

Reversing contactor assembly AC-3, 18,5kW/400V, AC110V, 50/60Hz  
3-pole, Size S2 screw terminal electrical and mechanical Interlock 2  
NO integrated



|                               |                                                                                                                                                                                                                                                            |
|-------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Product brand name            | SIRIUS                                                                                                                                                                                                                                                     |
| Product designation           | Reversing contactor assembly                                                                                                                                                                                                                               |
| Product type designation      | 3RA23                                                                                                                                                                                                                                                      |
| Manufacturer's article number | <ul style="list-style-type: none"> <li>• 1 of the supplied contactor <a href="#">3RT2035-1AG20</a></li> <li>• 2 of the supplied contactor <a href="#">3RT2035-1AG20</a></li> <li>• of the supplied RS assembly kit <a href="#">3RA2933-2AA1</a></li> </ul> |

| General technical data                                                                           |       |
|--------------------------------------------------------------------------------------------------|-------|
| Size of contactor                                                                                | S2    |
| Product extension                                                                                | Yes   |
| <ul style="list-style-type: none"> <li>• Auxiliary switch</li> </ul>                             |       |
| Insulation voltage                                                                               | 690 V |
| <ul style="list-style-type: none"> <li>• with degree of pollution 3 at AC rated value</li> </ul> |       |
| Degree of pollution                                                                              | 3     |
| Surge voltage resistance rated value                                                             | 6 kV  |
| Protection class IP                                                                              | IP20  |
| <ul style="list-style-type: none"> <li>• on the front</li> </ul>                                 |       |
| Degree of protection NEMA rating                                                                 | other |
| Shock resistance at rectangular impulse                                                          |       |

|                                                              |                             |
|--------------------------------------------------------------|-----------------------------|
| • at AC                                                      | 11.8g / 5 ms, 11.6g / 10 ms |
| <b>Shock resistance with sine pulse</b>                      |                             |
| • at AC                                                      | 18.5g / 5 ms, 11.6g / 10 ms |
| <b>Mechanical service life (switching cycles)</b>            |                             |
| • of contactor typical                                       | 10 000 000                  |
| • of the contactor with added auxiliary switch block typical | 10 000 000                  |
| <b>Reference code acc. to DIN EN 81346-2</b>                 | Q                           |

#### Ambient conditions

|                                                        |                |
|--------------------------------------------------------|----------------|
| <b>Installation altitude at height above sea level</b> |                |
| • maximum                                              | 2 000 m        |
| <b>Ambient temperature</b>                             |                |
| • during operation                                     | -25 ... +60 °C |
| • during storage                                       | -55 ... +80 °C |

#### Main circuit

|                                                 |       |
|-------------------------------------------------|-------|
| <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 voltage</b>                        |       |
| • at AC-3 rated value maximum                   | 690 V |
| <b>Operating current</b>                        |       |
| • at AC-1 at 400 V                              |       |
| — at ambient temperature 40 °C rated value      | 60 A  |
| — at ambient temperature 60 °C rated value      | 55 A  |
| • at AC-2 at 400 V rated value                  | 40 A  |
| • at AC-3                                       |       |
| — at 400 V rated value                          | 41 A  |
| <b>Operating current</b>                        |       |
| • at 1 current path at DC-1                     |       |
| — at 24 V rated value                           | 55 A  |
| — at 110 V rated value                          | 4.5 A |
| • with 2 current paths in series at DC-1        |       |
| — at 24 V rated value                           | 55 A  |
| — at 110 V rated value                          | 25 A  |
| • with 3 current paths in series at DC-1        |       |
| — at 24 V rated value                           | 55 A  |
| — at 110 V rated value                          | 55 A  |
| <b>Operating current</b>                        |       |
| • at 1 current path at DC-3 at DC-5             |       |
| — at 24 V rated value                           | 35 A  |
| — at 110 V rated value                          | 2.5 A |

