# **Product data sheet**



CIRCUIT-BREAKER SZ S0, FOR PLANT PROTECTION, WITHOUT PHASE FAILURE PROTECTION A-RELEASE 27...32A, N-RELEASE 400A, SCREW CONNECTION, STANDARD SWITCHING CAPACITY

| General technical data:  |    |                      |
|--|----|----------------------|
| product brand name   |    | SIRIUS               |
| product designation  |    | 3RV2 circuit breaker |
| Size of the circuit-breaker  |    | S0                   |
| Number of poles / for main current circuit                               |    | 3                    |
| Product function   |    |                      |
| <ul> <li>removable terminal for auxiliary and control circuit</li> </ul> |    | No                   |
| overload protection  |    | Yes                  |
| phase disturbance recognition  |    | No                   |
| • short-circuit to earth recognition                                     |    | No                   |
| Product component  |    |                      |
| auxiliary switch   |    | No                   |
| undervoltage release mechanism   |    | No                   |
| trip indicator   |    | No                   |
| Product extension  |    |                      |
| auxiliary switch   |    | Yes                  |
| optional / motor drive   |    | No                   |
| Impulse voltage resistance / rated value                                 | kV | 6                    |
| Protection class IP / on the front                                       |    | IP20                 |
| Protection against electrical shock                                      |    | finger-safe          |

| Installation altitude / at a height over sea level / maximum  | m                | 2,000  |
|---|------------------|--|
| Resistance against shock  |                  | 25g / 11 ms                                    |
| Ambient temperature   |                  |  |
| during transport  | °C               | -50 +80  |
| during storage  | °C               | -50 +80  |
| during operating  | °C               | -20 +60  |
| Active power loss / total / typical   | W                | 12.2   |
| Main circuit:   |                  |  |
| Operating voltage / rated value   | V                | 690  |
| 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   |
| Operational current / at AC-3 / at 400 V / rated value  | Α                | 32   |
| Mechanical operating cycles as operating time / of the main contacts / typical  |                  | 100,000  |
| Frequency of operation / at AC-3 / according to IEC 60947-6-2   | 1/h              | 15   |
| Auxiliary circuit:  |                  |  |
| Number of change-over switches / for auxiliary contacts   |                  | 0  |
| Mechanical operating cycles as operating time / of the auxiliary contacts / typical   |                  | 100,000  |
| Protection function:  |                  |  |
| Take along  |                  |  |
| Trip class  |                  | CLASS 10                                       |
| Adjustable response current / of the current-dependent overload release   | А                | CLASS 10<br>27 32                              |
| Adjustable response current / of the current-dependent  | A                |  |
| Adjustable response current / of the current-dependent overload release   | A                |  |
| Adjustable response current / of the current-dependent overload release  Breaking capacity limit short-circuit current (Icu)  |                  | 27 32  |
| Adjustable response current / of the current-dependent overload release  Breaking capacity limit short-circuit current (Icu)  • at 400 V / rated value  | A                | 27 32<br>55,000                                |
| Adjustable response current / of the current-dependent overload release  Breaking capacity limit short-circuit current (Icu)  • at 400 V / rated value  • at 500 V / rated value  | A<br>A           | 27 32<br>55,000<br>10,000                      |
| Adjustable response current / of the current-dependent overload release  Breaking capacity limit short-circuit current (Icu)  • at 400 V / rated value  • at 500 V / rated value  • at 690 V / rated value  | A<br>A           | 27 32<br>55,000<br>10,000                      |
| Adjustable response current / of the current-dependent overload release  Breaking capacity limit short-circuit current (Icu)  • at 400 V / rated value  • at 500 V / rated value  • at 690 V / rated value  Safety:   | A<br>A           | 27 32<br>55,000<br>10,000                      |
| Adjustable response current / of the current-dependent overload release  Breaking capacity limit short-circuit current (Icu)  • at 400 V / rated value  • at 500 V / rated value  • at 690 V / rated value  Safety:  Proportion of dangerous failures   | A<br>A<br>A      | 27 32<br>55,000<br>10,000<br>4,000             |
| Adjustable response current / of the current-dependent overload release  Breaking capacity limit short-circuit current (Icu)  • at 400 V / rated value  • at 500 V / rated value  • at 690 V / rated value  Safety:  Proportion of dangerous failures  • with high demand rate / according to SN 31920  | A<br>A<br>A      | 27 32<br>55,000<br>10,000<br>4,000             |
| Adjustable response current / of the current-dependent overload release  Breaking capacity limit short-circuit current (Icu)  • at 400 V / rated value  • at 500 V / rated value  • at 690 V / rated value  Safety:  Proportion of dangerous failures  • with high demand rate / according to SN 31920  • with low demand rate / according to SN 31920  Failure rate (FIT value) / with low demand rate / according to SN | A<br>A<br>A<br>% | 27 32<br>55,000<br>10,000<br>4,000<br>40<br>40 |

