

CONTACTOR, AC-3, 22KW/400V, 24V AC 50/60HZ, 3-POLE, SIZE S2, SCREW TERMINAL MULTI-UNIT PACKAGING PACKAGING QUANTITY = 15 UNITS



Figure similar

|                                                     |                        |
|-----------------------------------------------------|------------------------|
| product brand name                                  | SIRIUS                 |
| Product designation                                 | power contactor        |
| General technical data                              |                        |
| Size of contactor                                   | S2                     |
| Insulation voltage                                  |                        |
| • rated value                                       | 690 V                  |
| Degree of pollution                                 | 3                      |
| Surge voltage resistance rated value                | 6 kV                   |
| maximum permissible voltage for safe isolation      |                        |
| • between coil and main contacts acc. to EN 60947-1 | 400 V                  |
| Protection class IP                                 |                        |
| • on the front                                      | IP00                   |
| • of the terminal                                   | IP00                   |
| Shock resistance                                    |                        |
| • at rectangular impulse                            |                        |
| — at AC                                             | 10g / 5 ms, 5g / 10 ms |

|                                                                                                                                                                                                |                                          |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------|
| <ul style="list-style-type: none"> <li>• with sine pulse</li> <li>— at AC</li> </ul>                                                                                                           | 15g / 5 ms, 8g / 10 ms                   |
| <b>Mechanical service life (switching cycles)</b>                                                                                                                                              |                                          |
| <ul style="list-style-type: none"> <li>• of contactor typical</li> </ul>                                                                                                                       | 10 000 000                               |
| <ul style="list-style-type: none"> <li>• of the contactor with added electronics-compatible auxiliary switch block typical</li> </ul>                                                          | 5 000 000                                |
| <ul style="list-style-type: none"> <li>• of the contactor with added auxiliary switch block typical</li> </ul>                                                                                 | 10 000 000                               |
| <b>Ambient conditions</b>                                                                                                                                                                      |                                          |
| <b>Installation altitude at height above sea level maximum</b>                                                                                                                                 | 2 000 m                                  |
| <b>Ambient temperature</b>                                                                                                                                                                     |                                          |
| <ul style="list-style-type: none"> <li>• during operation</li> </ul>                                                                                                                           | -25 ... +60 °C                           |
| <ul style="list-style-type: none"> <li>• during storage</li> </ul>                                                                                                                             | -55 ... +80 °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>                                                                                                                                                                       |                                          |
| <ul style="list-style-type: none"> <li>• at AC-1 at 400 V</li> <li>— at ambient temperature 40 °C rated value</li> </ul>                                                                       | 60 A                                     |
| <ul style="list-style-type: none"> <li>• at AC-1</li> <li>— up to 690 V at ambient temperature 40 °C rated value</li> <li>— up to 690 V at ambient temperature 60 °C rated value</li> </ul>    | 60 A<br>55 A                             |
| <ul style="list-style-type: none"> <li>• at AC-3</li> <li>— at 400 V rated value</li> <li>— at 690 V rated value</li> </ul>                                                                    | 50 A<br>24 A                             |
| <b>Connectable conductor cross-section in main circuit at AC-1</b>                                                                                                                             |                                          |
| <ul style="list-style-type: none"> <li>• at 60 °C minimum permissible</li> <li>• at 40 °C minimum permissible</li> </ul>                                                                       | 16 mm <sup>2</sup><br>16 mm <sup>2</sup> |
| <b>Operating current for approx. 200000 operating cycles at AC-4</b>                                                                                                                           |                                          |
| <ul style="list-style-type: none"> <li>• at 400 V rated value</li> <li>• at 690 V rated value</li> </ul>                                                                                       | 24 A<br>12.6 A                           |
| <b>Operating current</b>                                                                                                                                                                       |                                          |
| <ul style="list-style-type: none"> <li>• at 1 current path at DC-1</li> <li>— at 24 V rated value</li> <li>— at 110 V rated value</li> <li>• with 2 current paths in series at DC-1</li> </ul> | 55 A<br>4.5 A                            |

