



CIRCUIT-BREAKER SZ S0, FOR MOTOR PROTECTION, CLASS 10, A-REL. 5.5...8A, N-REL. 104A SCREW CONNECTION, STANDARD SW. CAPACITY

Figure similar

|                                                         |                      |
|---------------------------------------------------------|----------------------|
| product brand name                                      | SIRIUS               |
| Product designation                                     | 3RV2 circuit breaker |
| General technical data:                                 |                      |
| Size of contactor can be combined company-specific      | S00                  |
| Product expansion                                       |                      |
| • Auxiliary switch                                      | Yes                  |
| Active power loss total typical                         | 7 W                  |
| Insulation voltage                                      |                      |
| • with degree of pollution 3 Rated value                | 690 V                |
| Surge voltage resistance Rated value                    | 6 kV                 |
| Protection class IP                                     |                      |
| • on the front                                          | IP20                 |
| • of the terminal                                       | IP20                 |
| Mechanical service life (switching cycles)              |                      |
| • of the main contacts typical                          | 100 000              |
| • of the auxiliary contacts typical                     | 100 000              |
| Electrical endurance (switching cycles)                 |                      |
| • typical                                               | 100 000              |
| Temperature compensation                                | -20 ... +60 °C       |
| Type of protection                                      | Increased safety     |
| Ambient conditions:                                     |                      |
| Installation altitude at height above sea level maximum | 2 000 m              |
| Ambient temperature                                     |                      |
| • during operation                                      | -20 ... +60 °C       |

|                                           |                |
|-------------------------------------------|----------------|
| • during storage                          | -50 ... +80 °C |
| • during transport                        | -50 ... +80 °C |
| <b>Relative humidity during operation</b> | 10 ... 95 %    |

#### Main circuit:

|                                                                                    |              |
|------------------------------------------------------------------------------------|--------------|
| <b>Adjustable response value current of the current-dependent overload release</b> | 5.5 ... 8 A  |
| <b>Operating voltage</b>                                                           |              |
| • Rated value                                                                      | 690 V        |
| • at AC-3 Rated value maximum                                                      | 690 V        |
| <b>Operating frequency Rated value</b>                                             | 50 ... 60 Hz |
| <b>Operating current Rated value</b>                                               | 8 A          |
| <b>Operating current</b>                                                           |              |
| • at AC-3                                                                          |              |
| — at 400 V Rated value                                                             | 8 A          |
| <b>Operating power</b>                                                             |              |
| • at AC-3                                                                          |              |
| — at 230 V Rated value                                                             | 1 500 W      |
| — at 400 V Rated value                                                             | 3 000 W      |
| — at 500 V Rated value                                                             | 4 000 W      |
| — at 690 V Rated value                                                             | 5 500 W      |
| <b>Operating frequency</b>                                                         |              |
| • at AC-3 maximum                                                                  | 15 1/h       |

#### Auxiliary circuit:

|                              |   |
|------------------------------|---|
| <b>Number of NC contacts</b> |   |
| • for auxiliary contacts     | 0 |
| <b>Number of NO contacts</b> |   |
| • for auxiliary contacts     | 0 |
| <b>Number of CO contacts</b> |   |
| • for auxiliary contacts     | 0 |

#### Protective and monitoring functions:

|                                                                        |          |
|------------------------------------------------------------------------|----------|
| <b>Trip class</b>                                                      | CLASS 10 |
| <b>Design of the overload circuit breaker</b>                          | thermal  |
| <b>Operational short-circuit current breaking capacity (Ics) at AC</b> |          |
| • at 240 V Rated value                                                 | 100 kA   |
| • at 400 V Rated value                                                 | 42 kA    |
| • at 500 V Rated value                                                 | 42 kA    |
| • at 690 V Rated value                                                 | 4 kA     |
| <b>Maximum short-circuit current breaking capacity (Icu)</b>           |          |
| • at AC at 240 V Rated value                                           | 100 kA   |
| • with AC at 400 V Rated value                                         | 100 kA   |

|                                                                                                                                                                                                                                                                                                   |                         |
|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------|
| <ul style="list-style-type: none"> <li>• at AC at 500 V Rated value</li> <li>• at AC at 690 V Rated value</li> </ul>                                                                                                                                                                              | 42 kA<br>6 kA           |
| <b>Breaking capacity short-circuit current (Icn)</b> <ul style="list-style-type: none"> <li>• with 1 current path at DC at 150 V Rated value</li> <li>• with 2 current paths in series at DC at 300 V Rated value</li> <li>• with 3 current paths in series at DC at 450 V Rated value</li> </ul> | 10 kA<br>10 kA<br>10 kA |
| <b>Response value current of the instantaneous short-circuit release</b>                                                                                                                                                                                                                          | 104 A                   |

