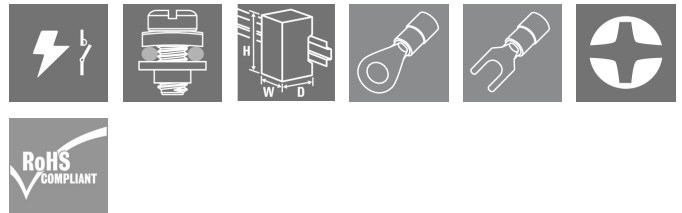


PSSRN K 24VDC 3Z K 600VAC 20A**Weidmüller Interface GmbH & Co. KG**

Klingenbergstraße 26

D-32758 Detmold

Germany

www.weidmueller.com**Product image**

Switch high 3-phase AC loads up to 600 V AC and 20 A completely wear-free, reliable and noiseless.

- Load circuit 3-phase: 42...600 V AC / 20 A
- Compact design with a width from 54 mm
- Ready to use with integrated heat sink and mounting rail base for mounting on DIN rail TS35
- Short circuit protection with circuit breakers possible
- Output connections ring lug suitable

General ordering data

| | |
|------------|--|
| Version | Power Solid-State Relais, Solid state contactor, Rated control voltage: 5...32 V DC , Rated switching voltage: 42...600 V AC +10% -15%, Continuous current: 20 A |
| Order No. | 2986910000 |
| Type | PSSRN K 24VDC 3Z K 600VAC 20A |
| GTIN (EAN) | 4099986853034 |
| Qty. | 1 pc(s). |

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Technical data

Dimensions and weights

| | | | |
|------------|----------|-----------------|------------|
| Depth | 102.5 mm | Depth (inches) | 4.035 inch |
| Height | 110 mm | Height (inches) | 4.331 inch |
| Width | 54 mm | Width (inches) | 2.126 inch |
| Net weight | 510 g | | |

Temperatures

| | | | |
|---------------------|---|-----------------------|----------------|
| Storage temperature | -40 °C...100 °C | Operating temperature | -40 °C...80 °C |
| Humidity | 95% relative humidity, non-condensing @ 40°C | | |

Probability of failure

| | |
|------|------|
| MTTF | 14 a |
|------|------|

Control side

| | | | |
|-----------------------|-------------|-------------------------|---------------|
| Rated control voltage | 5...32 V DC | Nominal control current | 23 mA...31 mA |
| Status indicator | Green LED | | |

Load side

| | | | |
|---------------------------------------|-------------------------|--------------------------|---|
| Rated switching voltage | 42...600 V AC +10% -15% | Continuous current | 20 A (AC 51) @ 40 °C; 10 A (AC 53) |
| Max. switching current | 25 A | Load category | AC 51, AC 53 |
| Inrush current | 61 A | Pulse load, max. current | 600 A (10 ms, non-recurrent) |
| Load limit integral (I^2t) <10 ms | 1,800 A ² s | Switch-on delay | ≤ 10 ms |
| Switch-off delay | ≤ 10 ms | Leakage current | 5 mA |
| Min. switching current | 250 mA | Short-circuit-proof | No |
| Protective circuit, load side | Integrated varistor | Contact type | 3 NO contacts (Thyristor (zero-cross switch)) |
| Output voltage frequency range | 45...65 Hz | | |

General data

| | | | |
|---------|--------------------------------|------|-------|
| Version | 3-phase with heat sink mounted | Rail | TS 35 |
| Colour | black | | |

Insulation coordination

| | | | |
|--|---------------------|--|---------------------|
| Pollution severity | 2 | Surge voltage category | III |
| Dielectric strength for control side - load side | 4 kV _{eff} | Dielectric strength of load side - housing | 4 kV _{eff} |
| Impulse withstand voltage | 6 kV (1.2/50 µs) | Protection degree | IP20 |

Further details of approvals / standards

| | |
|-------------------------|---------|
| Certificate no. (cULus) | E537615 |
|-------------------------|---------|

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Technical data

Connection data (control side)

| | | | |
|---|---------------------|---|---------------------------------|
| Wire connection method (control side) | Screw connection | 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) | M3 screw with captivated washer |
| Min. tightening torque (control side) | 0.5 Nm | Max. tightening torque (control side) | 0.6 Nm |
| Blade size (control side) | PZ 1 | | |

