

CONTACTOR 3-PH 5.5 KW/400 V, 230 V AC 50/60 HZ, 3-POLE,  
SIZE S0, MAIN CUR.: SCREW CONNECTION, MAIN CUR.: CAGE  
CLAMP STANDING MOUNTING POSITION



Figure similar

|                                                                                     |                 |
|-------------------------------------------------------------------------------------|-----------------|
| product brandname                                                                   | SIRIUS          |
| Product designation                                                                 | power contactor |
| General technical data                                                              |                 |
| Size of contactor                                                                   | S0              |
| Degree of pollution                                                                 | 3               |
| Protection class IP                                                                 |                 |
| • on the front                                                                      | IP20            |
| • of the terminal                                                                   | IP20            |
| Mechanical service life (switching cycles)                                          |                 |
| • of contactor typical                                                              | 10 000 000      |
| • 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 maximum                             | 2 000 m         |

|                                                        |                |
|--------------------------------------------------------|----------------|
| <b>Ambient temperature</b>                             |                |
| • during operation                                     | -25 ... +60 °C |
| <b>Main circuit</b>                                    |                |
| <b>Number of poles for main current circuit</b>        | 3              |
| <b>Number of NO contacts for main contacts</b>         | 3              |
| <b>Number of NC contacts for main contacts</b>         | 0              |
| <b>Operating current</b>                               |                |
| • at AC-1 at 400 V                                     |                |
| — at ambient temperature 40 °C rated value             | 40 A           |
| • at AC-1                                              |                |
| — up to 690 V at ambient temperature 40 °C rated value | 40 A           |
| — up to 690 V at ambient temperature 60 °C rated value | 35 A           |
| • at AC-3                                              |                |
| — at 400 V rated value                                 | 12 A           |
| <b>Operating current</b>                               |                |
| • at 1 current path at DC-1                            |                |
| — at 24 V rated value                                  | 35 A           |
| — at 110 V rated value                                 | 4.5 A          |
| • with 2 current paths in series at DC-1               |                |
| — at 24 V rated value                                  | 35 A           |
| — at 110 V rated value                                 | 35 A           |
| • with 3 current paths in series at DC-1               |                |
| — at 24 V rated value                                  | 35 A           |
| — at 110 V rated value                                 | 35 A           |
| <b>Operating current</b>                               |                |
| • at 1 current path at DC-3 at DC-5                    |                |
| — at 24 V rated value                                  | 20 A           |
| — at 110 V rated value                                 | 2.5 A          |
| • with 2 current paths in series at DC-3 at DC-5       |                |
| — at 110 V rated value                                 | 15 A           |
| — at 24 V rated value                                  | 35 A           |
| • with 3 current paths in series at DC-3 at DC-5       |                |
| — at 110 V rated value                                 | 35 A           |
| — at 24 V rated value                                  | 35 A           |
| <b>Operating power</b>                                 |                |
| • at AC-1                                              |                |
| — at 400 V rated value                                 | 23 kW          |
| • at AC-2 at 400 V rated value                         | 5.5 kW         |
| • at AC-3                                              |                |

|                                                                                               |        |
|-----------------------------------------------------------------------------------------------|--------|
| — at 400 V rated value                                                                        | 5.5 kW |
| — at 500 V rated value                                                                        | 7.5 kW |
| — at 690 V rated value                                                                        | 7.5 kW |
| <b>Power loss [W] at AC-3 at 400 V for rated value of the operating current per conductor</b> | 0.5 W  |

#### Control circuit/ Control

|                                                                                       |              |
|---------------------------------------------------------------------------------------|--------------|
| <b>Type of voltage of the control supply voltage</b>                                  | AC           |
| <b>Control supply voltage at AC</b>                                                   |              |
| • at 50 Hz rated value                                                                | 230 V        |
| • at 60 Hz rated value                                                                | 230 V        |
| <b>Control supply voltage frequency 1 rated value</b>                                 | 50 Hz        |
| <b>Control supply voltage frequency 2 rated value</b>                                 | 60 Hz        |
| <b>Operating range factor control supply voltage rated value of magnet coil at AC</b> |              |
| • at 50 Hz                                                                            | 0.8 ... 1.1  |
| • at 60 Hz                                                                            | 0.85 ... 1.1 |
| <b>Apparent pick-up power of magnet coil at AC</b>                                    | 64 V·A       |
| <b>Inductive power factor with closing power of the coil</b>                          | 0.72         |
| <b>Apparent holding power of magnet coil at AC</b>                                    | 8.4 V·A      |
| <b>Inductive power factor with the holding power of the coil</b>                      | 0.24         |

