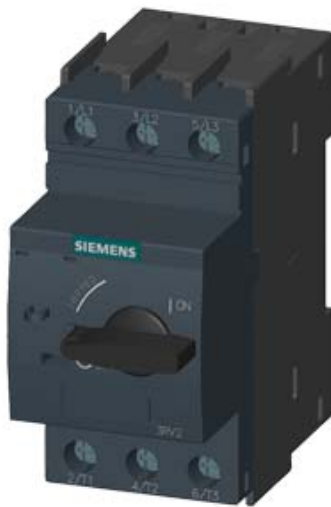




CIRCUIT-BREAKER SZ S0, FOR STARTER COMBINATION, RATED CURRENT 22A, N-RELEASE 286A, SCREW CONNECTION, STANDARD SW. CAPACITY

|                     |  |                      |
|---------------------|--|----------------------|
| product brand name  |  | SIRIUS               |
| Product designation |  | 3RV2 circuit breaker |

### General technical data:

|                                                   |    |             |
|---------------------------------------------------|----|-------------|
| <b>Active power loss total typical</b>            | W  | 8           |
| <b>Insulation voltage</b>                         |    |             |
| • with degree of pollution 3 Rated value          | V  | 690         |
| <b>Shock resistance</b>                           |    |             |
| • acc. to IEC 60068-2-27                          |    | 25g / 11 ms |
| <b>Surge voltage resistance Rated value</b>       | kV | 6           |
| <b>Mechanical service life (switching cycles)</b> |    |             |
| • of the main contacts typical                    |    | 100 000     |
| • of the auxiliary contacts typical               |    | 100 000     |
| <b>Electrical endurance (switching cycles)</b>    |    |             |
| • typical                                         |    | 100 000     |
| <b>Protection class IP</b>                        |    |             |
| • on the front                                    |    | IP20        |
| • of the terminal                                 |    | IP20        |
| <b>Equipment marking</b>                          |    |             |
| • acc. to DIN EN 81346-2                          |    | Q           |

### Main circuit:

|                                                 |   |     |
|-------------------------------------------------|---|-----|
| <b>Number of poles for main current circuit</b> |   | 3   |
| <b>Operating voltage</b>                        |   |     |
| • Rated value                                   | V | 690 |
| • at AC-3 Rated value maximum                   | V | 690 |

|                                      |     |           |
|--------------------------------------|-----|-----------|
| Operating frequency Rated value      | Hz  | 50 ... 60 |
| <b>Operating current Rated value</b> | A   | 22        |
| <b>Operating current</b>             |     |           |
| • at AC-3                            |     |           |
| — at 400 V Rated value               | A   | 22        |
| <b>Operating power</b>               |     |           |
| • at AC-3                            |     |           |
| — at 230 V Rated value               | W   | 5 500     |
| — at 400 V Rated value               | W   | 11 000    |
| — at 500 V Rated value               | W   | 11 000    |
| — at 690 V Rated value               | W   | 18 500    |
| <b>Operating frequency</b>           |     |           |
| • at AC-3 maximum                    | 1/h | 15        |

#### 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   |
| <b>Product expansion Auxiliary switch</b> |  | Yes |

#### Protective and monitoring functions:

|                                                                          |    |     |
|--------------------------------------------------------------------------|----|-----|
| <b>Operational short-circuit current breaking capacity (Ics) with AC</b> |    |     |
| • at 240 V Rated value                                                   | kA | 100 |
| • at 400 V Rated value                                                   | kA | 25  |
| • at 500 V Rated value                                                   | kA | 5   |
| • at 690 V Rated value                                                   | kA | 2   |
| <b>Maximum short-circuit current breaking capacity (Icu)</b>             |    |     |
| • with AC at 240 V Rated value                                           | kA | 100 |
| • with AC at 400 V Rated value                                           | kA | 55  |
| • with AC at 500 V Rated value                                           | kA | 10  |
| • with AC at 690 V Rated value                                           | kA | 4   |
| <b>Breaking capacity short-circuit current (Icn)</b>                     |    |     |
| • with 1 current path for DC at 150 V Rated value                        | kA | 10  |
| • with 2 current paths in series for DC at 300 V Rated value             | kA | 10  |
| • with 3 current paths in series for DC at 450 V Rated value             | kA | 10  |
| <b>Response value current of the instantaneous short-circuit release</b> | A  | 286 |