| Installation/mounting/dimensions: |    |  |  |
|-----------------------------------|----|--|--|
| Type of mounting                  |    | screw and snap-on mounting onto 35 mm standard mounting rail according to DIN EN 60715 |  |
| mounting position                 |    | any  |  |
| Depth                             | mm | 96   |  |
| Height                            | mm | 97   |  |
| Width                             | mm | 45   |  |

| Connections:  |   |
|---|---|
| Arrangement of electrical connectors / for main current circuit | Top and bottom                            |
| Design of the electrical connection                             |   |
| for main current circuit  | screw-type terminals                      |
| Type of the connectable conductor cross-section                 |   |
| for main contacts   |   |
| • solid   | 2x (1 2.5 mm²), 2x (2.5 10 mm²)           |
| • finely stranded   |   |
| with conductor end processing                                   | 2x (1 2.5 mm²), 2x (2.5 6 mm²), 1x 10 mm² |
| for AWG conductors / for main contacts                          | 2x (16 12), 2x (14 8)                     |

| UL/CSA ratings:  |    |     |
|--|----|-----|
| yielded mechanical performance (hp)                            |    |     |
| • for single-phase squirrel cage motors                        |    |     |
| • at 110/120 V / rated value                                   | hp | 2   |
| • at 230 V / rated value                                       | hp | 5   |
| • for three-phase squirrel cage motors                         |    |     |
| • 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                                       | Α  | 27  |

# Certificates/approvals:

### **General Product Approval**

For use in hazardous locations

Declaration of Conformity













### **Test Certificates**

other

Special Test Certificate Type Test
Certificates/Test
Report

#### **Shipping Approval**













**Shipping Approval** 

other







other

## **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:

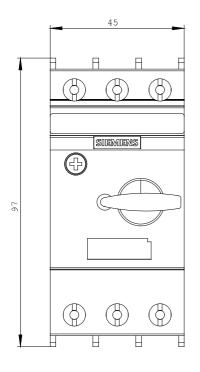
http://www.siemens.com/cax

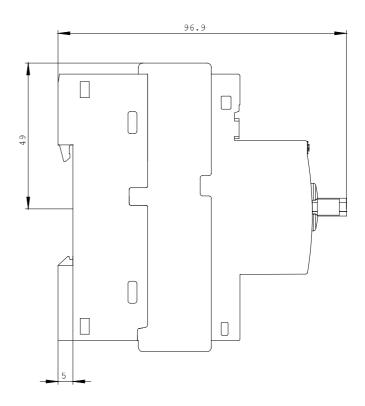
Service&Support (Manuals, Certificates, Characteristics, FAQs,...)

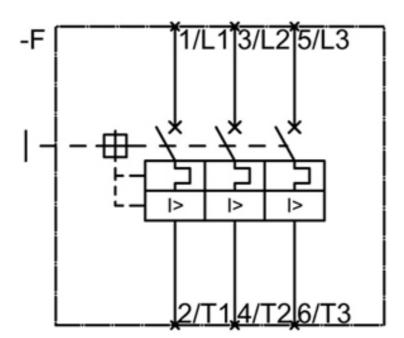
http://support.automation.siemens.com/WW/view/en/3RV2021-4EA10-0DA0/all

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

 $\underline{\text{http://www.automation.siemens.com/bilddb/cax\_en.aspx?mlfb=3RV2021-4EA10-0DA0}$ 







last change: Feb 14, 2013