SIEMENS

Data sheet

3RW4037-1TB05



SIRIUS soft starter S2 63 A, 37 kW/500 V, 40 °C 400-600 V AC, 24 V AC/DC Screw terminals Thermistor motor protection

Figure similar

| 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 | | Yes |
| external reset | | Yes |
| adjustable current limitation | | Yes |
| inside-delta circuit | | 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 | | |
| at 40 °C rated value | А | 63 |
| • at 50 °C rated value | А | 58 |
| • at 60 °C rated value | А | 53 |
| yielded mechanical performance for 3-phase motors | | |
| • at 400 V | | |
| — at standard circuit at 40 °C rated value | W | 30 000 |
| • at 500 V | | |
| — at standard circuit at 40 °C rated value | W | 37 000 |
| 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 | % | 10 |

| minimum load [%] | % | 20 |
|--|----------------------|--|
| minimum load [%] adjustable motor current for motor overload | - ⁷⁰ A | 26 |
| protection minimum rated value | A | 20 |
| continuous operating current [% of le] at 40 °C | % | 115 |
| power loss [W] at operational current at 40 °C during operation typical | W | 12 |
| Control circuit/ Control | _ | |
| | _ | AC/DC |
| type of voltage of the control supply voltage | | |
| control supply voltage frequency 1 rated value | - Hz Hz | 50 60 |
| control supply voltage frequency 2 rated value relative negative tolerance of the control supply | - HZ % | -10 |
| voltage frequency | _ | |
| 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 | | |
| Mechanical data size of engine control device | | S2 |
| size of engine control device | mm | S2 55 |
| | mm | S2 55 160 |
| size of engine control device width height | - | 55 |
| size of engine control device width | mm | 55 160 |
| size of engine control device width height depth | mm | 55 160 170 |
| size of engine control device width height depth fastening method | mm | 55 160 170 screw and snap-on mounting 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 |
| size of engine control device width height depth fastening method mounting position | mm | 55 160 170 screw and snap-on mounting 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 |
| size of engine control device width height depth fastening method mounting position | mm | 55 160 170 screw and snap-on mounting 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 |
| size of engine control device width height depth fastening method mounting position required spacing with side-by-side mounting • upwards | mm mm | 55 160 170 screw and snap-on mounting 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 60 |
| size of engine control device width height depth fastening method mounting position required spacing with side-by-side mounting • upwards • at the side | mm mm mm mm | 55 160 170 screw and snap-on mounting 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 60 30 |
| size of engine control device width height depth fastening method mounting position required spacing with side-by-side mounting • upwards • at the side • downwards | mm mm mm mm | 55 160 170 screw and snap-on mounting 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 60 30 40 |
| size of engine control device width height depth fastening method mounting position required spacing with side-by-side mounting • upwards • at the side • downwards wire length maximum | mm mm mm mm | 55 160 170 screw and snap-on mounting 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 60 30 40 300 |
| size of engine control device width height depth fastening method mounting position required spacing with side-by-side mounting • upwards • at the side • downwards wire length maximum number of poles for main current circuit | mm mm mm mm | 55 160 170 screw and snap-on mounting 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 60 30 40 300 |
| size of engine control device width height depth fastening method mounting position required spacing with side-by-side mounting • upwards • at the side • downwards wire length maximum number of poles for main current circuit Connections/ Terminals | mm mm mm mm | 55 160 170 screw and snap-on mounting 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 60 30 40 300 |
| size of engine control device width height depth fastening method mounting position required spacing with side-by-side mounting • upwards • at the side • downwards wire length maximum number of poles for main current circuit Connections/ Terminals type of electrical connection | mm mm mm mm | 55 160 170 screw and snap-on mounting 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 60 30 40 300 3 |
| size of engine control device width height depth fastening method mounting position required spacing with side-by-side mounting • upwards • at the side • downwards wire length maximum number of poles for main current circuit Connections/ Terminals type of electrical connection • for main current circuit | mm mm mm mm | 55 160 170 screw and snap-on mounting 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 60 30 40 300 3 screw-type terminals |
| size of engine control device width height depth fastening method mounting position required spacing with side-by-side mounting • upwards • at the side • downwards wire length maximum number of poles for main current circuit Connections/ Terminals type of electrical connection • for main current circuit • for auxiliary and control circuit | mm mm mm mm | 55 160 170 screw and snap-on mounting 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 60 30 40 300 3 screw-type terminals screw-type terminals |
| size of engine control device width height depth fastening method mounting position required spacing with side-by-side mounting • upwards • at the side • downwards wire length maximum number of poles for main current circuit Connections/ Terminals type of electrical connection • for main current circuit • for auxiliary and control circuit number of NC contacts for auxiliary contacts | mm mm mm mm | 55 160 170 screw and snap-on mounting 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 60 30 40 300 3 screw-type terminals screw-type terminals 0 |
| size of engine control device width height depth fastening method mounting position required spacing with side-by-side mounting • upwards • at the side • downwards wire length maximum number of poles for main current circuit Connections/ Terminals type of electrical connection • for main current circuit • for auxiliary and control circuit number of NC contacts for auxiliary contacts number of CO contacts for auxiliary contacts number of CO contacts for auxiliary contacts type of connectable conductor cross-sections for main contacts for box terminal using the front clamping point | mm mm mm mm | 55 160 170 screw and snap-on mounting 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 60 30 40 300 3 screw-type terminals screw-type terminals 0 2 1 |
| size of engine control device width height depth fastening method mounting position required spacing with side-by-side mounting • upwards • at the side • downwards wire length maximum number of poles for main current circuit Connections/ Terminals type of electrical connection • for main current circuit • for auxiliary and control circuit number of NC contacts for auxiliary contacts number of CO contacts for auxiliary contacts number of CO contacts for auxiliary contacts type of connectable conductor cross-sections for main contacts for box terminal using the front clamping point • solid | mm mm mm mm | 55 160 170 screw and snap-on mounting 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 60 30 40 300 3 screw-type terminals screw-type terminals 0 2 1 2x (1.5 16 mm²) |
| size of engine control device width height depth fastening method mounting position required spacing with side-by-side mounting • upwards • at the side • downwards wire length maximum number of poles for main current circuit Connections/ Terminals type of electrical connection • for main current circuit • for auxiliary and control circuit number of NC contacts for auxiliary contacts number of CO contacts for auxiliary contacts number of CO contacts for auxiliary contacts type of connectable conductor cross-sections for main contacts for box terminal using the front clamping point | mm mm mm mm | 55 160 170 screw and snap-on mounting 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 60 30 40 300 3 screw-type terminals screw-type terminals 0 2 1 |