#### UL/CSA ratings:

|                                                         |              |     |
|---------------------------------------------------------|--------------|-----|
| <b>Full-load current (FLA) for three-phase AC motor</b> |              |     |
| • at 480 V Rated value                                  | A            | 22  |
| • at 600 V Rated value                                  | A            | 22  |
| <b>yielded mechanical performance [hp]</b>              |              |     |
| • for single-phase AC motor at 110/120 V Rated value    | metric<br>hp | 1.5 |
| • for single-phase AC motor at 230 V Rated value        | metric<br>hp | 3   |
| • for three-phase AC motor at 200/208 V Rated value     | metric<br>hp | 5   |
| • for three-phase AC motor at 220/230 V Rated value     | metric<br>hp | 7.5 |
| • for three-phase AC motor at 460/480 V Rated value     | metric<br>hp | 15  |

#### Short-circuit:

|                                                                                                |  |            |
|------------------------------------------------------------------------------------------------|--|------------|
| <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 400 V                                                                                     |  | gL/gG 63 A |
| • at 500 V                                                                                     |  | gL/gG 50 A |
| • at 690 V                                                                                     |  | gL/gG 50 A |

#### 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>                | mm | 97                                                                                     |
| <b>Width</b>                 | mm | 45                                                                                     |
| <b>Depth</b>                 | mm | 96                                                                                     |
| <b>Required spacing</b>      |    |                                                                                        |
| • with side-by-side mounting |    |                                                                                        |
| — forwards                   | mm | 0                                                                                      |
| — Backwards                  | mm | 0                                                                                      |
| — upwards                    | mm | 50                                                                                     |
| — downwards                  | mm | 50                                                                                     |
| — at the side                | mm | 0                                                                                      |
| • for grounded parts         |    |                                                                                        |
| — forwards                   | mm | 0                                                                                      |
| — Backwards                  | mm | 0                                                                                      |
| — upwards                    | mm | 50                                                                                     |
| — at the side                | mm | 30                                                                                     |

- downwards
- for live parts
  - forwards
  - Backwards
  - upwards
  - downwards
  - at the side

|    |    |
|----|----|
| mm | 50 |
| mm | 0  |
| mm | 0  |
| mm | 50 |
| mm | 50 |
| mm | 30 |

#### Connections/ Terminals:

|                                                                                                                                                      |     |                                                                                                                                                              |
|------------------------------------------------------------------------------------------------------------------------------------------------------|-----|--------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <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>Product function</b>                                                                                                                              |     |                                                                                                                                                              |
| • removable terminal for auxiliary and control circuit                                                                                               |     | No                                                                                                                                                           |
| <b>Type of connectable conductor cross-section</b>                                                                                                   |     |                                                                                                                                                              |
| • for main contacts <ul style="list-style-type: none"> <li>— single or multi-stranded</li> <li>— finely stranded with core end processing</li> </ul> |     | 2x (1 ... 2,5 mm <sup>2</sup> ), 2x (2,5 ... 10 mm <sup>2</sup> )<br>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>Tightening torque</b>                                                                                                                             |     |                                                                                                                                                              |
| • for main contacts with screw-type terminals                                                                                                        | N·m | 2 ... 2.5                                                                                                                                                    |
| <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>Failure rate [FIT] with low demand rate acc. to SN 31920</b>           | FIT | 50          |
| <b>T1 value for proof test interval or service life acc. to IEC 61508</b> | y   | 10          |
| <b>Protection against electrical shock</b>                                |     | finger-safe |

#### Mechanical data:

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

#### Ambient conditions:

|                                                                |   |       |
|----------------------------------------------------------------|---|-------|
| <b>Installation altitude at height above sea level maximum</b> | m | 2 000 |
| <b>Ambient temperature</b>                                     |   |       |

- during operation
- during storage
- during transport

|                                    |             |
|------------------------------------|-------------|
| °C                                 | -20 ... +60 |
| °C                                 | -50 ... +80 |
| °C                                 | -50 ... +80 |
| Relative humidity during operation | % 10 ... 95 |

#### Display:

##### Display version

- for switching status

Handle

#### Certificates/ approvals:

##### General Product Approval

##### Declaration of Conformity

##### Test Certificates



[Type Test  
Certificates/Test  
Report](#)

[Special Test  
Certificate](#)

##### Test Certificates

##### Shipping Approval

[Declaration of the  
Compliance with the  
order](#)



##### Shipping Approval

##### other



[Environmental  
Confirmations](#)

[Confirmation](#)



##### other

[other](#)

#### Further information

Information- and Downloadcenter (Catalogs, Brochures,...)