Connection data (load side)

| | | | |
|--|-------------------|--|---------------------------------|
| Wire connection method (load side) | Screw connection | Min. rated connection clamping range (load side) | 2.5 mm ² |
| Max. rated connection clamping range (load side) | 6 mm ² | Wire connection method (load side) | M4 screw with captivated washer |
| Min. tightening torque (load side) | 1.5 Nm | Max. tightening torque (load side) | 2 Nm |
| Blade size (load side) | Gr. PZ2 | | |

Classifications

| | | | |
|-------------|-------------|-------------|-------------|
| ETIM 6.0 | EC002055 | ETIM 7.0 | EC002055 |
| ETIM 8.0 | EC002055 | ETIM 9.0 | 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 |

Environmental Product Compliance

REACH SVHC

/

Approvals

Approvals



| | |
|-------------------------|------------|
| ROHS | Conform |
| UL File Number Search | UL Website |
| Certificate no. (cULus) | E537615 |

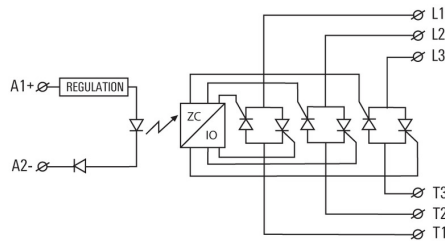
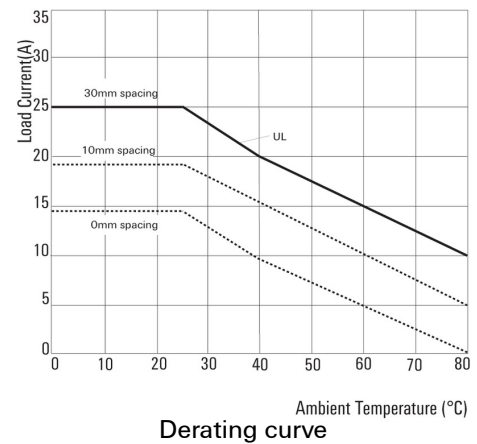
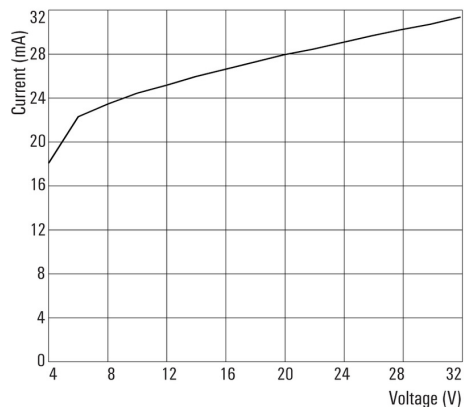
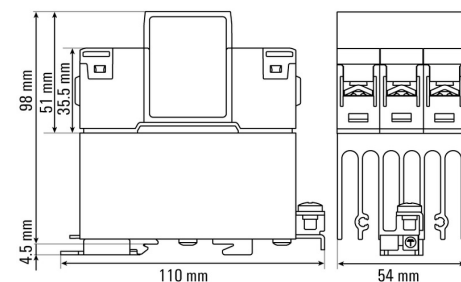
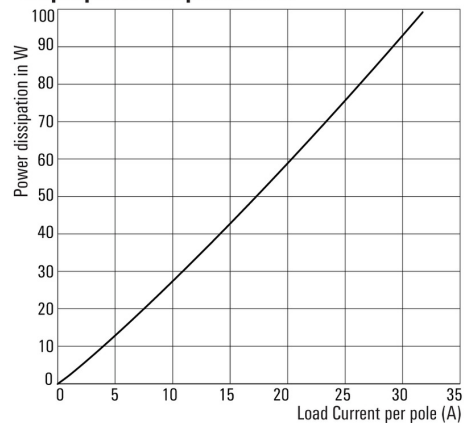
Downloads

| | |
|---|---|
| Approval/Certificate/Document of Conformity | EU Konformitätserklärung / EU Declaration of Conformity |
| Engineering Data | CAD data – STEP |
| User Documentation | Beipackzettel / Package Insert – multilingual |
| Catalogues | Catalogues in PDF-format |

