## SIEMENS

Data sheet


SIRIUS soft starter S0 $32 \mathrm{~A}, 18.5 \mathrm{k} \mathrm{kW} / 500 \mathrm{~V}, 40{ }^{\circ} \mathrm{C} 400-600$ V AC, 24 V AC/DC spring-type terminals

| General technical data |  |  |
| :---: | :---: | :---: |
| product brand name |  | SIRIUS |
| product feature <br> - integrated bypass contact system <br> - thyristors |  | Yes <br> Yes |
| product function <br> - intrinsic device protection <br> - motor overload protection <br> - evaluation of thermistor motor protection <br> - external reset <br> - adjustable current limitation <br> - inside-delta circuit |  | Yes <br> Yes <br> No <br> Yes <br> Yes <br> No |
| product component motor brake output |  | No |
| insulation voltage rated value | V | 600 |
| degree of pollution |  | 3, acc. to IEC 60947-4-2 |
| reference code acc. to DIN EN 61346-2 |  | Q |
| reference code acc. to DIN 40719 extended according to IEC 204-2 acc. to IEC 750 |  | G |
| Power Electronics |  |  |
| product designation |  | Soft starter |
| operational current <br> - at $40^{\circ} \mathrm{C}$ rated value <br> - at $50^{\circ} \mathrm{C}$ rated value <br> - at $60^{\circ} \mathrm{C}$ rated value | $\begin{aligned} & \mathrm{A} \\ & \mathrm{~A} \\ & \mathrm{~A} \end{aligned}$ | $\begin{aligned} & 32 \\ & 29 \\ & 26 \end{aligned}$ |
| yielded mechanical performance for 3-phase motors <br> - at 400 V <br> - at standard circuit at $40^{\circ} \mathrm{C}$ rated value <br> - at 500 V <br> - at standard circuit at $40^{\circ} \mathrm{C}$ rated value | W W | $\begin{aligned} & 15000 \\ & 18500 \end{aligned}$ |
| operating frequency rated value | Hz | $50 \ldots 60$ |
| 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 [\%] | \% | 20 |


| adjustable motor current for motor overload protection minimum rated value | A | 17 |
| :---: | :---: | :---: |
| continuous operating current [\% of le] at $40{ }^{\circ} \mathrm{C}$ | \% | 115 |
| power loss [W] at operational current at $40^{\circ} \mathrm{C}$ during operation typical | W | 13 |
| Control circuit/ Control |  |  |
| 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 50 Hz | \% | -20 |
| relative positive tolerance of the control supply voltage at AC at 50 Hz | \% | 20 |
| 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 |  | S0 |
| width | mm | 45 |
| height | mm | 150 |
| depth | mm | 155 |
| fastening method |  | screw and snap-on mounting |
| mounting position |  | With additional fan: With vertical mounting surface $+/-90^{\circ}$ rotatable, with vertical mounting surface $+/-22.5^{\circ}$ tiltable to the front and back Without additional fan: With vertical mounting surface $+/-10^{\circ}$ rotatable, with vertical mounting surface $+/-10^{\circ} \mathrm{t}$ |
| required spacing with side-by-side mounting <br> - upwards <br> - at the side <br> - downwards | mm <br> mm <br> mm | $\begin{aligned} & 60 \\ & 15 \\ & 40 \end{aligned}$ |
| wire length maximum | m | 300 |
| number of poles for main current circuit |  | 3 |
| Connections/ Terminals |  |  |
| type of electrical connection <br> - for main current circuit <br> - for auxiliary and control circuit |  | spring-loaded terminals spring-loaded 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 <br> - solid <br> - finely stranded with core end processing |  | $\begin{aligned} & \text { 2x (1 } \left.\ldots 2.5 \mathrm{~mm}^{2}\right), 2 \times\left(2.5 \ldots 6 \mathrm{~mm}^{2}\right), \max .1 \mathrm{x} 10 \mathrm{~mm}^{2} \\ & 2 x\left(1 \ldots 2.5 \mathrm{~mm}^{2}\right), 2 x\left(2.5 \ldots 6 \mathrm{~mm}^{2}\right) \end{aligned}$ |
| type of connectable conductor cross-sections at AWG cables for main contacts for box terminal <br> - using the front clamping point |  | $1 \mathrm{x} 8,2 \mathrm{l}$ (16 ... 10) |