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

Industry Mall (Online ordering system)

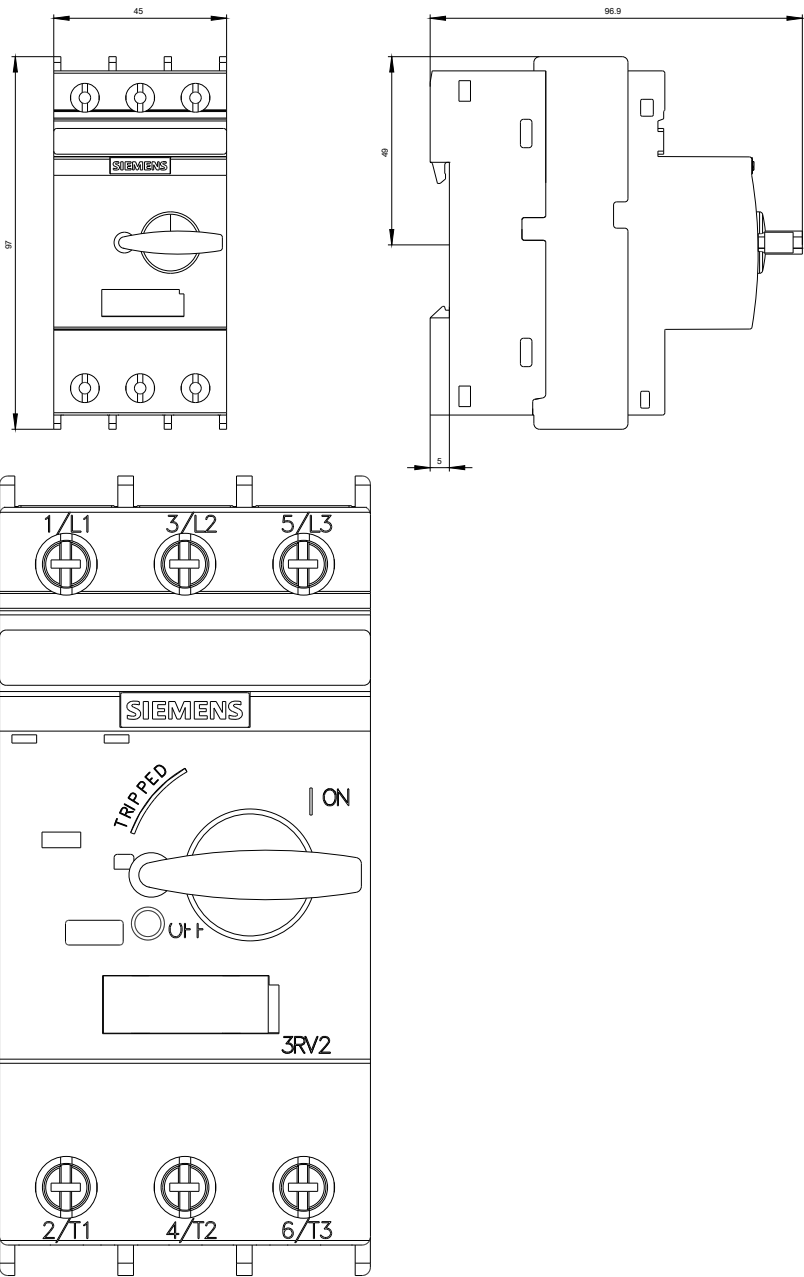
<http://www.siemens.com/industrymall>

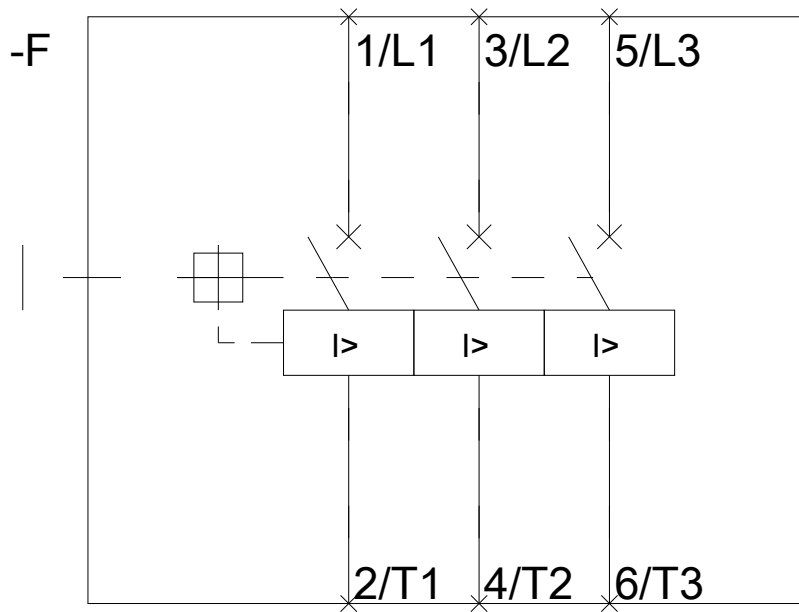
Cax online generator

<http://support.automation.siemens.com/WW/CAXorder/default.aspx?lang=en&mlfb=3RV23214CC10>

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

<http://support.automation.siemens.com/WW/view/en/3RV23214CC10/all>





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