|                                                                                                                                                                                                                                                                                                                                                                                |                                              |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------|
| <ul style="list-style-type: none"> <li>• with 2 current paths in series 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 3 current paths in series 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> </ul> | 55 A<br>25 A<br><br>55 A<br>55 A             |
| <b>Operating power</b> <ul style="list-style-type: none"> <li>• at AC-2 at 400 V rated value</li> <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> <li>• at AC-4 at 400 V rated value</li> </ul>                                                                                                   | 18.5 kW<br><br>18.5 kW<br>18.5 kW<br>18.5 kW |
| <b>No-load switching frequency</b>                                                                                                                                                                                                                                                                                                                                             | 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>750 1/h<br>1 000 1/h<br>300 1/h |
| <b>Control circuit/ Control</b>                                                                                                                                                                                                                                                                                                                                                |                                              |
| <b>Type of voltage of the control supply voltage</b>                                                                                                                                                                                                                                                                                                                           | AC                                           |
| <b>Control supply voltage 1 at AC</b> <ul style="list-style-type: none"> <li>• at 50 Hz rated value</li> <li>• at 60 Hz rated value</li> </ul>                                                                                                                                                                                                                                 | 110 V<br>110 V                               |
| <b>Operating range factor control supply voltage rated value of magnet coil at AC</b> <ul style="list-style-type: none"> <li>• at 50 Hz</li> <li>• at 60 Hz</li> </ul>                                                                                                                                                                                                         | 0.8 ... 1.1<br>0.85 ... 1.1                  |
| <b>Apparent pick-up power of magnet coil at AC</b> <ul style="list-style-type: none"> <li>• at 50 Hz</li> <li>• at 60 Hz</li> </ul>                                                                                                                                                                                                                                            | 210 V·A<br>188 V·A                           |
| <b>Inductive power factor with closing power of the coil</b> <ul style="list-style-type: none"> <li>• at 50 Hz</li> <li>• at 60 Hz</li> </ul>                                                                                                                                                                                                                                  | 0.69<br>0.65                                 |
| <b>Apparent holding power of magnet coil at AC</b> <ul style="list-style-type: none"> <li>• at 50 Hz</li> <li>• at 60 Hz</li> </ul>                                                                                                                                                                                                                                            | 17.2 V·A<br>16.5 V·A                         |
| <b>Inductive power factor with the holding power of the coil</b> <ul style="list-style-type: none"> <li>• at 50 Hz</li> <li>• at 60 Hz</li> </ul>                                                                                                                                                                                                                              | 0.36<br>0.39                                 |
| <b>Auxiliary circuit</b>                                                                                                                                                                                                                                                                                                                                                       |                                              |

|                                                                 |                                            |
|-----------------------------------------------------------------|--------------------------------------------|
| <b>Number of NC contacts for auxiliary contacts</b>             |                                            |
| • per direction of rotation                                     | 0                                          |
| <b>Number of NO contacts for auxiliary contacts</b>             |                                            |
| • per direction of rotation                                     | 1                                          |
| • instantaneous contact                                         | 2                                          |
| <b>Operating current of auxiliary contacts at AC-12 maximum</b> | 10 A                                       |
| <b>Operating current of auxiliary contacts at AC-15</b>         |                                            |
| • at 230 V                                                      | 6 A                                        |
| • at 400 V                                                      | 3 A                                        |
| <b>Operating current of auxiliary contacts at DC-13</b>         |                                            |
| • at 24 V                                                       | 10 A                                       |
| • at 60 V                                                       | 2 A                                        |
| • at 110 V                                                      | 1 A                                        |
| • at 220 V                                                      | 0.3 A                                      |
| <b>Contact reliability of auxiliary contacts</b>                | < 1 error per 100 million operating cycles |

#### UL/CSA ratings

|                                                             |             |
|-------------------------------------------------------------|-------------|
| <b>Full-load current (FLA) for three-phase AC motor</b>     |             |
| • at 480 V rated value                                      | 40 A        |
| • at 600 V rated value                                      | 41 A        |
| <b>Yielded mechanical performance [hp]</b>                  |             |
| • for single-phase AC motor                                 |             |
| — at 110/120 V rated value                                  | 3 hp        |
| — at 230 V rated value                                      | 7.5 hp      |
| • for three-phase AC motor                                  |             |
| — at 220/230 V rated value                                  | 15 hp       |
| — at 460/480 V rated value                                  | 30 hp       |
| — at 575/600 V rated value                                  | 40 hp       |
| <b>Contact rating of auxiliary contacts according to UL</b> | A600 / Q600 |

#### Short-circuit protection

|                                                                 |                                          |
|-----------------------------------------------------------------|------------------------------------------|
| <b>Design of the fuse link</b>                                  |                                          |
| • for short-circuit protection of the main circuit              |                                          |
| — with type of coordination 1 required                          | gG NH 3NA, DIAZED 5SB, NEOZED 5SE: 160 A |
| — with type of assignment 2 required                            | gG NH 3NA, DIAZED 5SB, NEOZED 5SE: 80 A  |
| • for short-circuit protection of the auxiliary switch required | fuse gG: 10 A                            |

