



Circuit breaker size S0 for motor protection, CLASS 10 A-release 11...16 A N-release 208 A screw terminal Switching capacity 30 kA at 600 V according to UL/CSA

|   |                      |
|---|----------------------|
| product brand name  | SIRIUS               |
| product designation   | Circuit breaker      |
| design of the product   | For motor protection |
| product type designation  | 3RV2                 |
| <b>General technical data</b>   |                      |
| size of the circuit-breaker   | S0                   |
| size of contactor can be combined company-specific                                  | S00, S0              |
| product extension auxiliary switch  | Yes                  |
| power loss [W] for rated value of the current                                       |                      |
| • at AC in hot operating state  | 9.25 W               |
| • at AC in hot operating state per pole   | 3.1 W                |
| insulation voltage with degree of pollution 3 at AC 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                |
| • between main and auxiliary circuit  | 400 V                |
| shock resistance acc. to IEC 60068-2-27   | 25g / 11 ms          |
| mechanical service life (switching cycles)  |                      |
| • of the main contacts typical  | 100 000              |
| • of auxiliary contacts typical   | 100 000              |
| electrical endurance (switching cycles) typical                                     | 100 000              |
| reference code acc. to IEC 81346-2  | Q                    |
| Substance Prohibitance (Date)   | 01.10.2009 00:00:00  |
| <b>Ambient conditions</b>   |                      |
| installation altitude at height above sea level maximum                             | 2 000 m              |
| • ambient temperature during operation  | -20 ... +60 °C       |
| • ambient temperature during storage  | -50 ... +80 °C       |
| • ambient temperature during transport  | -50 ... +80 °C       |
| temperature compensation  | -20 ... +60 °C       |
| relative humidity during operation  | 10 ... 95 %          |
| <b>Main circuit</b>   |                      |
| number of poles for main current circuit  | 3                    |
| adjustable current response value current of the current-dependent overload release | 10 ... 16 A          |
| • operating voltage rated value   | 690 V                |
| • operating voltage at AC-3 rated value maximum                                     | 690 V                |

|  |  |
|--|--|
| <b>operating frequency rated value</b>   | 50 ... 60 Hz   |
| <b>operational current rated value</b>   | 16 A   |
| operational current at AC-3 at 400 V rated value   | 16 A   |
| operating power at AC-3  |  |
| • at 230 V rated value   | 4 kW   |
| • at 400 V rated value   | 7.5 kW   |
| • at 500 V rated value   | 7.5 kW   |
| • at 690 V rated value   | 11 kW  |
| operating frequency at AC-3 maximum  | 15 1/h   |
| <b>Auxiliary circuit</b>   |  |
| <b>number of NC contacts for auxiliary contacts</b>  | 0  |
| <b>number of NO contacts for auxiliary contacts</b>  | 0  |
| number of CO contacts for auxiliary contacts   | 0  |
| <b>Protective and monitoring functions</b>   |  |
| <b>product function</b>  |  |
| • ground fault detection   | No   |
| • phase failure detection  | Yes  |
| <b>trip class</b>  | CLASS 10   |
| <b>design of the overload release</b>  | thermal  |
| <b>breaking capacity operating short-circuit current (Ics) at AC</b>                           |  |
| • at 690 V rated value   | 2 kA   |
| <b>breaking capacity maximum short-circuit current (Icu)</b>                                   |  |
| • at AC at 690 V rated value   | 4 kA   |
| response value current of instantaneous short-circuit trip unit                                | 208 A  |
| <b>UL/CSA ratings</b>  |  |
| <b>full-load current (FLA) for 3-phase AC motor</b>  |  |
| • at 480 V rated value   | 16 A   |
| • at 600 V rated value   | 16 A   |
| <b>yielded mechanical performance [hp]</b>   |  |
| • for single-phase AC motor  |  |
| — at 110/120 V rated value   | 1 hp   |
| — at 230 V rated value   | 2 hp   |
| • for 3-phase AC motor   |  |
| — at 200/208 V rated value   | 3 hp   |
| — at 220/230 V rated value   | 5 hp   |
| — at 460/480 V rated value   | 10 hp  |
| — at 575/600 V rated value   | 10 hp  |
| <b>Short-circuit protection</b>  |  |
| <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   | gG 63 A  |
| • at 500 V   | gG 50 A  |
| • at 690 V   | gG 40 A  |
| <b>Installation/ mounting/ dimensions</b>  |  |
| <b>mounting position</b>   | any  |
| <b>fastening method</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>   | 97 mm  |
| <b>required spacing</b>  |  |
| • for grounded parts at 690 V  |  |
| — downwards  | 50 mm  |
| — upwards  | 50 mm  |
| — backwards  | 0 mm   |

