

CONTACTOR, AC-3 22 KW/400 V, AC 24V 50/60HZ, 3-POLE, SIZE S2, SCREW CONNECTION REUSABLE PACKING PACKING = 30 ITEMS

|                     |                 |
|---------------------|-----------------|
| product brand name  | SIRIUS          |
| Product designation | power contactor |

### General technical data

|                                                                                                                                                                                                                                                                                        |                                                  |
|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------|
| Size of contactor                                                                                                                                                                                                                                                                      | S2                                               |
| Insulation voltage <ul style="list-style-type: none"> <li>• rated value</li> </ul>                                                                                                                                                                                                     | 690 V                                            |
| Degree of pollution                                                                                                                                                                                                                                                                    | 3                                                |
| Surge voltage resistance rated value                                                                                                                                                                                                                                                   | 6 kV                                             |
| maximum permissible voltage for safe isolation <ul style="list-style-type: none"> <li>• between coil and main contacts acc. to EN 60947-1</li> </ul>                                                                                                                                   | 400 V                                            |
| Protection class IP <ul style="list-style-type: none"> <li>• on the front</li> <li>• of the terminal</li> </ul>                                                                                                                                                                        | IP00<br>IP00                                     |
| Shock resistance <ul style="list-style-type: none"> <li>• at rectangular impulse <ul style="list-style-type: none"> <li>— at AC</li> </ul> </li> <li>• with sine pulse <ul style="list-style-type: none"> <li>— at AC</li> </ul> </li> </ul>                                           | 10g / 5 ms, 5g / 10 ms<br>15g / 5 ms, 8g / 10 ms |
| Mechanical service life (switching cycles) <ul style="list-style-type: none"> <li>• of contactor typical</li> <li>• of the contactor with added electronics-compatible auxiliary switch block typical</li> <li>• of the contactor with added auxiliary switch block typical</li> </ul> | 10 000 000<br>5 000 000<br>10 000 000            |

### Ambient conditions

|                                                                                                                    |                                  |
|--------------------------------------------------------------------------------------------------------------------|----------------------------------|
| Installation altitude at height above sea level maximum                                                            | 2 000 m                          |
| Ambient temperature <ul style="list-style-type: none"> <li>• during operation</li> <li>• during storage</li> </ul> | -25 ... +60 °C<br>-55 ... +80 °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 |

|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |                                               |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------|
| <b>Operating current</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |                                               |
| <ul style="list-style-type: none"> <li>• at AC-1 at 400 V <ul style="list-style-type: none"> <li>— at ambient temperature 40 °C rated value</li> </ul> </li> </ul>                                                                                                                                                                                                                                                                                                                                                                   | 60 A                                          |
| <ul style="list-style-type: none"> <li>• at AC-1 <ul style="list-style-type: none"> <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> </li> </ul>                                                                                                                                                                                                                                                                                                | 60 A<br>55 A                                  |
| <ul style="list-style-type: none"> <li>• at AC-3 <ul style="list-style-type: none"> <li>— at 400 V rated value</li> <li>— at 690 V rated value</li> </ul> </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 <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-1 <ul style="list-style-type: none"> <li>— at 24 V rated value</li> <li>— at 110 V rated value</li> </ul> </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>4.5 A<br>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> </ul> </li> </ul>                                                                                                                                                                                                                                                                                                                                                                                       | 22 kW                                         |

|                                                                                               |              |
|-----------------------------------------------------------------------------------------------|--------------|
| — at 400 V rated value                                                                        | 38 kW        |
| — at 690 V rated value                                                                        | 66 kW        |
| — at 690 V at 60 °C rated value                                                               | 66 kW        |
| • at AC-2 at 400 V rated value                                                                | 22 kW        |
| • at AC-3                                                                                     |              |
| — at 230 V rated value                                                                        | 15 kW        |
| — at 400 V rated value                                                                        | 22 kW        |
| — at 500 V rated value                                                                        | 30 kW        |
| — at 690 V rated value                                                                        | 22 kW        |
| <b>Operating power for approx. 200000 operating cycles at AC-4</b>                            |              |
| • at 400 V rated value                                                                        | 12.6 kW      |
| • at 690 V rated value                                                                        | 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>                                                            |              |
| • at AC                                                                                       | 5 000 1/h    |
| <b>Operating frequency</b>                                                                    |              |
| • at AC-1 maximum                                                                             | 1 000 1/h    |
| • at AC-2 maximum                                                                             | 400 1/h      |
| • at AC-3 maximum                                                                             | 800 1/h      |
| • at AC-4 maximum                                                                             | 300 1/h      |
| <b>Control circuit/ Control</b>                                                               |              |
| <b>Type of voltage of the control supply voltage</b>                                          | AC           |
| <b>Control supply voltage at AC</b>                                                           |              |
| • at 50 Hz rated value                                                                        | 24 V         |
| • at 60 Hz rated value                                                                        | 24 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>                                            | 170 V·A      |
| <b>Inductive power factor with closing power of the coil</b>                                  | 0.76         |
| <b>Apparent holding power of magnet coil at AC</b>                                            | 15 V·A       |
| <b>Inductive power factor with the holding power of the coil</b>                              | 0.35         |
| <b>Closing delay</b>                                                                          |              |
| • at AC                                                                                       | 10 ... 24 ms |
| <b>Opening delay</b>                                                                          |              |

