



|   |                                  |             |            |
|---|----------------------------------|-------------|------------|
| Product designation   | Solid state relay                |             |            |
| Product type designation  | HS1B                             |             |            |
| Type  | single-phase                     |             |            |
| <b>Input characteristics</b>  |                                  |             |            |
| Control voltage   | 18...280VAC/DC                   |             |            |
| Operating voltage limits  | Operating voltage pick-up        | V           | 18         |
|   | Operating voltage drop-out       | V           | 8          |
| Input current at min...max voltage  |                                  | mA          | 4.5...6    |
| <b>Operating times</b>  |                                  |             |            |
| Switching-on  | Half cycle max                   |             |            |
| Switching-off   | Half cycle max                   |             |            |
| <b>Output characteristics</b>   |                                  |             |            |
| Switching mode  | Zero crossing                    |             |            |
| Rated operating voltage   | VAC                              |             | 12...280   |
| Blocking voltage  | V                                |             | 600        |
| Operational frequency (min...max)   | Hz                               |             | 45...65    |
| Rated operating current AC-51 (resistive load) at 40°C                        | A                                |             | 25         |
| Rated operating current AC-51 (resistive load) at 55°C                        | A                                |             | 20         |
| Heatsink for use at 40°C and 55°C at rated current AC-51                      | K/W                              |             | ≤2.2       |
| Operational current min   | A                                |             | 0.05       |
| Non repetitive surge peak on state current t=10ms                             | A                                |             | 340        |
| Off state leakage current   | mA                               |             | 1          |
| On state output voltage drop  | V                                |             | 1.25       |
| Critical rate of rise of off-state voltage dv/dt                              | V/μs                             |             | 500        |
| Input - Output isolation  | V                                |             | 4000       |
| Input - Output to metal base  | V                                |             | 4000       |
| Output protection type  | TVS                              |             |            |
| I2t   | A2s                              |             | 600        |
| <b>Terminal characteristics</b>   |                                  |             |            |
| Control terminals   | Type                             | Screw M4    |            |
| Terminals tool  | PZ2                              |             |            |
| Tightening torque control terminals   | Nm                               | 1.2...2     |            |
|   | Ibin                             | 10.6...17.7 |            |
| Conductor section connectable (control terminals) with 1 or 2 wires min...max | AWG stranded                     | n°          | 18...14    |
|   | Flexible w/o lug                 | mm2         | 0.75...2.5 |
|   | Flexible c/w insulated spade lug | mm2         | 0.75...2.5 |
| Load terminals  | Type                             | Screw M5    |            |
| Load terminals tool   | PZ2                              |             |            |
| Tightening torque load terminals  | Nm                               | 2...3       |            |
|   | Ibin                             | 20.4        |            |
| Conductor section connectable (load terminals) with 1 or 2 wires min...max    |                                  |             |            |

|                                  |     |         |
|----------------------------------|-----|---------|
| AWG stranded                     | n°  | 16...10 |
| Flexible w/o lug                 | mm2 | 1.5...6 |
| Flexible c/w insulated spade lug | mm2 | 1.5...6 |

Operating position

allowable Any

Fixing

Screw

**Ambient conditions**

Temperature

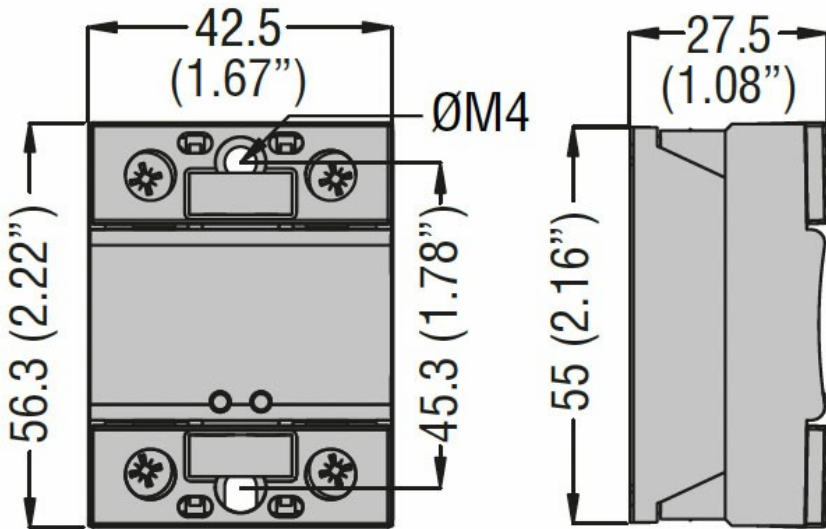
Operating temperature

|     |    |     |
|-----|----|-----|
| min | °C | -40 |
| max | °C | +90 |

Storage temperature

|     |    |      |
|-----|----|------|
| min | °C | -40  |
| max | °C | +100 |

**Dimensions**



**Certifications and compliance**

Certifications

- IEC/EN/BS 60335-1
- IEC/EN/BS 60947-4-2
- IEC/EN/BS 60947-4-3
- IEC/EN/BS 62314

Compliance

- cURus
- VDE

**ETIM classification**

EC000066 - Power contactor, AC switching