| type of connectable conductor cross-sections for main contacts |  |  |  |
| :---: | :---: | :---: | :---: |
| - solid |  | $1 . . .10 \mathrm{~mm}^{2}$ |  |
| - finely stranded with core end processing |  | $1 . .6 \mathrm{~mm}^{2}$ |  |
| type of connectable conductor cross-sections for auxiliary contacts |  |  |  |
| - solid |  | $2 \mathrm{x}\left(0.25 \ldots 2.5 \mathrm{~mm}^{2}\right)$ |  |
| - finely stranded with core end processing |  | $2 \mathrm{x}\left(0.25 \ldots 1.5 \mathrm{~mm}^{2}\right)$ |  |
| type of connectable conductor cross-sections at AWG cables |  |  |  |
| - for main contacts |  | $16 \ldots 10,1 \times 8$ |  |
| - for auxiliary contacts |  | $2 \mathrm{x}(24 \ldots 14)$ |  |
| Ambient conditions |  |  |  |
| installation altitude at height above sea level | m | 5000 |  |
| environmental category |  |  |  |
| - during transport acc. to IEC 60721 |  | 2K2, 2C1, 2S1, 2M2 (max. fall height 0.3 m ) |  |
| - during storage acc. to IEC 60721 |  | 1K6 (only occasional condensation), 1C2 (no salt mist), 1 S 2 (sand must not get inside the devices), 1M4 |  |
| - 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 |  |  |  |
| - during operation | ${ }^{\circ} \mathrm{C}$ | $-25 \ldots+60$ |  |
| - during storage | ${ }^{\circ} \mathrm{C}$ | $-40 \ldots+80$ |  |
| derating temperature | ${ }^{\circ} \mathrm{C}$ | 40 |  |
| protection class IP |  | IP20 |  |
| Certificates/ approvals |  |  |  |
| General Product Approval |  |  | EMC |


| For use in hazardous locations | Declaration of Conformity | Test Certificates |  | Marine / Shipping |
| :---: | :---: | :---: | :---: | :---: |
|  | Miscellaneous | $\frac{\text { Special Test }}{\text { Certificate }}$ | Type Test Certificates/Test Report | $\frac{\begin{array}{l} \text { Wloyd's } \\ \text { Register } \end{array}}{\text { urs }}$ |

Marine / Shipping other

UL/CSA ratings

| yielded mechanical performance [hp] for 3-phase AC <br> motor <br> $\bullet$ at $460 / 480 \mathrm{~V}$ <br> - at standard circuit at $50^{\circ} \mathrm{C}$ rated value <br> $\bullet$ at $575 / 600 \mathrm{~V}$ <br> - at standard circuit at $50^{\circ} \mathrm{C}$ rated value |
| :--- |
| hp |

## Further information

Simulation Tool for Soft Starters (STS)
https://support.industry.siemens.com/cs/ww/en/view/101494917
Information- and Downloadcenter (Catalogs, Brochures,...)
https://www.siemens.com/ic10
Industry Mall (Online ordering system)
https://mall.industry.siemens.com/mall/en/en/Catalog/product?mlfb=3RW4027-2BB05
Cax online generator
http://support.automation.siemens.com/WW/CAXorder/default.aspx?lang=en\&mlfb=3RW4027-2BB05
Service\&Support (Manuals, Certificates, Characteristics, FAQs,...)
https://support.industry.siemens.com/cs/ww/en/ps/3RW4027-2BB05
Image database (product images, 2D dimension drawings, 3D models, device circuit diagrams, EPLAN macros, ...)
http://www.automation.siemens.com/bilddb/cax_de.aspx?mlfb=3RW4027-2BB05\&lang=en



