

SIRIUS, COMPACT STARTER, REVERSING STARTER . 690 V, 24 V DC, 0.32 ... 1.25 A, IP20, CONN. MAIN CIRCUIT: PLUG-IN, W/O TERMINALS, CONN. CONTROL CIRCUIT: SCREW TERMINAL



|                       |                  |
|-----------------------|------------------|
| product brandname     | SIRIUS           |
| Product designation   | compact starter  |
| Design of the product | reversing feeder |

| General technical data                         |                                                                                  |
|------------------------------------------------|----------------------------------------------------------------------------------|
| Product function                               |                                                                                  |
| • Control circuit interface to parallel wiring | No                                                                               |
| Product extension                              |                                                                                  |
| • Auxiliary switch                             | Yes                                                                              |
| Insulation voltage                             |                                                                                  |
| • rated value                                  | 690 V                                                                            |
| Degree of pollution                            | 3                                                                                |
| Surge voltage resistance rated value           | 6 000 V                                                                          |
| Protection class IP                            | IP20                                                                             |
| Shock resistance                               | a=60 m/s <sup>2</sup> (6g) with 10 ms per 3 shocks in all axes                   |
| Vibration resistance                           | f= 4 ... 5.8 Hz, d= 15 mm; f= 5.8 ... 500 Hz, a= 20 m/s <sup>2</sup> ; 10 cycles |
| Mechanical service life (switching cycles)     |                                                                                  |
| • of the main contacts typical                 | 10 000 000                                                                       |
| • of auxiliary contacts typical                | 10 000 000                                                                       |
| • of the signaling contacts typical            | 10 000 000                                                                       |

|                                                                                   |                                                 |
|-----------------------------------------------------------------------------------|-------------------------------------------------|
| <b>Electrical endurance (switching cycles) of auxiliary contacts</b>              |                                                 |
| • at DC-13 at 6 A at 24 V typical                                                 | 100 000                                         |
| • at AC-15 at 6 A at 230 V typical                                                | 500 000                                         |
| <b>Type of assignment</b>                                                         | continuous operation according to IEC 60947-6-2 |
| <b>Equipment marking</b>                                                          |                                                 |
| • acc. to DIN EN 61346-2                                                          | Q                                               |
| • acc. to DIN EN 81346-2                                                          | Q                                               |
| <b>Ambient conditions</b>                                                         |                                                 |
| <b>Installation altitude at height above sea level maximum</b>                    | 2 000 m                                         |
| <b>Ambient temperature</b>                                                        |                                                 |
| • during operation                                                                | -20 ... +60 °C                                  |
| • during storage                                                                  | -55 ... +80 °C                                  |
| • during transport                                                                | -55 ... +80 °C                                  |
| <b>Relative humidity during operation</b>                                         | 10 ... 90 %                                     |
| <b>Main circuit</b>                                                               |                                                 |
| <b>Number of poles for main current circuit</b>                                   | 3                                               |
| <b>Adjustable pick-up value current of the current-dependent overload release</b> | 0.32 ... 1.25 A                                 |
| <b>Formula for making capacity limit current</b>                                  | $38.4 \times I_e$                               |
| <b>Formula for interruption capacity limit current</b>                            | $32 \times I_e$                                 |
| <b>Mechanical power output for 4-pole AC motor</b>                                |                                                 |
| • at 400 V rated value                                                            | 0.37 kW                                         |
| • at 500 V rated value                                                            | 0.55 kW                                         |
| • at 690 V rated value                                                            | 0.75 kW                                         |
| <b>Operating voltage</b>                                                          |                                                 |
| • at AC-3 rated value maximum                                                     | 690 V                                           |
| <b>Operating current</b>                                                          |                                                 |
| • at AC at 400 V rated value                                                      | 1.25 A                                          |
| • at AC-43                                                                        |                                                 |
| — at 400 V rated value                                                            | 1.1 A                                           |
| — at 500 V rated value                                                            | 1.2 A                                           |
| — at 690 V rated value                                                            | 1.1 A                                           |
| <b>No-load switching frequency</b>                                                | 3 600 1/h                                       |
| <b>Operating frequency</b>                                                        |                                                 |
| • at AC-41 acc. to IEC 60947-6-2 maximum                                          | 750 1/h                                         |
| • at AC-43 acc. to IEC 60947-6-2 maximum                                          | 250 1/h                                         |
| <b>Control circuit/ Control</b>                                                   |                                                 |
| <b>Type of voltage</b>                                                            | AC                                              |
| <b>Holding power</b>                                                              |                                                 |

