



SIRIUS, COMPACT STARTER,  
REVERSING STARTER 400 V, 24 V AC/DC,  
50 ... 60 HZ, 8 ... 32 A, IP20,  
MAIN CIRCUIT CONNECTION: SCREW TERMINAL,  
AUXILIARY CIRCUIT CONNECTION: PLUG-IN,  
W/O TERMINALS

| General technical data:                            |    |                                                |
|----------------------------------------------------|----|------------------------------------------------|
| product brand name                                 |    | SIRIUS                                         |
| Product designation                                |    | compact starter                                |
| Design of the product                              |    | reversing feeder                               |
| Trip class                                         |    | CLASS 10 and 20 adjustable                     |
| Product function                                   |    |                                                |
| • control circuit interface to parallel wiring     |    | Yes                                            |
| • bus-communication                                |    | No                                             |
| • short circuit protection                         |    | Yes                                            |
| • control circuit interface with IO link           |    | No                                             |
| Type of assignment                                 |    | continous operation according to IEC 60947-6-2 |
| Protection class IP                                |    | IP20                                           |
| Degree of pollution                                |    | 3                                              |
| mounting position / recommended                    |    | vertical, on horizontal standard mounting rail |
| Installation altitude / at a height over sea level |    |                                                |
| • maximum                                          | m  | 2,000                                          |
| Ambient temperature                                |    |                                                |
| • during storage                                   | °C | -55 ... +80                                    |
| • during operating                                 | °C | -20 ... +60                                    |
| • during transport                                 | °C | -55 ... +80                                    |

|                                                                                                                                                                                                           |             |                                                                                  |
|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------|----------------------------------------------------------------------------------|
| <b>Relative humidity</b><br>• during operating phase                                                                                                                                                      | %           | 10 ... 90                                                                        |
| <b>Resistance against shock</b>                                                                                                                                                                           |             | a=60 m/s <sup>2</sup> (6g) with 10 ms per 3 shocks in all axes                   |
| <b>Resistance against vibration</b>                                                                                                                                                                       |             | f= 4 ... 5.8 Hz, d= 15 mm; f= 5.8 ... 500 Hz, a= 20 m/s <sup>2</sup> ; 10 cycles |
| <b>Impulse voltage resistance / rated value</b>                                                                                                                                                           | V           | 6,000                                                                            |
| <b>Field-bound parasitic coupling</b><br>• according to IEC 61000-4-3                                                                                                                                     |             | 10 V/m                                                                           |
| <b>Insulation voltage / rated value</b>                                                                                                                                                                   | V           | 690                                                                              |
| <b>Conductor-bound parasitic coupling conductor-earth SURGE</b><br>• according to IEC 61000-4-5                                                                                                           |             | 4 kV main contacts, 2 kV auxiliary contacts                                      |
| <b>Conductor-bound parasitic coupling conductor-conductor SURGE</b><br>• according to IEC 61000-4-5                                                                                                       |             | 2 kV main contacts, 1 kV auxiliary contacts                                      |
| <b>Conductor-bound parasitic coupling BURST</b><br>• according to IEC 61000-4-4                                                                                                                           |             | 4 kV main contacts, 2 kV auxiliary contacts                                      |
| <b>Maximum permissible voltage for safe disconnection</b><br>• between main circuit and auxiliary circuit<br>• between control and auxiliary circuit<br>• between auxiliary circuit and auxiliary circuit | V<br>V<br>V | 400<br>300<br>250                                                                |
| <b>Reference code</b><br>• according to DIN 40719 extended according to IEC 204-2 / according to IEC 750<br>• according to DIN EN 61346-2                                                                 |             | Q<br>Q                                                                           |

#### Main circuit:

|                                                                                            |     |                     |
|--------------------------------------------------------------------------------------------|-----|---------------------|
| <b>Operating voltage / at AC-3 / rated value</b><br>• maximum                              | V   | 400                 |
| <b>Number of poles / for main current circuit</b>                                          |     | 3                   |
| <b>Adjustable response current</b><br>• of the current-dependent overload release          | A   | 8 ... 32            |
| <b>Formula for making capacity limit current</b>                                           |     | 12 x I <sub>e</sub> |
| <b>Formula for interruption capacity limit current</b>                                     |     | 10 x I <sub>e</sub> |
| <b>Emitted mechanical power / for 4-pole three-phase motor</b><br>• at 400 V / rated value | kW  | 15                  |
| <b>Service power / at AC-3 / at 400 V / rated value</b>                                    | kW  | 15                  |
| <b>Frequency of operation / at AC-41 / according to IEC 60947-6-2 / maximum</b>            | 1/h | 750                 |
| <b>Frequency of operation / at AC-43 / according to IEC 60947-6-2 / maximum</b>            | 1/h | 250                 |
| <b>Off-load operating frequency</b>                                                        | 1/h | 3,600               |
| <b>Mechanical operating cycles as operating time</b>                                       |     |                     |

- of the main contacts / typical
- of the auxiliary contacts / typical
- of the signal contacts / typical

