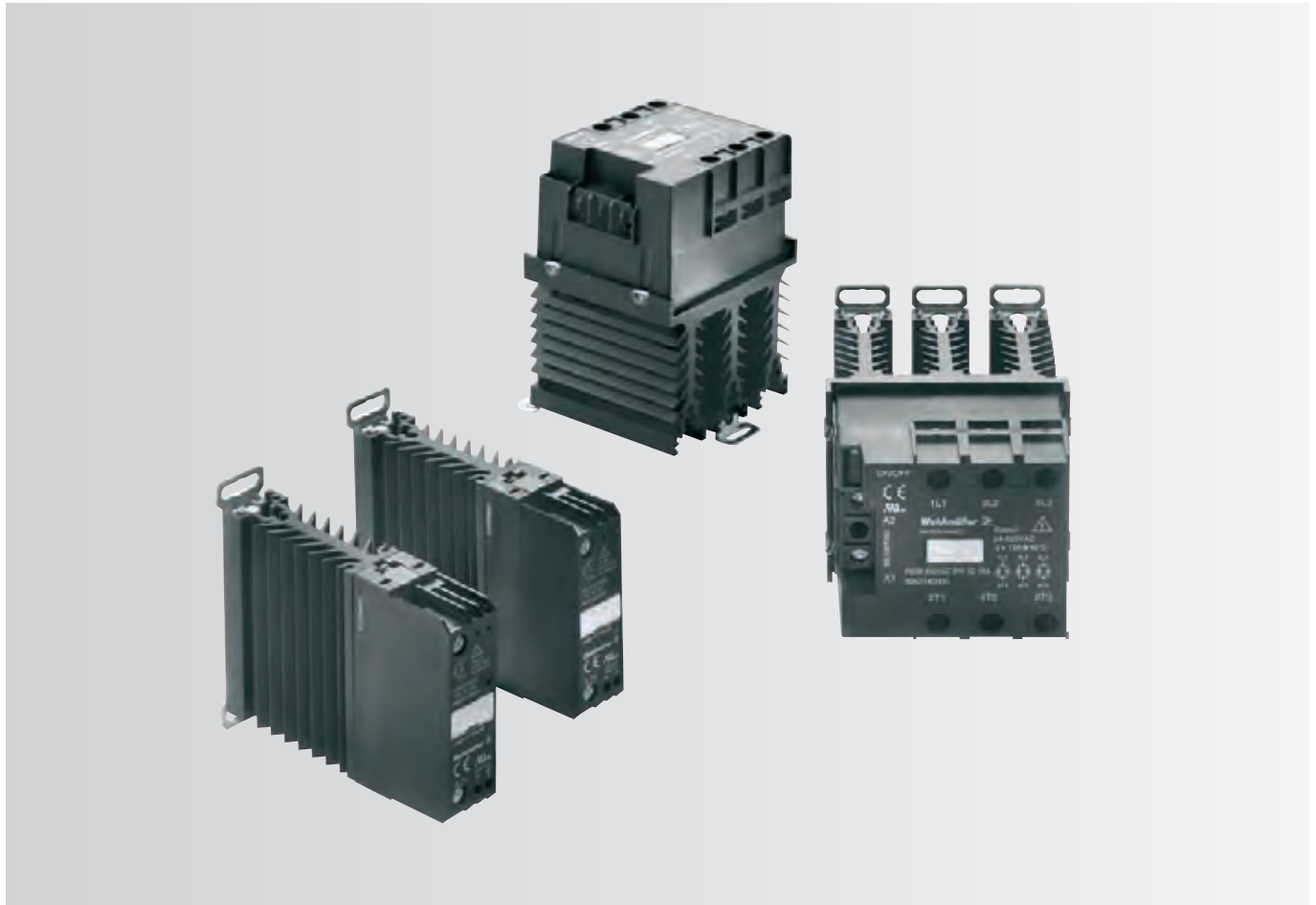
Power Solid-State Relays (PSSR) overview

Single- and three-phase PSSR modules for reliable and wear-free switching of AC loads up to 20 A in industrial environments at high temperatures.