|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |                                                                               |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------|
| <ul style="list-style-type: none"> <li>— at 24 V rated value</li> <li>— at 110 V rated value</li> <li>• with 3 current paths in series at DC-1 <ul style="list-style-type: none"> <li>— at 24 V rated value</li> <li>— at 110 V rated value</li> </ul> </li> </ul>                                                                                                                                                                                                                                                                   | 55 A<br>25 A<br>55 A<br>55 A                                                  |
| <b>Operating current</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |                                                                               |
| <ul style="list-style-type: none"> <li>• at 1 current path at DC-3 at DC-5 <ul style="list-style-type: none"> <li>— at 24 V rated value</li> <li>— at 110 V rated value</li> </ul> </li> <li>• with 2 current paths in series at DC-3 at DC-5 <ul style="list-style-type: none"> <li>— at 110 V rated value</li> <li>— at 24 V rated value</li> </ul> </li> <li>• with 3 current paths in series at DC-3 at DC-5 <ul style="list-style-type: none"> <li>— at 110 V rated value</li> <li>— at 24 V rated value</li> </ul> </li> </ul> | 35 A<br>2.5 A<br>25 A<br>55 A<br>55 A<br>55 A                                 |
| <b>Operating power</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |                                                                               |
| <ul style="list-style-type: none"> <li>• at AC-1 <ul style="list-style-type: none"> <li>— at 230 V at 60 °C rated value</li> <li>— at 400 V rated value</li> <li>— at 690 V rated value</li> <li>— at 690 V at 60 °C rated value</li> </ul> </li> <li>• at AC-2 at 400 V rated value</li> <li>• at AC-3 <ul style="list-style-type: none"> <li>— at 230 V rated value</li> <li>— at 400 V rated value</li> <li>— at 500 V rated value</li> <li>— at 690 V rated value</li> </ul> </li> </ul>                                         | 22 kW<br>38 kW<br>66 kW<br>66 kW<br>22 kW<br>15 kW<br>22 kW<br>30 kW<br>22 kW |
| <b>Operating power for approx. 200000 operating cycles at AC-4</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |                                                                               |
| <ul style="list-style-type: none"> <li>• at 400 V rated value</li> <li>• at 690 V rated value</li> </ul>                                                                                                                                                                                                                                                                                                                                                                                                                             | 12.6 kW<br>11.4 kW                                                            |
| <b>Thermal short-time current limited to 10 s</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | 400 A                                                                         |
| <b>Power loss [W] at AC-3 at 400 V for rated value of the operating current per conductor</b>                                                                                                                                                                                                                                                                                                                                                                                                                                        | 5 W                                                                           |
| <b>No-load switching frequency</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |                                                                               |
| <ul style="list-style-type: none"> <li>• at AC</li> </ul>                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | 5 000 1/h                                                                     |
| <b>Operating frequency</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |                                                                               |
| <ul style="list-style-type: none"> <li>• at AC-1 maximum</li> <li>• at AC-2 maximum</li> <li>• at AC-3 maximum</li> <li>• at AC-4 maximum</li> </ul>                                                                                                                                                                                                                                                                                                                                                                                 | 1 000 1/h<br>400 1/h<br>800 1/h<br>300 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                                            |
| Control supply voltage frequency 1 rated value                                 | 50 Hz                                           |
| Control supply voltage frequency 2 rated value                                 | 60 Hz                                           |
| 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                                    | 170 V·A                                         |
| Inductive power factor with closing power of the coil                          | 0.76                                            |
| Apparent holding power of magnet coil at AC                                    | 15 V·A                                          |
| Inductive power factor with the holding power of the coil                      | 0.35                                            |
| Closing delay                                                                  |                                                 |
| • at AC                                                                        | 10 ... 24 ms                                    |
| Opening delay                                                                  |                                                 |
| • at AC                                                                        | 7 ... 20 ms                                     |
| Arcing time                                                                    | 10 ... 15 ms                                    |
| 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) |

## UL/CSA ratings

### Contact rating of auxiliary contacts according to UL

A600 / Q600

## 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: 160 A

fuse gL/gG: 80 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

112 mm

### Width

55 mm

### Depth

115 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

screw-type terminals

### Type of connectable conductor cross-sections

- for main contacts
  - solid
  - stranded
  - single or multi-stranded
  - finely stranded with core end processing
  - finely stranded without core end processing
- at AWG conductors for main contacts

2x (0.75 ... 16 mm<sup>2</sup>)

