



SIRIUS, COMPACT STARTER, DIRECT STARTER 400 V, 110 ... 240 V AC/DC, 50 ... 60 HZ, 8 ... 32 A, IP20, CONNECTION MAIN CIRCUIT: PLUGGABLE, WITHOUT TERMINALS, CONNECTION AUXILIARY CIRCUIT: PLUGGABLE, WITHOUT TERMINALS

|                       |                 |
|-----------------------|-----------------|
| product brand name    | SIRIUS          |
| Product designation   | compact starter |
| Design of the product | direct starter  |

General technical data:

|  |  |
|--|--|
| <b>Product function</b>  |  |
| <ul style="list-style-type: none"> <li>Control circuit interface to parallel wiring</li> </ul>   | Yes  |
| <b>Product expansion</b>   |  |
| <ul style="list-style-type: none"> <li>Auxiliary switch</li> </ul>   | Yes  |
| <b>Insulation voltage</b>  |  |
| <ul style="list-style-type: none"> <li>Rated value</li> </ul>  | 690 V  |
| <b>Surge voltage resistance Rated value</b>  | 6 000 V  |
| <b>maximum permissible voltage for safe isolation</b>  |  |
| <ul style="list-style-type: none"> <li>between auxiliary and auxiliary circuit</li> <li>between control and auxiliary circuit</li> <li>between main and auxiliary circuit</li> </ul> | 250 V<br>300 V<br>400 V  |
| <b>Protection class IP</b>   | IP20   |
| <b>Degree of pollution</b>   | 3  |
| <b>Vibration resistance</b>  | f= 4 ... 5.8 Hz, d= 15 mm; f= 5.8 ... 500 Hz, a= 20 m/s <sup>2</sup> ; 10 cycles |
| <b>Mechanical service life (switching cycles)</b>  |  |
| <ul style="list-style-type: none"> <li>of the main contacts typical</li> <li>of the auxiliary contacts typical</li> <li>of the signaling contacts typical</li> </ul>                 | 10 000 000<br>10 000 000<br>10 000 000   |
| <b>Electrical endurance (switching cycles) of the auxiliary contacts</b>   |  |
| <ul style="list-style-type: none"> <li>at DC-13 at 6 A at 24 V typical</li> </ul>  | 100 000  |

|  |   |
|--|---|
| <ul style="list-style-type: none"> <li>• at AC-15 at 6 A at 230 V typical</li> </ul> | 500 000   |
| <b>Electrical endurance (switching cycles) of the signaling contacts</b>             |   |
| <ul style="list-style-type: none"> <li>• at DC-13 at 6 A at 24 V typical</li> </ul>  | 100 000   |
| <ul style="list-style-type: none"> <li>• at AC-15 at 6 A at 230 V typical</li> </ul> | 500 000   |
| <b>Type of assignment</b>  | continuous operation according to IEC 60947-6-2 |
| <b>Equipment marking</b>   |   |
| <ul style="list-style-type: none"> <li>• acc. to DIN EN 61346-2</li> </ul>           | Q   |

#### Ambient conditions:

|  |                |
|--|----------------|
| <b>Installation altitude at height above sea level maximum</b>       | 2 000 m        |
| <b>Ambient temperature</b>   |                |
| <ul style="list-style-type: none"> <li>• during operation</li> </ul> | -20 ... +60 °C |
| <ul style="list-style-type: none"> <li>• during storage</li> </ul>   | -55 ... +80 °C |
| <ul style="list-style-type: none"> <li>• during transport</li> </ul> | -55 ... +80 °C |
| <b>Relative humidity during operation</b>                            | 10 ... 90 %    |

#### Main circuit:

|  |                     |
|--|---------------------|
| <b>Number of poles for main current circuit</b>  | 3                   |
| <b>Adjustable response value current of the current-dependent overload release</b>         | 8 ... 32 A          |
| <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>Mechanical power output for 4-pole AC motor</b>   |                     |
| <ul style="list-style-type: none"> <li>• at 400 V Rated value</li> </ul>                   | 15 kW               |
| <ul style="list-style-type: none"> <li>• at 500 V Rated value</li> </ul>                   | 11 kW               |
| <ul style="list-style-type: none"> <li>• at 690 V Rated value</li> </ul>                   | 11 kW               |
| <b>Operating voltage</b>   |                     |
| <ul style="list-style-type: none"> <li>• at AC-3 Rated value maximum</li> </ul>            | 690 V               |
| <b>Operating current</b>   |                     |
| <ul style="list-style-type: none"> <li>• at AC at 400 V Rated value</li> </ul>             | 32 A                |
| <ul style="list-style-type: none"> <li>• at AC-43</li> </ul>                               |                     |
| <ul style="list-style-type: none"> <li>— at 400 V Rated value</li> </ul>                   | 29 A                |
| <ul style="list-style-type: none"> <li>— at 500 V Rated value</li> </ul>                   | 17.6 A              |
| <ul style="list-style-type: none"> <li>— at 690 V Rated value</li> </ul>                   | 12.8 A              |
| <b>No-load switching frequency</b>   | 3 600 1/h           |
| <b>Operating frequency</b>   |                     |
| <ul style="list-style-type: none"> <li>• at AC-41 acc. to IEC 60947-6-2 maximum</li> </ul> | 750 1/h             |
| <ul style="list-style-type: none"> <li>• at AC-43 acc. to IEC 60947-6-2 maximum</li> </ul> | 250 1/h             |

