

CIRCUIT BREAKER, SIZE S2, FOR STARTER COMBINATION,  
RATED CURRENT 40A, N-RELEASE 585A, SCREW TERMINAL,  
STANDARD BREAKING CAPACITY



|                                                                           |                          |
|---------------------------------------------------------------------------|--------------------------|
| product brandname                                                         | SIRIUS                   |
| Product designation                                                       | Circuit breaker          |
| Design of the product                                                     | For starter combinations |
| Product type designation                                                  | 3RV2                     |
| General technical data                                                    |                          |
| Size of the circuit-breaker                                               | S2                       |
| Size of contactor can be combined company-specific                        | S2                       |
| Product extension                                                         |                          |
| • Auxiliary switch                                                        | Yes                      |
| Power loss [W] total typical                                              | 15 W                     |
| Insulation voltage with degree of pollution 3 rated value                 | 690 V                    |
| Surge voltage resistance rated value                                      | 6 kV                     |
| maximum permissible voltage for safe isolation                            |                          |
| • in networks with grounded star point between main and auxiliary circuit | 400 V                    |
| • in networks with grounded star point between main and auxiliary circuit | 400 V                    |
| Protection class IP                                                       |                          |

|                                                                                                                           |                                                                  |
|---------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------|
| <ul style="list-style-type: none"> <li>• on the front</li> <li>• of the terminal</li> </ul>                               | IP20<br>IP00                                                     |
| <b>Mechanical service life (switching cycles)</b>                                                                         |                                                                  |
| <ul style="list-style-type: none"> <li>• of the main contacts typical</li> <li>• of auxiliary contacts typical</li> </ul> | 50 000<br>50 000                                                 |
| <b>Electrical endurance (switching cycles)</b>                                                                            |                                                                  |
| <ul style="list-style-type: none"> <li>• typical</li> </ul>                                                               | 50 000                                                           |
| <b>Protection against electrical shock</b>                                                                                | finger-safe when touched vertically from front acc. to IEC 60529 |
| Equipment marking acc. to DIN EN 81346-2                                                                                  | Q                                                                |

#### Ambient conditions

|                                                                                                                            |                                                    |
|----------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------|
| <b>Ambient temperature</b>                                                                                                 |                                                    |
| <ul style="list-style-type: none"> <li>• during operation</li> <li>• during storage</li> <li>• during transport</li> </ul> | -20 ... +60 °C<br>-50 ... +80 °C<br>-50 ... +80 °C |

#### Main circuit

|                                                                                                                                                                                             |                                              |
|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------|
| <b>Number of poles for main current circuit</b>                                                                                                                                             | 3                                            |
| <b>Operating voltage</b>                                                                                                                                                                    |                                              |
| <ul style="list-style-type: none"> <li>• rated value</li> <li>• at AC-3 rated value maximum</li> </ul>                                                                                      | 690 V<br>690 V                               |
| <b>Operating frequency rated value</b>                                                                                                                                                      | 50 ... 60 Hz                                 |
| <b>Operating current rated value</b>                                                                                                                                                        | 40 A                                         |
| <b>Operating current</b>                                                                                                                                                                    |                                              |
| <ul style="list-style-type: none"> <li>• at AC-3</li> <li>— at 400 V rated value</li> </ul>                                                                                                 | 40 A                                         |
| <b>Operating power</b>                                                                                                                                                                      |                                              |
| <ul style="list-style-type: none"> <li>• at AC-3</li> <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> | 11 000 W<br>18 500 W<br>22 000 W<br>37 000 W |
| <b>Operating frequency</b>                                                                                                                                                                  |                                              |
| <ul style="list-style-type: none"> <li>• at AC-3 maximum</li> </ul>                                                                                                                         | 15 1/h                                       |

#### Protective and monitoring functions

|                                                                                                                                          |                        |
|------------------------------------------------------------------------------------------------------------------------------------------|------------------------|
| <b>Product function</b>                                                                                                                  |                        |
| <ul style="list-style-type: none"> <li>• Ground fault detection</li> <li>• Phase failure detection</li> </ul>                            | No<br>No               |
| <b>Operational short-circuit current breaking capacity (Ics) at AC</b>                                                                   |                        |
| <ul style="list-style-type: none"> <li>• at 240 V rated value</li> <li>• at 400 V rated value</li> <li>• at 500 V rated value</li> </ul> | 100 A<br>30 kA<br>5 kA |

|                                                              |        |
|--------------------------------------------------------------|--------|
| • at 690 V rated value                                       | 2 kA   |
| <b>Maximum short-circuit current breaking capacity (Icu)</b> |        |
| • at AC at 240 V rated value                                 | 100 kA |
| • at AC at 400 V rated value                                 | 65 kA  |
| • at AC at 500 V rated value                                 | 10 kA  |
| • at AC at 690 V rated value                                 | 4 kA   |