#### Installation/ mounting/ dimensions

|                          |                                                                                                                                      |
|--------------------------|--------------------------------------------------------------------------------------------------------------------------------------|
| <b>Mounting position</b> | +/-180° rotation possible on vertical mounting surface; can be tilted forward and backward by +/- 22.5° on vertical mounting surface |
| <b>Mounting type</b>     | screw and snap-on mounting onto 35 mm standard mounting rail                                                                         |

|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |        |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------|
| <b>Height</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | 141 mm |
| <b>Width</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        | 120 mm |
| <b>Depth</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        | 130 mm |
| <b>Required spacing</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |        |
| <ul style="list-style-type: none"> <li>• with side-by-side mounting <ul style="list-style-type: none"> <li>— forwards 10 mm</li> <li>— Backwards 0 mm</li> <li>— upwards 10 mm</li> <li>— downwards 10 mm</li> <li>— at the side 10 mm</li> </ul> </li> <li>• for grounded parts <ul style="list-style-type: none"> <li>— forwards 10 mm</li> <li>— Backwards 0 mm</li> <li>— upwards 10 mm</li> <li>— at the side 10 mm</li> <li>— downwards 10 mm</li> </ul> </li> <li>• for live parts <ul style="list-style-type: none"> <li>— forwards 10 mm</li> <li>— Backwards 0 mm</li> <li>— upwards 10 mm</li> <li>— downwards 10 mm</li> <li>— at the side 10 mm</li> </ul> </li> </ul> |        |

## 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 2x (1 ... 35 mm<sup>2</sup>), 1x (1 ... 50 mm<sup>2</sup>)</li> <li>— single or multi-stranded 2x (1 ... 35 mm<sup>2</sup>), 1x (1 ... 50 mm<sup>2</sup>)</li> <li>— finely stranded with core end processing 2x (1 ... 25 mm<sup>2</sup>), 1x (1 ... 35 mm<sup>2</sup>)</li> </ul> </li> <li>• at AWG conductors for main contacts 2x (18 ... 2), 1x (18 ... 1)</li> </ul> |                                              |
| <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>— single or multi-stranded 2x (0,5 ... 1,5 mm<sup>2</sup>), 2x (0,75 ... 2,5 mm<sup>2</sup>)</li> <li>— finely stranded with core end processing 2x (0,5 ... 1,5 mm<sup>2</sup>), 2x (0,75 ... 2,5 mm<sup>2</sup>)</li> </ul> </li> <li>• at AWG conductors for auxiliary contacts 2x (20 ... 16), 2x (18 ... 14)</li> </ul>                                                   |                                              |

## Safety related data

|                                                                                            |           |
|--------------------------------------------------------------------------------------------|-----------|
| <b>B10 value</b>                                                                           |           |
| <ul style="list-style-type: none"> <li>• with high demand rate acc. to SN 31920</li> </ul> | 1 000 000 |
| <b>Proportion of dangerous failures</b>                                                    |           |

|                                                                           |         |
|---------------------------------------------------------------------------|---------|
| • with low demand rate acc. to SN 31920                                   | 40 %    |
| • with high demand rate acc. to SN 31920                                  | 73 %    |
| <b>Failure rate [FIT]</b>                                                 |         |
| • with low demand rate acc. to SN 31920                                   | 100 FIT |
| <b>T1 value for proof test interval or service life acc. to IEC 61508</b> | 20 y    |

| Communication/ Protocol                                 |     |
|---------------------------------------------------------|-----|
| Product function Bus communication                      | Yes |
| Protocol is supported                                   |     |
| • AS-Interface protocol                                 | No  |
| Product function Control circuit interface with IO link | No  |

| Certificates/ approvals                                                                                                                                                                                                                                                                                                                                     |                               |                                                    |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------|----------------------------------------------------|
| General Product Approval                                                                                                                                                                                                                                                                                                                                    | Declaration of Conformity     | Test Certificates                                  |
|  CSA  UL  EAC  EG-Konf. | <a href="#">Miscellaneous</a> | <a href="#">Type Test Certificates/Test Report</a> |