|                           |       |
|---------------------------|-------|
| — at the side             | 30 mm |
| — forwards                | 0 mm  |
| • for live parts at 690 V |       |
| — downwards               | 50 mm |
| — upwards                 | 50 mm |
| — backwards               | 0 mm  |
| — at the side             | 30 mm |
| — forwards                | 0 mm  |

#### Connections/ Terminals

|   |   |
|---|---|
| product function 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   |   |
| — solid or 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> |
| • at AWG cables for main contacts                                     | 2x (16 ... 12), 2x (14 ... 8)   |
| • tightening torque for main contacts with screw-type terminals       | 2 ... 2.5 N·m   |
| <b>design of screwdriver shaft</b>                                    | Diameter 5 to 6 mm  |
| <b>size of the screwdriver tip</b>                                    | Pozidriv 2  |
| <b>design of the thread of the connection screw</b>                   |   |
| • for main contacts   | M4  |

#### 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>protection class IP on the front acc. to IEC 60529</b>                 | IP20   |
| <b>touch protection on the front acc. to IEC 60529</b>                    | finger-safe, for vertical contact from the front |
| display version for switching status                                      | Handle   |

#### Certificates/ approvals

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



[Miscellaneous](#)



EG-Konf.

|                          |                          |
|--------------------------|--------------------------|
| <b>Test Certificates</b> | <b>Marine / Shipping</b> |
|--------------------------|--------------------------|

[Special Test Certificate](#)

[Type Test Certificates/Test Report](#)



|                          |              |                |
|--------------------------|--------------|----------------|
| <b>Marine / Shipping</b> | <b>other</b> | <b>Railway</b> |
|--------------------------|--------------|----------------|



[Confirmation](#)



[Confirmation](#)

## Railway

### [Vibration and Shock](#)

### Further information

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

<https://www.siemens.com/ic10>

Industry Mall (Online ordering system)

<https://mall.industry.siemens.com/mall/en/en/Catalog/product?mlfb=3RV2023-4AA10>

Cax online generator

<http://support.automation.siemens.com/WW/CAXorder/default.aspx?lang=en&mlfb=3RV2023-4AA10>

