



CONTACTOR 3-PH 45 KW/400 V,  
500 V AC 50/60 HZ 3-POLE, SIZE S3,  
SCREW CONNECTION

### General technical data:

|                                                                                       |    |             |
|---------------------------------------------------------------------------------------|----|-------------|
| product brand name                                                                    |    | SIRIUS      |
| Size of the contactor                                                                 |    | S3          |
| Protection class IP / on the front                                                    |    | IP20        |
| Degree of pollution                                                                   |    | 3           |
| Installation altitude / at a height over sea level / maximum                          | m  | 2,000       |
| Ambient temperature / during operating                                                | °C | -25 ... +60 |
| Mechanical operating cycles as operating time                                         |    |             |
| • of the contactor / typical                                                          |    | 10,000,000  |
| • of the contactor with added auxiliary switch block / typical                        |    | 10,000,000  |
| • of the contactor with added electronics-compatible auxiliary switch block / typical |    | 5,000,000   |

### Main circuit:

|                                              |   |     |
|----------------------------------------------|---|-----|
| Number of NC contacts / for main contacts    |   | 0   |
| Number of NO contacts / for main contacts    |   | 3   |
| Operating current                            |   |     |
| • at AC-1 / at 400 V                         |   |     |
| • at 40 °C ambient temperature / rated value | A | 120 |
| • at AC-3 / at 400 V / rated value           | A | 95  |
| • at AC-4 / at 400 V / rated value           | A | 80  |

|                                                      |    |        |
|------------------------------------------------------|----|--------|
| • with 1 current path / at DC-1                      |    |        |
| • at 24 V / rated value                              | A  | 100    |
| • at 110 V / rated value                             | A  | 9      |
| • with 2 current paths in series / at DC-1           |    |        |
| • at 24 V / rated value                              | A  | 100    |
| • at 110 V / rated value                             | A  | 100    |
| • with 3 current paths in series / at DC-1           |    |        |
| • at 24 V / rated value                              | A  | 100    |
| • at 110 V / rated value                             | A  | 100    |
| • with 1 current path / at DC-3 / at DC-5            |    |        |
| • at 24 V / rated value                              | A  | 40     |
| • at 110 V / rated value                             | A  | 2.5    |
| • with 2 current paths in series / at DC-3 / at DC-5 |    |        |
| • at 24 V / rated value                              | A  | 100    |
| • at 110 V / rated value                             | A  | 100    |
| • with 3 current paths in series / at DC-3 / at DC-5 |    |        |
| • at 24 V / rated value                              | A  | 100    |
| • at 110 V / rated value                             | A  | 100    |
| <b>Service power</b>                                 |    |        |
| • at AC-2 / at 400 V / rated value                   | kW | 45     |
| • at AC-3 / at 400 V / rated value                   | kW | 45     |
| • at AC-4 / at 400 V / rated value                   | W  | 45,000 |

| Control circuit:                                                                      |     |             |
|---------------------------------------------------------------------------------------|-----|-------------|
| <b>Voltage type / of control feed voltage</b>                                         |     | AC          |
| <b>Operating range factor control supply voltage rated value / of the magnet coil</b> |     |             |
| • at 50 Hz                                                                            |     |             |
| • for AC                                                                              |     | 0.8 ... 1.1 |
| • at 60 Hz                                                                            |     |             |
| • for AC                                                                              |     | 0.8 ... 1.1 |
| <b>Apparent pull-in power / of the solenoid / for AC</b>                              | V·A | 298         |
| <b>Apparent holding power / of the solenoid / for AC</b>                              | V·A | 27          |
| <b>Inductive power factor / with the pull-in power of the coil</b>                    |     | 0.7         |
| <b>Inductive power factor / with the pull-in power of the coil</b>                    |     | 0.29        |

| Auxiliary circuit:                                                              |  |                                                 |
|---------------------------------------------------------------------------------|--|-------------------------------------------------|
| <b>Contact reliability / of the auxiliary contacts</b>                          |  | 1 faulty switching per 100 million (17 V, 1 mA) |
| <b>Number of NC contacts / for auxiliary contacts / instantaneous switching</b> |  | 0                                               |
| <b>Number of NO contacts / for auxiliary contacts / instantaneous switching</b> |  | 0                                               |

