

Product data sheet 3RB3016-1TB0

OVERLOAD RELAY 4...16 A FOR MOTOR PROTECTION SIZE S00,

CLASS 10 CONTACTOR ASS. MAIN CIRCUIT: SCREW CONN.

| General technical data:  |     |   |
|--|-----|---|
| Product brand name   |     | SIRIUS  |
| Product designation  | _   | solid-state overload relay  |
| Protection class IP / frontal/front side                             |     | IP20  |
| Insulation voltage / with degree of pollution 3 / rated value        | V   | 690   |
| Altitude of installation site / at a height over sea level / maximum | m   | 2,000   |
| Ambient temperature  |     |   |
| during storage   | °C  | -40 80  |
| during transport   | °C  | -40 80  |
| during the operating phase   | °C  | -25 60  |
| Relative humidity  |     |   |
| during the operating phase   | / % | 95  |
| EMC immunity to interference   |     |   |
| according to IEC 60947-1   |     | corresponds to degree of severity 3   |
| EMC emitted interference   |     |   |
| according to IEC 60947-1   |     | CISPR 11, environment B (residential area)                                  |
| Conductor-bound parasitic coupling BURST                             |     |   |
| • according to IEC 61000-4-4   |     | 2 kV (power ports), 1 kV (signal ports) corresponds to degree of severity 3 |
| Conductor-bound parasitic coupling conductor-earth SURGE             |     |   |
| according to IEC 61000-4-5   |     | 2 kV (line to earth) corresponds to degree of severity 3                    |
| Conductor-bound parasitic coupling conductor-conductor SURGE         |     |   |
| according to IEC 61000-4-5   |     | 1 kV (line to line) corresponds to degree of severity 3                     |
| Electrostatic discharge  |     |   |
| according to IEC 61000-4-2   |     | 6 kV contact discharge / 8 kV air discharge                                 |
| Field-bound parasitic coupling                                       |     |   |
| according to IEC 61000-4-3   |     | 10 V/m  |
| Resistance against shock   |     | 15g / 11 ms   |
| Impulse voltage resistance / rated value                             | kV  | 6   |
| Real loss power / total / typical                                    | W   | 0.1   |

| Item designation   |                               |
|--|-------------------------------|
| <ul> <li>according to DIN 40719 extendable after IEC 204-2 / according<br/>to IEC 750</li> </ul> | F                             |
| according to DIN EN 61346-2  | F                             |
| Size of overload relay   | S00                           |
| Size of the contactor / can be combined / company-specific                                       | S00                           |
| Type of protection   | PTB 09 ATEX 3001 Ex II (2) GD |
| Type of assignement  | 2                             |
| Trip class   | CLASS 10                      |
|  |                               |

| Main circuit:   |    |         |
|---|----|---------|
| Number of poles / for main current circuit                        |    | 3       |
| Operating voltage / at 3 AC / rated value                         |    |         |
| • maximum   | V  | 690     |
| Operating current / at AC-3 / at 400 V                            |    |         |
| rated value   | Α  | 16      |
| Adjustable response current                                       |    |         |
| of the current-dependent overload release                         | Α  | 4 16    |
| Service power / for three-phase servomotors / at 400 V / at 50 Hz |    |         |
| • for AC three-phase  | kW | 2.2 7.5 |
| Operating current / of the fuse link                              |    |         |
| • rated value   | Α  | 25      |

| Auxiliary circuit:                                     |   |  |
|--|---|--|
| Contact reliability / of the auxiliary contacts        |   | acceptability for PLC control (17 V, 5 mA) |
| Number of NC contacts / for auxiliary contact          |   | 1  |
| Number of NO contacts / for auxiliary contact          |   | 1  |
| Number of change-over switches / for auxiliary contact |   | 0  |
| Operating current / of the auxiliary contacts          |   |  |
| • at AC-15   |   |  |
| • at 24 V  | Α | 4  |
| • at 110 V   | Α | 4  |
| • at 120 V   | Α | 4  |
| • at 125 V   | Α | 4  |
| • at 230 V   | Α | 3  |
| • at DC-13   |   |  |
| • at 24 V  | Α | 2  |
| • at 60 V  | Α | 1  |
| • at 110 V   | Α | 0.3  |
| • at 125 V   | Α | 0.3  |
| • at 220 V   | Α | 1  |

