



Circuit breaker size S00 for transformer protection with approval circuit breaker UL 489, CSA C22.2 No.5-02 A-release 0.8 A N-release 16 A screw terminal Standard switching capacity

| | |
|---|---|
| product brand name | SIRIUS |
| product designation | Circuit breaker |
| design of the product | For transformer protection according to UL 489/CSA C22.2 No.5 |
| product type designation | 3RV2 |
| General technical data | |
| size of the circuit-breaker | S00 |
| product extension auxiliary switch | Yes |
| power loss [W] for rated value of the current | |
| • at AC in hot operating state | 5.5 W |
| • at AC in hot operating state per pole | 1.8 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 Prohibition (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 | 0.8 A |
| operational current | |
| • at AC-3 at 400 V rated value | 0.8 A |
| • at AC-3e at 400 V rated value | 0.8 A |
| operating power | |

| | |
|--|---|
| <ul style="list-style-type: none"> ● at AC-3 <ul style="list-style-type: none"> — at 230 V rated value — at 400 V rated value — at 500 V rated value — at 690 V rated value ● at AC-3e <ul style="list-style-type: none"> — at 230 V rated value — at 400 V rated value — at 500 V rated value — at 690 V rated value | <p>0.1 kW</p> <p>0.2 kW</p> <p>0.3 kW</p> <p>0.4 kW</p> <p>0.1 kW</p> <p>0.2 kW</p> <p>0.3 kW</p> <p>0.4 kW</p> |
| operating frequency | |
| <ul style="list-style-type: none"> ● at AC-3 maximum ● at AC-3e maximum | <p>15 1/h</p> <p>15 1/h</p> |
| 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 | |
| <ul style="list-style-type: none"> ● ground fault detection ● phase failure detection | <p>No</p> <p>No</p> |
| design of the overload release | thermal |
| breaking capacity maximum short-circuit current (I_{cu}) | |
| <ul style="list-style-type: none"> ● at AC at 240 V rated value ● at AC at 400 V rated value ● at AC at 500 V rated value ● at AC at 690 V rated value ● at 480 AC Y/277 V according to UL 489 rated value | <p>100 kA</p> <p>100 kA</p> <p>100 kA</p> <p>100 kA</p> <p>65 kA</p> |
| breaking capacity operating short-circuit current (I_{cs}) at AC | |
| <ul style="list-style-type: none"> ● at 240 V rated value ● at 400 V rated value ● at 500 V rated value ● at 690 V rated value | <p>100 kA</p> <p>100 kA</p> <p>100 kA</p> <p>100 kA</p> |
| response value current of instantaneous short-circuit trip unit | 16 A |
| 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 protection of the main circuit | |
| <ul style="list-style-type: none"> ● at 690 V | gL/gG 6 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 | 144 mm |
| width | 45 mm |
| depth | 97 mm |
| required spacing | |
| <ul style="list-style-type: none"> ● for grounded parts at 400 V <ul style="list-style-type: none"> — downwards — upwards — at the side ● for live parts at 400 V <ul style="list-style-type: none"> — downwards — upwards — at the side ● for grounded parts at 500 V <ul style="list-style-type: none"> — downwards | <p>30 mm</p> <p>30 mm</p> <p>30 mm</p> <p>30 mm</p> <p>30 mm</p> <p>30 mm</p> <p>30 mm</p> |

| | |
|-------------------------------|-------|
| — upwards | 30 mm |
| — at the side | 30 mm |
| • for live parts at 500 V | |
| — downwards | 30 mm |
| — upwards | 30 mm |
| — at the side | 30 mm |
| • for grounded parts at 690 V | |
| — downwards | 70 mm |
| — upwards | 70 mm |
| — backwards | 0 mm |
| — at the side | 30 mm |
| — forwards | 0 mm |
| • for live parts at 690 V | |
| — downwards | 70 mm |
| — upwards | 70 mm |
| — backwards | 0 mm |
| — at the side | 30 mm |
| — forwards | 0 mm |

Connections/ Terminals

| | |
|--|--|
| 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 | 1 ... 10 mm ² , max. 2x 10 mm ² |
| — finely stranded with core end processing | 1 ... 16 mm ² , max. 6 + 16 mm ² |
| • at AWG cables for main contacts | 2x (14 ... 10) |
| tightening torque | |
| • for main contacts with screw-type terminals | 2.5 ... 3 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 | M4 |

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 IEC 61508 | 10 y |
| 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 version for switching status | Handle |

Certificates/ approvals

General Product Approval



[Confirmation](#)



[KC](#)



Declaration of Conformity

Test Certificates

Marine / Shipping



EG-Konf.

[Type Test Certificates/Test Report](#)

[Special Test Certificate](#)



LRS

Marine / Shipping

other

Railway



RMRS

[Confirmation](#)



VDE

[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=3RV2811-0HD10>

Cax online generator

<http://support.automation.siemens.com/WW/CAXorder/default.aspx?lang=en&mlfb=3RV2811-0HD10>

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

<https://support.industry.siemens.com/cs/ww/en/ps/3RV2811-0HD10>

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

http://www.automation.siemens.com/bilddb/cax_de.aspx?mlfb=3RV2811-0HD10&lang=en

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

<https://support.industry.siemens.com/cs/ww/en/ps/3RV2811-0HD10/char>

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

<http://www.automation.siemens.com/bilddb/index.aspx?view=Search&mlfb=3RV2811-0HD10&objecttype=14&gridview=view1>

last modified:

6/25/2022