- at DC maximum

2.9 W

## Auxiliary circuit

|                                                                                                                     |        |
|---------------------------------------------------------------------------------------------------------------------|--------|
| <b>Number of NC contacts</b>                                                                                        |        |
| <ul style="list-style-type: none"> <li>• for auxiliary contacts</li> </ul>                                          | 0      |
| <b>Number of NO contacts</b>                                                                                        |        |
| <ul style="list-style-type: none"> <li>• for auxiliary contacts</li> </ul>                                          | 0      |
| <ul style="list-style-type: none"> <li>• of instantaneous short-circuit trip unit for signaling contact</li> </ul>  | 0      |
| <b>Number of CO contacts</b>                                                                                        |        |
| <ul style="list-style-type: none"> <li>• of the current-dependent overload release for signaling contact</li> </ul> | 0      |
| <b>Operating current of auxiliary contacts at AC-12 maximum</b>                                                     | 10 A   |
| <b>Operating current of auxiliary contacts at DC-13</b>                                                             |        |
| <ul style="list-style-type: none"> <li>• at 250 V</li> </ul>                                                        | 0.27 A |

## Protective and monitoring functions

|                                                                          |                            |
|--------------------------------------------------------------------------|----------------------------|
| <b>Trip class</b>                                                        | CLASS 10 and 20 adjustable |
| <b>Off-delay time</b>                                                    | 50 ms                      |
| <b>Operational short-circuit current breaking capacity (Ics)</b>         |                            |
| <ul style="list-style-type: none"> <li>• at 400 V</li> </ul>             | 53 kA                      |
| <ul style="list-style-type: none"> <li>• at 500 V rated value</li> </ul> | 3 kA                       |
| <ul style="list-style-type: none"> <li>• at 690 V rated value</li> </ul> | 3 kA                       |

## UL/CSA ratings

|                                                                                                                                                                                                |                  |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------|
| <b>Full-load current (FLA) for three-phase AC motor</b>                                                                                                                                        |                  |
| <ul style="list-style-type: none"> <li>• at 480 V rated value</li> </ul>                                                                                                                       | 1.25 A           |
| <ul style="list-style-type: none"> <li>• at 600 V rated value</li> </ul>                                                                                                                       | 1.25 A           |
| <b>Yielded mechanical performance [hp]</b>                                                                                                                                                     |                  |
| <ul style="list-style-type: none"> <li>• for three-phase AC motor <ul style="list-style-type: none"> <li>— at 460/480 V rated value</li> <li>— at 575/600 V rated value</li> </ul> </li> </ul> | 0.5 hp<br>0.5 hp |

## Short-circuit protection

|                                                                                                                   |                  |
|-------------------------------------------------------------------------------------------------------------------|------------------|
| <b>Product function Short circuit protection</b>                                                                  | Yes              |
| <b>Design of the fuse link</b>                                                                                    |                  |
| <ul style="list-style-type: none"> <li>• for short-circuit protection of the auxiliary switch required</li> </ul> | fuse gL/gG: 10 A |

## Installation/ mounting/ dimensions

|                                                                 |                                                |
|-----------------------------------------------------------------|------------------------------------------------|
| <b>Mounting position</b>                                        | any                                            |
| <ul style="list-style-type: none"> <li>• recommended</li> </ul> | vertical, on horizontal standard mounting rail |
| <b>Mounting type</b>                                            | screw and snap-on mounting                     |
| <b>Height</b>                                                   | 170 mm                                         |