#### Auxiliary circuit

|                                                  |                                                 |
|--------------------------------------------------|-------------------------------------------------|
| <b>Number of NC contacts</b>                     |                                                 |
| • for auxiliary contacts                         |                                                 |
| — instantaneous contact                          | 0                                               |
| <b>Number of NO contacts</b>                     |                                                 |
| • for auxiliary contacts                         |                                                 |
| — instantaneous contact                          | 0                                               |
| <b>Operating current at AC-12 maximum</b>        | 10 A                                            |
| <b>Operating current at AC-15</b>                |                                                 |
| • at 230 V rated value                           | 6 A                                             |
| • at 400 V rated value                           | 3 A                                             |
| <b>Operating current at DC-12</b>                |                                                 |
| • at 60 V rated value                            | 6 A                                             |
| • at 110 V rated value                           | 3 A                                             |
| • at 220 V rated value                           | 1 A                                             |
| <b>Operating current at DC-13</b>                |                                                 |
| • 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                                           |
| <b>Contact reliability of auxiliary contacts</b> | 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
  - with type of assignment 2 required
- for short-circuit protection of the auxiliary switch required

fuse gL/gG: 63 A

fuse gL/gG: 25 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

- Side-by-side mounting

Yes

### Height

85 mm

### Width

45 mm

### Depth

91 mm

### Required spacing

- for grounded parts
  - at the side

6 mm

## Connections/Terminals

### Type of electrical connection

- for main current circuit
- for auxiliary and control current circuit

screw-type terminals

spring-loaded terminals

### Type of connectable conductor cross-sections

- for main contacts
  - solid
  - single or multi-stranded
  - finely stranded with core end processing
- at AWG conductors for main contacts

2x (1 ... 2.5 mm<sup>2</sup>), 2x (2.5 ... 6 mm<sup>2</sup>), max. 2x 10 mm<sup>2</sup>

2x (1 ... 2.5 mm<sup>2</sup>), 2x (2.5 ... 6 mm<sup>2</sup>), max. 2x 10 mm<sup>2</sup>

2x (1 ... 2.5 mm<sup>2</sup>), 2x (2.5 ... 6 mm<sup>2</sup>)

2x (16 ... 12), 2x (14 ... 10), 1x 8

### Type of connectable conductor cross-sections

- for auxiliary contacts
  - solid
  - finely stranded with core end processing
  - finely stranded without core end processing
- at AWG conductors for auxiliary contacts

2x (0.25 ... 2.5 mm<sup>2</sup>)

2x (0.25 ... 1.5 mm<sup>2</sup>)

2x (0.25 ... 2.5 mm<sup>2</sup>)

2x (24 ... 14)

## Certificates/approvals

| General Product Approval                                                                 |                                                                                          |                                                                                   | Declaration of Conformity                                                                     | Test Certificates                                                  |                                                   |
|------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------|--------------------------------------------------------------------|---------------------------------------------------|
| <br>CCC | <br>CSA |  | <br>EG-Konf. | <a href="#">spezielle Prüfbescheinigungen</a><br><a href="#">n</a> | <a href="#">Typprüfbescheinigung/Werkszeugnis</a> |

| Shipping Approval                                                                        |                                                                                          |                                                                                         |                                                                                          |                                                                                             |                                                                                             |
|------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------|
| <br>ABS | <br>DNV | <br>GL | <br>LRS | <br>RINA | <br>RMRS |

| other                         |                                   |                         |
|-------------------------------|-----------------------------------|-------------------------|
| <a href="#">Bestätigungen</a> | <a href="#">Umweltbestätigung</a> | <a href="#">sonstig</a> |

#### 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=3RT1024-3AL20-1AA0>

##### Cax online generator

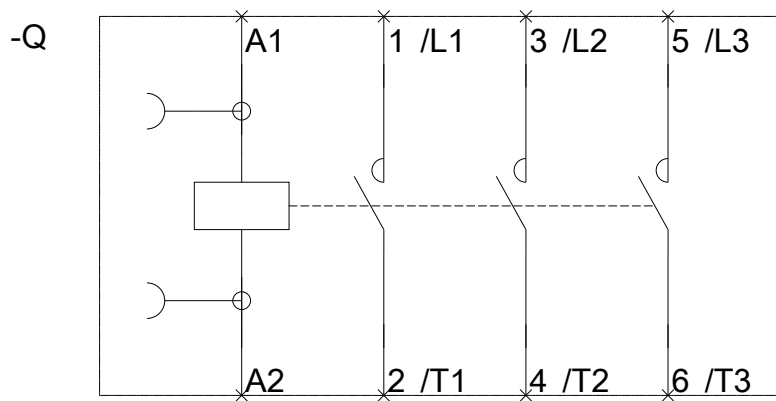
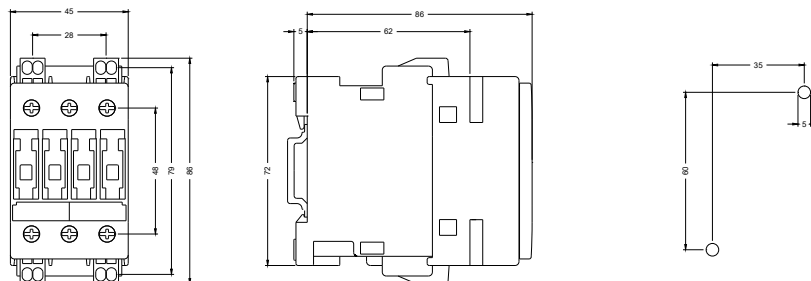
<http://support.automation.siemens.com/WW/CAXorder/default.aspx?lang=en&mlfb=3RT1024-3AL20-1AA0>

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

<https://support.industry.siemens.com/cs/ww/en/ps/3RT1024-3AL20-1AA0>

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

[http://www.automation.siemens.com/bilddb/cax\\_de.aspx?mlfb=3RT1024-3AL20-1AA0&lang=en](http://www.automation.siemens.com/bilddb/cax_de.aspx?mlfb=3RT1024-3AL20-1AA0&lang=en)



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