PSSR switching is wear-free and completely silent in comparison to contactors and relay modules. The modules have a high capacity for handling surge currents and thus have sufficient reserves for triggering downstream fuses. This allows the PSSR modules to withstand both capacitive and inductive surge currents.

Single-phase PSSRs, with their zero-voltage switches, are best suited for switching ohmic loads up to 20 A at 55 °C. Applications include the synchronization of heating elements in plastic injection-moulding machines, or the switching of infrared

heating elements in hardening machines or purification plants. Three-phase PSSRs come with an integrated quick-action switch. They can be used for motor control applications in the machine and facility construction industry and also for furnace applications. The modules have a particularly small zero-voltage switching range. Both the PSSR 1PH and the PSSR 3PH versions are built to be ready for use. In other words, they can just be snapped onto the rail and connected up. You don't need to go through the efforts of attaching them on a mounting plate or electrical cabinet wall.



Weidmüller 



Silent

Switching makes no noise so they can be used in noise-sensitive applications.



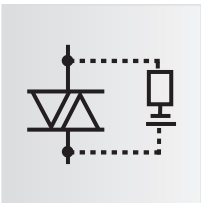
Safe

Semiconductor-based wear-free switching reduces your service costs.



Less sensitive

Because of the semiconductor design, shock and vibrations cannot trigger unexpected switching operations.



Sturdy

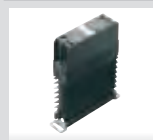
High-quality semiconductor switch and comprehensive suppressor circuitry enable this product to be used safely in an industrial environment.



Ready-to-use

Snap-on – Connect – and ready.

The PSSR product line



PSSR

Single-phase components



PSSR

Three-phase components

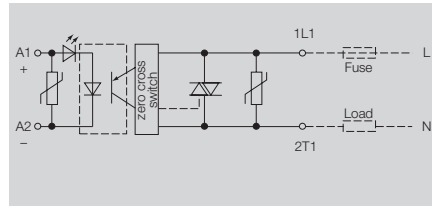
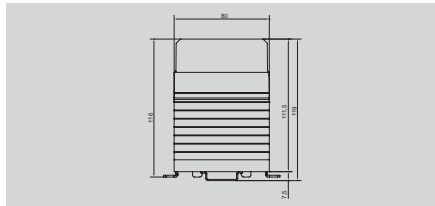


Power Solid-State Relays

PSSR

- Load circuit: single phase 12...275 V AC / 20 A
- Ready-to-use: simply clip on and connect
- Silent, wear-free switching
- High capacity for handling surge currents
 $I^2t = 312 \text{ A}^2\text{s}$ (10 ms)

PSSR 24 V DC / 1 PH AC 20 A



Technical data

Control side

Rated control voltage	3...32 V DC
Power rating	0.03...0.3 W
making voltage	3 V
Dropout voltage	1 V
Input frequency	max. 10 Hz
Status indicator	Green LED
Protective circuit	Varistor

Load side

Solid-state type	Triac
Rated switching voltage	12...275 V
Rated switching current	20 A @ 55 °C
Voltage drop at max. load	0.85 V
Leakage current	< 1 mA
Short-circuit-proof / Protective circuit	No / Varistor
Switch-on delay / Switch-off delay	≤ 10 ms / ≤ 10 ms
Continuous current	20 A
Pulse loading, max. current / Cartridge fuse	250 A (10 ms) / FERRAZ gRC 25 A 14x51 165 A ² s
Load category	AC 53: 5 A

General data

Ambient temperature (operational)	-30 °C...+80 °C
Storage temperature	-30 °C...+100 °C
Humidity	40...95% (indoor) no condensation
Approvals	CE; cURus
Standards	EN 60950, IEC 60947-4-3

Insulation coordination (EN 50 178)

Rated voltage	300 V
Rated impulse withstand voltage	4 kV
Clearance and creepage distances for control/load side	≥ 6.4 mm
Overvoltage category	III
Pollution severity	2

Dimensions

Clamping range (nominal / min. / max.)	mm ²	16 / 1.5 / 16
Length x width x height	mm	98 / 22.5 / 116.1

