

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



General technical data

| | | |
|--|--|--------|
| product brandname | | SIRIUS |
| <ul style="list-style-type: none"> • Product equipment Integrated bypass contact system | | Yes |
| <ul style="list-style-type: none"> • Product feature Thyristors | | Yes |
| Product function | | |
| <ul style="list-style-type: none"> • Intrinsic device protection | | Yes |
| <ul style="list-style-type: none"> • motor overload protection | | Yes |
| <ul style="list-style-type: none"> • Evaluation of thermistor motor protection | | No |
| <ul style="list-style-type: none"> • External reset | | Yes |
| <ul style="list-style-type: none"> • Adjustable current limitation | | Yes |
| <ul style="list-style-type: none"> • 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 starter |
|----------------------------|--|--------------|

| | | |
|---|----|-------------|
| 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 I_e] at 40 °C | % | 115 |
| Power loss [W] 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 |

| | | |
|---|---|-----|
| 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 |
| 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 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-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 at 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 mm ²) |
| • finely stranded with core end processing | | 2x (0.5 ... 1.5 mm ²) |
| Type of connectable conductor cross-sections at AWG conductors | | |
| • 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 | | |
| <ul style="list-style-type: none"> • during transport acc. to IEC 60721 | | 3K6 (no formation of ice, no condensation), 3C3 (no salt mist), 3S2 (sand must not get into the devices), 3M6 |
| <ul style="list-style-type: none"> • during storage acc. to IEC 60721 | | 3K6 (no formation of ice, no condensation), 3C3 (no salt mist), 3S2 (sand must not get into the devices), 3M6 |
| <ul style="list-style-type: none"> • 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 | | |
| <ul style="list-style-type: none"> • during operation | °C | -25 ... +60 |
| <ul style="list-style-type: none"> • during storage | °C | -40 ... +80 |
| Derating temperature | °C | 40 |
| Protection class IP | | IP20 |

Certificates/approvals

| | | |
|---------------------------------|------------|---------------------------------------|
| General Product Approval | EMC | For use in hazardous locations |
|---------------------------------|------------|---------------------------------------|



| | | |
|----------------------------------|--------------------------|--------------------------|
| Declaration of Conformity | Test Certificates | Shipping Approval |
|----------------------------------|--------------------------|--------------------------|



[Special Test Certificate](#)

[Type Test Certificates/Test Report](#)



other

[Environmental Confirmations](#)

[Confirmation](#)

UL/CSA ratings

| | | |
|--|----|-------------|
| Yielded mechanical performance [hp] for three-phase AC motor | | |
| <ul style="list-style-type: none"> • at 220/230 V <ul style="list-style-type: none"> — at standard circuit at 50 °C rated value • at 460/480 V <ul style="list-style-type: none"> — at standard circuit at 50 °C rated value | hp | 3 |
| | hp | 7.5 |
| 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,...)

<http://www.siemens.com/industrial-controls/catalogs>

Industry Mall (Online ordering system)

<https://mall.industry.siemens.com/mall/en/en/Catalog/product?mlfb=3RW4024-1BB14>

Cax online generator

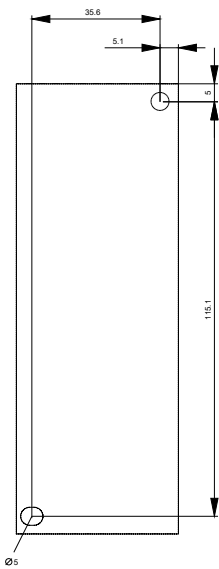
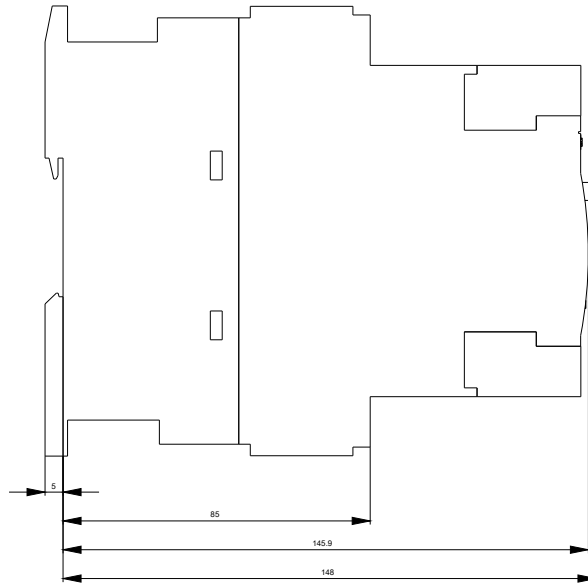
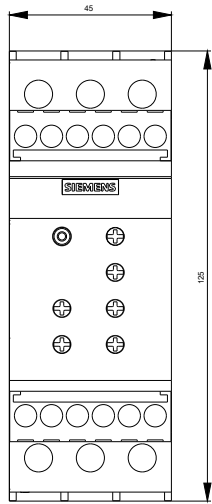
<http://support.automation.siemens.com/WW/CAXorder/default.aspx?lang=en&mlfb=3RW4024-1BB14>

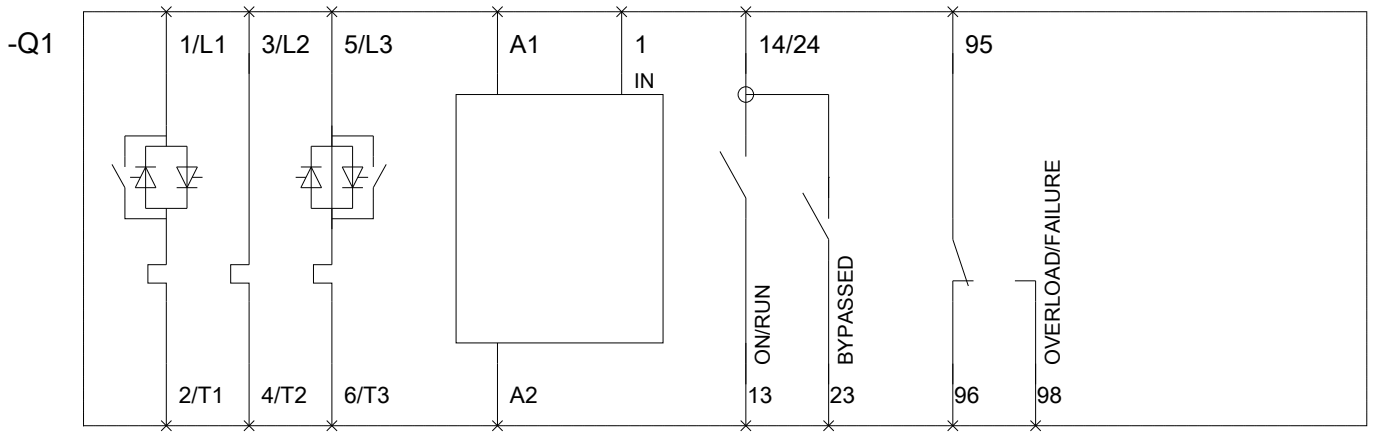
Service&Support (Manuals, Certificates, Characteristics, FAQs,...)

<https://support.industry.siemens.com/cs/ww/en/ps/3RW4024-1BB14>

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

http://www.automation.siemens.com/bilddb/cax_de.aspx?mlfb=3RW4024-1BB14&lang=en





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