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

<https://support.industry.siemens.com/cs/ww/en/ps/3RV2023-4AA10>

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

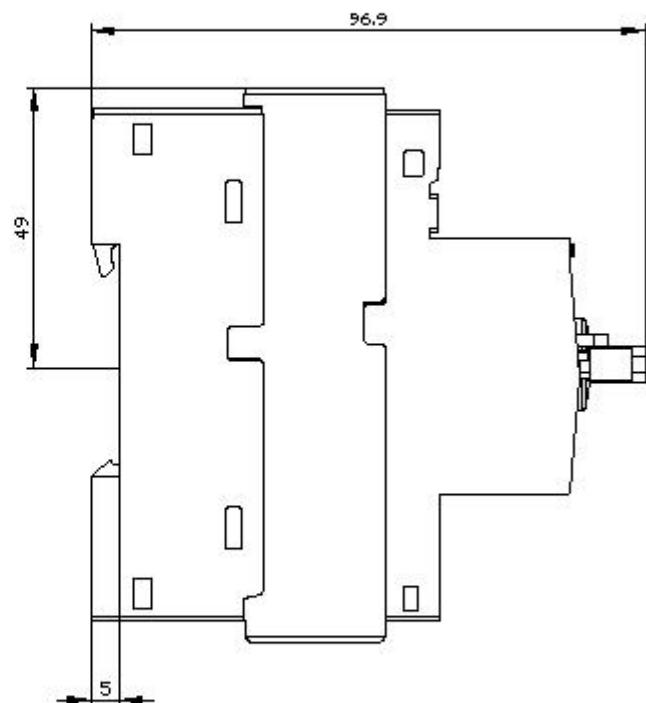
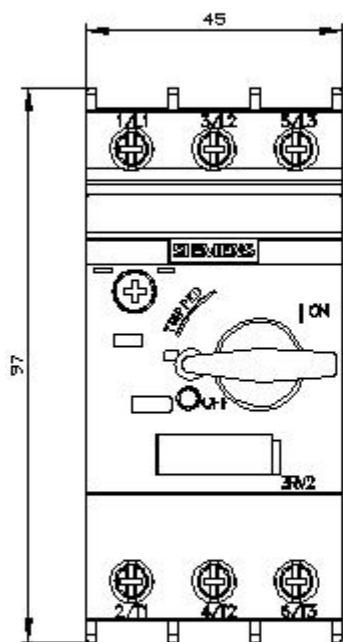
[http://www.automation.siemens.com/bilddb/cax\\_de.aspx?mlfb=3RV2023-4AA10&lang=en](http://www.automation.siemens.com/bilddb/cax_de.aspx?mlfb=3RV2023-4AA10&lang=en)

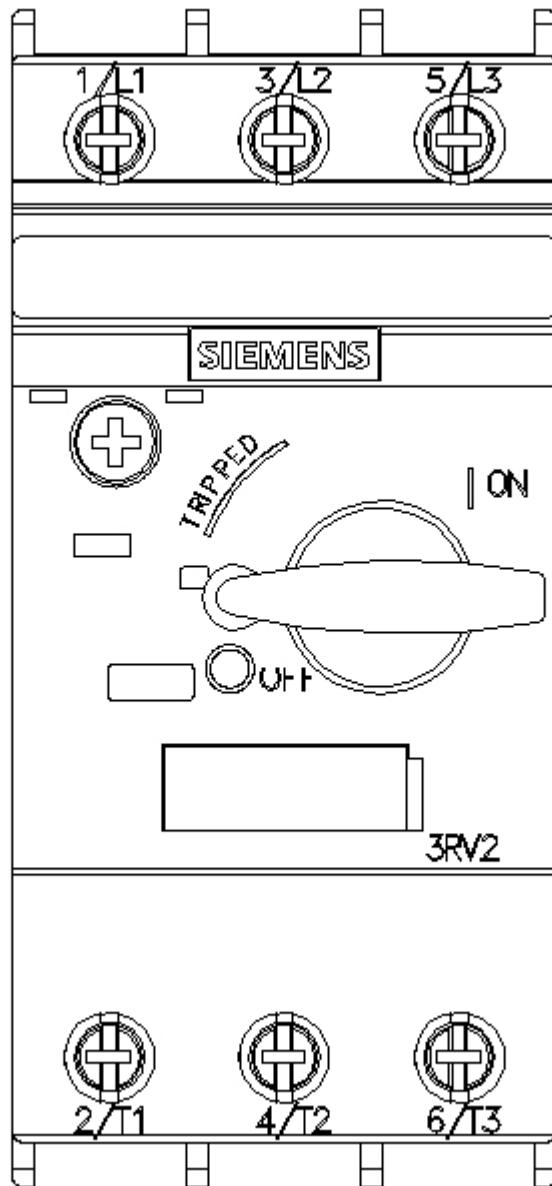
Characteristic: Tripping characteristics,  $I^2t$ , Let-through current