#### 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                                  | 40 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 200/208 V rated value                              | 15 hp  |
| — at 220/230 V rated value                              | 15 hp  |
| — at 460/480 V rated value                              | 30 hp  |
| — at 575/600 V rated value                              | 40 hp  |

#### Short-circuit protection

|                                                                                                |               |
|------------------------------------------------------------------------------------------------|---------------|
| <b>Product function Short circuit protection</b>                                               | Yes           |
| <b>Design of the short-circuit trip</b>                                                        | magnetic      |
| <b>Design of the fuse link for IT network for short-circuit protection of the main circuit</b> |               |
| • at 240 V                                                                                     | none required |
| • at 400 V                                                                                     | 125           |
| • at 500 V                                                                                     | 100           |
| • at 690 V                                                                                     | 80            |

#### Installation/ mounting/ dimensions

|                              |                                                                                        |
|------------------------------|----------------------------------------------------------------------------------------|
| <b>Mounting position</b>     | any                                                                                    |
| <b>Mounting type</b>         | screw and snap-on mounting onto 35 mm standard mounting rail according to DIN EN 60715 |
| <b>Height</b>                | 140 mm                                                                                 |
| <b>Width</b>                 | 55 mm                                                                                  |
| <b>Depth</b>                 | 149 mm                                                                                 |
| <b>Required spacing</b>      |                                                                                        |
| • with side-by-side mounting |                                                                                        |
| — forwards                   | 0 mm                                                                                   |
| — Backwards                  | 0 mm                                                                                   |
| — upwards                    | 50 mm                                                                                  |
| — downwards                  | 50 mm                                                                                  |

|                      |       |
|----------------------|-------|
| — at the side        | 0 mm  |
| • for grounded parts |       |
| — forwards           | 0 mm  |
| — Backwards          | 0 mm  |
| — upwards            | 50 mm |
| — at the side        | 10 mm |
| — downwards          | 50 mm |
| • for live parts     |       |
| — forwards           | 0 mm  |
| — Backwards          | 0 mm  |
| — upwards            | 50 mm |
| — downwards          | 50 mm |
| — at the side        | 10 mm |

## Connections/Terminals

|                                                                      |                                                                |
|----------------------------------------------------------------------|----------------------------------------------------------------|
| <b>Product function</b>                                              |                                                                |
| • removable terminal for auxiliary and control circuit               | No                                                             |
| <b>Type of electrical connection</b>                                 |                                                                |
| • for main current circuit                                           | screw-type terminals                                           |
| <b>Arrangement of electrical connectors for main current circuit</b> | Top and bottom                                                 |
| <b>Type of connectable conductor cross-sections</b>                  |                                                                |
| • for main contacts                                                  |                                                                |
| — single or multi-stranded                                           | 2x (1 ... 25 mm <sup>2</sup> ), 1x (1 ... 35 mm <sup>2</sup> ) |
| — finely stranded with core end processing                           | 2x (1 ... 16 mm <sup>2</sup> ), 1x (1 ... 25 mm <sup>2</sup> ) |
| • at AWG conductors for main contacts                                | 2x (18 ... 3), 1x (18 ... 2)                                   |
| <b>Tightening torque</b>                                             |                                                                |
| • for main contacts with screw-type terminals                        | 3 ... 4.5 N·m                                                  |
| <b>Design of screwdriver shaft</b>                                   | Diameter 5 to 6 mm                                             |

## Safety related data

|                                                                           |        |
|---------------------------------------------------------------------------|--------|
| <b>B10 value</b>                                                          |        |
| • with high demand rate acc. to SN 31920                                  | 5 000  |
| <b>Proportion of dangerous failures</b>                                   |        |
| • with low demand rate acc. to SN 31920                                   | 50 %   |
| • with high demand rate acc. to SN 31920                                  | 50 %   |
| <b>Failure rate [FIT]</b>                                                 |        |
| • with low demand rate acc. to SN 31920                                   | 50 FIT |
| <b>T1 value for proof test interval or service life acc. to IEC 61508</b> | 10 y   |
| <b>Display version</b>                                                    |        |
| • for switching status                                                    | Handle |

## Certificates/approvals

| General Product Approval | Declaration of Conformity | Test Certificates |
|--------------------------|---------------------------|-------------------|
|--------------------------|---------------------------|-------------------|



CCC



CSA



UL



EG-Konf.