### Short-circuit:

#### Design of the fuse link

- for short-circuit protection of the auxiliary switch / required
- for short-circuit protection of the main circuit
  - with type of assignment 1 / required
  - at type of coordination 2 / required

fuse gL/gG: 10 A

fuse gL/gG: 250 A

fuse gL/gG: 160 A

### Installation/mounting/dimensions:

#### Mounting type

screw and snap-on mounting onto 35 mm and 75 mm standard mounting rail

#### series installation

Yes

#### Width

mm

70

#### Height

mm

146

#### Depth

mm

139

#### Distance, to be maintained, to earthed part / sideways

mm

6

### Connection type:

#### Design of the electrical connection

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

screw-type terminals

screw-type terminals

#### Type of the connectable conductor cross-section

- for main contacts
  - solid
  - stranded
  - finely stranded
    - with conductor end processing
    - without conductor final cutting
- for AWG conductors / for main contacts
- for auxiliary contacts
  - solid
  - finely stranded
    - with conductor end processing
- for AWG conductors / for auxiliary contacts

2x (2.5 ... 16 mm<sup>2</sup>)

2x (10 ... 50 mm<sup>2</sup>)

2x (2.5 ... 35 mm<sup>2</sup>)

2x (10 ... 35 mm<sup>2</sup>)

2x (10 ... 1/0)

2x (0.5 ... 1.5 mm<sup>2</sup>), 2x (0.75 ... 2.5 mm<sup>2</sup>), max. 2x (0.75 ... 4 mm<sup>2</sup>)

2x (0.5 ... 1.5 mm<sup>2</sup>), 2x (0.75 ... 2.5 mm<sup>2</sup>)

2x (20 ... 16), 2x (18 ... 14), 1x 12

### Certificates/approvals:

| General Product Approval                                                                 |                                                                                          |                                                                                          |                                                                                         | Functional Safety /<br>Safety of<br>Machinery                                            | Declaration of<br>Conformity                                                                    |
|------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------|
| <br>CCC | <br>CSA | <br>EAC | <br>UL | <a href="#">Type Examination</a>                                                         | <br>EG-Konf. |
| Test Certificates                                                                        |                                                                                          | Shipping Approval                                                                        |                                                                                         |                                                                                          |                                                                                                 |
| <a href="#">Special Test<br/>Certificate</a>                                             |                                                                                          | <br>ABS | <br>GL | <br>LRS | <br>RINA     |
|                                                                                          |                                                                                          |                                                                                          |                                                                                         |                                                                                          | <br>RMRS     |
| other                                                                                    |                                                                                          |                                                                                          |                                                                                         |                                                                                          |                                                                                                 |
| <a href="#">Confirmation</a>                                                             |                                                                                          | <a href="#">other</a>                                                                    | <a href="#">Environmental<br/>Confirmations</a>                                         |                                                                                          |                                                                                                 |

**Further information:**

**Information- and Downloadcenter (Catalogs, Brochures,...)**  
<http://www.siemens.com/industrial-controls/catalogs>

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**Industry Mall (Online ordering system)**  
<http://www.siemens.com/industrial-controls/mall>

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**Cax online generator:**  
<http://www.siemens.com/cax>

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**Service&Support (Manuals, Certificates, Characteristics, FAQs,...)**  
<http://support.automation.siemens.com/WW/view/en/3RT1046-1AQ20/all>

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**Image database (product images, 2D dimension drawings, 3D models, device circuit diagrams, ...)**  
[http://www.automation.siemens.com/bilddb/cax\\_en.aspx?mlfb=3RT1046-1AQ20](http://www.automation.siemens.com/bilddb/cax_en.aspx?mlfb=3RT1046-1AQ20)



last change:

Jul 28, 2014