|                                                                 |                                                                                        |
|-----------------------------------------------------------------|----------------------------------------------------------------------------------------|
| • at AC                                                         | 7 ... 20 ms                                                                            |
| <b>Arcing time</b>                                              | 10 ... 15 ms                                                                           |
| <b>Auxiliary circuit</b>                                        |                                                                                        |
| <b>Number of NC contacts</b>                                    |                                                                                        |
| • for auxiliary contacts                                        |                                                                                        |
| — instantaneous contact                                         | 0                                                                                      |
| <b>Number of NO contacts</b>                                    |                                                                                        |
| • for auxiliary contacts                                        |                                                                                        |
| — instantaneous contact                                         | 0                                                                                      |
| Operating current at AC-12 maximum                              | 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)                                        |
| <b>UL/CSA ratings</b>                                           |                                                                                        |
| <b>Contact rating of auxiliary contacts according to UL</b>     | A600 / Q600                                                                            |
| <b>Short-circuit protection</b>                                 |                                                                                        |
| <b>Design of the fuse link</b>                                  |                                                                                        |
| • for short-circuit protection of the main circuit              |                                                                                        |
| — with type of coordination 1 required                          | fuse gL/gG: 160 A                                                                      |
| — with type of assignment 2 required                            | fuse gL/gG: 80 A                                                                       |
| • for short-circuit protection of the auxiliary switch required | fuse gL/gG: 10 A                                                                       |
| <b>Installation/ mounting/ dimensions</b>                       |                                                                                        |
| <b>Mounting type</b>                                            | screw and snap-on mounting onto 35 mm standard mounting rail according to DIN EN 50022 |
| • Side-by-side mounting                                         | Yes                                                                                    |
| <b>Height</b>                                                   | 112 mm                                                                                 |
| <b>Width</b>                                                    | 55 mm                                                                                  |
| <b>Depth</b>                                                    | 115 mm                                                                                 |
| <b>Required spacing</b>                                         |                                                                                        |
| • for grounded parts                                            |                                                                                        |

— at the side

6 mm

## Connections/Terminals

|                                                                                                                                                                                                                                                                                                                                                                                                        |                                                                                                                                                                                                                                |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Type of electrical connection</b> <ul style="list-style-type: none"> <li>• for main current circuit</li> <li>• for auxiliary and control current circuit</li> </ul>                                                                                                                                                                                                                                 | screw-type terminals<br>screw-type terminals                                                                                                                                                                                   |
| <b>Type of connectable conductor cross-sections</b> <ul style="list-style-type: none"> <li>• for main contacts <ul style="list-style-type: none"> <li>— solid</li> <li>— stranded</li> <li>— single or multi-stranded</li> <li>— finely stranded with core end processing</li> <li>— finely stranded without core end processing</li> </ul> </li> <li>• at AWG conductors for main contacts</li> </ul> | 2x (0.75 ... 16 mm <sup>2</sup> )<br>2x (0.75 ... 25 mm <sup>2</sup> )<br>2x (0,75 ... 16 mm <sup>2</sup> )<br>2x (0.75 ... 16 mm <sup>2</sup> )<br>2x (0.75 ... 16 mm <sup>2</sup> )<br><br>2x (18 ... 2)                     |
| <b>Type of connectable conductor cross-sections</b> <ul style="list-style-type: none"> <li>• for auxiliary contacts <ul style="list-style-type: none"> <li>— solid</li> <li>— finely stranded with core end processing</li> </ul> </li> <li>• at AWG conductors for auxiliary contacts</li> </ul>                                                                                                      | 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> )<br>2x (0.5 ... 1.5 mm <sup>2</sup> ), 2x (0.75 ... 2.5 mm <sup>2</sup> )<br>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="#">n</a><br><a href="#">Typprüfbescheinigung/Werkszeugnis</a><br><br>ABS |

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

| other                                                     |
|-----------------------------------------------------------|
| <a href="#">sonstig</a> <a href="#">Umweltbestätigung</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 X95>

**Cax online generator**

<http://support.automation.siemens.com/WW/CAXorder/default.aspx?lang=en&mlfb=3RT1036-1AC20-Z X95>

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

<https://support.industry.siemens.com/cs/ww/en/ps/3RT1036-1AC20-Z X95>

**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 X95&lang=en](http://www.automation.siemens.com/bilddb/cax_de.aspx?mlfb=3RT1036-1AC20-Z X95&lang=en)

**last modified:**

10/17/2016