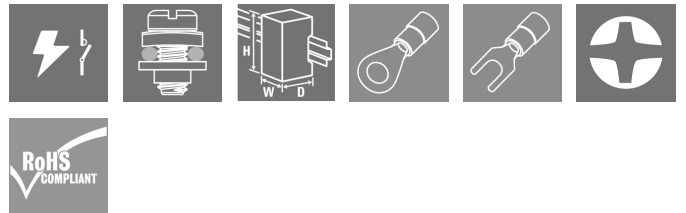


**PSSRN K 24VDC 3Z K 600VAC 20A****Weidmüller Interface GmbH & Co. KG**

Klingenbergstraße 26

D-32758 Detmold

Germany

[www.weidmueller.com](http://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.	<a href="#">2986910000</a>
Type	PSSRN K 24VDC 3Z K 600VAC 20A
GTIN (EAN)	4099986853034
Qty.	1 pc(s).

## PSSRN K 24VDC 3Z K 600VAC 20A

Weidmüller Interface GmbH &amp; Co. KG

Klingenbergstraße 26

D-32758 Detmold

Germany

www.weidmueller.com

## 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 <sup>2</sup> 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 <sub>eff</sub>	Dielectric strength of load side - housing	4 kV <sub>eff</sub>
Impulse withstand voltage	6 kV (1.2/50 µs)	Protection degree	IP20

## Further details of approvals / standards

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

## PSSRN K 24VDC 3Z K 600VAC 20A

Weidmüller Interface GmbH &amp; Co. KG

Klingenbergstraße 26

D-32758 Detmold

Germany

www.weidmueller.com

## Technical data

## Connection data (control side)

Wire connection method (control side)	Screw connection	Min. rated connection clamping range (control side)	0.75 mm <sup>2</sup>
Max. rated connection clamping range (control side)	2.5 mm <sup>2</sup>	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 <sup>2</sup>
Max. rated connection clamping range (load side)	6 mm <sup>2</sup>	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	<a href="#">EU Konformitätserklärung / EU Declaration of Conformity</a>
Engineering Data	<a href="#">CAD data – STEP</a>
User Documentation	<a href="#">Beipackzettel / Package Insert – multilingual</a>
Catalogues	<a href="#">Catalogues in PDF-format</a>

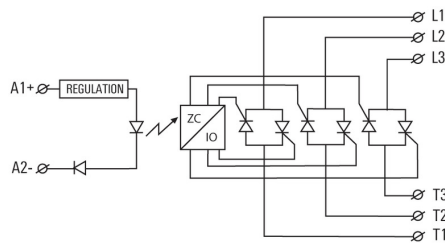
## PSSRN K 24VDC 3Z K 600VAC 20A

**Weidmüller Interface GmbH & Co. KG**  
 Klingenbergstraße 26  
 D-32758 Detmold  
 Germany

[www.weidmueller.com](http://www.weidmueller.com)