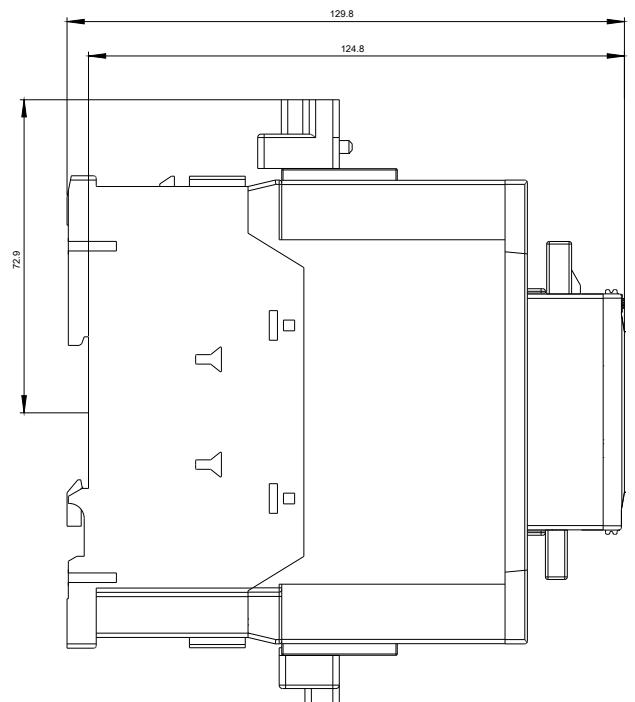
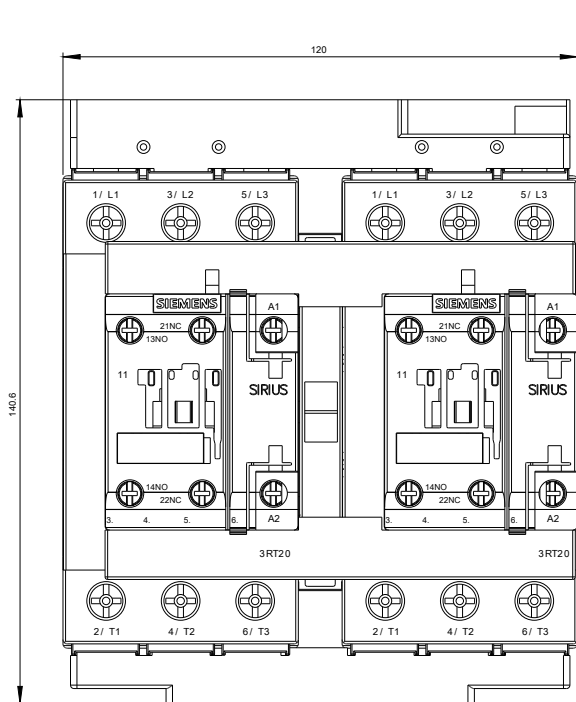
| Marine / Shipping                                                                       |                                                                                                    |                                                                                                          |                                                                                         |                                                                                            |                                                                                            |
|-----------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------|
|  ABS |  BUREAU VERITAS |  Lloyd's Register LRS |  PRS |  RINA |  RMRS |