|                                                                            |                                                                 |
|----------------------------------------------------------------------------|-----------------------------------------------------------------|
| <b>Width</b>                                                               | 90 mm                                                           |
| <b>Depth</b>                                                               | 165 mm                                                          |
| <b>Connections/Terminals</b>                                               |                                                                 |
| <b>Product function</b>                                                    |                                                                 |
| • removable terminal for main circuit                                      | Yes                                                             |
| • removable terminal for auxiliary and control circuit                     | Yes                                                             |
| <b>Type of electrical connection</b>                                       |                                                                 |
| • for main current circuit                                                 | plug-in without terminals                                       |
| • for auxiliary and control current circuit                                | screw-type terminals                                            |
| <b>Type of connectable conductor cross-sections</b>                        |                                                                 |
| • for main contacts                                                        |                                                                 |
| — solid                                                                    | 2x (1.5 ... 6 mm <sup>2</sup> ), 1x 10 mm <sup>2</sup>          |
| — finely stranded with core end processing                                 | 2x (1.5 ... 6 mm <sup>2</sup> )                                 |
| • at AWG conductors for main contacts                                      | 2x (16 ... 10), 1x 8                                            |
| <b>Type of connectable conductor cross-sections</b>                        |                                                                 |
| • for auxiliary contacts                                                   |                                                                 |
| — solid                                                                    | 0.5 ... 4 mm <sup>2</sup> , 2x (0.5 ... 2.5 mm <sup>2</sup> )   |
| — finely stranded with core end processing                                 | 0.5 ... 2.5 mm <sup>2</sup> , 2x (0.5 ... 1.5 mm <sup>2</sup> ) |
| • at AWG conductors for auxiliary contacts                                 | 2x (20 ... 14)                                                  |
| <b>Safety related data</b>                                                 |                                                                 |
| <b>B10 value</b>                                                           |                                                                 |
| • with high demand rate acc. to SN 31920                                   | 1 500 000                                                       |
| <b>Proportion of dangerous failures</b>                                    |                                                                 |
| • with high demand rate acc. to SN 31920                                   | 50 %                                                            |
| <b>Communication/ Protocol</b>                                             |                                                                 |
| <b>Product function Bus communication</b>                                  | Yes                                                             |
| <b>Protocol is supported</b>                                               |                                                                 |
| • IO-Link protocol                                                         | Yes                                                             |
| <b>IO-Link transfer rate</b>                                               | COM2 (38,4 kBaud)                                               |
| <b>Point-to-point cycle time between master and IO-Link device minimum</b> | 2.5 ms                                                          |
| <b>Type of voltage supply via input/output link master</b>                 | No                                                              |
| <b>Amount of data</b>                                                      |                                                                 |
| • of the address area of the inputs with cyclical transfer total           | 2 byte                                                          |
| • of the address area of the outputs with cyclical transfer total          | 2 byte                                                          |
| <b>Electromagnetic compatibility</b>                                       |                                                                 |
| <b>Field-bound parasitic coupling acc. to IEC 61000-4-3</b>                | 80 ... 3000 MHz at 10V/m                                        |
| <b>Electrostatic discharge acc. to IEC 61000-4-2</b>                       | 8 kV                                                            |

|                                                      |                            |
|------------------------------------------------------|----------------------------|
| Conducted HF-interference emissions acc. to CISPR11  | 150 kHz ... 30 MHz Class A |
| Field-bound HF-interference emission acc. to CISPR11 | 30 ... 1000 MHz Class A    |

|                                           |     |
|-------------------------------------------|-----|
| Supply voltage                            |     |
| Supply voltage required Auxiliary voltage | Yes |

|                                                     |                    |
|-----------------------------------------------------|--------------------|
| Display                                             |                    |
| Display version                                     | green/red dual LED |
| • as status display of the input/output link device |                    |

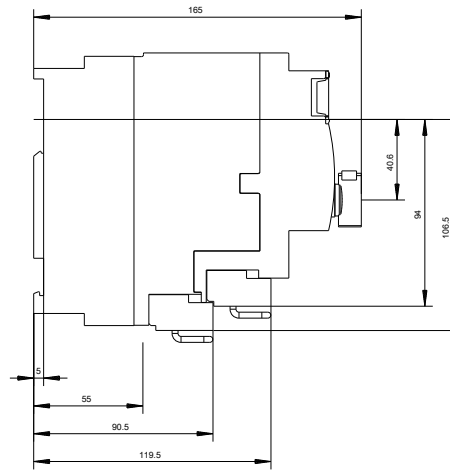
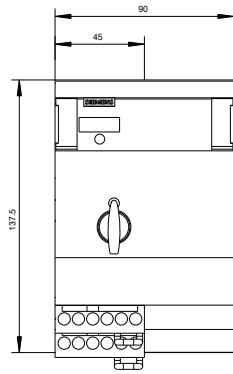
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|--------------------------|-----|---------------------------------------|
| Certificates/approvals   |     |                                       |
| General Product Approval | EMC | Functional Safety/Safety of Machinery |