Note

Ordering data

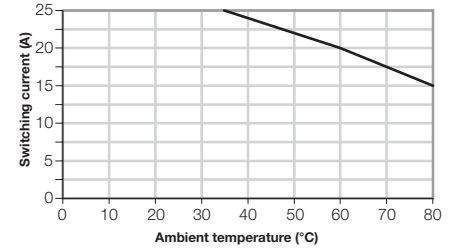
Connection system

Type	Qty.	Order No.
PSSR 24VDC/1PH AC 20A	1	8952110000

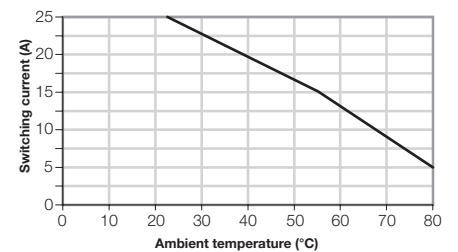
Note

Accessories

Derating curve with moderate ventilation and 50% operational running time



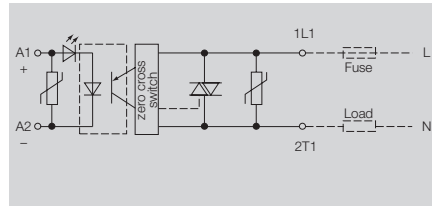
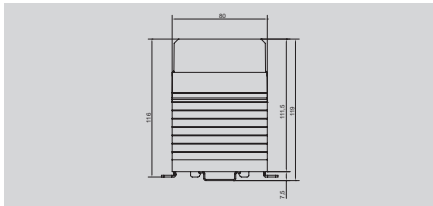
Derating curve without ventilation and in continual operation



PSSR

- Load circuit: single phase 12...275 V AC / 20 A
- Ready-to-use: simply clip on and connect
- Silent, wear-free switching
- High capacity for handling surge currents
I²t = 312 A²s (10 ms)

PSSR 230 V AC / 1 PH AC 20 A



Technical data

Control side

Rated control voltage	110...240 V DC / 150...240 V AC
Power rating	0.3...1.7 W
making voltage	10 V DC / 150 V AC
Dropout voltage	1 V
Input frequency	max. 10 Hz
Status indicator	Green LED
Protective circuit	RC element, Varistor

Load side

Solid-state type	Triac
Rated switching voltage	12...275 V
Rated switching current	20 A @ 55 °C
Voltage drop at max. load	0.85 V
Leakage current	< 1 mA
Short-circuit-proof / Protective circuit	No / RC element, Varistor
Switch-on delay / Switch-off delay	30 ms / 30 ms
Continuous current	20 A
Pulse loading, max. current / Cartridge fuse	250 A (10 ms) / FERRAZ gRC 25 A 14x51 165 A ² s
Load category	AC 53: 5 A

General data

Ambient temperature (operational)	-30 °C...+80 °C
Storage temperature	-30 °C...+100 °C
Humidity	40...95% (indoor) no condensation
Approvals	CE; cURus
Standards	EN 60950, IEC 60947-4-3

Insulation coordination (EN 50 178)

Rated voltage	300 V
Rated impulse withstand voltage	4 kV
Clearance and creepage distances for control/load side	≥ 6.4 mm
Overvoltage category	III
Pollution severity	2

Dimensions

Clamping range (nominal / min. / max.)	mm ²	16 / 1.5 / 16
Length x width x height	mm	98 / 22.5 / 116.1

