SIEMENS

## Data sheet 3RW40 24-1BB14



SIRIUS SOFT STARTER, S0, 12.5A, 5.5KW/400V, 40 DEGR., AC 200-480V, AC/DC 110-230V, SCREW TERMINALS

| 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 | | No |
| • External reset | | Yes |
| • Adjustable current limitation | | Yes |
| • inside-delta circuit | | No |
| **Product component Motor brake output** | | No |
| **Equipment marking acc. to DIN EN 61346-2** | | Q |
| **Equipment marking acc. to DIN 40719 extended according to IEC 204-2 acc. to IEC 750** | | G |
| Power Electronics: | | |
| **Product designation** | | soft starters for standard applications |


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| | | |
|---|---|---|
| **Operating current** | | |
| • at 40 °C rated value | A | 12.5 |
| • at 50 °C rated value | A | 11 |
| • at 60 °C rated value | A | 10 |
| **Mechanical power output for three-phase motors** | | |
| • at 230 V | | |
| — at standard circuit at 40 °C rated value | W | 3 000 |
| • at 400 V | | |
| — at standard circuit at 40 °C rated value | W | 5 500 |
| **yielded mechanical performance [hp] for three-phase AC motor at 200/208 V at standard circuit at 50 °C Rated value** | hp | 3 |
| 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 | 200 ... 480 |
| **Relative negative tolerance of the operating voltage at standard circuit** | % | -15 |
| **Relative positive tolerance of the operating voltage at standard circuit** | % | 10 |
| **Minimum load [% of IM]** | % | 20 |
| **Adjustable motor current for motor overload protection minimum rated value** | A | 5 |
| **Continuous operating current [% of Ie] at 40 °C** | % | 115 |
| **Active power loss at operating current at 40 °C during operation typical** | W | 2 |

| Control electronics: | | |
|---|---|---|
| **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** | V | 110 ... 230 |
| **Control supply voltage 1 at AC at 60 Hz** | V | 110 ... 230 |
| **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** | V | 110 ... 230 |
| **Relative negative tolerance of the control supply voltage at DC** | % | -15 |


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| | | |
|---|---|---|
| **Relative positive tolerance of the control supply voltage at DC** | % | 10 |
| **Display version for fault signal** | | red |

| Mechanical data: | | |
|---|---|---|
| **Size of engine control device** | | S0 |
| **Width** | mm | 45 |
| **Height** | mm | 125 |
| **Depth** | mm | 155 |
| **Mounting type** | | 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 |
| **Installation altitude at height above sea level** | m | 5 000 |
| **Cable 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 current 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-section for main contacts for box terminal using the front clamping point | | |
| • solid | | 2x (1.5 ... 2.5 mm²), 2x (2.5 ... 6 mm²), max. 1x 10 mm² |
| • finely stranded with core end processing | | 2x (1.5 ... 2.5 mm²), 2x (2.5 ... 6 mm²) |
| Type of connectable conductor cross-section for AWG conductors 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 mm²) |
| • finely stranded with core end processing | | 2x (0.5 ... 1.5 mm²) |
| • Type of connectable conductor cross-sections at AWG conductors for auxiliary contacts | | 2x (20 ... 14) |


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| | | |
|---|---|---|
| • Type of connectable conductor cross-section for AWG conductors for auxiliary contacts finely stranded with core end processing | | 2x (20 ... 16) |

## Ambient conditions:

| | | |
|---|---|---|
| **Ambient temperature** | | |
| • during operation | °C | -25 ... +60 |
| • during storage | °C | -40 ... +80 |
| **Derating temperature** | °C | 40 |
| **Protection class IP** | | IP20 |

## Certificates/ approvals:

| General Product Approval | | | | EMC | For use in hazardous locations |
|---|---|---|---|---|---|
| CCC | CSA | UL | EAC | C-TICK | ATEX |

| Declaration of Conformity | Test Certificates | | Shipping Approval | | |
|---|---|---|---|---|---|
| EG-Konf. | spezielle Prüfbescheinigungen | Typprüfbescheinigung/Werkszeugnis | DNV | GL | LRS |

| Shipping Approval | other |
|---|---|
| PRS | Umweltbestätigung |

## UL/CSA ratings:

| | | |
|---|---|---|
| **yielded mechanical performance [hp] for three-phase AC motor** | | |
| • **at 220/230 V** | | |
| — at standard circuit at 50 °C Rated value | hp | 3 |
| • **at 460/480 V** | | |
| — at standard circuit at 50 °C Rated value | hp | 7.5 |
| **Contact rating of auxiliary contacts according to UL** | | B300 / R300 |

## Further information


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**Simulation Tool for Soft Starters (STS)**
https://support.industry.siemens.com/cs/ww/en/view/101494917

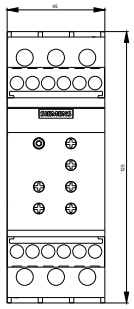
**Information- and Downloadcenter (Catalogs, Brochures,…)**
http://www.siemens.com/industrial-controls/catalogs

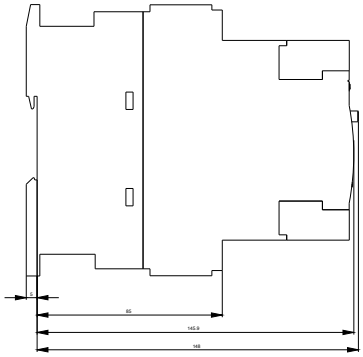
**Industry Mall (Online ordering system)**
http://www.siemens.com/industrymall

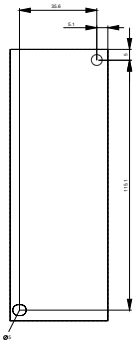
**Cax online generator**
http://support.automation.siemens.com/WW/CAXorder/default.aspx?lang=en&mlfb=3RW40241BB14

**Service&Support (Manuals, Certificates, Characteristics, FAQs,...)**
https://support.industry.siemens.com/cs/ww/en/ps/3RW40241BB14

**Image database (product images, 2D dimension drawings, 3D models, device circuit diagrams, EPLAN macros, ...)**
http://www.automation.siemens.com/bilddb/cax_de.aspx?mlfb=3RW40241BB14&lang=en





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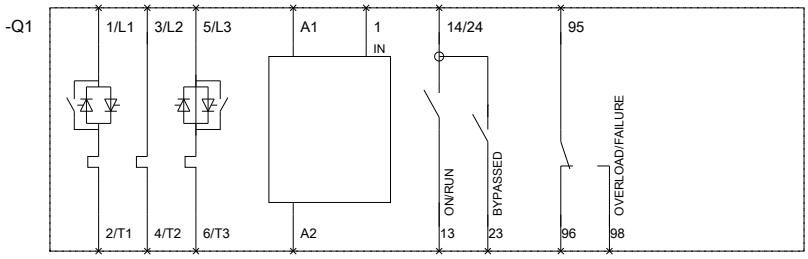


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