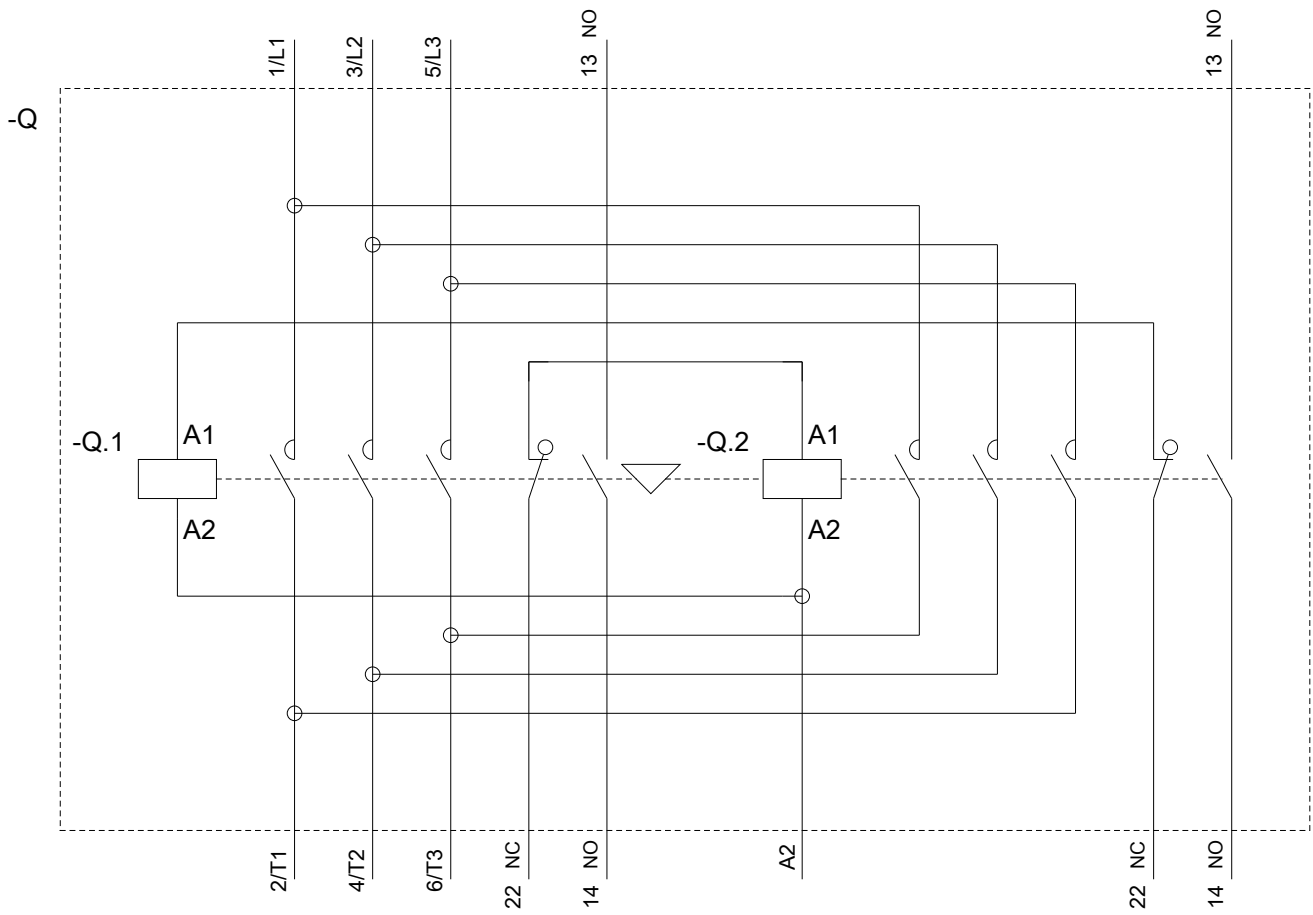
| Marine / Shipping                                                                                          | other                        |
|------------------------------------------------------------------------------------------------------------|------------------------------|
|  DNV-GL<br>DNVGL.COM/AF | <a href="#">Confirmation</a> |

| Further information                                                                                                                                                                                                                                                                                                     |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Information- and Downloadcenter (Catalogs, Brochures,...)</b><br><a href="https://www.siemens.com/ic10">https://www.siemens.com/ic10</a>                                                                                                                                                                             |
| <b>Industry Mall (Online ordering system)</b><br><a href="https://mall.industry.siemens.com/mall/en/en/Catalog/product?mlfb=3RA2335-8XB30-1AG2">https://mall.industry.siemens.com/mall/en/en/Catalog/product?mlfb=3RA2335-8XB30-1AG2</a>                                                                                |
| <b>Cax online generator</b><br><a href="http://support.automation.siemens.com/WW/CAXorder/default.aspx?lang=en&amp;mlfb=3RA2335-8XB30-1AG2">http://support.automation.siemens.com/WW/CAXorder/default.aspx?lang=en&amp;mlfb=3RA2335-8XB30-1AG2</a>                                                                      |
| <b>Service&amp;Support (Manuals, Certificates, Characteristics, FAQs,...)</b><br><a href="https://support.industry.siemens.com/cs/ww/en/ps/3RA2335-8XB30-1AG2">https://support.industry.siemens.com/cs/ww/en/ps/3RA2335-8XB30-1AG2</a>                                                                                  |
| <b>Image database (product images, 2D dimension drawings, 3D models, device circuit diagrams, EPLAN macros, ...)</b><br><a href="http://www.automation.siemens.com/bilddb/cax_de.aspx?mlfb=3RA2335-8XB30-1AG2&amp;lang=en">http://www.automation.siemens.com/bilddb/cax_de.aspx?mlfb=3RA2335-8XB30-1AG2&amp;lang=en</a> |

Characteristic: Tripping characteristics, I<sup>2</sup>t, Let-through current  
<https://support.industry.siemens.com/cs/ww/en/ps/3RA2335-8XB30-1AG2/char>

Further characteristics (e.g. electrical endurance, switching frequency)  
<http://www.automation.siemens.com/bilddb/index.aspx?view=Search&mlfb=3RA2335-8XB30-1AG2&objecttype=14&gridview=view1>





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