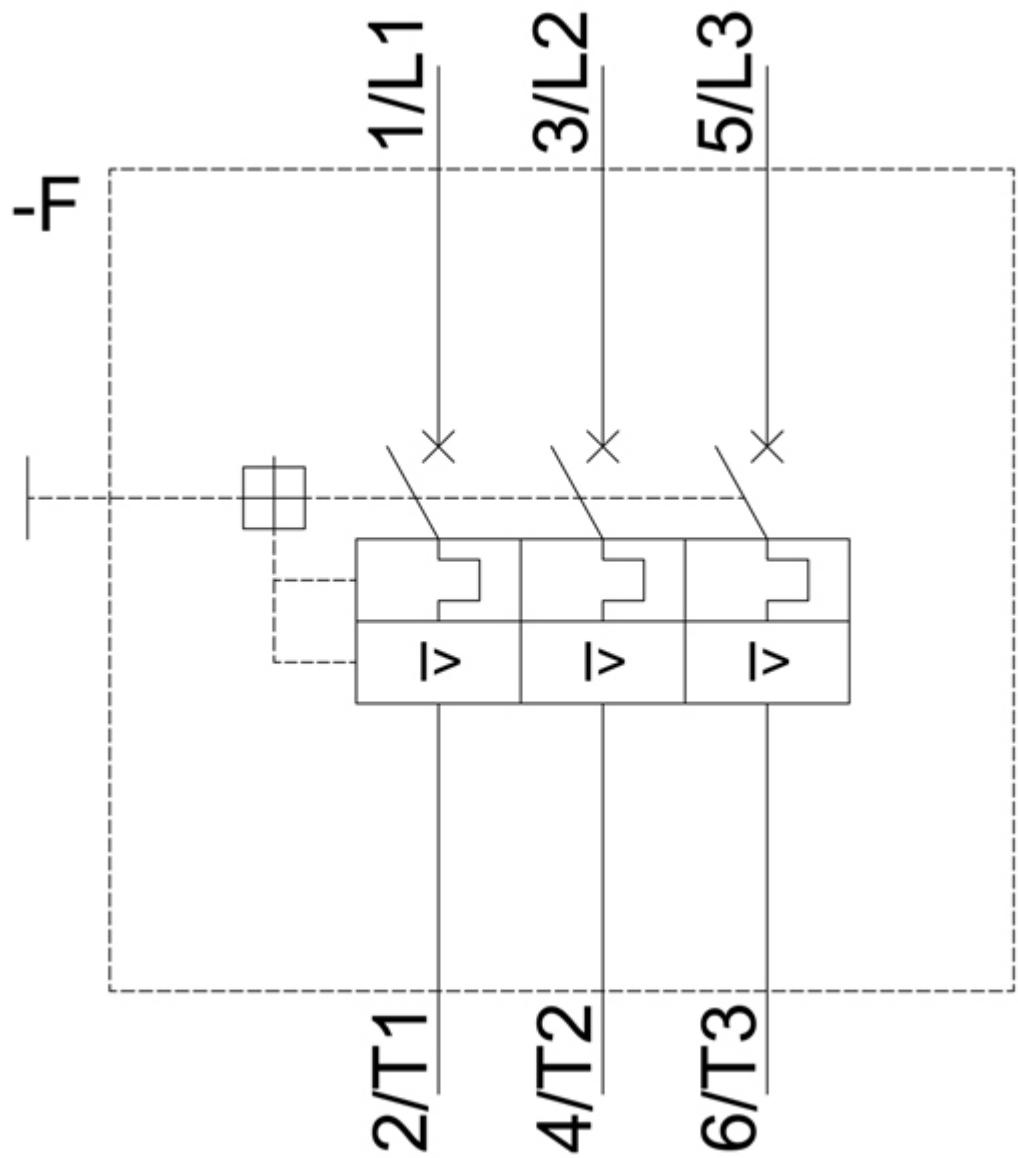
<https://support.industry.siemens.com/cs/ww/en/ps/3RV2023-4AA10/char>

Further characteristics (e.g. electrical endurance, switching frequency)

<http://www.automation.siemens.com/bilddb/index.aspx?view=Search&mlfb=3RV2023-4AA10&objecttype=14&gridview=view1>







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