Note

Ordering data

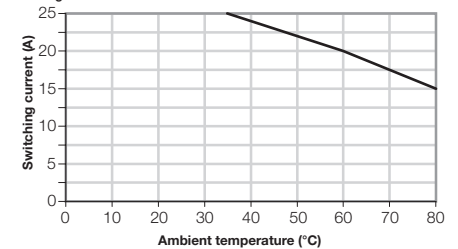
Connection system

Type	Qty.	Order No.
PSSR 230VAC/1PH AC 20A	1	8952120000

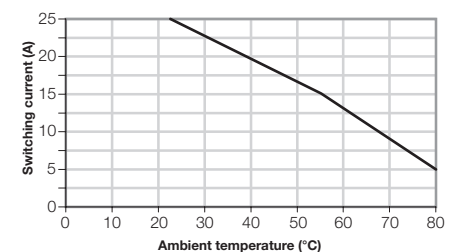
Note

Accessories

Derating curve with moderate ventilation and 50% operational running time



Derating curve without ventilation and in continual operation

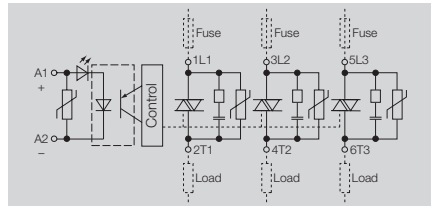
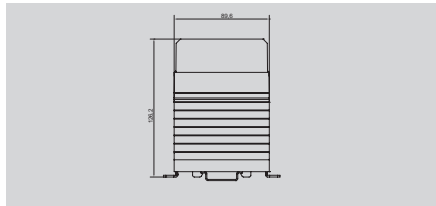


Power Solid-State Relays

PSSR

- Load circuit: single phase 12...275 V AC / 20 A
- Ready-to-use: simply clip on and connect
- Silent, wear-free switching
- High capacity for handling surge currents
 $I^2t = 312 \text{ A}^2\text{s}$ (10 ms)

PSSR 24 V DC / 3 PH AC 20 A



Technical data

Control side	
Rated control voltage	8...30 V DC / 10...30 V AC
Power rating	0.1...2 W
making voltage	8 V DC / 10 V AC
Dropout voltage	4 V
Input frequency	max. 10 Hz
Status indicator	Green LED
Protective circuit	RC element, Varistor
Load side	
Solid-state type	Thyristor
Rated switching voltage	24...520 V
Rated switching current	20 A @ 55 °C
Voltage drop at max. load	1.4 V
Leakage current	< 1 mA
Short-circuit-proof / Protective circuit	No / RC element, Varistor
Switch-on delay / Switch-off delay	30 ms / 30 ms
Continuous current	20 A
Pulse loading, max. current / Cartridge fuse	550 A (10 ms) / FERRAZ gRC 63 A 22x58 1353 A ² s
Load category	AC 53: 3 x 12 A
General data	
Ambient temperature (operational)	-40 °C...+80 °C
Storage temperature	-40 °C...+100 °C
Humidity	40...95% (indoor) no condensation
Approvals	CE; cURus
Standards	EN 60950, IEC 60947-4-3
Insulation coordination (EN 50 178)	
Rated voltage	300 V
Rated impulse withstand voltage	4 kV
Clearance and creepage distances for control/load side	≥ 6.4 mm
Overvoltage category	III
Pollution severity	2
Dimensions	
Clamping range (nominal / min. / max.)	mm ² 10 / 1.5 / 10
Length x width x height	mm 98 / 89.6 / 126.2
Note	

