



SIRIUS soft starter S0 38 A, 22 kW/500 V, 40 °C 400-600 V AC, 24 V AC/DC Screw terminals

| General technical data | | |
|--|----|--------------------------|
| product brand name | | SIRIUS |
| product designation | | Soft starter |
| product feature | | |
| • integrated bypass contact system | | Yes |
| • thyristors | | Yes |
| product function | | |
| • intrinsic device protection | | Yes |
| • motor overload protection | | Yes |
| • evaluation of thermistor motor protection | | No |
| • external reset | | Yes |
| • adjustable current limitation | | Yes |
| • inside-delta circuit | | No |
| product component motor brake output | | No |
| insulation voltage rated value | V | 600 |
| degree of pollution | | 3, acc. to IEC 60947-4-2 |
| blocking voltage of the thyristor maximum | V | 1 600 |
| reference code according to EN 61346-2 | | Q |
| reference code according to DIN 40719 extended according to IEC 204-2 according to IEC 750 | | G |
| Power Electronics | | |
| operational current | | |
| • at 40 °C rated value | A | 38 |
| • at 50 °C rated value | A | 34 |
| • at 60 °C rated value | A | 31 |
| yielded mechanical performance for 3-phase motors | | |
| • at 400 V | | |
| — at standard circuit at 40 °C rated value | kW | 18.5 |
| • at 500 V | | |
| — at standard circuit at 40 °C rated value | kW | 22 |
| operating frequency rated value | Hz | 50 ... 60 |
| relative negative tolerance of the operating frequency | % | -10 |
| relative positive tolerance of the operating frequency | % | 10 |
| operating voltage at standard circuit rated value | V | 400 ... 600 |
| relative negative tolerance of the operating voltage at standard circuit | % | -15 |
| relative positive tolerance of the operating voltage at standard circuit | % | 10 |
| minimum load [%] | % | 20 |
| adjustable motor current for motor overload protection minimum rated value | A | 23 |

| | | |
|--|----|---|
| continuous operating current [% of I_e] at 40 °C | % | 115 |
| power loss [W] at operational current at 40 °C during operation typical | W | 19 |
| Control circuit/ Control | | |
| type of voltage of the control supply voltage | | AC/DC |
| control supply voltage frequency 1 rated value | Hz | 50 |
| control supply voltage frequency 2 rated value | Hz | 60 |
| relative negative tolerance of the control supply voltage frequency | % | -10 |
| relative positive tolerance of the control supply voltage frequency | % | 10 |
| control supply voltage 1 at AC | | |
| • at 50 Hz rated value | V | 24 |
| • at 60 Hz rated value | V | 24 |
| relative negative tolerance of the control supply voltage at AC at 50 Hz | % | -15 |
| relative positive tolerance of the control supply voltage at AC at 50 Hz | % | 10 |
| relative negative tolerance of the control supply voltage at AC at 60 Hz | % | -15 |
| relative positive tolerance of the control supply voltage at AC at 60 Hz | % | 10 |
| control supply voltage 1 at DC rated value | V | 24 |
| relative negative tolerance of the control supply voltage at DC | % | -20 |
| relative positive tolerance of the control supply voltage at DC | % | 20 |
| display version for fault signal | | red |
| Mechanical data | | |
| size of engine control device | | S0 |
| width | mm | 45 |
| height | mm | 125 |
| depth | mm | 155 |
| fastening method | | screw and snap-on mounting |
| mounting position | | With additional fan: With vertical mounting surface +/- 90° rotatable, with vertical mounting surface +/- 22.5° tiltable to the front and back Without additional fan: With vertical mounting surface +/- 10° rotatable, with vertical mounting surface +/- 10° t |
| required spacing with side-by-side mounting | | |
| • upwards | mm | 60 |
| • at the side | mm | 15 |
| • downwards | mm | 40 |
| wire length maximum | m | 300 |
| number of poles for main current circuit | | 3 |
| Connections/ Terminals | | |
| type of electrical connection | | |
| • for main current circuit | | screw-type terminals |
| • for auxiliary and control circuit | | screw-type terminals |
| number of NC contacts for auxiliary contacts | | 0 |
| number of NO contacts for auxiliary contacts | | 2 |
| number of CO contacts for auxiliary contacts | | 1 |
| type of connectable conductor cross-sections for main contacts for box terminal using the front clamping point | | |
| • solid | | 2x (1 ... 2.5 mm ²), 2x (2.5 ... 6 mm ²), max. 1x 10 mm ² |
| • finely stranded with core end processing | | 2x (1 ... 2.5 mm ²), 2x (2.5 ... 6 mm ²) |
| type of connectable conductor cross-sections for AWG cables for main contacts for box terminal | | |
| • using the front clamping point | | 1x 8, 2x (16 ... 10) |
| type of connectable conductor cross-sections for auxiliary contacts | | |
| • solid | | 2x (0.5 ... 2.5 mm ²) |
| • finely stranded with core end processing | | 2x (0.5 ... 1.5 mm ²) |
| type of connectable conductor cross-sections for AWG cables | | |
| • for auxiliary contacts | | 2x (20 ... 14) |

