



SIRIUS SOFT STARTER, S3, 80A, 45KW/400V, 40 DEGR., AC 200-480V, AC/DC 24V, 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 | 80 |
| • at 50 °C Rated value | A | 73 |
| • at 60 °C Rated value | A | 66 |
| Mechanical power output for three-phase motors | | |
| • at 230 V | | |

| | | |
|---|--------------|-------------|
| — at standard circuit at 40 °C Rated value | W | 22 000 |
| • at 400 V | | |
| — at standard circuit at 40 °C Rated value | W | 45 000 |
| yielded mechanical performance [hp] for three-phase AC motor at 200/208 V at standard circuit at 50 °C Rated value | metric hp | 20 |
| 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 in % of I _M | % | 20 |
| Adjustable motor current for motor overload protection minimum rated value | A | 43 |
| Continuous operating current in % of I _e at 40 °C | % | 115 |
| Active power loss at operating current at 40 °C during operation typical | W | 12 |

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 with AC | | |
| • at 50 Hz Rated value | V | 24 |
| • at 60 Hz Rated value | V | 24 |
| Relative negative tolerance of the control supply voltage with AC at 60 Hz | % | -20 |
| Relative positive tolerance of the control supply voltage with AC at 60 Hz | % | 20 |
| Control supply voltage 1 for DC Rated value | V | 24 |
| Relative negative tolerance of the control supply voltage for DC | % | -20 |
| Relative positive tolerance of the control supply voltage for DC | % | 20 |
| Display version for fault signal | | red |

Mechanical data:

| | | |
|-------------------------------|--|----|
| Size of engine control device | | S3 |
|-------------------------------|--|----|

| | | |
|--|----|--|
| Width | mm | 70 |
| Height | mm | 170 |
| Depth | mm | 190 |
| 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 |
| 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 (2.5 ... 16 mm ²) |
| • finely stranded with core end processing | | 2.5 ... 35 mm ² |
| • stranded | | 4 ... 70 mm ² |
| Type of connectable conductor cross-section for main contacts for box terminal using the back clamping point | | |
| • solid | | 2x (2.5 ... 16 mm ²) |
| • finely stranded with core end processing | | 2.5 ... 50 mm ² |
| • stranded | | 10 ... 70 mm ² |
| Type of connectable conductor cross-section for main contacts for box terminal using both clamping points | | |
| • solid | | 2x (2.5 ... 16 mm ²) |
| • finely stranded with core end processing | | 2x (2.5 ... 35 mm ²) |
| • stranded | | 2x (10 ... 50 mm ²) |
| Type of connectable conductor cross-section for AWG conductors for main contacts for box terminal | | |
| • using the back clamping point | | 2x (10 ... 1/0) |

| | | |
|--|--|--|
| <ul style="list-style-type: none"> • using the front clamping point • using both clamping points | | 2x (10 ... 1/0) 10 ... 2/0 |
| Type of connectable conductor cross-section for DIN cable lug for main contacts <ul style="list-style-type: none"> • finely stranded • stranded | | 2 x (10 ... 50 mm ²) 2x (10 ... 70 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 | | 2x (7 ... 1/0) 2x (20 ... 14) 2x (20 ... 16) |

Ambient conditions:

| | | |
|---|----------|----------------------------|
| Ambient temperature <ul style="list-style-type: none"> • during operation • during storage | °C °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 |
|-------------------|-------------------|

[Special Test Certificate](#)

[Type Test Certificates/Test Report](#)



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

[Environmental Confirmations](#)

[Declaration of Conformity](#)

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 | metric hp | 25 |
| | metric hp | 50 |
| Contact rating of the auxiliary contacts acc. to UL | | B300 / R300 |

Further information

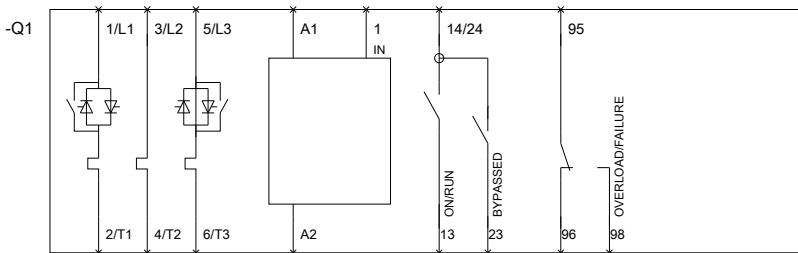
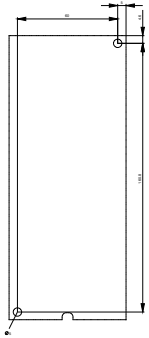
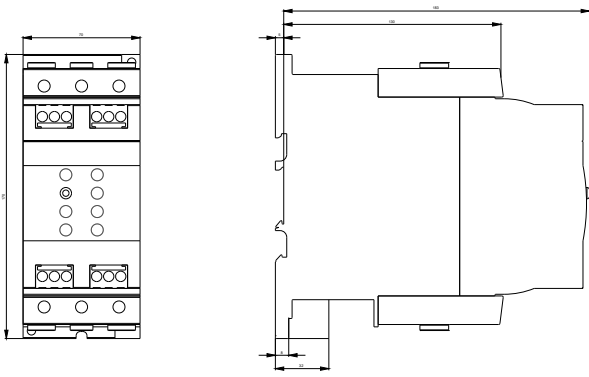
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Image database (product images, 2D dimension drawings, 3D models, device circuit diagrams, EPLAN macros, ...)
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last modified:

15.01.2015