

SIRIUS soft starter Values at 400 V, 40 °C Standard: 57 A, 30 kW Inside-delta: 99 A, 55 kW 200-460 V AC, 230 V AC spring-type terminals



General technical data

| | | |
|---|--|--------|
| Product brand name | | SIRIUS |
| Product feature | | |
| <ul style="list-style-type: none"> • integrated bypass contact system | | Yes |
| <ul style="list-style-type: none"> • 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 | | Yes |
| <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 | | Yes |
| Product component Motor brake output | | Yes |
| Reference identifier acc. to DIN EN 61346-2 | | Q |
| Reference identifier 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 | 57 |
| • at 50 °C rated value | A | 51 |
| • at 60 °C rated value | A | 45 |
| Operating current for three-phase motors at inside-delta circuit | | |
| • at 40 °C rated value | A | 99 |
| • at 50 °C rated value | A | 88 |
| • at 60 °C rated value | A | 78 |
| Mechanical power output for three-phase motors | | |
| • at 230 V | | |
| — at standard circuit at 40 °C rated value | W | 15 000 |
| — at inside-delta circuit at 40 °C rated value | W | 30 000 |
| • at 400 V | | |
| — at standard circuit at 40 °C rated value | W | 30 000 |
| — at inside-delta circuit at 40 °C rated value | W | 55 000 |
| Yielded mechanical performance [hp] for three-phase AC motor at 200/208 V at standard circuit at 50 °C rated value | hp | 15 |
| 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 ... 460 |
| Relative negative tolerance of the operating voltage at standard circuit | % | -15 |
| Relative positive tolerance of the operating voltage at standard circuit | % | 10 |
| Operating voltage at inside-delta circuit rated value | V | 200 ... 460 |
| Relative negative tolerance of the operating voltage at inside-delta circuit | % | -15 |
| Relative positive tolerance of the operating voltage at inside-delta circuit | % | 10 |
| Minimum load [%] | % | 8 |
| Adjustable motor current for motor overload protection minimum rated value | A | 11 |
| Continuous operating current [% of I_e] at 40 °C | % | 115 |
| Power loss [W] at operating current at 40 °C during operation typical | W | 36 |
| Control electronics | | |
| Type of voltage of the control supply voltage | | AC |
| 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 | 230 |
| • at 60 Hz rated value | V | 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 |
| Display version for fault signal | | Display |

| Mechanical data | | |
|--|----|--|
| Width | mm | 170 |
| Height | mm | 192 |
| Depth | mm | 270 |
| Mounting type | | screw fixing |
| Mounting position | | with vertical mounting surface +/-90° rotatable, with vertical mounting surface +/- 22.5° tiltable to the front and back |
| Required spacing with side-by-side mounting | | |
| • upwards | mm | 100 |
| • at the side | mm | 5 |
| • downwards | mm | 75 |
| Wire length maximum | m | 500 |
| Number of poles for main current circuit | | 3 |

| Connections/Terminals | | |
|---|--|----------------------------|
| Type of electrical connection | | |
| • for main current circuit | | box terminal |
| • for auxiliary and control current circuit | | spring-loaded terminals |
| Number of NC contacts for auxiliary contacts | | 0 |
| Number of NO contacts for auxiliary contacts | | 3 |
| 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 | | 2.5 ... 16 mm ² |
| • finely stranded with core end processing | | 2.5 ... 35 mm ² |
| • finely stranded without core end processing | | 4 ... 50 mm ² |
| • stranded | | 4 ... 70 mm ² |
| Type of connectable conductor cross-sections for main contacts for box terminal using the back clamping point | | |

| | | |
|--|--|---|
| <ul style="list-style-type: none"> • solid • finely stranded with core end processing • finely stranded without core end processing • stranded | | <p>2,5 ... 16 mm²</p> <p>2.5 ... 50 mm²</p> <p>10 ... 50 mm²</p> <p>10 ... 70 mm²</p> |
| 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 • finely stranded without core end processing • stranded | | <p>2x (2.5 ... 16 mm²)</p> <p>2x (2.5 ... 35 mm²)</p> <p>2x (4 ... 35 mm²)</p> <p>2x (4 ... 50 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>10 ... 2/0</p> <p>10 ... 2/0</p> <p>2x (10 ... 1/0)</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 (0.25 ... 1.5 mm²)</p> <p>2x (0.25 ... 1.5 mm²)</p> |
| Type of connectable conductor cross-sections at AWG conductors <ul style="list-style-type: none"> • for auxiliary contacts | | <p>2x (24 ... 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>60</p> <p>-25 ... +80</p> |
| Derating temperature | °C | 40 |
| Protection class IP | | IP00 |