| | | | | |
|--|---|---|------------------------------|---|
| • for auxiliary contacts finely stranded with core end processing | | 2x (20 ... 16) | | |
| Ambient conditions | | | | |
| installation altitude at height above sea level | m | 5 000 | | |
| environmental category | | | | |
| • during transport according to IEC 60721 | | 2K2, 2C1, 2S1, 2M2 (max. fall height 0.3 m) | | |
| • during storage according to IEC 60721 | | 1K6 (only occasional condensation), 1C2 (no salt mist), 1S2 (sand must not get inside the devices), 1M4 | | |
| • during operation according to IEC 60721 | | 3K6 (no formation of ice, no condensation), 3C3 (no salt mist), 3S2 (sand must not get into the devices), 3M6 | | |
| ambient temperature | | | | |
| • during operation | °C | -25 ... +60 | | |
| • during storage | °C | -40 ... +80 | | |
| derating temperature | °C | 40 | | |
| 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 | | |
| Environmental footprint | | | | |
| Global Warming Potential [CO ₂ eq] total | kg | 121 | | |
| Global Warming Potential [CO ₂ eq] during manufacturing | kg | 4.24 | | |
| global warming potential [CO ₂ eq] during sales | kg | 0.207 | | |
| Global Warming Potential [CO ₂ eq] during operation | kg | 117 | | |
| Global Warming Potential [CO ₂ eq] after end of life | kg | -0.229 | | |
| UL/CSA ratings | | | | |
| yielded mechanical performance [hp] for 3-phase AC motor | | | | |
| • at 460/480 V | hp | 25 | | |
| — at standard circuit at 50 °C rated value | hp | 30 | | |
| • at 575/600 V | | | | |
| — at standard circuit at 50 °C rated value | hp | 30 | | |
| contact rating of auxiliary contacts according to UL | | B300 / R300 | | |
| Approvals Certificates | | | | |
| General Product Approval | | | | |
|  |  | Confirmation | | |
|  |  |  | | |
| EMV | For use in hazardous locations | Test Certificates | | |
|  |  |  | | |
| RCM | ATEX |  | | |
| | | Type Test Certificates/Test Report | | |
| | | Special Test Certificate | | |
| Marine / Shipping | other | Railway | Environment | |
|  |  |  | Confirmation | Confirmation |
| DNV | LRS | PRIS | | |
| Environment | | | |  |
|  | Environmental Confirmations | | | |
| Further information | | | | |
| Simulation Tool for Soft Starters (STS) https://support.industry.siemens.com/cs/ww/en/view/101494917 | | | | |

Information on the packaging

<https://support.industry.siemens.com/cs/ww/en/view/109813875>

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=3RW4028-1BB05>

Cax online generator

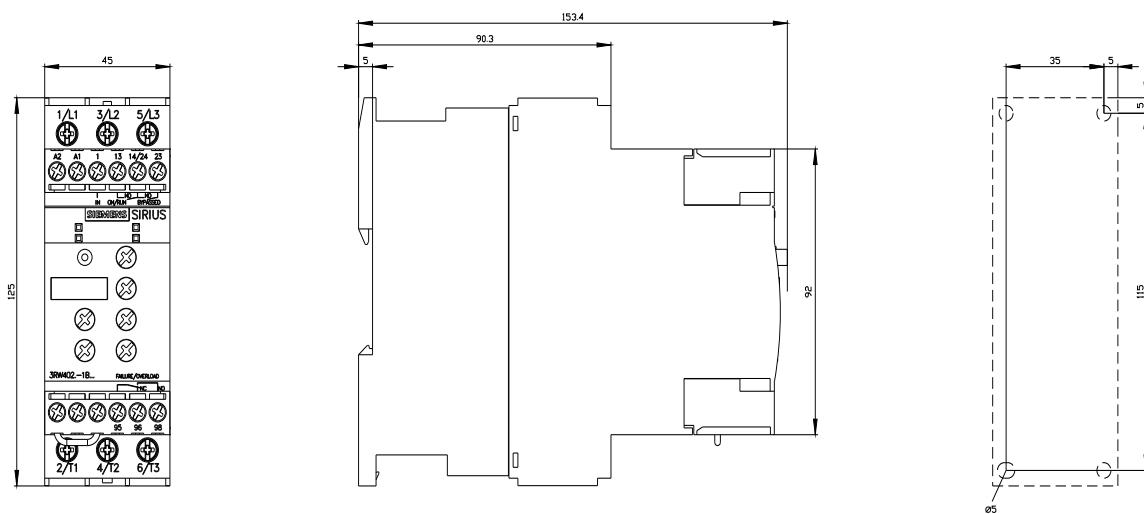
<http://support.automation.siemens.com/WW/CAOrder/default.aspx?lang=en&mlfb=3RW4028-1BB05>

