



Special type Circuit breaker size S0 for motor protection, CLASS 10 A-release 27...32 A N-release 400 A screw terminal Standard switching capacity with transverse auxiliary switches 1 NO+1 NC Ambient temperature -50 °C 500 switching cycles

|   |  |
|---|--|
| 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  | 13.25 W  |
| • at AC in hot operating state per pole   | 4.4 W  |
| insulation voltage with degree of pollution 3 at AC rated value                     | 690 V  |
| surge voltage resistance rated value  | 6 kV   |
| shock resistance according to IEC 60068-2-27  | 25g / 11 ms  |
| mechanical service life (operating cycles)  |  |
| • of the main contacts typical  | 500  |
| • of auxiliary contacts typical   | 500  |
| electrical endurance (operating cycles) typical                                     | 500  |
| reference code according to IEC 81346-2   | Q  |
| Substance Prohibitance (Date)   | 10/01/2009   |
| SVHC substance name   | Lead - 7439-92-1<br>Lead titanium zirconium oxide - 12626-81-2 |
| Net Weight  | 400 g  |
| <b>Ambient conditions</b>   |  |
| installation altitude at height above sea level maximum                             | 2 000 m  |
| ambient temperature   |  |
| • during operation  | -50 ... +60 °C   |
| • during storage  | -50 ... +80 °C   |
| • during transport  | -50 ... +80 °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 | 27 ... 32 A  |
| type of voltage for main current circuit  | AC   |
| operating voltage   |  |

|  |  |
|--|--|
| • rated value  | 20 ... 690 V   |
| • at AC-3 rated value maximum  | 690 V  |
| <b>operating frequency rated value</b>   | 50 ... 60 Hz   |
| <b>operational current rated value</b>   | 32 A   |
| <b>operational current</b>   |  |
| • at AC-3 at 400 V rated value   | 32 A   |
| <b>operating power</b>   |  |
| • at AC-3  |  |
| — at 230 V rated value   | 7.5 kW   |
| — at 400 V rated value   | 15 kW  |
| — at 500 V rated value   | 18.5 kW  |
| — at 690 V rated value   | 30 kW  |
| <b>operating frequency</b>   |  |
| • at AC-3 maximum  | 15 1/h   |
| <b>Auxiliary circuit</b>   |  |
| <b>design of the auxiliary switch</b>  | transverse   |
| <b>type of voltage for auxiliary and control circuit</b>                                       | AC/DC  |
| <b>number of NC contacts for auxiliary contacts</b>  | 1  |
| <b>number of NO contacts for auxiliary contacts</b>  | 1  |
| number of CO contacts for auxiliary contacts   | 0  |
| <b>operational current of auxiliary contacts at AC-15</b>                                      |  |
| • at 24 V  | 2 A  |
| • at 120 V   | 0.5 A  |
| • at 125 V   | 0.5 A  |
| • at 230 V   | 0.5 A  |
| <b>operational current of auxiliary contacts at DC-13</b>                                      |  |
| • at 24 V  | 1 A  |
| • at 60 V  | 0.15 A   |
| <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>maximum short-circuit current breaking capacity (Icu)</b>                                   |  |
| • at AC at 240 V rated value   | 25 kA  |
| • at AC at 400 V rated value   | 25 kA  |
| • at AC at 500 V rated value   | 10 kA  |
| • at AC at 690 V rated value   | 4 kA   |
| <b>operating short-circuit current breaking capacity (Ics) at AC</b>                           |  |
| • at 240 V rated value   | 10 kA  |
| • at 400 V rated value   | 10 kA  |
| • at 500 V rated value   | 5 kA   |
| • at 690 V rated value   | 2 kA   |
| response value current of instantaneous short-circuit trip unit                                | 400 A  |
| <b>UL/CSA ratings</b>  |  |
| <b>Category Control Number (CCN)</b>   | E156943 (NKJH, NKJH7)  |
| <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</b>   |  |
| • for short-circuit protection of the auxiliary switch required                                | fuse gG: 10 A, miniature circuit breaker C 6 A (short-circuit current $I_k < 400$ A) |
| <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 63 A  |
| • at 690 V   | gG 63 A  |
| <b>Installation/ mounting/ dimensions</b>  |  |
| <b>mounting position</b>   | any  |

|  |  |
|--|--|
| <b>fastening method</b>                  | screw and snap-on mounting onto 35 mm DIN 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>                  |  |
| • with side-by-side mounting at the side | 0 mm   |
| • for grounded parts at 400 V            |  |
| — downwards                              | 30 mm  |
| — upwards                                | 30 mm  |
| — at the side                            | 9 mm   |
| • for live parts at 400 V                |  |
| — downwards                              | 30 mm  |
| — upwards                                | 30 mm  |
| — at the side                            | 9 mm   |
| • for grounded parts at 500 V            |  |
| — downwards                              | 30 mm  |
| — upwards                                | 30 mm  |
| — at the side                            | 9 mm   |
| • for live parts at 500 V                |  |
| — downwards                              | 30 mm  |
| — upwards                                | 30 mm  |
| — at the side                            | 9 mm   |
| • 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

