## **SIEMENS**

## Data sheet

## 3RV2811-1HD10



CIRCUIT-BREAKER SZ S00, FOR TRANSFORMER PROTECTION, WITH APPROBATION CIRCUIT-BREAKER UL 489. CSA C22.2 NO.5-02. A-RELEASE 8 A, N-RELEASE 163 A, SCREW CONNECTION, STANDARD SW. CAPACITY

| product brand name   |    | SIRIUS               |  |  |
|--|----|----------------------|--|--|
| Product designation  |    | 3RV2 circuit breaker |  |  |
| General technical data:                                    |    |                      |  |  |
| Active power loss total typical                            | W  | 7                    |  |  |
| Insulation voltage   |    |                      |  |  |
| <ul> <li>with degree of pollution 3 Rated value</li> </ul> | V  | 690                  |  |  |
| Shock resistance   |    |                      |  |  |
| • acc. to IEC 60068-2-27                                   |    | 25g / 11 ms          |  |  |
| Surge voltage resistance Rated value                       | kV | 6                    |  |  |
| Mechanical service life (switching cycles)                 |    |                      |  |  |
| <ul> <li>of the main contacts typical</li> </ul>           |    | 100 000              |  |  |
| <ul> <li>of the auxiliary contacts typical</li> </ul>      |    | 100 000              |  |  |
| Electrical endurance (switching cycles)                    |    |                      |  |  |
| • typical  |    | 100 000              |  |  |
| Temperature compensation                                   | °C | -20 +60              |  |  |
| Protection class IP  |    |                      |  |  |
| • on the front   |    | IP20                 |  |  |
| • of the terminal  |    | IP20                 |  |  |
| Equipment marking  |    |                      |  |  |
| • acc. to DIN EN 81346-2                                   |    | Q                    |  |  |
| Main circuit:  |    |                      |  |  |
| Number of poles for main current circuit                   |    | 3                    |  |  |

| Number of poles for main current circuit          |   | 3   |
|---|---|-----|
| Adjustable response value current of the current- | А | 8 8 |
| dependent overload release                        |   |     |
| Operating voltage                                 |   |     |

