SIEMENS

Data sheet 3RT1516-1AB00

CONTACTOR, AC-3 4 KW/400 V, AC-1 18 A, CC 24 V 50/60 HZ, 4-POLE, 2 NO + 2 NC, SIZE S00, SCREW CONNECTION



Figure similar

| product brand name | SIRIUS |
|--|-----------------|
| Product designation | power contactor |
| General technical data: | |
| Size of contactor | S00 |
| Insulation voltage | |
| • rated value | 690 V |
| Degree of pollution | 3 |
| Protection class IP | |
| • on the front | IP20 |
| Mechanical service life (switching cycles) | |
| of contactor typical | 30 000 000 |
| of the contactor with added electronics- compatible auxiliary switch block typical | 5 000 000 |
| of the contactor with added auxiliary switch block typical | 10 000 000 |
| Ambient conditions: | |
| Installation altitude at height above sea level | 2 000 m |

maximum

Ambient temperature

| during operation | -25 +60 °C |
|------------------|------------|
| during storage | -55 +80 °C |

| Main circuit: | |
|---|---------|
| Number of NO contacts for main contacts | 2 |
| Number of NC contacts for main contacts | 2 |
| Operating current | |
| • at AC-1 up to 690 V | |
| — at ambient temperature 40 °C rated value | 18 A |
| — at ambient temperature 60 °C rated value | 16 A |
| • at AC-2 at AC-3 at 400 V | |
| per NO contact rated value | 9 A |
| per NC contact rated value | 9 A |
| Connectable conductor cross-section in main circuit at AC-1 | |
| • at 60 °C minimum permissible | 2.5 mm² |
| • at 40 °C minimum permissible | 2.5 mm² |
| Operating current | |
| • at 1 current path at DC-1 | |
| — at 24 V rated value | 16 A |
| — at 110 V rated value | 2.1 A |
| — at 220 V rated value | 0.8 A |
| — at 440 V rated value | 0.6 A |
| with 2 current paths in series at DC-1 | |
| — at 24 V rated value | 16 A |
| — at 110 V rated value | 12 A |
| — at 220 V rated value | 1.6 A |
| — at 440 V rated value | 0.8 A |
| Operating current | |
| • at 1 current path at DC-3 at DC-5 | |
| — at 24 V per NC contact rated value | 16 A |
| — at 24 V per NO contact rated value | 16 A |
| — at 110 V per NC contact rated value | 0.075 A |
| — at 110 V per NO contact rated value | 0.15 A |
| — at 220 V per NC contact rated value | 0.375 A |
| — at 220 V per NO contact rated value | 0.75 A |
| • with 2 current paths in series at DC-3 at DC-5 | |
| — at 110 V per NC contact rated value | 0.175 A |
| — at 110 V per NO contact rated value | 0.35 A |
| — at 24 V per NC contact rated value | 16 A |
| — at 24 V per NO contact rated value | 16 A |
| Operating power | |

| • at AC-1 | |
|--|-----------|
| — at 230 V rated value | 6.5 kW |
| — at 400 V rated value | 11 kW |
| • at AC-2 at AC-3 | |
| — at 230 V per NC contact rated value | 3 kW |
| — at 230 V per NO contact rated value | 3 kW |
| — at 400 V per NC contact rated value | 4 kW |
| — at 400 V per NO contact rated value | 4 kW |
| Power loss [W] at AC-3 at 400 V for rated value of the operating current per conductor | 0.7 W |
| Operating frequency | |
| • at AC-1 maximum | 1 000 1/h |

| Control circuit/ Control: | |
|--|--------------|
| Type of voltage of the control supply voltage | AC |
| Control supply voltage at AC | |
| ● at 50 Hz rated value | 24 V |
| ● at 60 Hz rated value | 24 V |
| Operating range factor control supply voltage rated value of magnet coil at AC | |
| ● at 50 Hz | 0.8 1.1 |
| ● at 60 Hz | 0.85 1.1 |
| Apparent pick-up power of magnet coil at AC | 27 V·A |
| ● at 50 Hz | 27 V·A |
| Inductive power factor with closing power of the coil | 0.8 |
| ● at 50 Hz | 0.8 |
| Apparent holding power of magnet coil at AC | 4.4 V·A |
| ● at 50 Hz | 4.4 V·A |
| Inductive power factor with the holding power of the coil | 0.27 |
| ● at 60 Hz | 0.27 |
| Closing delay | |
| • at AC | 8 35 ms |
| • at DC | 25 100 ms |
| Opening delay | |
| • at AC | 4 30 ms |
| • at DC | 7 10 ms |
| Arcing time | 10 15 ms |
| Control version of the switch operating mechanism | conventional |
| Residual current of the electronics for control with signal <0> | |
| • at AC at 230 V maximum permissible | 0.003 A |