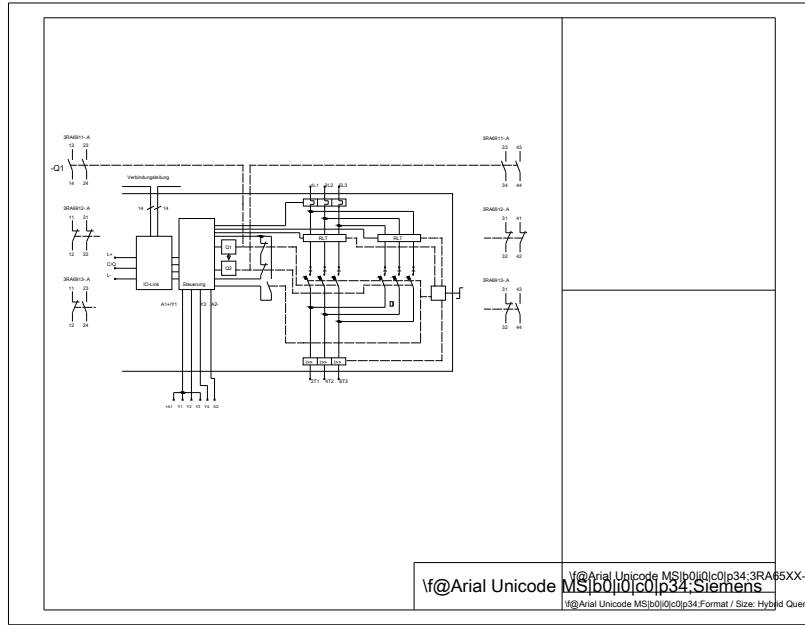


|                           |                                                                                               |                   |     |  |  |
|---------------------------|-----------------------------------------------------------------------------------------------|-------------------|-----|--|--|
| Declaration of Conformity | Test Certificates                                                                             | Shipping Approval |     |  |  |
| EG-Konf.                  | <a href="http://www.siemens.com/pressroom/Werkszeugnis">Typprüfbescheinigung/Werkszeugnis</a> |                   | LRS |  |  |

|                   |                                   |                               |  |  |  |
|-------------------|-----------------------------------|-------------------------------|--|--|--|
| Shipping Approval | other                             |                               |  |  |  |
|                   | <a href="#">Umweltbestätigung</a> | <a href="#">Bestätigungen</a> |  |  |  |

|                                                                                                                                                                                                                                                                                                        |  |
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| Further information                                                                                                                                                                                                                                                                                    |  |
| Information- and Downloadcenter (Catalogs, Brochures,...)<br><a href="http://www.siemens.com/industrial-controls/catalogs">http://www.siemens.com/industrial-controls/catalogs</a>                                                                                                                     |  |
| Industry Mall (Online ordering system)<br><a href="https://mall.industry.siemens.com/mall/en/en/Catalog/product?mlfb=3RA6500-1BB43">https://mall.industry.siemens.com/mall/en/en/Catalog/product?mlfb=3RA6500-1BB43</a>                                                                                |  |
| Cax online generator<br><a href="http://support.automation.siemens.com/WW/CAXorder/default.aspx?lang=en&amp;mlfb=3RA6500-1BB43">http://support.automation.siemens.com/WW/CAXorder/default.aspx?lang=en&amp;mlfb=3RA6500-1BB43</a>                                                                      |  |
| Service&Support (Manuals, Certificates, Characteristics, FAQs,...)<br><a href="https://support.industry.siemens.com/cs/ww/en/ps/3RA6500-1BB43">https://support.industry.siemens.com/cs/ww/en/ps/3RA6500-1BB43</a>                                                                                      |  |
| Image database (product images, 2D dimension drawings, 3D models, device circuit diagrams, EPLAN macros, ...)<br><a href="http://www.automation.siemens.com/bilddb/cax_de.aspx?mlfb=3RA6500-1BB43&amp;lang=en">http://www.automation.siemens.com/bilddb/cax_de.aspx?mlfb=3RA6500-1BB43&amp;lang=en</a> |  |





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