|  |   |
|--|---|
| <b>type of electrical connection</b>                                 |   |
| • for main current circuit   | screw-type terminals  |
| • for auxiliary and control 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> |
| <b>type of connectable conductor cross-sections</b>                  |   |
| • for auxiliary contacts   |   |
| — solid or stranded  | 2x (0.5 ... 1.5 mm <sup>2</sup> ), 2x (0.75 ... 2.5 mm <sup>2</sup> )                   |
| — finely stranded with core end processing                           | 2x (0.5 ... 1.5 mm <sup>2</sup> ), 2x (0.75 ... 2.5 mm <sup>2</sup> )                   |
| <b>tightening torque</b>   |   |
| • for main contacts with screw-type terminals                        | 2 ... 2.5 N·m   |
| • for auxiliary contacts with screw-type terminals                   | 0.8 ... 1.2 N·m   |
| <b>design of screwdriver shaft</b>                                   | Diameter 5 to 6 mm  |
| <b>size of the screwdriver tip</b>                                   | Pozidriv size 2   |
| <b>design of the thread of the connection screw</b>                  |   |
| • for main contacts  | M4  |
| • of the auxiliary and control contacts                              | M3  |
| <b>IEC 61508</b>   |   |
| <b>T1 value</b>  |   |
| • for proof test interval or service life according to IEC           | 10 a  |

61508

#### Electrical Safety

protection class IP on the front according to IEC 60529

IP20

touch protection on the front according to IEC 60529

finger-safe, for vertical contact from the front

#### Display

display version for switching status

Handle

#### Approvals Certificates

Environmental Product Declaration

|  |           |
|--|-----------|
| • global warming potential [CO2 eq] / during manufacturing | 2.68 kg   |
| • global warming potential [CO2 eq] / during sales         | 0.143 kg  |
| • global warming potential [CO2 eq] / during operation     | 72.7 kg   |
| • global warming potential [CO2 eq] / after end of life    | -0.445 kg |
| • global warming potential [CO2 eq] / total                | 75.078 kg |

#### Environment

#### General Product Approval



Siemens  
EcoTech



[Environmental Con-  
firmations](#)



#### General Product Approval

#### Test Certificates



AR



[Special Test Certifi-  
cate](#)

[Type Test Certifi-  
cates/Test Report](#)

#### Maritime application



ABS



BUREAU  
VERITAS



DNV



LRS



PR



RINA

#### other

#### Railway

Miscellaneous



Confirmation



[Special Test Certifi-  
cate](#)