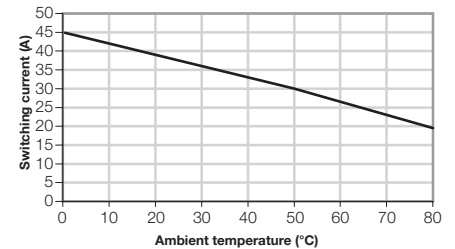
Ordering data

Connection system	Type	Qty.	Order No.
	PSSR 24VDC/3PH AC 20A	1	8952130000

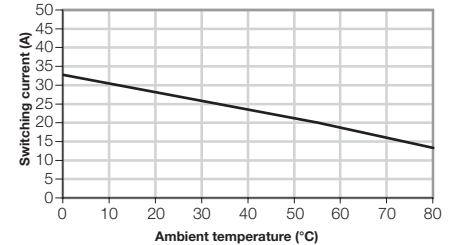
Note

Accessories

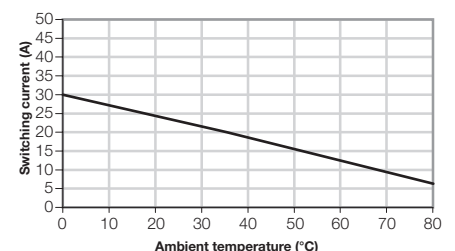
Derating curve with maximum ventilation



Derating curve with moderate ventilation and 50% operational running time



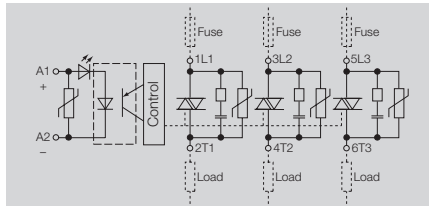
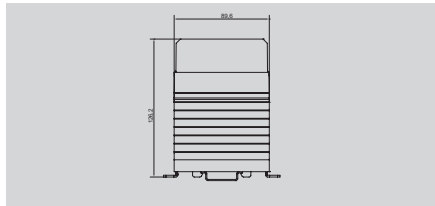
Derating curve without ventilation and in continual operation



PSSR

- Load circuit: single phase 12...275 V AC / 20 A
- Ready-to-use: simply clip on and connect
- Silent, wear-free switching
- High capacity for handling surge currents
I²t = 312 A²s (10 ms)

PSSR 230 V AC / 3 PH AC 20 A



Technical data

Control side

Rated control voltage	90...240 V AC / DC
Power rating	0.4...2.6 W
making voltage	90 V AC/DC
Dropout voltage	15 V
Input frequency	max. 10 Hz
Status indicator	Green LED
Protective circuit	RC element, Varistor

Load side

Solid-state type	Thyristor
Rated switching voltage	24...520 V
Rated switching current	20 A @ 55 °C
Voltage drop at max. load	1.4 V
Leakage current	< 1 mA
Short-circuit-proof / Protective circuit	No / RC element, Varistor
Switch-on delay / Switch-off delay	30 ms / 30 ms
Continuous current	20 A
Pulse loading, max. current / Cartridge fuse	550 A (10 ms) / FERRAZ gRC 63 A 22x58 1353 A ² s
Load category	AC 53: 3 x 12 A

General data

Ambient temperature (operational)	-40 °C...+80 °C
Storage temperature	-40 °C...+100 °C
Humidity	40...95% (indoor) no condensation
Approvals	CE; cURus
Standards	EN 60950, IEC 60947-4-3

Insulation coordination (EN 50 178)

Rated voltage	300 V
Rated impulse withstand voltage	4 kV
Clearance and creepage distances for control/load side	≥ 6.4 mm
Overvoltage category	III
Pollution severity	2

Dimensions

Clamping range (nominal / min. / max.)	mm ²	10 / 1.5 / 10
Length x width x height	mm	98 / 89.6 / 126.2