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Drawings
Wiring diagram

Graph
Derating Curve

Derating curve
Graph
Control current Curve

Dimensional drawing

Graph
Output power dissipation Curve


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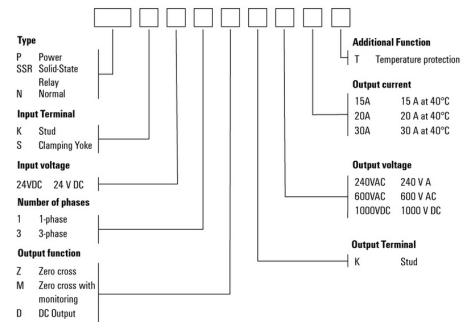
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Drawings

Miscellaneous

Power Solid-State Relay (PSSR)

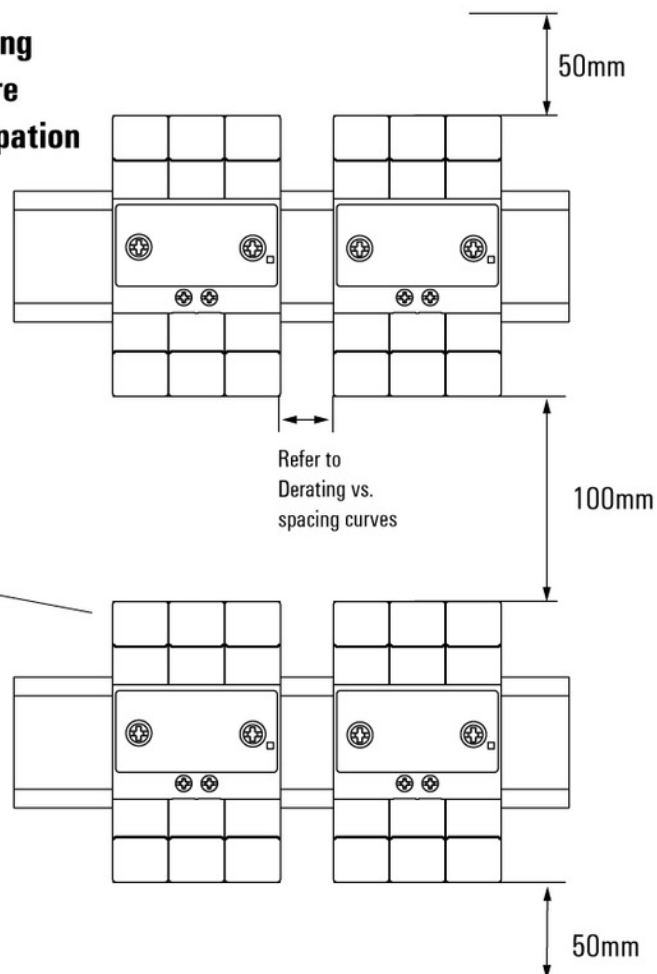


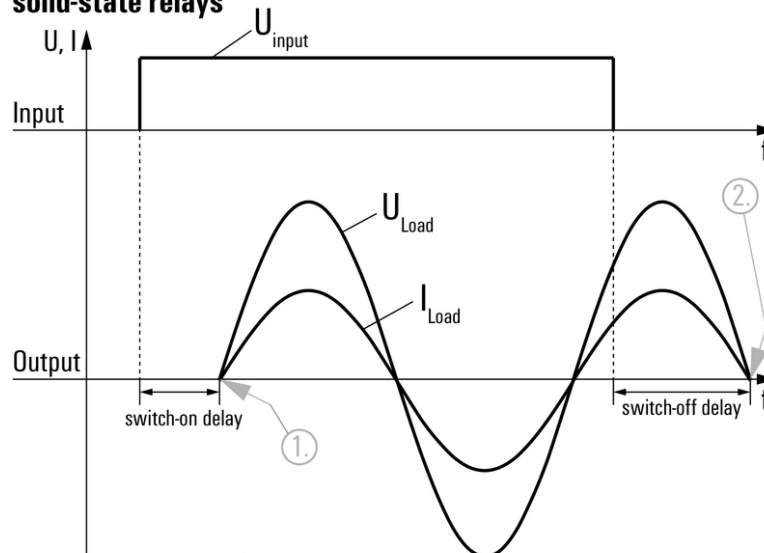
Type codes

Miscellaneous

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

**Power Solid
 State Relay**
 vertical orientated



Miscellaneous**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.