Auxiliary circuit:

| Number of NC contacts | |
|--|---|
| • for auxiliary contacts | |
| — instantaneous contact | 0 |
| Number of NO contacts | |
| for auxiliary contacts | |
| — instantaneous contact | 0 |
| Operating current at AC-12 maximum | 10 A |
| Operating current at AC-15 | |
| ● at 230 V rated value | 6 A |
| • at 400 V rated value | 3 A |
| Operating current at DC-12 | |
| ● at 60 V rated value | 6 A |
| • at 110 V rated value | 3 A |
| • at 220 V rated value | 1 A |
| Operating current at DC-13 | |
| • at 24 V rated value | 10 A |
| ● at 60 V rated value | 2 A |
| ● at 110 V rated value | 1 A |
| • at 220 V rated value | 0.3 A |
| Contact reliability of auxiliary contacts | 1 faulty switching per 100 million (17 V, 1 mA) |

| Short-circuit | protection |
|---------------|-------------|
| Design of the | e fuse link |

— with type of coordination 1 required fuse gL/gG: 35 A
 — with type of assignment 2 required fuse gL/gG: 20 A
 for short-circuit protection of the auxiliary switch fuse gL/gG: 10 A

required

| Installation/ mounting/ dimensions: | |
|--------------------------------------|--|
| Mounting position | with vertical mounting surface +/-180° rotatable, with vertical |
| | mounting surface +/- 30° tiltable to the front and back |
| Mounting type | screw and snap-on mounting onto 35 mm standard mounting rail according to DIN EN 50022 |
| Side-by-side mounting | Yes |
| Height | 57.5 mm |
| Width | 45 mm |
| Depth | 72 mm |
| Required spacing | |
| for grounded parts | |
| — at the side | 6 mm |

Connections/ Terminals:

Type of electrical connection

| • for main current circuit | screw-type terminals |
|---|---|
| for auxiliary and control current circuit | screw-type terminals |
| Type of connectable conductor cross-sections | |
| • for main contacts | |
| — solid | 2x (0.5 1.5 mm²), 2x (0.75 2.5 mm²), max. 2x (0.75 4 mm²) |
| — single or multi-stranded | 2x (0,5 1,5 mm²), 2x (0,75 2,5 mm²), max. 2x (0,75 4 mm²) |
| finely stranded with core end processing | 2x (0.5 1.5 mm²), 2x (0.75 2.5 mm²) |
| at AWG conductors for main contacts | 2x (20 16), 2x (18 14), 1x 12 |
| Type of connectable conductor cross-sections | |
| for auxiliary contacts | |
| — solid | 2x (0.5 1.5 mm²), 2x (0.75 2.5 mm²), max. 2x (0.75 4 mm²) |
| single or multi-stranded | 2x (0,5 1,5 mm²), 2x (0,75 2,5 mm²), max. 2x (0,75 4 mm²) |
| finely stranded with core end processing | 2x (0.5 1.5 mm²), 2x (0.75 2.5 mm²) |
| at AWG conductors for auxiliary contacts | 2x (20 16), 2x (18 14), 1x 12 |

Safety related data:

Failure rate [FIT]

• with low demand rate acc. to SN 31920

100 FIT

Certificates/approvals

Declaration of **General Product Approval Functional** Safety/Safety Conformity of Machinery









Baumusterprüfbesc heinigung



Test Certificates

Shipping Approval

spezielle Prüfbescheinigunge n





GL







other

Umweltbestätigung

Bestätigungen

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

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

Industry Mall (Online ordering system)

https://mall.industry.siemens.com/mall/en/en/Catalog/product?mlfb=3RT15161AB00

Cax online generator

http://support.automation.siemens.com/WW/CAXorder/default.aspx?lang=en&mlfb=3RT15161AB00

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

https://support.industry.siemens.com/cs/ww/en/ps/3RT15161AB00

Image database (product images, 2D dimension drawings, 3D models, device circuit diagrams, EPLAN macros, ...) http://www.automation.siemens.com/bilddb/cax_de.aspx?mlfb=3RT15161AB00&lang=en