| Short-circuit:  |    |                      |
|---|----|----------------------|
| Design of the fuse link / for short-circuit protection of the auxiliary switch / required |    | fuse gL/gG: 6 A      |
| Installation/mounting/dimensions:   |    |                      |
| built in orientation  |    | any                  |
| Type of fixing/fixation   |    | direct mounting      |
| Width   | mm | 45                   |
| Height  | mm | 64.7                 |
| Depth   | mm | 72.5                 |
| distance, to be maintained, to the ranks assembly   |    |                      |
| • forwards  | mm | 0                    |
| • backwards   | mm | 0                    |
| • upwards   | mm | 0                    |
| • downwards   | mm | 0                    |
| • sidewards   | mm | 0                    |
| distance, to be maintained, to earthed part   |    |                      |
| • forwards  | mm | 0                    |
| • backwards   | mm | 0                    |
| • upwards   | mm | 0                    |
| • downwards   | mm | 0                    |
| • sidewards   | mm | 6                    |
| distance, to be maintained, conductive elements   |    |                      |
| • forwards  | mm | 0                    |
| • backwards   | mm | 0                    |
| • upwards   | mm | 0                    |
| • downwards   | mm | 0                    |
| • sidewards   | mm | 6                    |
| Connections:  |    |                      |
| design of the electrical connection   |    |                      |
| for main current circuit  |    | screw-type terminals |
| for auxiliary and control current circuit   |    | screw-type terminals |
| Product function / removable terminal for auxiliary and control circuit                   |    | Yes                  |

for main contactsunifilar

• stranded wire

Type of the connectable conductor cross-section

1x (0.5 ... 4 mm2), 2x (0.5 ... 1.5 mm2), 2x (0.75 ... 4

1x (0.5 ... 1.5 mm2), 2x (0.5 ... 1.5 mm2), 1x (0.75 ... 4

mm2)

mm2), 2x (0.75 ... 4 mm2)

| • stranded wire                       |   |
|---------------------------------------|---|
| with conductor end processing         | 1x (0.5 2.5 mm2), 2 x (0.5 2.5 mm2)                 |
| at AWG-conductors / for main contacts | 1x (20 12), 2x (20 12)                              |
| • for auxiliary contact               |   |
| • solid                               | 1x (0.5 4 mm2), 2x (0.5 1.5 mm2), 2x (0.75 2.5 mm2) |
| • stranded wire                       |   |

• with wire end processing

1x (0.5 ... 1.5 mm2), 2x (0.5 ... 1.5 mm2), 1x (0.5 ... 2.5 mm2)

• for AWG conductors / for auxiliary contacts

1x (20 ... 14), 2x (20 ... 14)

Yes

Certificates/approvals:

verification of suitability

UL / CSA

Safety:
Protection against electrical shock finger-safe

## Further information:

• ATEX

Information- and Downloadcenter (Catalogs, Brochures,...)

http://www.siemens.com/industrial-controls/catalogs

Global Industry Mall (Online ordering system)

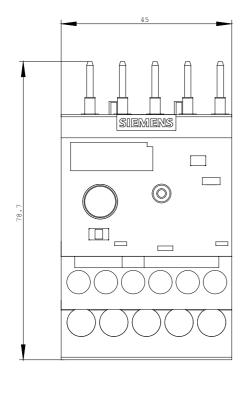
http://www.siemens.com/industrial-controls/mall

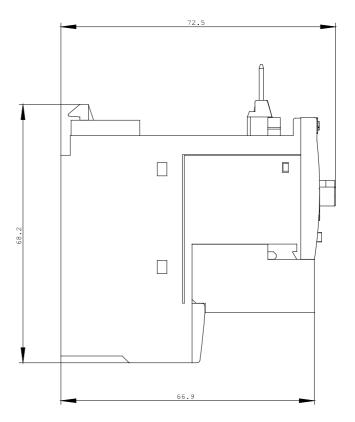
Service&Support (Manuals, Certificates, Characteristics, FAQs,...)

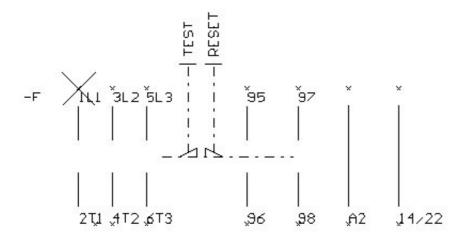
 $\underline{\text{http://support.automation.siemens.com/WW/view/en/3RB3016-1TB0/all}}$ 

Image database (product images, 2D dimension drawings, 3D models, device circuit diagrams, ...)

 $http://www.automation.siemens.com/bilddb/cax\_en.aspx?mlfb=3RB3016-1TB0$ 







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