

# SP1PXS-TZX0480-20

1 phase | normally open solid state AC up to 530V, 20A | synchr zero | screw IP 20



## Main circuit

Output type	TRIAC		
Type	Synchr zero		
Rated voltage AC	480 V		
Output voltage range AC	48...530 V		
Operating frequency	47...63 Hz		
Recommended minimum contact load	100 mA		
Maximum leakage current @ rated voltage A	10 mA		
Maximum voltage drop @ rated current	≤ 1.7 V rms		
Repetitive peak voltage in off-state	1,200 Vpk		
Maximum off state dv / dt	200 V / μs		
Maximum non repetitive di / dt	50 A / μs		
Contact type	Screw		
Contact	1 NO		
Load current	<b>10 A</b>	<b>15 A</b>	<b>20 A</b>
Thermal derating, refer to:	fig. 2	fig. 3	fig. 4
Inrush current @ 10 ms	120 A	160 A	200 A
I <sup>2</sup> t @ 10 ms	72 A <sup>2</sup> s	128 A <sup>2</sup> s	200 A <sup>2</sup> s

## Control circuit

Operating voltage range	4 ... 32 V DC	90 ... 280 V AC
Max. input current @ max. operating voltage	25 mA	25 mA
Pick-up voltage	4 V DC	90 V AC
Release voltage	1 V DC	10 V AC
Power consumption DC	0.8 W	7 VA

## Insulation

Rated test voltage input/output	4000 Vrms / 1 min
Rated test voltage input output/base	2500 Vrms / 1 min
Overtoltage category	III

## General data

Ambient temperature storage (no ice)	-30 ... 100
Ambient temperature operation	-30 ... 80
Pick-up time	1/2 cycle + 1 ms / 30 ms
Release time	1/2 cycle + 1 ms / 30 ms
Power Factor	> 0.5
Protection degree	IP 20
Dimension	fig. 3
Weight	113 g
Housing material	PBT

## Product references

Description	Type	010	015	020
1 NO, LED, RC Protection	SP1PXS-TZX0480N...X/AC90-280V	o.r.	o.r.	o.r.
1 NO, LED, TVS (*2) and RC protection	SP1PXS-TZX0480T...X/AC90-280V	o.r.	o.r.	o.r.
1 NO, LED, MOV (*1) and RC protection	SP1PXS-TZX0480V...X/AC90-280V	o.r.	o.r.	o.r.
1 NO, LED, RC Protection	SP1PXS-TZX0480N...X/DC4-32V	o.r.	o.r.	o.r.
1 NO, LED, TVS (*2) and RC protection	SP1PXS-TZX0480T...X/DC4-32V	o.r.	o.r.	o.r.
1 NO, LED, MOV (*1) and RC protection	SP1PXS-TZX0480V...X/DC4-32V	o.r.	o.r.	o.r.

Select load current to complete product reference

(\*1) Maximum operating voltage allowed by MOV: 550 V AC

(\*2) TVS protection voltage: 960 V

**Heatsinks (to be used either with SP1P/pad or thermal grease). Further heatsink options are shown in the following chapter.**

Heatsinks	Thermal resistance [°C/W]	Dimensions H x W x D (mm)	Mounting type
HS_003	1.9	106x96x110	DIN rail (with clip)
HS_005	1.6	122x55x59	DIN rail (with clip)
HS_012	2.1	106x96x50	Panel (with screws)

## Accessories

Thermal conducting pad	SP1P/pad
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fig. 1. Wiring diagram

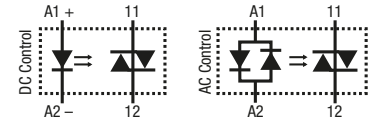


fig. 2. Thermal derating curve 10 A

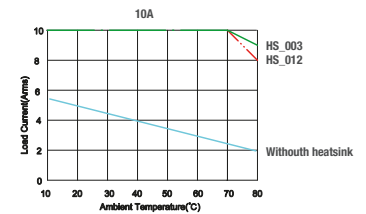


fig. 3. Thermal derating curve 15 A

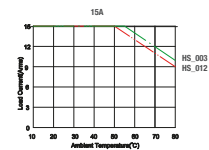


fig. 4. Thermal derating curve 20 A

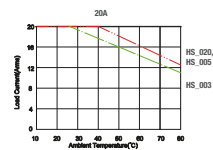
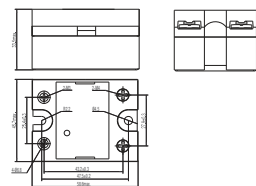


fig. 5. Dimension (mm)



## Technical approvals, conformities

Standards EN 60950-1, EN 62314

Approvals CE C RU US