SP1PXN-TZX0480-125

1 phase | normally open solid state AC up to 530V, 125A | synchr zero | screw IP 00

Main circuit

Output type	SCR		
Type	Synchronised 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	500 V / µs		
Maximum non repetitive di / dt	50 A / µs		
Contact type	Screw		
Contact	1 NO		
Load current	**80 A**	**100 A**	**125 A**
Thermal derating, refer to:	fig. 2	fig. 3	fig. 4
Inrush current @ 10 ms	1000 A	1250 A	1500 A
I2t @ 10 ms	5000 A²s	7812 A²s	11250 A²s

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
Overvoltage category	III

General data

Ambient temperature storage (no ice)	-30 … 100
Ambient temperature operation	-30 … 80
Pick-up time	1/2 cycle + 1 ms / 40 ms
Release time	1/2 cycle + 1 ms / 40 ms
Power Factor	> 0.5
Protection degree	IP 00
Dimension	fig. 5
Weight	100 g
Housing material	PBT

Product references

Description	Type	080	100	125
1 NO, LED, RC Protection	SP1PXN-TZX0480N…X/AC90-280V	o.r.	o.r.	o.r.
1 NO, LED, TVS (*2) and RC protection	SP1PXN-TZX0480T…X/AC90-280V	o.r.	o.r.	o.r.
1 NO, LED, MOV (*1) and RC protection	SP1PXN-TZX0480V…X/AC90-280V	o.r.	o.r.	o.r.
1 NO, LED, RC Protection	SP1PXN-TZX0480N…X/DC4-32V	o.r.	o.r.	o.r.
1 NO, LED, TVS (*2) and RC protection	SP1PXN-TZX0480T…X/DC4-32V	o.r.	o.r.	o.r.
1 NO, LED, MOV (*1) and RC protection	SP1PXN-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_006	0.6	148.5x55x59	DIN rail (with clip)
HS_007	0.8	122.5x81x100.5	DIN rail (with clip)
HS_015	0.6	106x80x96	Panel (with screws)

Accessories

Thermal conducting pad	SP1P/pad
Transparent cover I can be removed after assembly	SP1PXN/cover

fig. 1. Wiring diagram

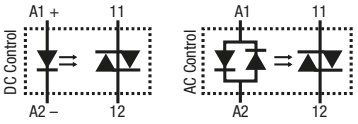


fig. 2. Thermal derating curve 80 A

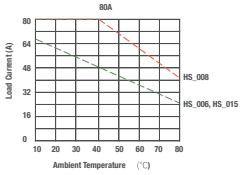


fig. 3. Thermal derating curve 100 A

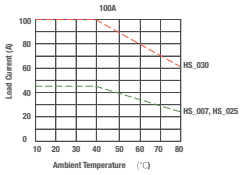


fig. 4. Thermal derating curve 125 A

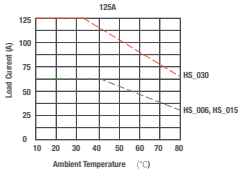
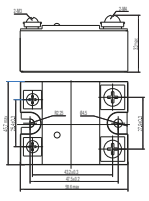


fig. 5. Dimension (mm)



Technical approvals, conformities

Standards EN 60950-1, EN 62314

Approvals