## **SIEMENS**

Data sheet 3RV2311-4AC10



Circuit breaker size S00 for starter combination rated current 16 A N-release 208 A screw terminal Standard switching capacity

| product designation     Circuit breaker       design of the product     For starter combinations |  |
|--|--|
| design of the product For starter combinations   |  |
|  |  |
| product type designation 3RV2  |  |
| General technical data   |  |
| size of the circuit-breaker S00  |  |
| 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  |  |
| shock resistance according 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 according to IEC 81346-2 Q  |  |
| Substance Prohibitance (Date) 10/01/2009   |  |
| 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  |  |
| relative humidity during operation 10 95 %   |  |
| Main circuit   |  |
| number of poles for main current circuit 3   |  |
| operating voltage  |  |
| • rated value 20 690 V   |  |
| • at AC-3 rated value maximum 690 V  |  |
| • at AC-3e rated value maximum 690 V   |  |
| operating frequency rated value 50 60 Hz   |  |
| operational current rated value 16 A   |  |
| operational current  |  |
| • at AC-3 at 400 V rated value 16 A  |  |
| • at AC-3e 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  |
| • at AC-3e   |  |
| — 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   |
| at AC-3e maximum   | 15 1/h   |
| Auxiliary circuit  |  |
| number of NC contacts for auxiliary contacts   | 0  |
| number of NO contacts for auxiliary contacts   | 0  |
| number of CO contacts for auxiliary contacts   | 0  |
| Protective and monitoring functions  |  |
| product function   |  |
| ground fault detection   | No   |
| phase failure detection  | No   |
| breaking capacity maximum short-circuit current (Icu)                                      |  |
| <ul> <li>at AC at 240 V rated value</li> </ul>   | 100 kA   |
| <ul> <li>at AC at 400 V rated value</li> </ul>   | 55 kA  |
| <ul> <li>at AC at 500 V rated value</li> </ul>   | 10 kA  |
| <ul> <li>at AC at 690 V rated value</li> </ul>   | 4 kA   |
| breaking capacity operating short-circuit current (Ics) at AC                              |  |
| • at 240 V rated value   | 100 kA   |
| at 400 V rated value   | 30 kA  |
| at 500 V rated value     at 500 V rated value  | 5 kA   |
| at 690 V rated value   | 2 kA   |
| response value current of instantaneous short-circuit trip                                 | 208 A  |
| unit   |  |
| UL/CSA ratings   |  |
| full-load current (FLA) for 3-phase AC motor   |  |
| <ul> <li>at 480 V rated value</li> </ul>   | 16 A   |
| at 600 V rated value   | 16 A   |
| yielded mechanical performance [hp]  |  |
| • 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  |
| Short-circuit protection   |  |
| product function short circuit protection  | Yes  |
| design of the short-circuit trip   | magnetic   |
| design of the fuse link for IT network for short-circuit<br>protection of the main circuit |  |
| • at 240 V   | gL/gG 80 A   |
| • at 400 V   | gL/gG 63 A   |
| ● at 500 V   | gL/gG 50 A   |
| • at 690 V   | gL/gG 40 A   |
| Installation/ mounting/ dimensions   |  |
| mounting position  | any  |
| fastening method   | screw and snap-on mounting onto 35 mm standard mounting rail |
|  | according to DIN EN 60715                                    |

| height  | 97 mm   |
|---|---|
| width   | 45 mm   |
| depth   | 97 mm   |
| required spacing  | 97 111111   |
|   |   |
| <ul><li>for grounded parts at 400 V</li><li>— downwards</li></ul> | 30 mm   |
| — upwards   | 30 mm   |
| — at the side   | 9 mm  |
| • for live parts at 400 V   | 9 111111  |
| — downwards   | 30 mm   |
| — upwards   | 30 mm   |
| — at the side   | 9 mm  |
| for grounded parts at 500 V                                       | 9 111111  |
| — downwards   | 30 mm   |
| — upwards   | 30 mm   |
| — at the side   | 9 mm  |
| for live parts at 500 V   | 9 111111  |
| — downwards   | 30 mm   |
| — upwards — upwards   | 30 mm   |
| — upwards<br>— at the side  | 9 mm  |
|   | <b>7</b> 111111                                       |
| <ul><li>for grounded parts at 690 V</li><li>— downwards</li></ul> | 50 mm   |
|   | 50 mm   |
| — upwards<br>— backwards  | 0 mm  |
|   | 30 mm   |
| — at the side<br>— forwards                                       | 0 mm  |
| for live parts at 690 V   | O IIIIII  |
| ·   | 50 mm   |
| — downwards   | 50 mm   |
| — upwards<br>— backwards  | 0 mm  |
| — at the side   | 30 mm   |
| — at the side<br>— forwards                                       | 0 mm  |
| Connections/ Terminals  | Ollilli   |
| type of electrical connection                                     |   |
| for main current circuit  | screw-type terminals                                  |
| arrangement of electrical connectors for main current circuit     | Top and bottom  |
| type of connectable conductor cross-sections                      |   |
| • for main contacts   |   |
| — solid or stranded   | 2x (0,75 2,5 mm²), 2x 4 mm²                           |
| finely stranded with core end processing                          | 2x (0.5 1.5 mm²), 2x (0.75 2.5 mm²)                   |
| at AWG cables for main contacts                                   | 2x (18 14), 2x 12                                     |
| tightening torque   |   |
| for main contacts with screw-type terminals                       | 0.8 1.2 N·m   |
| design of screwdriver shaft                                       | Diameter 5 to 6 mm                                    |
| size of the screwdriver tip                                       | Pozidriv size 2                                       |
| design of the thread of the connection screw                      |   |
| for main contacts   | M3  |
| Safety related data   |   |
| B10 value   |   |
| with high demand rate according to SN 31920                       | 5 000   |
| proportion of dangerous failures                                  |   |
| with low demand rate according to SN 31920                        | 50 %  |
| with high demand rate according to SN 31920                       | 50 %  |
| failure rate [FIT]  |   |
| with low demand rate according to SN 31920                        | 50 FIT  |
| T1 value for proof test interval or service life according to     | 10 y  |
| IEC 61508   |   |
| protection class IP on the front according to IEC                 | IP20  |
|   | IP20 finger-safe, for vertical contact from the front |

## Certificates/ approvals

## **General Product Approval**



Confirmation





<u>KC</u>



**Declaration of Conformity** 

**Test Certificates** 

Marine / Shipping





Type Test Certificates/Test Report

Special Test Certificate





Marine / Shipping











Confirmation

other

other

Railway



Confirmation

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=3RV2311-4AC10

Cax online generator

http://support.automation.siemens.com/WW/CAXorder/default.aspx?lang=en&mlfb=3RV2311-4AC10

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

https://support.industry.siemens.com/cs/ww/en/ps/3RV2311-4AC10

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

 $\underline{\text{http://www.automation.siemens.com/bilddb/cax\_de.aspx?mlfb=3RV2311-4AC10\&lang=en}}$ 

Characteristic: Tripping characteristics, I2t, Let-through current

https://support.industry.siemens.com/cs/ww/en/ps/3RV2311-4AC10/char

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

http://www.automation.siemens.com/bilddb/index.aspx?view=Search&mlfb=3RV2311-4AC10&objecttype=14&gridview=view1

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