#### UL/CSA ratings:

|                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |                                                      |
|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------|
| <b>Full-load current (FLA) for three-phase AC motor</b> <ul style="list-style-type: none"> <li>• at 480 V Rated value</li> <li>• at 600 V Rated value</li> </ul>                                                                                                                                                                                                                                                                                                     | 8 A<br>8 A                                           |
| <b>yielded mechanical performance [hp]</b> <ul style="list-style-type: none"> <li>• for single-phase AC motor <ul style="list-style-type: none"> <li>— at 110/120 V Rated value</li> <li>— at 230 V Rated value</li> </ul> </li> <li>• for three-phase AC motor <ul style="list-style-type: none"> <li>— at 200/208 V Rated value</li> <li>— at 220/230 V Rated value</li> <li>— at 460/480 V Rated value</li> <li>— at 575/600 V Rated value</li> </ul> </li> </ul> | 0.333 hp<br>1 hp<br><br>2 hp<br>2 hp<br>5 hp<br>5 hp |

#### Short-circuit:

|                                         |          |
|-----------------------------------------|----------|
| <b>Design of the short-circuit trip</b> | magnetic |
|-----------------------------------------|----------|

#### 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>                                                                                                                                                                                                                                                                                                                                        | 97 mm                                                                                  |
| <b>Width</b>                                                                                                                                                                                                                                                                                                                                         | 45 mm                                                                                  |
| <b>Depth</b>                                                                                                                                                                                                                                                                                                                                         | 96 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</li> <li>— Backwards</li> <li>— upwards</li> <li>— downwards</li> <li>— at the side</li> </ul> </li> <li>• for grounded parts <ul style="list-style-type: none"> <li>— forwards</li> </ul> </li> </ul> | 0 mm<br>0 mm<br>50 mm<br>50 mm<br>0 mm<br><br>0 mm                                     |

|                  |       |
|------------------|-------|
| — Backwards      | 0 mm  |
| — upwards        | 50 mm |
| — at the side    | 30 mm |
| — downwards      | 50 mm |
| • for live parts |       |
| — forwards       | 0 mm  |
| — Backwards      | 0 mm  |
| — upwards        | 50 mm |
| — downwards      | 50 mm |
| — at the side    | 30 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-section</b>                   |                                                                                         |
| • for main contacts                                                  |                                                                                         |
| — single or multi-stranded                                           | 2x (1 ... 2,5 mm <sup>2</sup> ), 2x (2,5 ... 10 mm <sup>2</sup> )                       |
| — finely stranded with core end processing                           | 2x (1 ... 2.5 mm <sup>2</sup> ), 2x (2.5 ... 6 mm <sup>2</sup> ), 1x 10 mm <sup>2</sup> |
| • for AWG conductors for main contacts                               | 2x (16 ... 12), 2x (14 ... 8)                                                           |
| <b>Design of screwdriver shaft</b>                                   | Diameter 5 to 6 mm                                                                      |
| <b>Design of the thread of the connection screw</b>                  |                                                                                         |
| • for main contacts                                                  | M4                                                                                      |

#### Safety related data:

|                                                                           |        |
|---------------------------------------------------------------------------|--------|
| <b>B10 value with high demand rate acc. to SN 31920</b>                   | 50 000 |
| <b>Proportion of dangerous failures</b>                                   |        |
| • with low demand rate acc. to SN 31920                                   | 40 %   |
| • with high demand rate acc. to SN 31920                                  | 40 %   |
| <b>T1 value for proof test interval or service life acc. to IEC 61508</b> | 10 y   |

#### Mechanical data:

|                                    |    |
|------------------------------------|----|
| <b>Size of the circuit-breaker</b> | S0 |
|------------------------------------|----|

#### Display:

|                        |        |
|------------------------|--------|
| <b>Display version</b> |        |
| • for switching status | Handle |

#### Certificates/ approvals:

| General Product Approval | For use in hazardous locations | Declaration of Conformity |
|--------------------------|--------------------------------|---------------------------|
|--------------------------|--------------------------------|---------------------------|



CSA



UL

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ATEX



EG-Konf.