Certificates/approvals

| | | |
|--------------------------|-----|---------------------------|
| General Product Approval | EMC | Declaration of Conformity |
|--------------------------|-----|---------------------------|



| | |
|-------------------|-------------------|
| Test Certificates | Shipping Approval |
|-------------------|-------------------|

[Type Test Certificates/Test Report](#)

[Special Test Certificate](#)



| |
|-------|
| other |
|-------|

[Confirmation](#)

UL/CSA ratings

| | | |
|--|----|-------------|
| Yielded mechanical performance [hp] for three-phase AC motor | | |
| <ul style="list-style-type: none"> • at 200/208 V <ul style="list-style-type: none"> — at inside-delta circuit at 50 °C rated value • at 220/230 V <ul style="list-style-type: none"> — at standard circuit at 50 °C rated value — at inside-delta circuit at 50 °C rated value • at 460/480 V <ul style="list-style-type: none"> — at standard circuit at 50 °C rated value — at inside-delta circuit at 50 °C rated value | hp | 25 |
| | hp | 15 |
| | hp | 30 |
| | hp | 30 |
| | hp | 60 |
| 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=3RW4425-3BC44>

Cax online generator

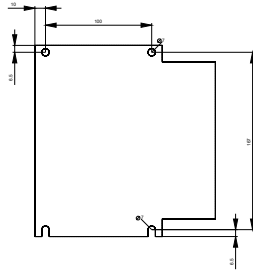
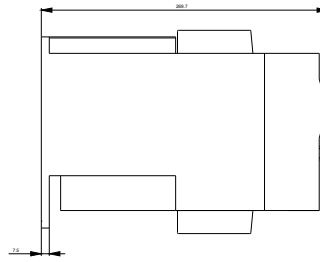
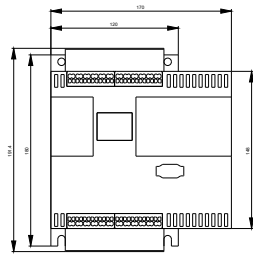
<http://support.automation.siemens.com/WW/CAXorder/default.aspx?lang=en&mlfb=3RW4425-3BC44>

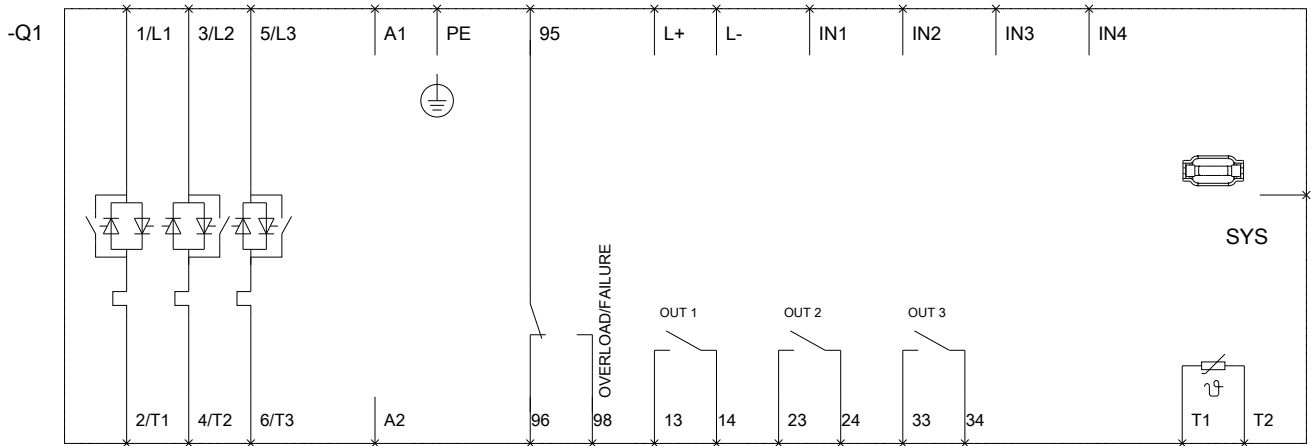
Service&Support (Manuals, Certificates, Characteristics, FAQs,...)

<https://support.industry.siemens.com/cs/ww/en/ps/3RW4425-3BC44>

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

http://www.automation.siemens.com/bilddb/cax_de.aspx?mlfb=3RW4425-3BC44&lang=en





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