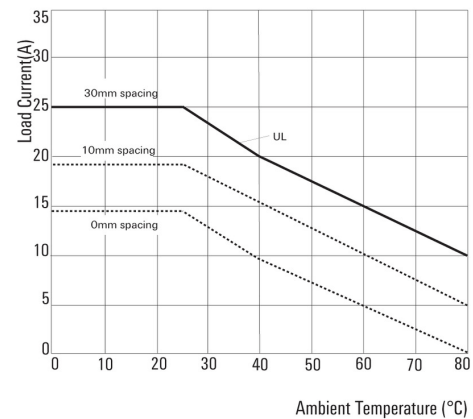
## Drawings

## Wiring diagram



## Graph

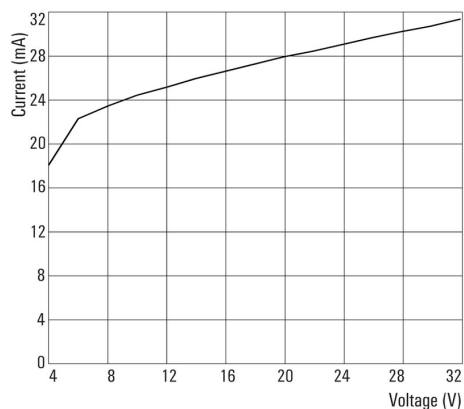
Derating Curve



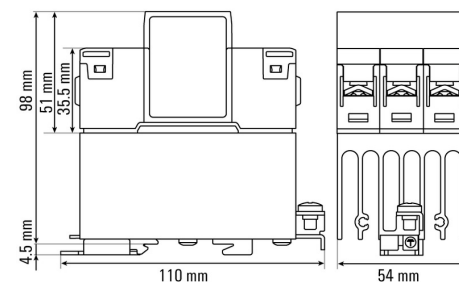
Derating curve

## Graph

Control current Curve

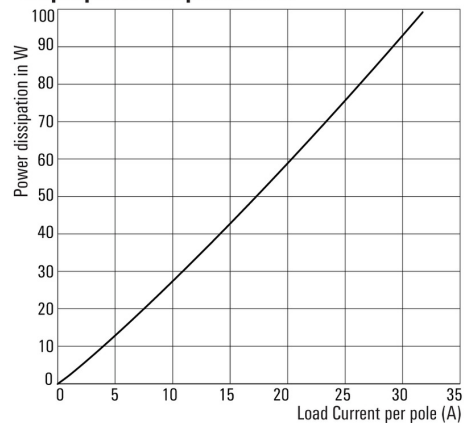


## Dimensional drawing



## Graph

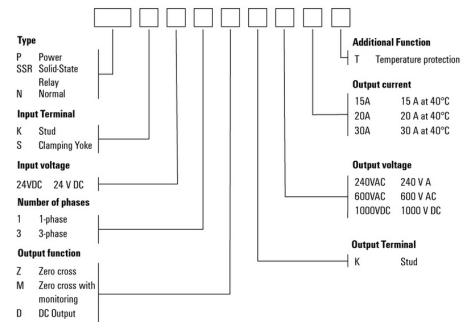
Output power dissipation Curve



**PSSRN K 24VDC 3Z K 600VAC 20A**

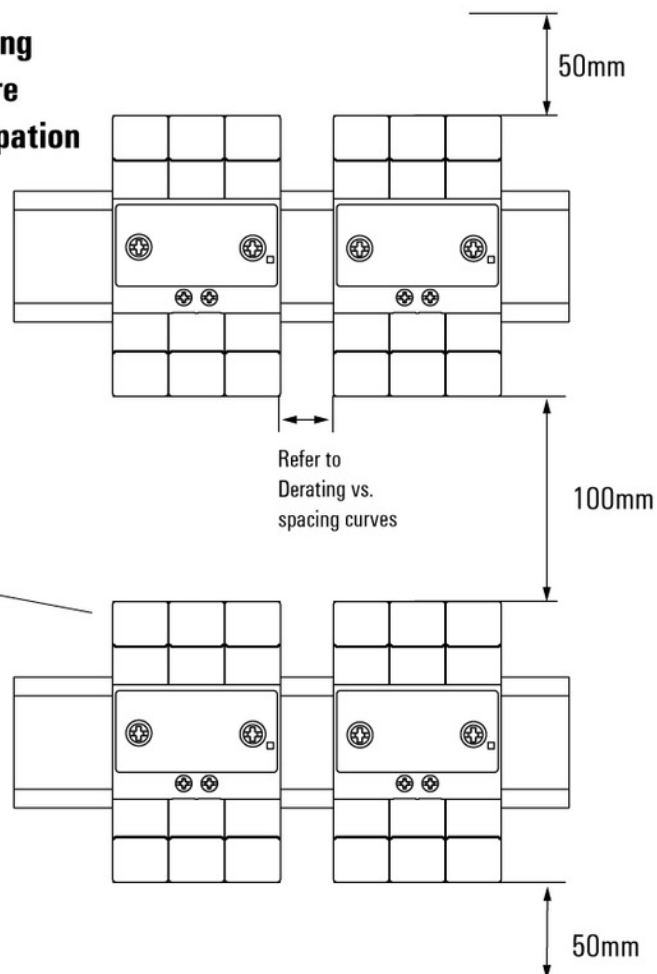
**Weidmüller Interface GmbH & Co. KG**  
 Klingenbergstraße 26  
 D-32758 Detmold  
 Germany

www.weidmueller.com

**Drawings**
**Miscellaneous**
**Power Solid-State Relay (PSSR)**

**Type codes**
**Miscellaneous**

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

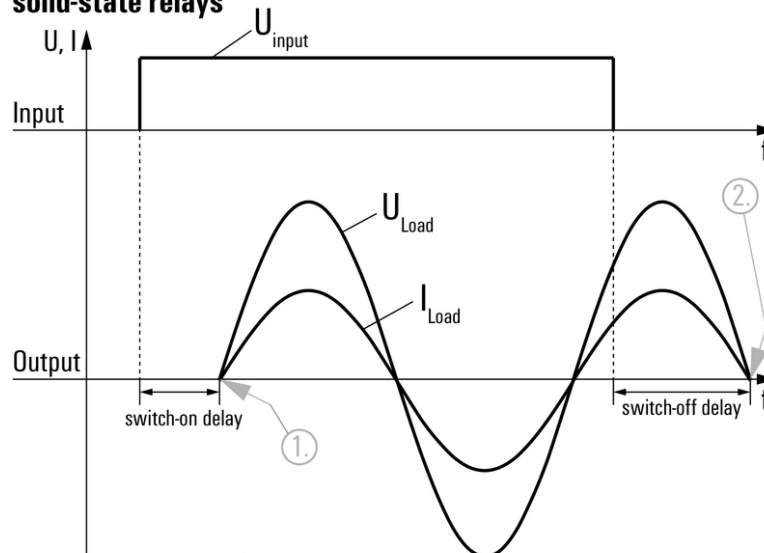
**Power Solid  
State Relay**  
vertical orientated



**PSSRN K 24VDC 3Z K 600VAC 20A**

**Weidmüller Interface GmbH & Co. KG**  
Klingenbergstraße 26  
D-32758 Detmold  
Germany

[www.weidmueller.com](http://www.weidmueller.com)

**Drawings****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.