| main contacts for box clamping point | | | | | | |
|--|-------------------------------|---|------------|---|----------------------------|--|
| | cterminal using the | back | | | | |
| solid | | | | 2x (1 5 16 | mm ²) | |
| | ith core and processi | 20 | | 2x (1.5 16 1.5 25 mm | · | |
| - | vith core end processi | ng | | 1.5 25 mm | | |
| stranded | | tions for | | 1.5 35 mm | - | |
| type of connectable c main contacts for box points | | | | | | |
| • solid | | | | 2x (1.5 16 | mm²) | |
| finely stranded w | ith core end processi | ng | | 2x (1.5 16 | | |
| stranded | | 5 | | 2x (1.5 25 | | |
| type of connectable c cables for main conta | | | | , , , , , , , , , , , , , , , , , , , | , | |
| using the back clip | using the back clamping point | | | 16 2 | | |
| using the front cla | amping point | | | 18 2 | | |
| using both clamp | | | | 2x (16 2) | | |
| type of connectable c | | tions for | | | | |
| auxiliary contacts | | | | | | |
| solid | | | | 2x (0.5 2.5 | mm²) | |
| finely stranded w | ith core end processi | ng | | 2x (0.5 1.5 | mm²) | |
| type of connectable c cables | onductor cross-sec | tions at AWG | | | | |
| for auxiliary containing | acts | | | 2x (20 14) | | |
| • | acts finely stranded w | rith core end | | 2x (20 16) | | |
| processing | | | | | | |
| Ambient conditions | | | | | | |
| installation altitude at | height above sea le | evel | m | 5 000 | | |
| environmental catego | ory | | | | | |
| during transport a | acc. to IEC 60721 | | | 2K2, 2C1, 2S | 1, 2M2 (max. fall height | 0.3 m) |
| • during storage acc. to IEC 60721 | | | | | asional condensation), | |
| | | | | 1S2 (sand mu | ust not get inside the de | vices), 1M4 |
| during operation acc. to IEC 60721 | | | | ation of ice, no condens and must not get into the | | |
| ambient temperature | | | | | ind moether get me th | , |
| during operation | | | °C | -25 +60 | | |
| during storage | | | °C | -40 +80 | | |
| derating temperature | | | °C | 40 | | |
| protection class IP | | | | IP00 | | |
| Certificates/ approvals | | | | | | |
| General Product App | oroval | | | | | EMC |
| | | | | | | |
| | (m) | ŝ | | гпг | rnr | A |
| Q12 | (m) | (P) | | EAC | FAL | <u>(</u>) |
| CSA | CCC | UL | | LIIL | LIIL | RCM |
| | | | | | | |
| | | | | | | |
| For use in | | | | | | |
| | Declaration of | Test Certificat | es | | Marine / Shipping | |
| hazardous | Conformity | | | | | |
| | | | | | | |
| hazardous | | | | | | |
| hazardous | <u>Miscellaneous</u> | <u>Type Test</u> | | Special Test | Lloude | (And and and and and and and and and and a |
| hazardous | <u>Miscellaneous</u> | Certificates/Te | <u>est</u> | Special Test Certificate | Lloyd's Register | |
| hazardous | Miscellaneous | | <u>əst</u> | | Hoyd's Register | PRS |
| hazardous | Miscellaneous | Certificates/Te | <u>est</u> | | Lloyds Register us | PRS |
| hazardous | <u>Miscellaneous</u> | Certificates/Te | <u>est</u> | | Lloyd's Register urs | PRS |
| hazardous locations | | <u>Certificates/Te</u> <u>Report</u> | <u>est</u> | | Hoyds Register us | PRS |
| hazardous | Miscellaneous | Certificates/Te | <u>est</u> | | Hoyds Register us | PRS |