Confirmation

#### Further information

Information on the packaging

<https://support.industry.siemens.com/cs/ww/en/view/109813875>

Information for data generation and storage

<https://support.industry.siemens.com/cs/ww/en/view/109995012>

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=3RV2021-4EA15-0BA0>

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

<https://support.industry.siemens.com/cs/ww/en/ps/3RV2021-4EA15-0BA0>

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

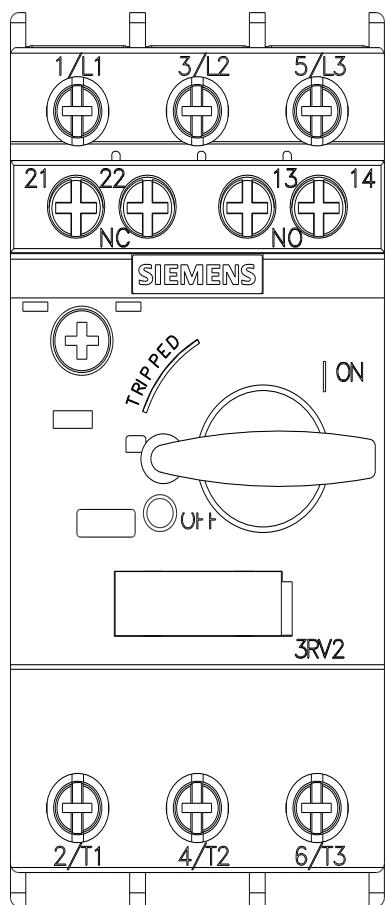
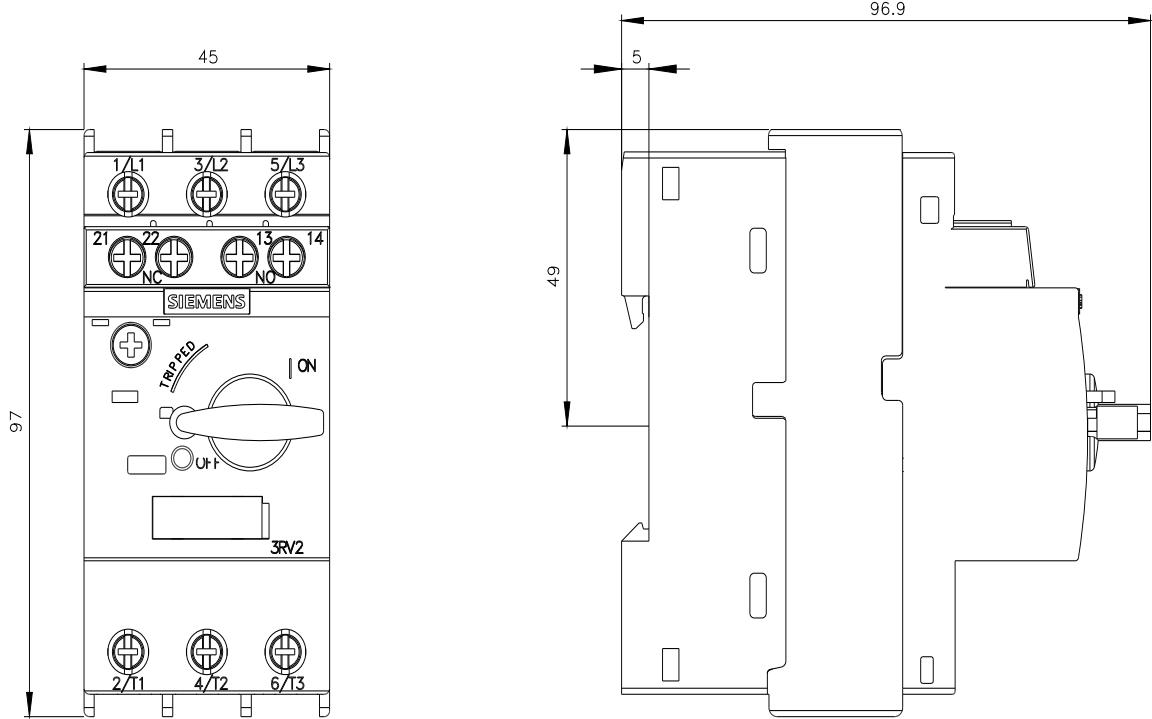
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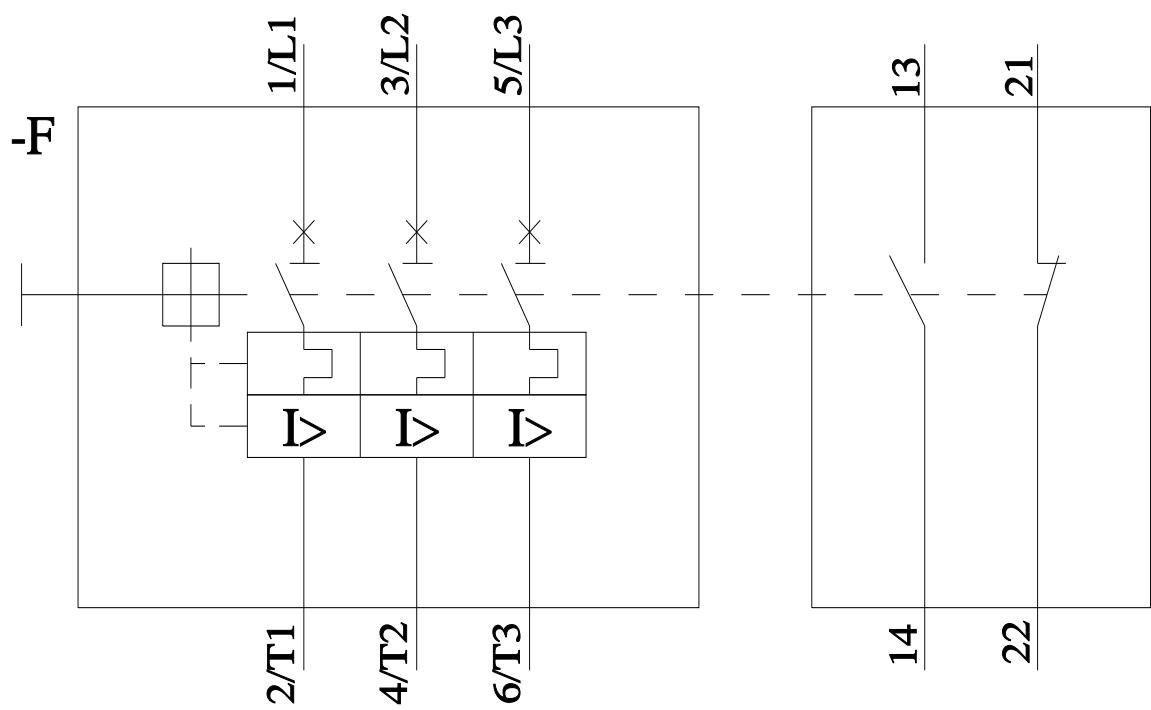
Cax online generator

<https://support.automation.siemens.com/WW/CAXorder/default.aspx?lang=en&mlfb=3RV2021-4EA15-0BA0>

Characteristic curves

[https://curves.simaris.siemens.com/curves/<mmp\\_prod\\_noCOMP="HAUPT"></mmp\\_prod\\_no>](https://curves.simaris.siemens.com/curves/<mmp_prod_noCOMP=)





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