2x (0.75 ... 25 mm<sup>2</sup>)

2x (0,75 ... 16 mm<sup>2</sup>)

2x (0.75 ... 16 mm<sup>2</sup>)

2x (0.75 ... 16 mm<sup>2</sup>)

2x (18 ... 2)

### Type of connectable conductor cross-sections

- for auxiliary contacts
  - solid
  - finely stranded with core end processing
- at AWG conductors for auxiliary contacts

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                                                                 | Declaration of Conformity                                                                | Test Certificates                                                                             | Shipping Approval                                                                                                                                                                             |
|------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <br>CSA | <br>EAC | <br>EG-Konf. | <a href="#">spezielle Prüfbescheinigungen</a><br><a href="#">Typprüfbescheinigung/Werkszeugnis</a> <br>ABS |

| Shipping Approval                                                                        |                                                                                         |                                                                                          |                                                                                           |                                                                                             | other                             |
|------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------|-----------------------------------|
| <br>DNV | <br>GL | <br>LRS | <br>RINA | <br>RMRS | <a href="#">Umweltbestätigung</a> |

| other                                                 |
|-------------------------------------------------------|
| <a href="#">Bestätigungen</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=3RT1036-1AC20-Z W96>

##### Cax online generator

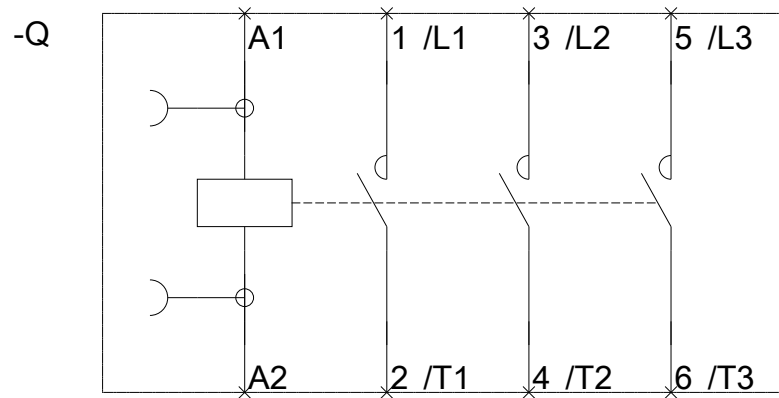
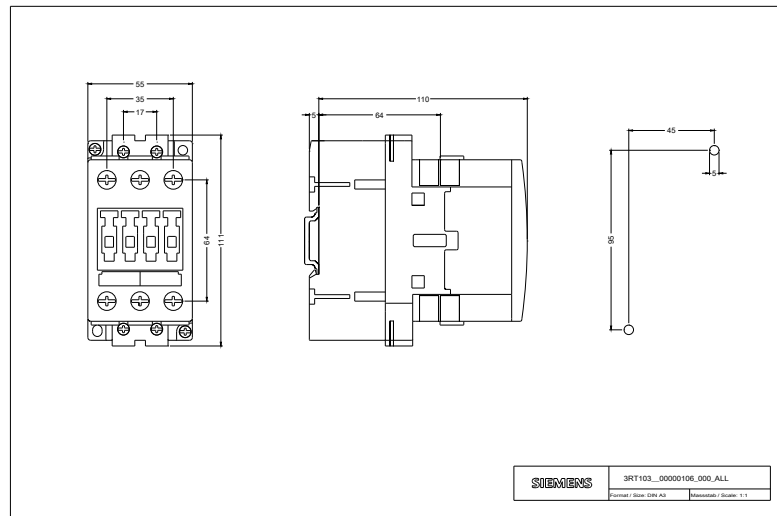
<http://support.automation.siemens.com/WW/CAXorder/default.aspx?lang=en&mlfb=3RT1036-1AC20-Z W96>

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

<https://support.industry.siemens.com/cs/ww/en/ps/3RT1036-1AC20-Z W96>

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

[http://www.automation.siemens.com/bilddb/cax\\_de.aspx?mlfb=3RT1036-1AC20-Z W96&lang=en](http://www.automation.siemens.com/bilddb/cax_de.aspx?mlfb=3RT1036-1AC20-Z W96&lang=en)



last modified:

10/17/2016