10,000,000  
10,000,000  
10,000,000

#### Control circuit:

##### Type of voltage

AC

##### Control supply voltage / 1

- for DC
  - rated value
- at 50 Hz / for AC
  - rated value
- at 60 Hz / for AC
  - rated value

V

24

V

24

V

24

##### Holding power

- for AC / maximum
- for DC / maximum

W

3.5

W

3.1

##### Switch-off delay time

ms

50

##### Start-up delay time

ms

70

#### Auxiliary circuit:

##### Product extension

- auxiliary switch

Yes

##### Number of NC contacts

- for auxiliary contacts

0

##### Number of NO contacts

- for auxiliary contacts
- of the non-delayed short-circuit release / for alarm contact

2

1

##### Number of changeover contacts / of the current-dependent overload release / for alarm contact

1

##### Operating current / of the auxiliary contacts / at AC-12

- maximum

A

10

##### Electrical switching cycle as operating time / of the auxiliary contacts

- at AC-15 / at 6 A / at 230 V / typical
- at DC-13 / at 6 A / at 24 V / typical

500,000

100,000

##### Electrical switching cycle as operating time / of the signal contacts

- at AC-15 / at 6 A / at 230 V / typical
- at DC-13 / at 6 A / at 24 V / typical

500,000

100,000

#### Short-circuit:

|                                                                                                                                                                                                                                             |    |                                                                 |
|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----|-----------------------------------------------------------------|
| <b>Design of the fuse link / for short-circuit protection of the auxiliary switch</b>                                                                                                                                                       |    |                                                                 |
| <ul style="list-style-type: none"> <li>required</li> </ul>                                                                                                                                                                                  |    | fuse gL/gG: 10 A                                                |
| <b>Installation/mounting/dimensions:</b>                                                                                                                                                                                                    |    |                                                                 |
| <b>Mounting type</b>                                                                                                                                                                                                                        |    | screw and snap-on mounting                                      |
| <b>Width</b>                                                                                                                                                                                                                                | mm | 90                                                              |
| <b>Height</b>                                                                                                                                                                                                                               | mm | 170                                                             |
| <b>Depth</b>                                                                                                                                                                                                                                | mm | 165                                                             |
| <b>mounting position</b>                                                                                                                                                                                                                    |    | any                                                             |
| <b>Connections:</b>                                                                                                                                                                                                                         |    |                                                                 |
| <b>Product function</b>                                                                                                                                                                                                                     |    |                                                                 |
| <ul style="list-style-type: none"> <li>removable terminal for main circuit</li> </ul>                                                                                                                                                       |    | Yes                                                             |
| <ul style="list-style-type: none"> <li>removable terminal for auxiliary and control circuit</li> </ul>                                                                                                                                      |    | Yes                                                             |
| <b>Design of the electrical connection</b>                                                                                                                                                                                                  |    |                                                                 |
| <ul style="list-style-type: none"> <li>for main current circuit</li> </ul>                                                                                                                                                                  |    | screw-type terminals                                            |
| <ul style="list-style-type: none"> <li>for auxiliary and control current circuit</li> </ul>                                                                                                                                                 |    | plug-in without terminals                                       |
| <b>Type of the connectable conductor cross-section</b>                                                                                                                                                                                      |    |                                                                 |
| <ul style="list-style-type: none"> <li>for main contacts <ul style="list-style-type: none"> <li>solid</li> <li>finely stranded <ul style="list-style-type: none"> <li>with conductor end processing</li> </ul> </li> </ul> </li> </ul>      |    | 2x (2.5 ... 6 mm <sup>2</sup> ), 1x 10 mm <sup>2</sup>          |
| <ul style="list-style-type: none"> <li>for auxiliary contacts <ul style="list-style-type: none"> <li>solid</li> <li>finely stranded <ul style="list-style-type: none"> <li>with conductor end processing</li> </ul> </li> </ul> </li> </ul> |    | 2x (2.5 ... 6 mm <sup>2</sup> )                                 |
| <ul style="list-style-type: none"> <li>for AWG conductors <ul style="list-style-type: none"> <li>for main contacts</li> <li>for auxiliary contacts</li> </ul> </li> </ul>                                                                   |    | 0.5 ... 4 mm <sup>2</sup> , 2x (0.5 ... 2.5 mm <sup>2</sup> )   |
|                                                                                                                                                                                                                                             |    | 0.5 ... 2.5 mm <sup>2</sup> , 2x (0.5 ... 1.5 mm <sup>2</sup> ) |
|                                                                                                                                                                                                                                             |    | 2x (14 ... 10), 1x 8                                            |
|                                                                                                                                                                                                                                             |    | 2x (20 ... 14)                                                  |
| <b>Certificates/approvals:</b>                                                                                                                                                                                                              |    |                                                                 |
| <b>Verification of suitability</b>                                                                                                                                                                                                          |    | IEC / EN 60947-6-2                                              |

## General Product Approval

## EMC

## Functional Safety / Safety of Machinery



CCC



CSA



UL



C-TICK



VDE

## Test Certificates

[Type Test  
Certificates/Test  
Report](#)

## Shipping Approval



DNV



LRS



PRS



RINA



RMRS

## other

[Declaration of  
Conformity](#)