Note

Ordering data

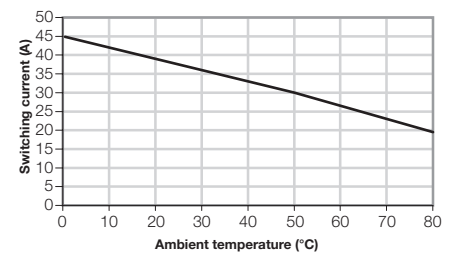
Connection system

Type	Qty.	Order No.
PSSR 230VAC/3PH AC 20A	1	8952140000

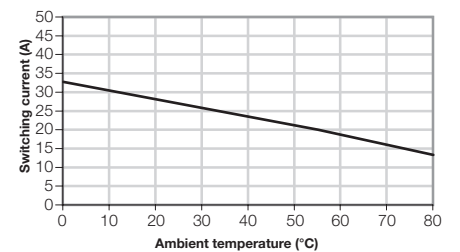
Note

Accessories

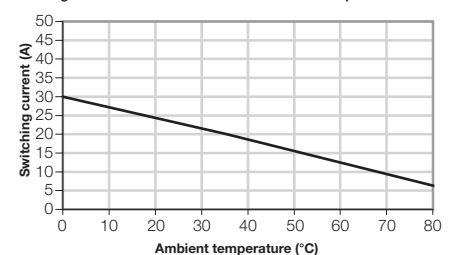
Derating curve with maximum ventilation



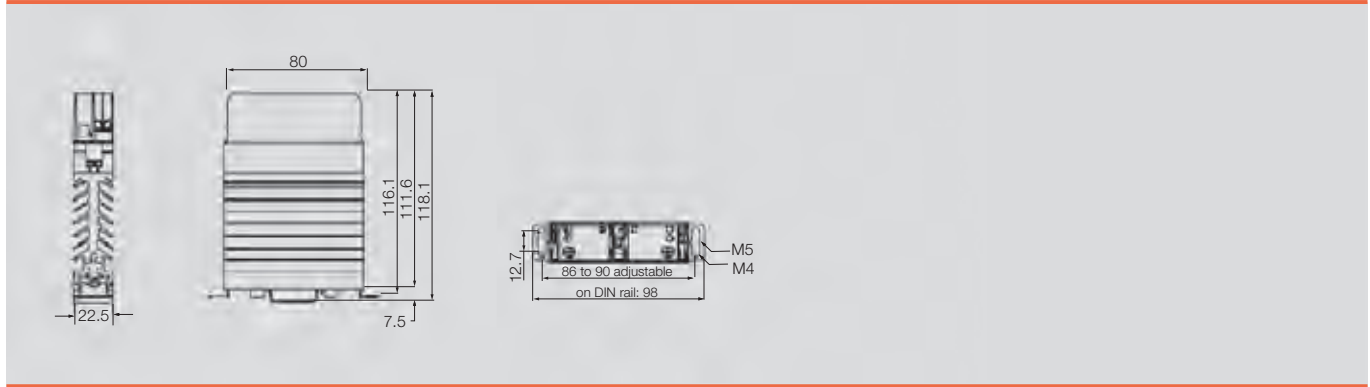
Derating curve with moderate ventilation and 50% operational running time



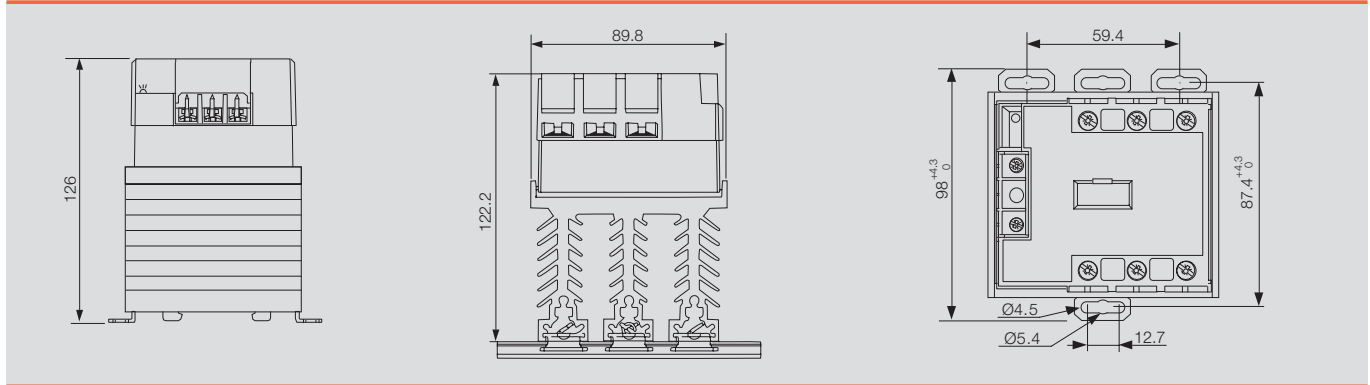
Derating curve without ventilation and in continual operation



Dimensioned drawing for PSSR, single-phase



Dimensioned drawing for PSSR, three-phase



Uninsulated screwdriver

Weidmüller SoftFinish screwdriver for general uses. Blade made from fully hardened, high-alloy chromium-vanadium-molybdenum steel, matt chrome finish.



SD S

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

Type	Size / AF	A	B	C	Order No.
SD 0.5x3.0x80		0.5	3.0	80	9008320000



SDK PZ

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

SDK PZ2		2		100	9008540000
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