# SIEMENS

# **Product data sheet**

## 3RV2321-4EC20



CIRCUIT-BREAKER SZ S0, FOR STARTER COMBINATION, RATED CURRENT 32A, N-RELEASE 400A, SPRING-L. CONNECTION, STANDARD SW. CAPACITY

| General technical data:  |    |                      |
|--|----|----------------------|
| Product brand name   |    | SIRIUS               |
| product designation  |    | 3RV2 circuit breaker |
| Size of the circuit-breaker  |    | S0                   |
| Protection class IP / on the front   |    | IP20                 |
| Degree of pollution  |    | 3                    |
| Installation altitude / at a height over sea level / maximum                                     | m  | 2,000                |
| Ambient temperature  |    |                      |
| during storage   | °C | -50 80               |
| during operating   | °C | -20 60               |
| during transport   | °C | -50 80               |
| Resistance against shock   |    | 25g / 11 ms          |
| Impulse voltage resistance / rated value   | kV | 6                    |
| Insulation voltage / rated value   | V  | 690                  |
| Active power loss / total / typical  | W  | 12.2                 |
| Item designation   |    |                      |
| <ul> <li>according to DIN 40719 extendable after IEC 204-2 / according<br/>to IEC 750</li> </ul> |    | F                    |
| according to DIN EN 61346-2  |    | F                    |
| Mechanical operating cycles as operating time  |    |                      |

| of the main contacts / typical   |     | 100,000         |
|--|-----|-----------------|
| <ul> <li>of the auxiliary contacts / typical</li> </ul>                  |     | 100,000         |
| Type of the driving mechanism / motor drive                              |     | No              |
| Design of the operating mechanism  | _   | selector switch |
| Product function   | _   |                 |
| overload protection  |     | No              |
| phase disturbance recognition  |     | No              |
| Product component  | _   |                 |
| auxiliary switch   |     | No              |
| undervoltage release mechanism   |     | No              |
| trip indicator   |     | No              |
| Product extension / optional / motor drive                               |     | No              |
| Main circuit:  |     |                 |
| Number of poles / for main current circuit                               |     | 3               |
| Operating voltage / at AC-3 / rated value / maximum                      | V   | 690             |
| Operating current / at AC-3 / at 400 V / rated value                     | А   | 32              |
| Service power / at AC-3  | _   |                 |
| • at 400 V / rated value   | W   | 15,000          |
| • at 500 V / rated value   | W   | 18,500          |
| • at 690 V / rated value   | W   | 30,000          |
| Frequency of operation / at AC-3 / according to IEC 60947-6-2 / maximum  | 1/h | 15              |
| Arrangement of electrical connectors / for main current circuit          | _   | Top and bottom  |
| Adjustable response current  |     |                 |
| <ul> <li>of the non-delayed short-circuit release</li> </ul>             | А   | 400 400         |
| Service power / at AC-3 / at 230 V / rated value                         | W   | 7,500           |
| Continuous current / rated value   | А   | 32              |
| Auxiliary circuit:   |     |                 |
| Product extension / auxiliary switch                                     |     | Yes             |
| Number of NC contacts / for auxiliary contacts / instantaneous switching |     | 0               |
| Number of NO contacts / for auxiliary contacts / instantaneous switching |     | 0               |
| Number of change-over switches / for auxiliary contacts                  |     | 0               |
| Inputs/ Outputs:   |     |                 |
| Number of digital inputs   |     | 0               |
| Short-circuit:   |     |                 |
| Breaking canacity limit short-circuit current (Icu)                      |     |                 |

Breaking capacity limit short-circuit current (lcu)

| • at 400 V / rated value                                    | А  | 55,000   |  |
|---|----|--|--|
| • at 500 V / rated value                                    | А  | 10,000   |  |
| • at 690 V / rated value                                    | А  | 4,000  |  |
| Design of the overcurrent release and short-circuit release |    | thermomagnetic   |  |
| Installation/mounting/dimensions:                           |    |  |  |
| Built in orientation  |    | any  |  |
| Type of mounting  |    | screw and snap-on mounting onto 35 mm standard mounting rail according to DIN EN 60715 |  |
| Width   | mm | 45   |  |
| Height  | mm | 119  |  |
| Depth   | mm | 91   |  |
| Distance, to be maintained, to the ranks assembly           |    |  |  |
| • forwards  | mm | 0  |  |
| backwards   | mm | 0  |  |
| • upwards   | mm | 50   |  |
| • downwards   | mm | 50   |  |
| • sidewards   | mm | 0  |  |
| Distance, to be maintained, to earthed part                 |    |  |  |
| • forwards  | mm | 0  |  |
| backwards   | mm | 0  |  |
| • upwards   | mm | 50   |  |
| • sidewards   | mm | 30   |  |
| downwards   | mm | 50   |  |
| Distance, to be maintained, conductive elements             |    |  |  |
| • forwards  | mm | 0  |  |
| backwards   | mm | 0  |  |
| • upwards   | mm | 50   |  |
| downwards   | mm | 50   |  |
| • sidewards   | mm | 30   |  |
| Connections:  |    |  |  |
| Product function  |    |  |  |
| <ul> <li>removable terminal for main circuit</li> </ul>     |    | No   |  |
| removable terminal for auxiliary and control circuit        |    | No   |  |
| Design of the electrical connection                         |    |  |  |
| for main current circuit                                    |    | spring-loaded terminals  |  |
| Type of the connectable conductor cross-section             |    |  |  |
| • for main contacts   |    |  |  |
| • solid   |    | 2x (1 10 mm²)  |  |
| stranded  |    | 2x (1 10 mm²)  |  |