[other](#)

[Environmental  
Confirmations](#)

## UL/CSA ratings:

### yielded mechanical performance (hp) / for three-phase squirrel cage motors

- at 200/208 V / rated value
- at 220/230 V / rated value
- at 460/480 V / rated value

|    |     |
|----|-----|
| hp | 7.5 |
| hp | 10  |
| hp | 20  |

### Full-load current (FLA) / for 3-phase motor

- at 480 V / rated value

|   |    |
|---|----|
| A | 32 |
|---|----|

### Contact rating designation / for auxiliary contacts / according to UL

contacts 21-22, 13-14, 43-44 Q600 / A600, contacts  
77-78 R300 / B300, contacts 95-96-98 R300 / D300

## Reliability figures:

### B10 value

2,000,000

### Proportion of dangerous failures

% 50

### Proportion of dangerous failures / with low demand rate / according to SN 31920

% 40

### Protection against electrical shock

finger-safe

### Failure rate [FIT] / with low demand rate / according to SN 31920

FIT 100

## Further information:

### Information- and Downloadcenter (Catalogs, Brochures,...)

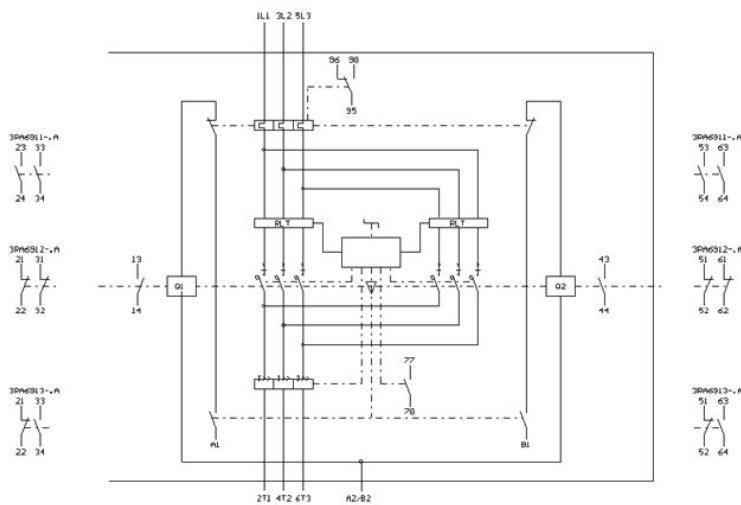
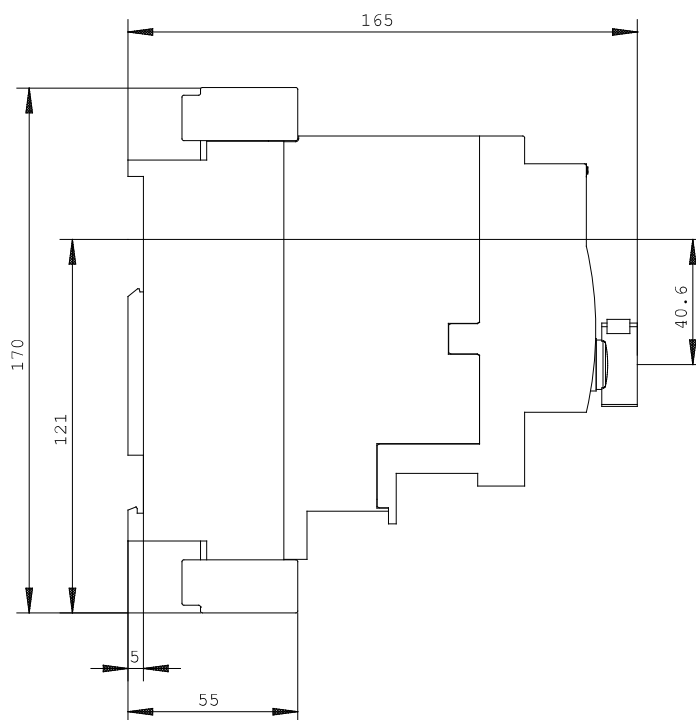
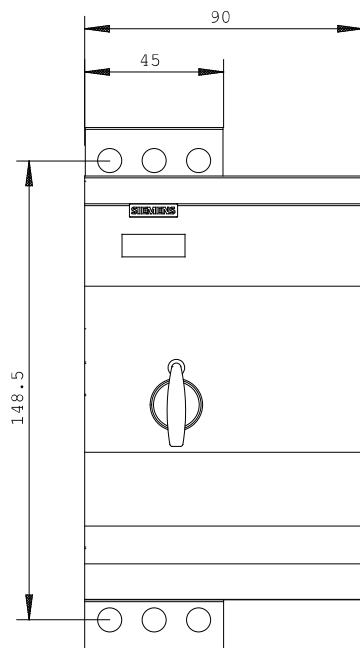
<http://www.siemens.com/industrial-controls/catalogs>

### Industry Mall (Online ordering system)

<http://www.siemens.com/industrial-controls/mall>

### Cax online generator:

<http://www.siemens.com/cax>



last change:

Jun 16, 2014