

# SP1MXF-TZX0380-25

1 phase | normally open solid state AC 380V | synchr zero | Faston IP 00



## Main circuit

|   |                     |                      |                      |
|---|---------------------|----------------------|----------------------|
| Output type                               | TRIAC               |                      |                      |
| Type                                      | Synchronised zero   |                      |                      |
| Rated voltage AC                          | 380 V               |                      |                      |
| Output voltage range AC                   | 24 ... 440 V        |                      |                      |
| Operating frequency                       | 47 ... 63 Hz        |                      |                      |
| Recommended minimum contact load          | 100 mA              |                      |                      |
| Maximum leakage current @ rated voltage A | 5 mA                |                      |                      |
| Maximum voltage drop @ rated current      | ≤ 1.5 V rms         |                      |                      |
| Repetitive peak voltage in off-state      | 600 Vpk             |                      |                      |
| Maximum off state dv / dt                 | 200 V / μs          |                      |                      |
| Maximum non repetitive di / dt            | 50 A / μs           |                      |                      |
| Contact type                              | Faston              |                      |                      |
| Contact                                   | 1 NO                |                      |                      |
| Load current                              | <b>10 A</b>         | <b>16 A</b>          | <b>25 A</b>          |
| Thermal derating, refer to:               | fig. 2              | fig. 3               | fig. 4               |
| Inrush current @ 10 ms                    | 120 A               | 160 A                | 250 A                |
| I <sup>2</sup> t @ 10 ms                  | 50 A <sup>2</sup> s | 128 A <sup>2</sup> s | 312 A <sup>2</sup> s |

## Control circuit

|   |               |
|---|---------------|
| Operating voltage range                     | 4 ... 32 V DC |
| Max. input current @ max. operating voltage | 25 mA         |
| Pick-up voltage                             | 4 V DC        |
| Release voltage                             | 1 V DC        |
| Power consumption DC                        | 0.8 W         |

## 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 °C |
| Ambient temperature operation        | -30 ... 80 °C  |
| Pick-up time                         | 10 ms          |
| Release time                         | 10 ms          |
| Power Factor                         | > 0.5          |
| Protection degree                    | IP 00          |
| Dimension                            | fig. 5.        |
| Weight                               | 35 g           |
| Housing material                     | PBT            |

## Product references

| Description                           | Type                        | 010  | 016  | 025  |
|---------------------------------------|-----------------------------|------|------|------|
| 1 NO, LED, RC Protection              | SP1MXF-TZX0380N...X/DC4-32V | ✓    | o.r. | ✓    |
| 1 NO, LED, TVS (*2) and RC protection | SP1MXF-TZX0380T...X/DC4-32V | ✓    | o.r. | ✓    |
| 1 NO, LED, MOV (*1) and RC protection | SP1MXF-TZX0380V...X/DC4-32V | o.r. | o.r. | o.r. |

Select load current to complete product reference

(\*1) Maximum operating voltage allowed by MOV: 420 V AC

(\*2) TVS protection voltage: 750 V

Heatsinks (to be used either with SP1M/pad or thermal grease)

| Heatsinks | thermal resistance [°C/W] | Dimensions H x W x D (mm) | Mounting type        |
|-----------|---------------------------|---------------------------|----------------------|
| HS_003    | 1.9                       | 81x50x82.5                | DIN rail (with clip) |
| HS_010    | 2.8                       | 80x32x50                  | Panel (with screws)  |
| HS_012    | 2.1                       | 80x50x50                  | Panel (with screws)  |
| HS_015    | 0.6                       | 106x80x96                 | Panel (with screws)  |
| HS_020    | 1.6                       | 106x50x96                 | Panel (with screws)  |

## Accessories

|                        |          |
|------------------------|----------|
| Thermal conducting pad | SP1M/pad |
|------------------------|----------|



fig. 1. Wiring diagram

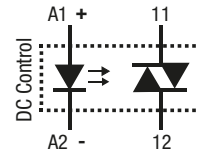


fig. 2. Thermal derating curve 10 A

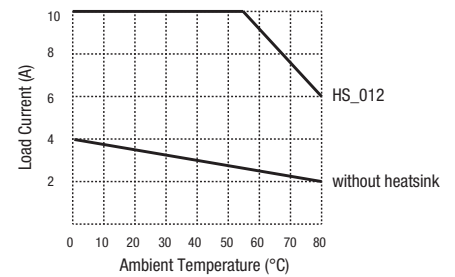


fig. 3. Thermal derating curve 16 A

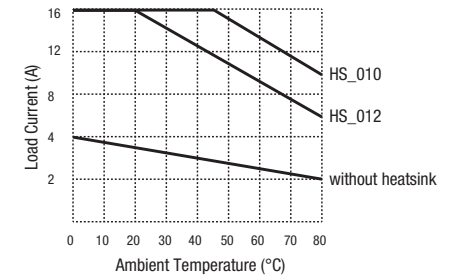


fig. 4. Thermal derating curve 25 A

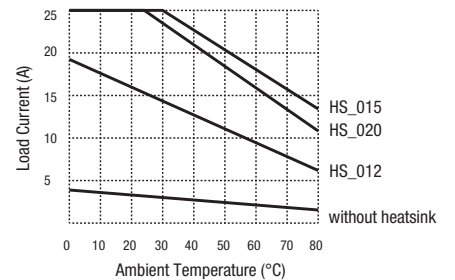


fig. 5. Dimension (mm)

