

CONTACTOR, AC-3, 22KW/400V DC 24V, 0.7...1.25\*US, 3-POLE  
SIZE S2, CAGE CLAMP CONNECTION WITH SOLID-STATE  
CONTROL BLOCK VARISTOR INTEGRATED



Figure similar

|                                                     |                        |
|-----------------------------------------------------|------------------------|
| product brandname                                   | 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 DC                                             | 10g / 5 ms, 5g / 10 ms |

|                                                                                                                                                                                                                                          |                                          |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------|
| <ul style="list-style-type: none"> <li>• with sine pulse</li> <li>— at DC</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>                                                                                                                                                                     | -40 ... +70 °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 <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</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 DC</li> </ul>                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | 1 500 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                                  | DC            |
| Control supply voltage at DC                                                   |               |
| • rated value                                                                  | 24 V          |
| Operating range factor control supply voltage rated value of magnet coil at DC | 0.7 ... 1.25  |
| Design of the surge suppressor                                                 | with varistor |
| Closing power of magnet coil at DC                                             | 15 W          |
| Holding power of magnet coil at DC                                             | 11 W          |
| Closing delay                                                                  |               |
| • at DC                                                                        | 60 ... 100 ms |
| Opening delay                                                                  |               |
| • at DC                                                                        | 20 ... 25 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             | fuse gL/gG: 160 A |

- with type of assignment 2 required
- for short-circuit protection of the auxiliary switch required

fuse gL/gG: 80 A

fuse gL/gG: 10 A

## Installation/ mounting/ dimensions

|                         |                                                                                        |
|-------------------------|----------------------------------------------------------------------------------------|
| <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>           | 142 mm                                                                                 |
| <b>Width</b>            | 55 mm                                                                                  |
| <b>Depth</b>            | 130 mm                                                                                 |
| <b>Required spacing</b> |                                                                                        |
| • for grounded parts    |                                                                                        |
| — at the side           | 6 mm                                                                                   |

## Connections/Terminals

|                                                     |                                    |
|-----------------------------------------------------|------------------------------------|
| <b>Type of electrical connection</b>                |                                    |
| • for main current circuit                          | screw-type terminals               |
| • for auxiliary and control current circuit         | spring-loaded terminals            |
| <b>Type of connectable conductor cross-sections</b> |                                    |
| • for main contacts                                 |                                    |
| — solid                                             | 2x (0.75 ... 16 mm <sup>2</sup> )  |
| — stranded                                          | 2x (0.75 ... 25 mm <sup>2</sup> )  |
| — single or multi-stranded                          | 2x (0,75 ... 16 mm <sup>2</sup> )  |
| — finely stranded with core end processing          | 2x (0.75 ... 16 mm <sup>2</sup> )  |
| — finely stranded without core end processing       | 2x (0.75 ... 16 mm <sup>2</sup> )  |
| • at AWG conductors for main contacts               | 2x (18 ... 2)                      |
| <b>Type of connectable conductor cross-sections</b> |                                    |
| • for auxiliary contacts                            |                                    |
| — solid                                             | 2x (0.25 ... 2.5 mm <sup>2</sup> ) |
| — finely stranded with core end processing          | 2x (0.25 ... 1.5 mm <sup>2</sup> ) |
| — finely stranded without core end processing       | 2x (0.25 ... 2.5 mm <sup>2</sup> ) |
| • at AWG conductors for auxiliary contacts          | 2x (24 ... 14)                     |

## Certificates/approvals

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

| Test<br>Certificates                                  | Shipping Approval                                                                        |                                                                                         |                                                                                           |                                                                                             | other                         |
|-------------------------------------------------------|------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------|-------------------------------|
| <a href="#">spezielle<br/>Prüfbescheinigung<br/>n</a> | <br>ABS | <br>GL | <br>RINA | <br>RMRS | <a href="#">Bestätigungen</a> |

| other                             |                         |
|-----------------------------------|-------------------------|
| <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=3RT1036-3XB40-0LA2>

##### Cax online generator

<http://support.automation.siemens.com/WW/CAXorder/default.aspx?lang=en&mlfb=3RT1036-3XB40-0LA2>

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

<https://support.industry.siemens.com/cs/ww/en/ps/3RT1036-3XB40-0LA2>

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

[http://www.automation.siemens.com/bilddb/cax\\_de.aspx?mlfb=3RT1036-3XB40-0LA2&lang=en](http://www.automation.siemens.com/bilddb/cax_de.aspx?mlfb=3RT1036-3XB40-0LA2&lang=en)

