



SIRIUS SOFT STARTER, S12, 248 A, 250 HP/575 V, 50 DEG., 400-600 V AC, 115 V AC, 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 |
| Operating current | | |
| • at 40 °C Rated value | A | 280 |
| • at 50 °C Rated value | A | 248 |
| • at 60 °C Rated value | A | 215 |
| Mechanical power output for three-phase motors | | |
| • at 400 V | | |

| | | |
|--|----|-------------|
| — at standard circuit at 40 °C Rated value | W | 160 000 |
| • at 500 V | | |
| — at standard circuit at 40 °C Rated value | W | 200 000 |
| 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 in % of I _M | % | 20 |
| Adjustable motor current for motor overload protection minimum rated value | A | 130 |
| Continuous operating current in % of I _e at 40 °C | % | 115 |
| Active power loss at operating current at 40 °C during operation typical | W | 90 |

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 with AC | | |
| • at 50 Hz Rated value | V | 115 |
| • at 60 Hz Rated value | V | 115 |
| Relative negative tolerance of the control supply voltage with AC at 60 Hz | % | -15 |
| Relative positive tolerance of the control supply voltage with AC at 60 Hz | % | 10 |
| Display version for fault signal | | red |

Mechanical data:

| | | |
|-------------------------------|----|--------------|
| Size of engine control device | | S12 |
| Width | mm | 160 |
| Height | mm | 230 |
| Depth | mm | 278 |
| Mounting type | | screw fixing |

| | | |
|--|----|--|
| 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 | 100 |
| • at the side | mm | 5 |
| • downwards | mm | 75 |
| 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 | | busbar connection screw-type terminals |
| • for main current circuit | | |
| • for auxiliary and control current circuit | | |
| 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 | | |
| • finely stranded with core end processing | | 70 ... 240 mm ² |
| • finely stranded without core end processing | | 70 ... 240 mm ² |
| • stranded | | 95 ... 300 mm ² |
| Type of connectable conductor cross-section for main contacts for box terminal using the back clamping point | | |
| • finely stranded with core end processing | | 120 ... 185 mm ² |
| • finely stranded without core end processing | | 120 ... 185 mm ² |
| • stranded | | 120 ... 240 mm ² |
| Type of connectable conductor cross-section for main contacts for box terminal using both clamping points | | |
| • finely stranded with core end processing | | min. 2x 50 mm ² , max. 2x 185 mm ² |
| • finely stranded without core end processing | | min. 2x 50 mm ² , max. 2x 185 mm ² |
| • stranded | | max. 2x 70 mm ² , max. 2x 240 mm ² |
| Type of connectable conductor cross-section for AWG conductors for main contacts for box terminal | | |
| • using the back clamping point | | 250 ... 500 kcmil |
| • using the front clamping point | | 3/0 ... 600 kcmil |
| • using both clamping points | | min. 2x 2/0, max. 2x 500 kcmil |
| Type of connectable conductor cross-section for DIN cable lug for main contacts | | |

| | |
|--|--|
| <ul style="list-style-type: none"> finely stranded stranded | 50 ... 240 mm ² 70 ... 240 mm ² |
| Type of connectable conductor cross-section for auxiliary contacts <ul style="list-style-type: none"> solid finely stranded with core end processing | 2x (0.5 ... 2.5 mm ²) 2x (0.5 ... 1.5 mm ²) |
| Type of connectable conductor cross-section for AWG conductors <ul style="list-style-type: none"> for main contacts for auxiliary contacts for auxiliary contacts finely stranded with core end processing | 2/0 ... 500 kcmil 2x (20 ... 14) 2x (20 ... 16) |

| | | |
|--|----|----------------------------|
| Ambient conditions: | | |
| Ambient temperature | | |
| <ul style="list-style-type: none"> during operation during storage | °C | -25 ... +60 -40 ... +80 |
| Derating temperature | °C | 40 |
| Protection class IP | | IP00 |

Certificates/ approvals:

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



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

[Special Test Certificate](#)



[Environmental Confirmations](#)

[Declaration of Conformity](#)

UL/CSA ratings:

| | | |
|--|--------------|-----|
| yielded mechanical performance [hp] for three-phase AC motor <ul style="list-style-type: none"> at 460/480 V <ul style="list-style-type: none"> — at standard circuit at 50 °C Rated value at 575/600 V | metric hp | 200 |
|--|--------------|-----|

— at standard circuit at 50 °C Rated value

| | |
|---|-------------|
| metric hp | 250 |
| Contact rating of the auxiliary contacts acc. to UL | B300 / R300 |

Further information

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

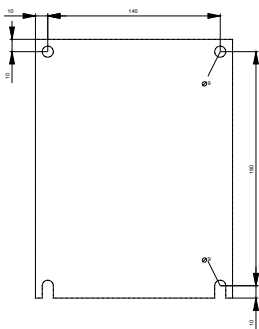
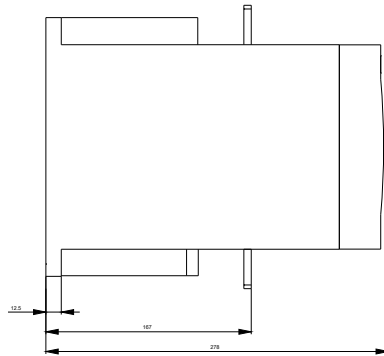
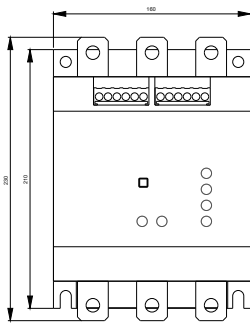
<http://support.automation.siemens.com/WW/CAXorder/default.aspx?lang=en&mlfb=3RW40746BB35>

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

<http://support.automation.siemens.com/WW/view/en/3RW40746BB35/all>

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

<http://www.automation.siemens.com/bilddb/index.aspx?attID9=3RW40746BB35&lang=en>





last modified:

15.01.2015