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

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ABS



BUREAU VERITAS



DNV

| Shipping Approval | other |
|-------------------|-------|
|-------------------|-------|



GL



LRS



PRS



RINA



RMRS

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|-------|
|-------|

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VDE

| Further information |
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<http://www.siemens.com/industrial-controls/catalogs>

**Industry Mall (Online ordering system)**

<http://www.siemens.com/industrymall>

**Cax online generator**

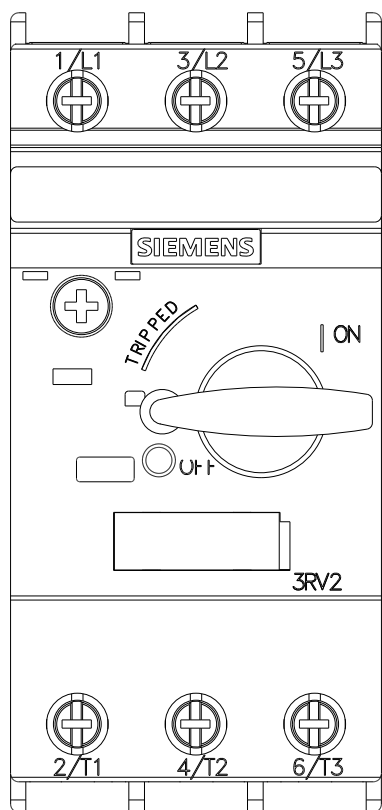
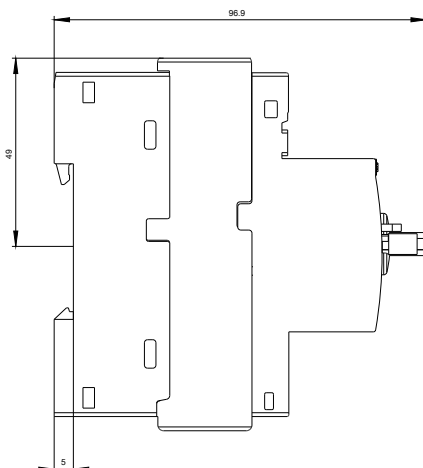
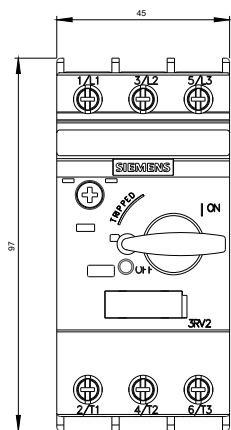
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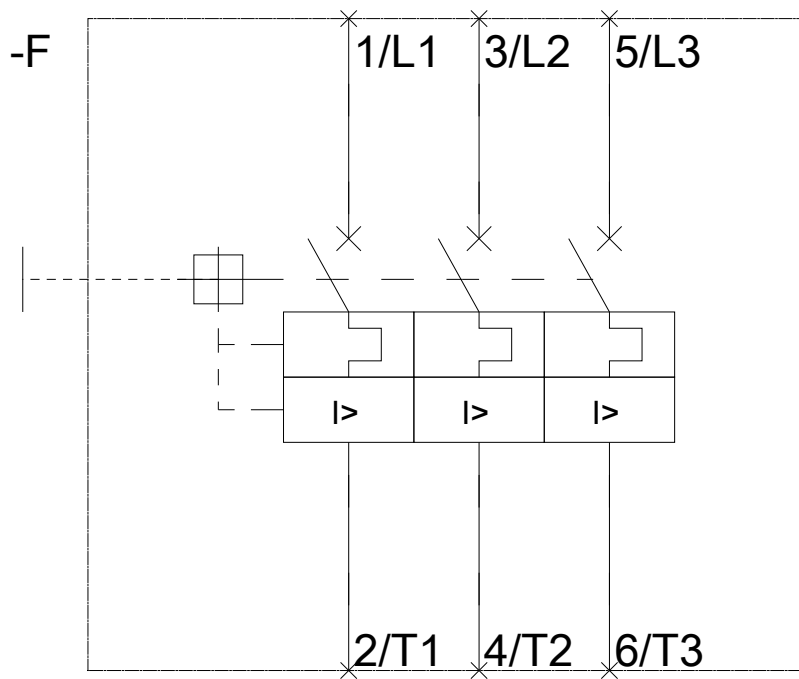
**Service&Support (Manuals, Certificates, Characteristics, FAQs,...)**

<https://support.industry.siemens.com/cs/ww/en/ps/3RV20211HA10>

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

[http://www.automation.siemens.com/bilddb/cax\\_de.aspx?mlfb=3RV20211HA10&lang=en](http://www.automation.siemens.com/bilddb/cax_de.aspx?mlfb=3RV20211HA10&lang=en)





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