

SIRIUS SOFT STARTER, S2, 45A, 22KW/400V, 40 DEGR., AC 200-480V, AC/DC 24V, 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 | 45 |
| • at 50 °C rated value | A | 42 |
| • at 60 °C rated value | A | 39 |
| Mechanical power output for three-phase motors | | |
| • at 230 V | | |
| — at standard circuit at 40 °C rated value | W | 11 000 |
| • at 400 V | | |
| — at standard circuit at 40 °C rated value | W | 22 000 |
| Yielded mechanical performance [hp] for three-phase AC motor at 200/208 V at standard circuit at 50 °C rated value | hp | 10 |
| 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 | 23 |
| Continuous operating current [% of I_e] at 40 °C | % | 115 |
| Power loss [W] at operating current at 40 °C during operation typical | W | 6 |

| | | |
|---|----|-------|
| 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 rated value | V | 24 |
| • at 60 Hz rated value | V | 24 |
| 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 | | S2 |
| Width | mm | 55 |
| Height | mm | 160 |
| Depth | mm | 170 |
| 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 | 30 |
| • 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 (1.5 ... 16 mm ²) |
| • finely stranded with core end processing | | 0.75 ... 25 mm ² |
| • stranded | | 0.75 ... 35 mm ² |
| Type of connectable conductor cross-sections for main contacts for box terminal using the back clamping point | | |
| • solid | | 2x (1.5 ... 16 mm ²) |
| • finely stranded with core end processing | | 1.5 ... 25 mm ² |
| • stranded | | 1.5 ... 35 mm ² |
| Type of connectable conductor cross-sections for main contacts for box terminal using both clamping points | | |

| | | |
|--|--|---|
| <ul style="list-style-type: none"> • solid • finely stranded with core end processing • stranded | | <p>2x (1.5 ... 16 mm²)</p> <p>2x (1.5 ... 16 mm²)</p> <p>2x (1.5 ... 25 mm²)</p> |
| Type of connectable conductor cross-sections at AWG conductors for main contacts for box terminal <ul style="list-style-type: none"> • using the back clamping point • using the front clamping point • using both clamping points | | <p>16 ... 2</p> <p>18 ... 2</p> <p>2x (16 ... 2)</p> |
| Type of connectable conductor cross-sections for auxiliary contacts <ul style="list-style-type: none"> • solid • finely stranded with core end processing | | <p>2x (0.5 ... 2.5 mm²)</p> <p>2x (0.5 ... 1.5 mm²)</p> |
| Type of connectable conductor cross-sections at AWG conductors <ul style="list-style-type: none"> • for auxiliary contacts • for auxiliary contacts finely stranded with core end processing | | <p>2x (20 ... 14)</p> <p>2x (20 ... 16)</p> |

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 • during storage acc. to IEC 60721 • during operation acc. to IEC 60721 | | <p>3K6 (no formation of ice, no condensation), 3C3 (no salt mist), 3S2 (sand must not get into the devices), 3M6</p> <p>3K6 (no formation of ice, no condensation), 3C3 (no salt mist), 3S2 (sand must not get into the devices), 3M6</p> <p>3K6 (no formation of ice, no condensation), 3C3 (no salt mist), 3S2 (sand must not get into the devices), 3M6</p> |
| Ambient temperature <ul style="list-style-type: none"> • during operation • during storage | <p>°C</p> <p>°C</p> | <p>-25 ... +60</p> <p>-40 ... +80</p> |
| Derating temperature | °C | 40 |
| Protection class IP | | IP00 |

Certificates/approvals

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



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



[Type Test Certificates/Test Report](#)

[Special Test Certificate](#)



| | |
|-------|---------|
| other | Railway |
|-------|---------|

[Environmental Confirmations](#)

[Confirmation](#)

[Vibration and Shock](#)

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 | hp | 15 |
| <ul style="list-style-type: none"> at 460/480 V <ul style="list-style-type: none"> at standard circuit at 50 °C rated value | hp | 30 |
| 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=3RW4036-1BB04>

