

# **SIEMENS**

Data sheet 3RT1016-1AB01

CONTACTOR, AC-3 4 KW/400 V, 1 NO, AC 24 V, 50/60 HZ, 3-POLE, SIZE S00, SCREW CONNECTION



| Product brand name   | SIRIUS          |
|--|-----------------|
| Product designation  | power contactor |
| General technical data   |                 |
| Size of contactor  | S00             |
| Degree of pollution  | 3               |
| Protection class IP  |                 |
| • on the front   | IP20            |
| of the terminal  | IP20            |
| Mechanical service life (switching cycles)   |                 |
| <ul> <li>of contactor typical</li> </ul>   | 30 000 000      |
| <ul> <li>of the contactor with added electronics-<br/>compatible auxiliary switch block typical</li> </ul> | 5 000 000       |
| <ul> <li>of the contactor with added auxiliary switch<br/>block typical</li> </ul>                         | 10 000 000      |
| Ambient conditions   |                 |
| Ambient temperature  |                 |
| during operation   | -25 +60 °C      |

Main circuit

| Number of poles for main current circuit                                 | 3      |
|--|--------|
| Number of NO contacts for main contacts                                  | 3      |
| Number of NC contacts for main contacts                                  | 0      |
| Operating current  |        |
| ● at AC-1 at 400 V   |        |
| — at ambient temperature 40 °C rated value                               | 22 A   |
| ● at AC-1  |        |
| <ul> <li>up to 690 V at ambient temperature 40 °C rated value</li> </ul> | 22 A   |
| — up to 690 V at ambient temperature 60 $^{\circ}\text{C}$ rated value   | 20 A   |
| • at AC-3  |        |
| — at 400 V rated value   | 9 A    |
| • at AC-4 at 400 V rated value   | 8.5 A  |
| Operating current  |        |
| • at 1 current path at DC-1  |        |
| — at 24 V rated value  | 20 A   |
| — at 110 V rated value   | 2.1 A  |
| • with 2 current paths in series at DC-1                                 |        |
| — at 24 V rated value  | 20 A   |
| — at 110 V rated value   | 12 A   |
| • with 3 current paths in series at DC-1                                 |        |
| — at 24 V rated value  | 20 A   |
| — at 110 V rated value   | 20 A   |
| Operating current  |        |
| • at 1 current path at DC-3 at DC-5                                      |        |
| — at 24 V rated value  | 20 A   |
| — at 110 V rated value   | 0.15 A |
| • with 2 current paths in series at DC-3 at DC-5                         |        |
| — at 24 V rated value  | 20 A   |
| — at 110 V rated value   | 0.35 A |
| • with 3 current paths in series at DC-3 at DC-5                         |        |
| — at 24 V rated value  | 20 A   |
| — at 110 V rated value   | 20 A   |
| Operating power  |        |
| • at AC-1  |        |
| — at 400 V rated value   | 13 kW  |
| • at AC-2 at 400 V rated value   | 4 kW   |
| • at AC-3  |        |
| — at 400 V rated value   | 4 kW   |
| — at 500 V rated value   | 4.5 kW |
| — at 690 V rated value   | 5.5 kW |

| Power loss [W] at AC-3 at 400 V for rated value of  | 0.7 W   |
|---|---|
| the operating current per conductor   |   |
| 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  |
|   | 27 V·A  |
| Apparent pick-up power of magnet coil at AC Inductive power factor with closing power of the coil | 0.8   |
| Apparent holding power of magnet coil at AC   | 4.4 V·A   |
| Inductive power factor with the holding power of the  | 0.27  |
| coil  | 0.21  |
| Auxiliary circuit   |   |
| Number of NC contacts   |   |
| <ul> <li>for auxiliary contacts</li> </ul>  |   |
| — instantaneous contact   | 0   |
| Number of NO contacts   |   |
| <ul> <li>for auxiliary contacts</li> </ul>  |   |
| — instantaneous contact   | 1   |
| 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 fuse link   |   |
| • for short-circuit protection of the main circuit  |   |
| — with type of coordination 1 required  | fuse gL/gG: 35 A                                |

— with type of assignment 2 required

• for short-circuit protection of the auxiliary switch required

fuse gL/gG: 20 A fuse gL/gG: 10 A

| Installation/ mounting/ dimensions        |  |  |
|---|--|--|
| Mounting type                             | screw and snap-on mounting onto 35 mm standard mounting rail |  |
|   | according to DIN EN 50022                                    |  |
| <ul> <li>Side-by-side mounting</li> </ul> | Yes  |  |
| Height                                    | 57.5 mm  |  |
| Width                                     | 45 mm  |  |
| Depth                                     | 72 mm  |  |
| Required spacing                          |  |  |
| <ul> <li>for grounded parts</li> </ul>    |  |  |
| — at the side                             | 6 mm   |  |

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

## Certificates/approvals

#### **General Product Approval**

Functional Safety/Safety of Machinery Declaration of Conformity









Type Examination
Certificate



| 1621         |   |
|--------------|---|
| Certificates | : |

Marine / Shipping

Special Test Certificate











### Marine / Shipping

other





Environmental Confirmations

Confirmation

Miscellaneous

#### Further information

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=3RT1016-1AB01

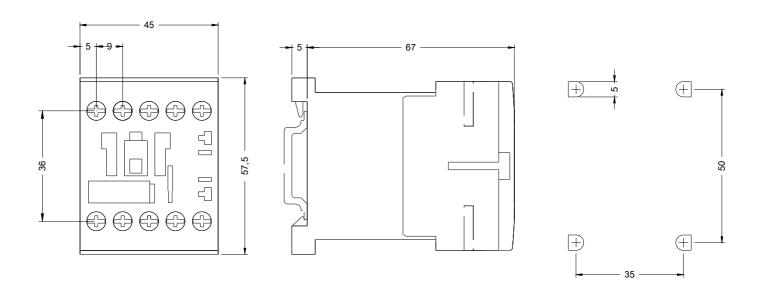
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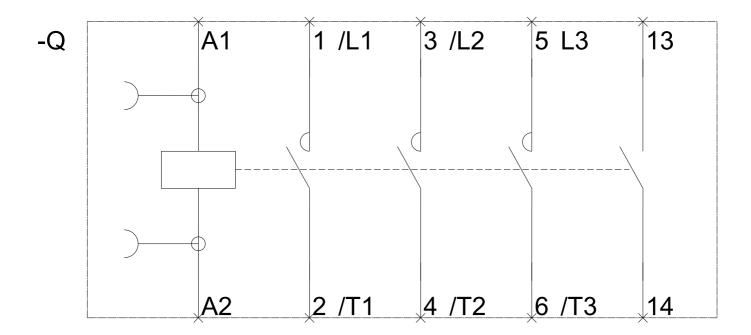
http://support.automation.siemens.com/WW/CAXorder/default.aspx?lang=en&mlfb=3RT1016-1AB01

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

https://support.industry.siemens.com/cs/ww/en/ps/3RT1016-1AB01

Image database (product images, 2D dimension drawings, 3D models, device circuit diagrams, EPLAN macros, ...) http://www.automation.siemens.com/bilddb/cax\_de.aspx?mlfb=3RT1016-1AB01&lang=en





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