SIEMENS

Data sheet

3RW4024-2TB05



SIRIUS soft starter S0 12.5 A, 7.5 kW/500 V, 40 °C 400-600 V AC, 24 V AC/DC spring-type terminals Thermistor motor protection

| General technical data | | |
|--|----|--------------------------|
| product brand name | | SIRIUS |
| product feature | | |
| integrated bypass contact system | | Yes |
| thyristors | | Yes |
| product function | | |
| intrinsic device protection | | Yes |
| motor overload protection | | Yes |
| evaluation of thermistor motor protection | | Yes |
| 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 |
| reference code acc. to DIN EN 61346-2 | | Q |
| reference code acc. to DIN 40719 extended according to IEC 204-2 acc. to IEC 750 | | G |
| Power Electronics | | |
| product designation | | Soft starter |
| operational current | | |
| at 40 °C rated value | А | 12.5 |
| at 50 °C rated value | А | 11 |
| • at 60 °C rated value | А | 10 |
| yielded mechanical performance for 3-phase motors | | |
| • at 400 V | | |
| — at standard circuit at 40 °C rated value | W | 5 500 |
| • at 500 V | | |
| — at standard circuit at 40 °C rated value | W | 7 500 |
| 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 | 5 |
| continuous operating current [% of le] at 40 °C | % | 115 |
| power loss [W] at operational current at 40 °C during operation typical | W | 2 |
| 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 | % | -20 |
| relative positive tolerance of the control supply voltage at AC at 50 Hz | % | 20 |
| relative negative tolerance of the control supply voltage at AC at 60 Hz | % | -20 |
| relative positive tolerance of the control supply voltage at AC at 60 Hz | % | 20 |
| 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 | | SO |
| width | mm | 45 |
| height | mm | 150 |
| 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 | | spring-loaded terminals |
| for auxiliary and control circuit | | spring-loaded 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 mm²), 2x (2.5 6 mm²) |
| type of connectable conductor cross-sections at AWG cables for main contacts for box terminal | | |
| using the front clamping point | | 1x 8, 2x (16 10) |

| type of connectable main contacts | conductor cross-sec | tions for | | | | | |
|--|--|---|------|--|---|----------|--|
| solid | | | | 1 10 mm² | | | |
| finely stranded | with core end processi | ng | | 1 6 mm² | | | |
| | conductor cross-sec | - | | | | | |
| • solid | | | | 2x (0.25 2. | 5 mm²) | | |
| finely stranded with core end processing | | | | | 2x (0.25 1.5 mm ²) | | |
| - | conductor cross-sec | - | | | - , | | |
| for main contac | ts | | | 16 10, 1x 8 | 3 | | |
| for auxiliary con | for auxiliary contacts | | | 2x (24 14) | | | |
| Ambient conditions | | | | · · · · · · · · · · · · · · · · · · · | | | |
| | at height above sea le | vol | m | 5 000 | | | |
| | - | | 111 | 5 000 | | | |
| environmental categ | - | | | 21/2 201 25 | 1 2M2 (may fall baight | t 0.2 m) | |
| | t acc. to IEC 60721 | | | | 2K2, 2C1, 2S1, 2M2 (max. fall height 0.3 m) | | |
| | during storage acc. to IEC 60721 | | | 1S2 (sand m | 1K6 (only occasional condensation), 1C2 (no salt mist), 1S2 (sand must not get inside the devices), 1M4 | | |
| | during operation acc. 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 | 9 | | | | | | |
| during operation | n | | °C | -25 +60 | -25 +60 | | |
| during storage | | | °C | -40 +80 | -40 +80 | | |
| derating temperature | е | | °C | 40 | | | |
| protection class IP | | | | IP20 | | | |
| Certificates/ approval | s | | | | | | |
| General Product Ap | proval | | | | | EMC | |
| | | ~ | | | | • | |
| (S) S | CCC | (hr) | | EHC | EHC | RCM | |
| For use in hazardous locations | Declaration of Conformity | Test Certifica | ites | | Marine / Shipping | | |
| K ATEX | <u>Miscellaneous</u> | <u>Special Te</u> <u>Certificate</u> | | <u>Type Test</u> Certificates/Test <u>Report</u> | Lloyd's Register urs | PRS | |
| Marine / Shipping | other | | | | | | |
| and the company | Ullu | | | | | | |
| DNV-GL DNV-GL | Confirmation | | | | | | |

| UL/CSA ratings | | | | | |
|--|----|-------------|--|--|--|
| yielded mechanical performance [hp] for 3-phase AC motor | | | | | |
| • at 460/480 V | | | | | |
| — at standard circuit at 50 °C rated value | hp | 7.5 | | | |
| • at 575/600 V | | | | | |
| - at standard circuit at 50 °C rated value | hp | 10 | | | |
| contact rating of auxiliary contacts according to UL | | B300 / R300 | | | |

Further information

Simulation Tool for Soft Starters (STS)

https://support.industry.siemens.com/cs/ww/en/view/101494917

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=3RW4024-2TB05

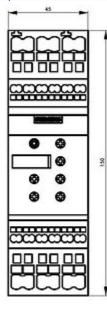
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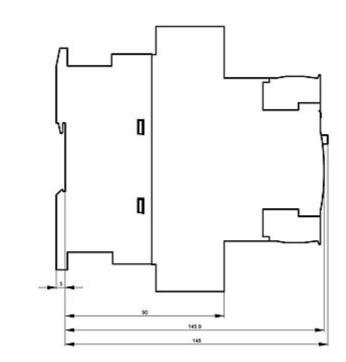
http://support.automation.siemens.com/WW/CAXorder/default.aspx?lang=en&mlfb=3RW4024-2TB05

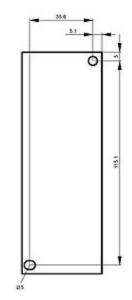
Service&Support (Manuals, Certificates, Characteristics, FAQs,...)

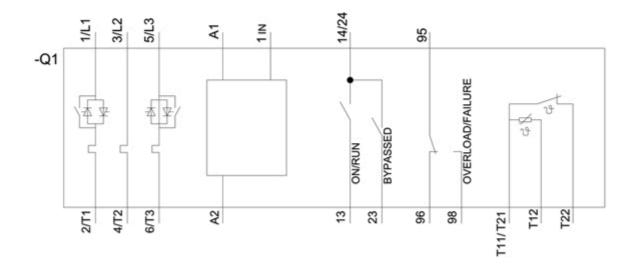
https://support.industry.siemens.com/cs/ww/en/ps/3RW4024-2TB05

Image database (product images, 2D dimension drawings, 3D models, device circuit diagrams, EPLAN macros, ...) http://www.automation.siemens.com/bilddb/cax_de.aspx?mlfb=3RW4024-2TB05&lang=en









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