Cax online generator

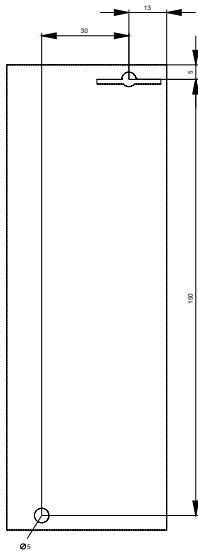
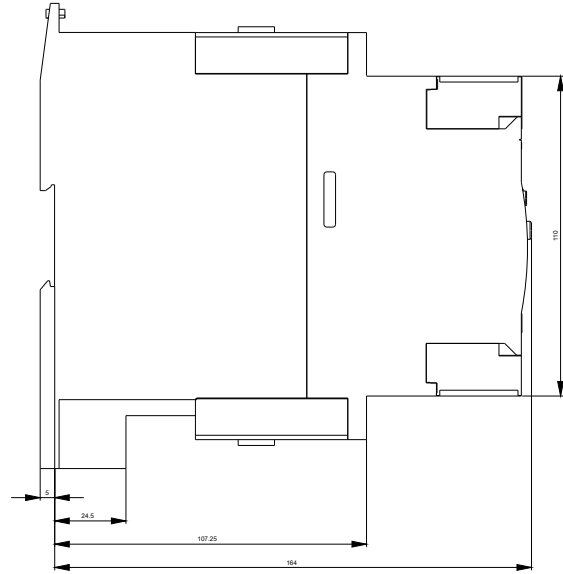
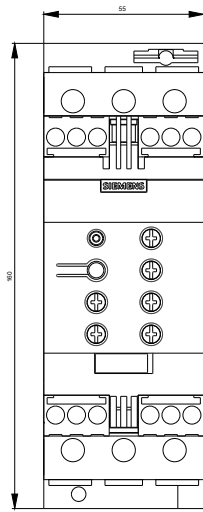
<http://support.automation.siemens.com/WW/CAXorder/default.aspx?lang=en&mlfb=3RW4036-1BB04>

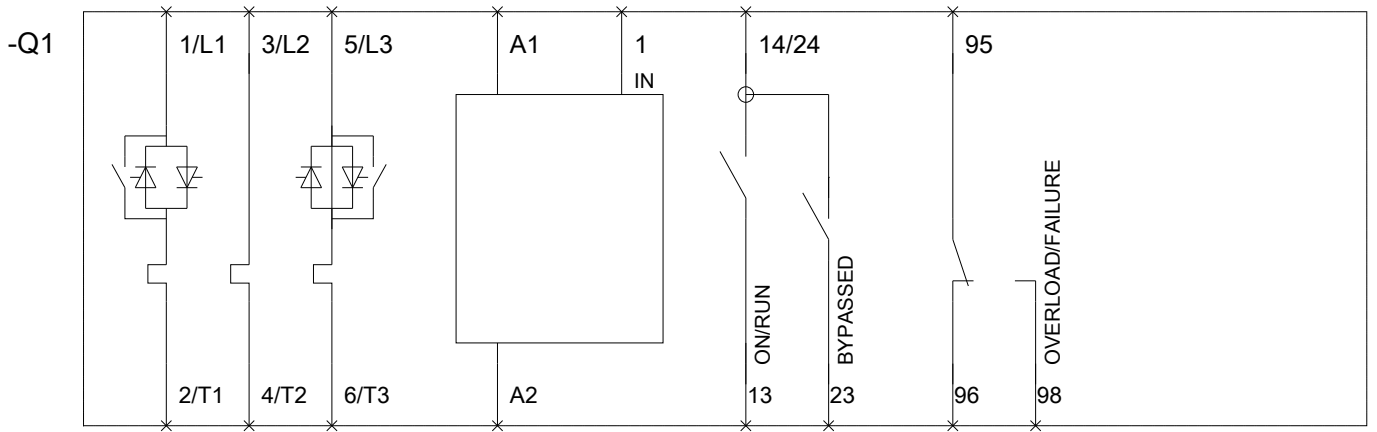
Service&Support (Manuals, Certificates, Characteristics, FAQs,...)

<https://support.industry.siemens.com/cs/ww/en/ps/3RW4036-1BB04>

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

http://www.automation.siemens.com/bilddb/cax_de.aspx?mlfb=3RW4036-1BB04&lang=en





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