| finely stranded  |              |          |                   |      |
|--|--------------|----------|-------------------|------|
| <ul> <li>with conductor end processing</li> </ul>              |              | 2x (1    | 6 mm²)            |      |
| <ul> <li>without conductor final cutting</li> </ul>            | 2x (1 6 mm²) |          |                   |      |
| for AWG conductors / for main contacts                         |              | 2x (18 . | 8)                |      |
| Certificates/approvals:  |              |          |                   |      |
| Verification of suitability                                    |              | CE / UL  | / CSA             |      |
| für Staubexplosionsschutz für Zone 21/22                       |              | no       |                   |      |
| <ul> <li>for gas explosion protection for zone 1/2</li> </ul>  |              | no       |                   |      |
| General Product Approval                                       |              |          | Test Certificates |      |
| coc CSA  |              |          | Manufacturer      |      |
| Shipping Approval  |              |          |                   |      |
| ABS GL LRS   | PRS          |          | RINA              | RMRS |
| other  |              |          |                   |      |
| Manufacturer other   |              |          |                   |      |
| UL/CSA ratings   |              |          |                   |      |
| yielded mechanical performance (hp)                            |              |          |                   |      |
| <ul> <li>for single-phase squirrel cage motors</li> </ul>      |              |          |                   |      |
| • at 110/120 V / rated value                                   | hp           | 2        |                   |      |
| • at 230 V / rated value                                       | hp           | 5        |                   |      |
| <ul> <li>for three-phase squirrel cage motors</li> </ul>       |              |          |                   |      |
| • at 200/208 V / rated value                                   | hp           | 7.5      |                   |      |
| • at 220/230 V / rated value                                   | hp           | 10       |                   |      |
| • at 460/480 V / rated value                                   | hp           | 20       |                   |      |
| Operating current (FLA) / for three-phase squirrel cage motors |              |          |                   |      |
| • at 480 V / rated value                                       | А            | 27       |                   |      |
|  |              |          |                   |      |

| Safety:  |     |        |
|--|-----|--------|
| B10 value / with high demand rate                  |     |        |
| according to SN 31920                              |     | 50,000 |
| T1 value / for proof test interval or service life |     |        |
| according to IEC 61508                             | а   | 10     |
| Failure rate (FIT value) / with low demand rate    |     |        |
| according to SN 31920                              | FIT | 50     |

| Proportion of dangerous failures                                  |   |             |
|---|---|-------------|
| with low demand rate / according to SN 31920                      | % | 40          |
| <ul> <li>with high demand rate / according to SN 31920</li> </ul> | % | 40          |
| Protection against electrical shock                               |   | finger-safe |

## **Further information:**

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

### Industry Mall (Online ordering system)

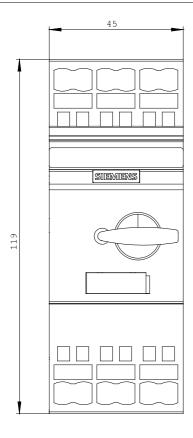
http://www.siemens.com/industrial-controls/mall

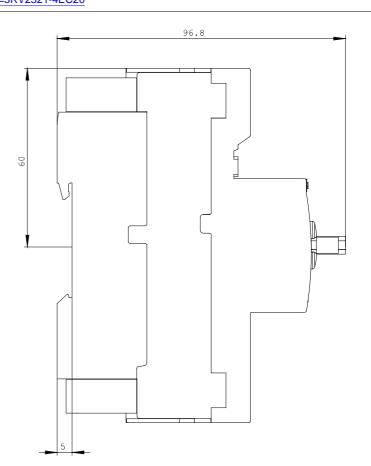
#### **CAx-Online-Generator**

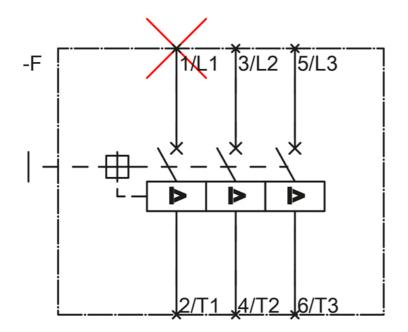
http://www.siemens.com/cax

#### Service&Support (Manuals, Certificates, Characteristics, FAQs,...) http://support.automation.siemens.com/WW/view/en/3RV2321-4EC20/all

### Image database (product images, 2D dimension drawings, 3D models, device circuit diagrams, ...) http://www.automation.siemens.com/bilddb/cax\_en.aspx?mlfb=3RV2321-4EC20







last change:

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