SIEMENS

Product data sheet 3RV2021-4BA40



CIRCUIT-BREAKER SZ S0, FOR MOTOR PROTECTION, CLASS 10, A-RELEASE 14...20A, N-RELEASE 260A, RING CABLE LUG CONNECTION, STANDARD SW. CAPACITY,

| General technical data: | | |
|--|----|----------------------|
| Product brand name | | SIRIUS |
| product designation | | 3RV2 circuit breaker |
| Size of the circuit-breaker | | S0 |
| Trip class | | CLASS 10 |
| Protection class IP / on the front | | IP00 |
| 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 | 9.6 |
| Item designation | | |
| according to DIN 40719 extendable after IEC 204-2 / according to IEC 750 | | F |
| according to DIN EN 61346-2 | | F |

| Mechanical operating cycles as operating time | | |
|--|-----|-----------------|
| of the main contacts / typical | | 100,000 |
| of the auxiliary contacts / typical | | 100,000 |
| Type of the driving mechanism / motor drive | | No |
| Design of the operating mechanism | | selector switch |
| Product function | | |
| overload protection | | Yes |
| phase disturbance recognition | | Yes |
| 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 | Α | 15.5 |
| Service power / at AC-3 | | |
| • at 400 V / rated value | W | 7,500 |
| • at 500 V / rated value | W | 11,000 |
| • at 690 V / rated value | W | 15,000 |
| 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 | | |
| of the non-delayed short-circuit release | Α | 260 260 |
| of the current-dependent overload release | Α | 14 20 |
| Service power / at AC-3 / at 230 V / rated value | W | 5,500 |
| Continuous current / rated value | Α | 20 |
| 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 capacity limit short-circuit current (lcu) | | |
| • at 400 V / rated value | Α | 55,000 |
| • at 500 V / rated value | Α | 10,000 |
| • at 690 V / rated value | Α | 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 | 97 |
| 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 | |
| • removable terminal for main circuit | No |
| • removable terminal for auxiliary and control circuit | No |
| Design of the electrical connection | |
| for main current circuit | ring cable connection |

Certificates/approvals:

Verification of suitability

• für Staubexplosionsschutz für Zone 21/22

• for gas explosion protection for zone 1/2

CE/UL/CSA

no

no

General Product Approval



cqc



ROSTEST



DEKRA EXAM,

For use in hazardous locations

DMT

Test Certificates

Manufacturer

other

Shipping Approval





GL









other

Manufacturer

other



| UL/CSA ratings | | |
|--|----|-----|
| yielded mechanical performance (hp) | | |
| • for single-phase squirrel cage motors | | |
| • at 110/120 V / rated value | hp | 1.5 |
| • at 230 V / rated value | hp | 3 |
| • for three-phase squirrel cage motors | | |
| • at 200/208 V / rated value | hp | 5 |
| • at 220/230 V / rated value | hp | 5 |
| • at 460/480 V / rated value | hp | 10 |
| Operating current (FLA) / for three-phase squirrel cage motors | | |
| • at 480 V / rated value | Α | 14 |

| 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 |
| with high demand rate / according to SN 31920 | % | 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)

 $\underline{\text{http://www.siemens.com/industrial-controls/mall}}$

CAx-Online-Generator

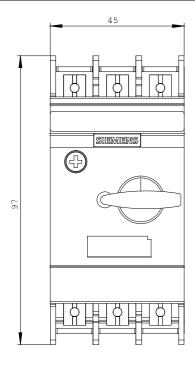
http://www.siemens.com/cax

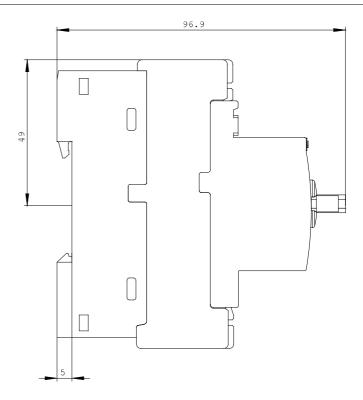
Service&Support (Manuals, Certificates, Characteristics, FAQs,...)

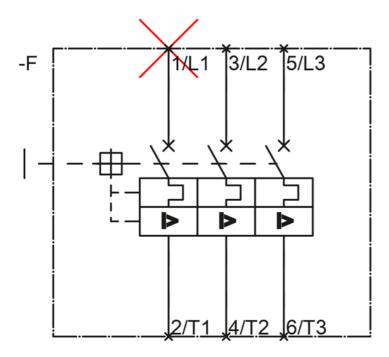
http://support.automation.siemens.com/WW/view/en/3RV2021-4BA40/all

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

 $\underline{\text{http://www.automation.siemens.com/bilddb/cax_en.aspx?mlfb=3RV2021-4BA40}$







last change: Oct 24, 2011