| Rated value   | V                                      | 690  |
|---|--|--|
| <ul> <li>at AC-3 Rated value maximum</li> </ul>   | V                                      | 690  |
| Operating frequency Rated value   | Hz                                     | 50 60  |
| Operating power   |  |  |
| • at AC-3   |  |  |
| — at 230 V Rated value  | W                                      | 1 500  |
| — at 400 V Rated value  | W                                      | 3 000  |
| — at 500 V Rated value  | W                                      | 4 000  |
| — at 690 V Rated value  | W                                      | 5 500  |
| Operating frequency   |  |  |
| • at AC-3 maximum   | 1/h                                    | 15   |
| Auxiliary circuit:  |  |  |
| Number of NC contacts   |  |  |
| <ul> <li>for auxiliary contacts</li> </ul>  |  | 0  |
| Number of NO contacts   |  |  |
| <ul> <li>for auxiliary contacts</li> </ul>  |  | 0  |
| Number of CO contacts   |  |  |
| for auxiliary contacts  |  | 0  |
| Product expansion Auxiliary switch  |  | Yes  |
| Protective and monitoring functions:  |  |  |
| Design of the overload circuit breaker  |  | thermal  |
| Operational short-circuit current breaking capacity   |  |  |
| (Ics) with AC   |  |  |
| <ul> <li>at 240 V Rated value</li> </ul>  | kA                                     |  |
|   |  | 100  |
| • at 400 V Rated value  | kA                                     | 100  |
| • at 500 V Rated value  | kA                                     | 100<br>42  |
| <ul> <li>at 500 V Rated value</li> <li>at 690 V Rated value</li> </ul>  |  | 100  |
| <ul> <li>at 500 V Rated value</li> <li>at 690 V Rated value</li> </ul> Maximum short-circuit current breaking capacity (Icu)  | kA<br>kA                               | 100<br>42<br>4   |
| <ul> <li>at 500 V Rated value</li> <li>at 690 V Rated value</li> </ul> Maximum short-circuit current breaking capacity (Icu) <ul> <li>with AC at 240 V Rated value</li> </ul>   | kA<br>kA<br>kA                         | 100<br>42<br>4<br>100  |
| <ul> <li>at 500 V Rated value</li> <li>at 690 V Rated value</li> <li>Maximum short-circuit current breaking capacity (Icu)</li> <li>with AC at 240 V Rated value</li> <li>with AC at 400 V Rated value</li> </ul>   | kA<br>kA<br>kA<br>kA                   | 100<br>42<br>4<br>100<br>100                                 |
| <ul> <li>at 500 V Rated value</li> <li>at 690 V Rated value</li> <li>Maximum short-circuit current breaking capacity (Icu)</li> <li>with AC at 240 V Rated value</li> <li>with AC at 400 V Rated value</li> <li>with AC at 500 V Rated value</li> </ul>   | kA<br>kA<br>kA<br>kA<br>kA             | 100<br>42<br>4<br>100<br>100<br>42                           |
| <ul> <li>at 500 V Rated value</li> <li>at 690 V Rated value</li> <li>Maximum short-circuit current breaking capacity (Icu)</li> <li>with AC at 240 V Rated value</li> <li>with AC at 400 V Rated value</li> <li>with AC at 500 V Rated value</li> <li>with AC at 690 V Rated value</li> </ul>   | kA<br>kA<br>kA<br>kA<br>kA<br>kA       | 100<br>42<br>4<br>100<br>100<br>42<br>6                      |
| <ul> <li>at 500 V Rated value</li> <li>at 690 V Rated value</li> <li>Maximum short-circuit current breaking capacity (Icu)</li> <li>with AC at 240 V Rated value</li> <li>with AC at 400 V Rated value</li> <li>with AC at 500 V Rated value</li> <li>with AC at 690 V Rated value</li> <li>at 480 AC Y/277 V acc. to UL 489 Rated value</li> </ul>   | kA<br>kA<br>kA<br>kA<br>kA             | 100<br>42<br>4<br>100<br>100<br>42                           |
| <ul> <li>at 500 V Rated value</li> <li>at 690 V Rated value</li> <li>Maximum short-circuit current breaking capacity (Icu)</li> <li>with AC at 240 V Rated value</li> <li>with AC at 400 V Rated value</li> <li>with AC at 500 V Rated value</li> <li>with AC at 690 V Rated value</li> <li>at 480 AC Y/277 V acc. to UL 489 Rated value</li> <li>Breaking capacity short-circuit current (Icn)</li> </ul>  | kA<br>kA<br>kA<br>kA<br>kA<br>kA<br>A  | 100<br>42<br>4<br>100<br>100<br>42<br>6<br>6<br>65 000       |
| <ul> <li>at 500 V Rated value</li> <li>at 690 V Rated value</li> <li>Maximum short-circuit current breaking capacity (Icu)</li> <li>with AC at 240 V Rated value</li> <li>with AC at 400 V Rated value</li> <li>with AC at 500 V Rated value</li> <li>with AC at 690 V Rated value</li> <li>at 480 AC Y/277 V acc. to UL 489 Rated value</li> <li>Breaking capacity short-circuit current (Icn)</li> <li>with 1 current path for DC at 150 V Rated value</li> </ul>   | kA<br>kA<br>kA<br>kA<br>kA<br>kA<br>kA | 100<br>42<br>4<br>100<br>100<br>42<br>6<br>6<br>65 000<br>10 |
| <ul> <li>at 500 V Rated value</li> <li>at 690 V Rated value</li> <li>Maximum short-circuit current breaking capacity (Icu)</li> <li>with AC at 240 V Rated value</li> <li>with AC at 400 V Rated value</li> <li>with AC at 500 V Rated value</li> <li>with AC at 690 V Rated value</li> <li>at 480 AC Y/277 V acc. to UL 489 Rated value</li> <li>Breaking capacity short-circuit current (Icn)</li> </ul>  | kA<br>kA<br>kA<br>kA<br>kA<br>kA<br>A  | 100<br>42<br>4<br>100<br>100<br>42<br>6<br>6<br>65 000       |
| <ul> <li>at 500 V Rated value</li> <li>at 690 V Rated value</li> <li>Maximum short-circuit current breaking capacity (Icu)</li> <li>with AC at 240 V Rated value</li> <li>with AC at 400 V Rated value</li> <li>with AC at 500 V Rated value</li> <li>with AC at 690 V Rated value</li> <li>at 480 AC Y/277 V acc. to UL 489 Rated value</li> <li>Breaking capacity short-circuit current (Icn)</li> <li>with 1 current path for DC at 150 V Rated value</li> <li>with 2 current paths in series for DC at 300 V</li> </ul> | kA<br>kA<br>kA<br>kA<br>kA<br>kA<br>kA | 100<br>42<br>4<br>100<br>100<br>42<br>6<br>6<br>65 000<br>10 |

| Short-circuit:   |            |  |  |
|--|------------|--|--|
| 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                           |            |  |  |
| • at 400 V   | gL/gG 50 A |  |  |
| • at 500 V   | gL/gG 40 A |  |  |
| • at 690 V   | gL/gG 35 A |  |  |

| nstallation/ mounting/ dimensions:   |    |  |
|--|----|--|
| mounting position  |    | any  |
| Mounting type  |    | screw and snap-on mounting onto 35 mm standard mounting rail according to DIN EN 60715 |
| Height   | mm | 144  |
| Width  | mm | 45   |
| Depth  | mm | 97   |
| Required spacing   |    |  |
| <ul> <li>with side-by-side mounting</li> </ul>                               |    |  |
| — forwards   | mm | 0  |
| — Backwards  | mm | 0  |
| — upwards  | mm | 50   |
| — downwards  | mm | 50   |
| — at the side  | mm | 0  |
| <ul> <li>for grounded parts</li> </ul>                                       |    |  |
| — forwards   | mm | 0  |
| — Backwards  | mm | 0  |
| — upwards  | mm | 50   |
| — at the side  | mm | 30   |
| — downwards  | mm | 50   |
| • for live parts   |    |  |
| — forwards   | mm | 0  |
| — Backwards  | mm | 0  |
| — upwards  | mm | 50   |
| — downwards  | mm | 50   |
| — at the side  | mm | 30   |
| Connections/ Terminals:  |    |  |
| Type of electrical connection  |    |  |
| • for main current circuit   |    | screw-type terminals   |
| Arrangement of electrical connectors for main current circuit                |    | Top and bottom   |
| Product function   |    |  |
| <ul> <li>removable terminal for auxiliary and control<br/>circuit</li> </ul> |    | No   |