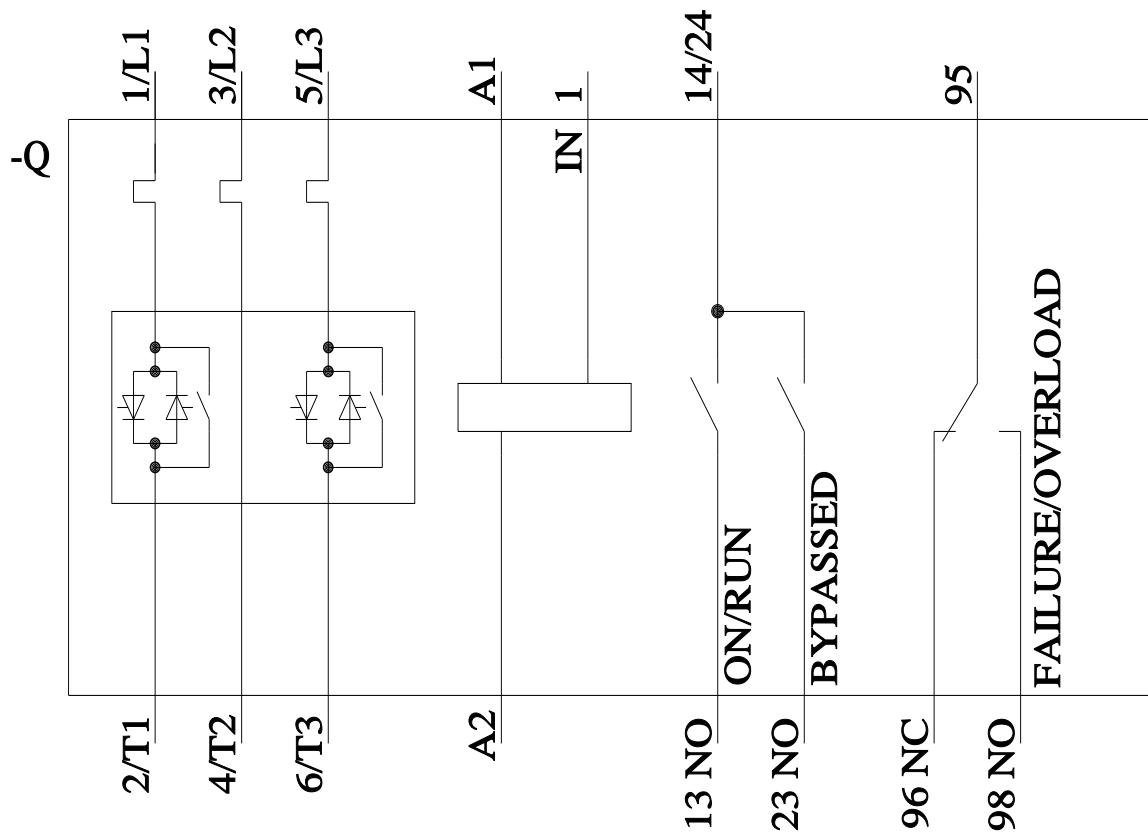
Service&Support (Manuals, Certificates, Characteristics, FAQs,...)

<https://support.industry.siemens.com/cs/ww/en/ps/3RW4028-1BB05>

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

http://www.automation.siemens.com/bilddb/cax_de.aspx?mlfb=3RW4028-1BB05&lang=en





last modified:

11/9/2024