| UL/CSA ratings | | |
|--|----|-------------|
| yielded mechanical performance [hp] for 3-phase AC motor | | |
| • at 460/480 V | | |
| — at standard circuit at 50 °C rated value | hp | 40 |
| ● at 575/600 V | | |
| — at standard circuit at 50 °C rated value | hp | 50 |
| 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,...)

https://www.siemens.com/ic10

Industry Mall (Online ordering system)

https://mall.industry.siemens.com/mall/en/en/Catalog/product?mlfb=3RW4037-1TB05

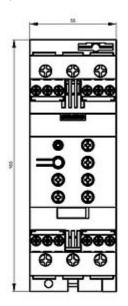
Cax online generator

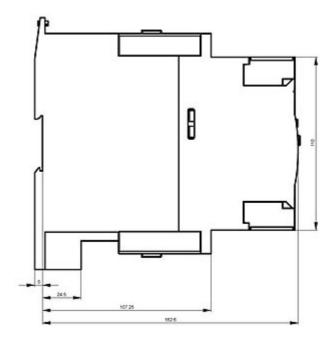
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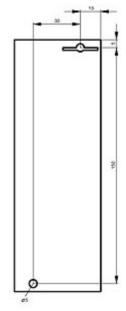
Service&Support (Manuals, Certificates, Characteristics, FAQs,...)

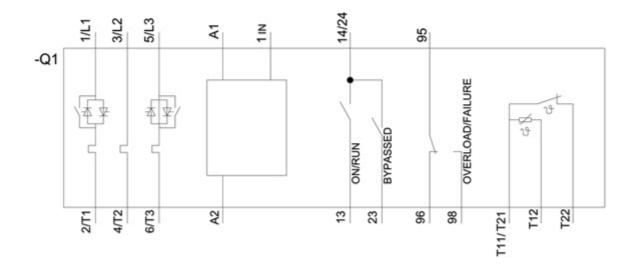
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Image database (product images, 2D dimension drawings, 3D models, device circuit diagrams, EPLAN macros, ...) http://www.automation.siemens.com/bilddb/cax_de.aspx?mlfb=3RW4037-1TB05&lang=en









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