| Type of connectable conductor cross-section                        |     |                           |
|--|-----|---------------------------|
| <ul> <li>for main contacts</li> </ul>                              |     |                           |
| — single or multi-stranded   |     | 1 10 mm², max. 2x 10 mm²  |
| <ul> <li>finely stranded with core end processing</li> </ul>       |     | 1 16 mm², max. 6 + 16 mm² |
| <ul> <li>for AWG conductors for main contacts</li> </ul>           |     | 2x 14                     |
| Tightening torque  |     |                           |
| <ul> <li>for main contacts with screw-type terminals</li> </ul>    | N∙m | 2.5 3                     |
| Design of screwdriver shaft  |     | Diameter 5 to 6 mm        |
| Design of the thread of the connection screw                       | -   |                           |
| • for main contacts  |     | M4                        |
| Safety related data:   |     |                           |
| B10 value with high demand rate acc. to SN 31920                   |     | 50 000                    |
| Proportion of dangerous failures                                   |     |                           |
| • with low demand rate acc. to SN 31920                            | %   | 40                        |
| <ul> <li>with high demand rate acc. to SN 31920</li> </ul>         | %   | 40                        |
| Failure rate [FIT] with low demand rate acc. to SN 31920           | FIT | 50                        |
| T1 value for proof test interval or service life acc. to IEC 61508 | У   | 10                        |
| Protection against electrical shock                                |     | finger-safe               |
| Mechanical data:   |     |                           |
| Size of the circuit-breaker  |     | S00                       |
| Ambient conditions:  |     |                           |
| Installation altitude at height above sea level                    | m   | 2 000                     |
| maximum  |     |                           |
| Ambient temperature  |     |                           |
| <ul> <li>during operation</li> </ul>                               | °C  | -20 +60                   |
| • during storage   | °C  | -50 +80                   |
| during transport   | °C  | -50 +80                   |
| Relative humidity during operation                                 | %   | 10 95                     |
| Display:   |     |                           |
| Display version  |     |                           |
| • for switching status   |     | Handle                    |
| Certificates/ approvals:   |     |                           |

| General Produc  | t Approval                     | _            | Declaration of<br>Conformity | Test Certificates           |  |
|-----------------|--------------------------------|--------------|------------------------------|-----------------------------|--|
| (SA)            |                                | EHC          | EG-Konf.                     | Special Test<br>Certificate | <u>Type Test</u><br>Certificates/Test<br><u>Report</u> |
| Shipping Approv | val                            |              |                              |                             |  |
| ABS             | B U R E A U<br>V E R I TA S    | GL           | Lloyd's<br>Register<br>Irs   | PRS                         | RINA   |
| Shipping        | other                          |              |                              |                             |  |
| Approval        |                                |              |                              |                             |  |
| RMRS            | Environmental<br>Confirmations | Confirmation | UDE VDE                      | other                       |  |

## Further information

Information- and Downloadcenter (Catalogs, Brochures,...) http://www.siemens.com/industrial-controls/catalogs

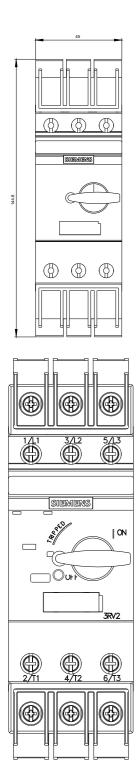
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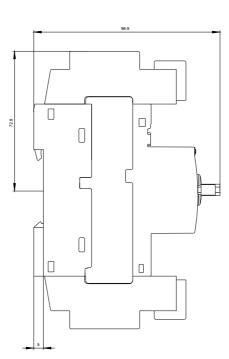
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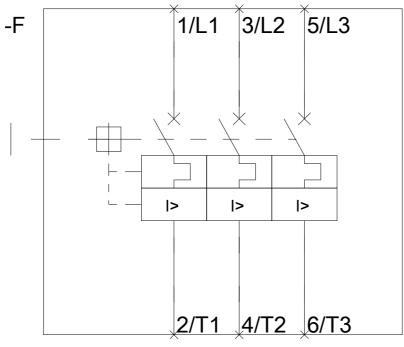
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Image database (product images, 2D dimension drawings, 3D models, device circuit diagrams, EPLAN macros, ...) http://www.automation.siemens.com/bilddb/cax\_de.aspx?mlfb=3RV28111HD10&lang=en







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