[Special Test Certificate](#)

| Test Certificates | Shipping Approval |
|-------------------|-------------------|
|-------------------|-------------------|

[Type Test Certificates/Test Report](#)



ABS



LRS



PRS



RINA



RMRS

| other | Railway |
|-------|---------|
|-------|---------|

[Environmental Confirmations](#)

[Confirmation](#)

[Miscellaneous](#)

[Vibration and Shock](#)

## 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=3RV2331-4UC10>

**Cax online generator**

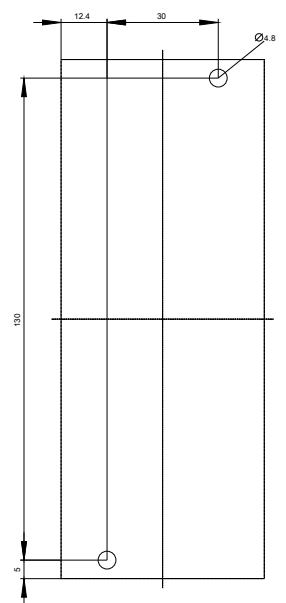
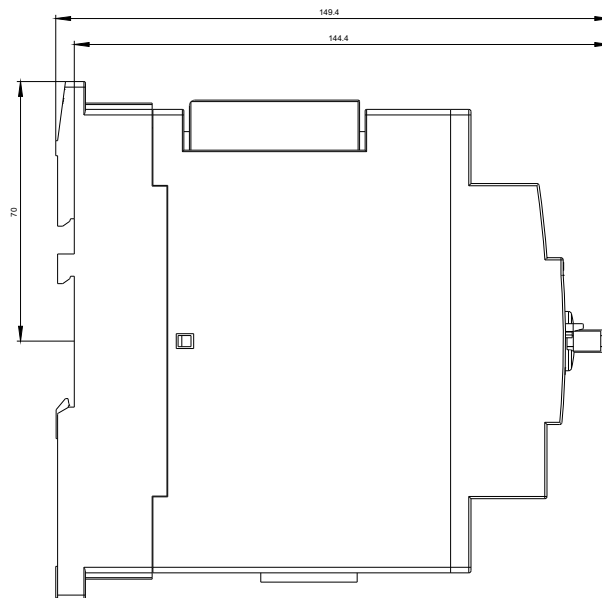
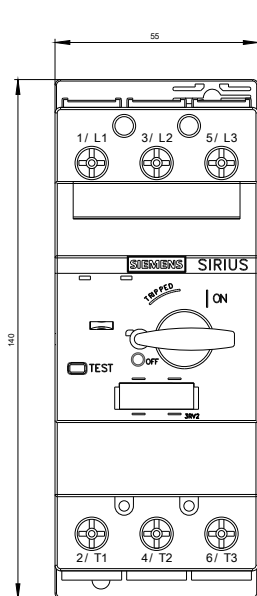
<http://support.automation.siemens.com/WW/CAXorder/default.aspx?lang=en&mlfb=3RV2331-4UC10>

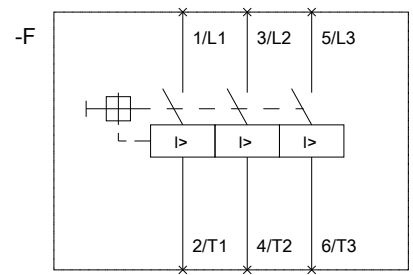
**Service&Support (Manuals, Certificates, Characteristics, FAQs,...)**

<https://support.industry.siemens.com/cs/ww/en/ps/3RV2331-4UC10>

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

[http://www.automation.siemens.com/bilddb/cax\\_de.aspx?mlfb=3RV2331-4UC10&lang=en](http://www.automation.siemens.com/bilddb/cax_de.aspx?mlfb=3RV2331-4UC10&lang=en)





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