#### Control circuit/ Control:

|                                       |    |
|---------------------------------------|----|
| <b>Type of voltage</b>                | AC |
| <b>Control supply voltage 1 at AC</b> |    |

|   |                                |
|---|--------------------------------|
| <ul style="list-style-type: none"> <li>• at 50 Hz</li> <li>• at 60 Hz</li> </ul>              | 110 ... 240 V<br>110 ... 240 V |
| <b>Control supply voltage 1</b>   |                                |
| <ul style="list-style-type: none"> <li>• at DC</li> <li>• Rated value</li> </ul>              | 110 ... 240 V<br>50 Hz         |
| <b>Control supply voltage frequency 2 Rated value</b>   | 60 Hz                          |
| <b>Holding power</b>  |                                |
| <ul style="list-style-type: none"> <li>• with AC maximum</li> <li>• for DC maximum</li> </ul> | 5.2 W<br>5.8 W                 |

#### Auxiliary circuit:

|  |        |
|--|--------|
| <b>Number of NC contacts</b>   |        |
| <ul style="list-style-type: none"> <li>• for auxiliary contacts</li> </ul>   | 1      |
| <b>Number of NO contacts</b>   |        |
| <ul style="list-style-type: none"> <li>• for auxiliary contacts</li> <li>• of the instantaneous short-circuit release for signaling contact</li> </ul> | 1<br>1 |
| <b>Number of CO contacts</b>   |        |
| <ul style="list-style-type: none"> <li>• of the current-dependent overload release for signaling contact</li> </ul>                                    | 1      |
| <b>Operating current of the auxiliary contacts at AC-12 maximum</b>  | 10 A   |
| <b>Operating current of the 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> <li>• at 500 V Rated value</li> <li>• at 690 V Rated value</li> </ul> | 53 kA<br>1 kA<br>1 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>   | 32 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 200/208 V Rated value</li> <li>— at 220/230 V Rated value</li> <li>— at 460/480 V Rated value</li> </ul> </li> </ul> | 7.5 hp<br>10 hp<br>20 hp  |
| <b>Contact rating of the auxiliary contacts acc. to UL</b>   | contacts 21-22, 13-14, 43-44 Q600 / A600, contacts 77-78 R300 / B300, contacts 95-96-98 R300 / D300 |

**Short-circuit:****Design of the fuse link**

- for short-circuit protection of the auxiliary switch required
- for short-circuit protection of the signaling switch of the short-circuit release required
- for short-circuit protection of the signaling switch of the overload release required

fuse gL/gG: 10 A

6A gL/gG/400V

4A gL/gG/400V

**Installation/ mounting/ dimensions:****mounting position**

- recommended

any

vertical, on horizontal standard mounting rail

**Mounting type**

screw and snap-on mounting

**Height**

170 mm

**Width**

45 mm

**Depth**

165 mm

**Connections/ Terminals:****Product function**

- removable terminal for main circuit
- removable terminal for auxiliary and control circuit

Yes

Yes

**Type of electrical connection**

- for main current circuit
- for auxiliary and control current circuit

plug-in without terminals

plug-in without terminals

**Safety related data:****B10 value with high demand rate acc. to SN 31920**

2 000 000

**Proportion of dangerous failures**

- with low demand rate acc. to SN 31920
- with high demand rate acc. to SN 31920

40 %

50 %

**T1 value for proof test interval or service life acc. to IEC 61508**

20 y

**Communication/ Protocol:****Product function Bus communication**

No

**Electromagnetic compatibility:****Conducted interference due to burst acc. to IEC 61000-4-4**

4 kV main contacts, 2 kV auxiliary contacts

**Conducted interference due to conductor-earth surge acc. to IEC 61000-4-5**

4 kV main contacts, 2 kV auxiliary contacts

**Conducted interference due to conductor-conductor surge acc. to IEC 61000-4-5**

2 kV main contacts, 1 kV auxiliary contacts

**Conducted interference due to high-frequency radiation acc. to IEC 61000-4-6**

0.15-80Mhz at 10V

**Field-bound parasitic coupling acc. to IEC 61000-4-3**

10 V/m

|  |                            |
|--|----------------------------|
| Electrostatic discharge acc. to IEC 61000-4-2        | 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 | No |
|---|----|

#### Certificates/ approvals:

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



|                           |                   |                   |
|---------------------------|-------------------|-------------------|
| Declaration of Conformity | Test Certificates | Shipping Approval |
|---------------------------|-------------------|-------------------|



[Typrüfbescheinigung/Werkszeugnis](#)



|                   |       |
|-------------------|-------|
| Shipping Approval | other |
|-------------------|-------|



[Umweltbestätigung](#)

#### Further information

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

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

**Industry Mall (Online ordering system)**

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

**Cax online generator**

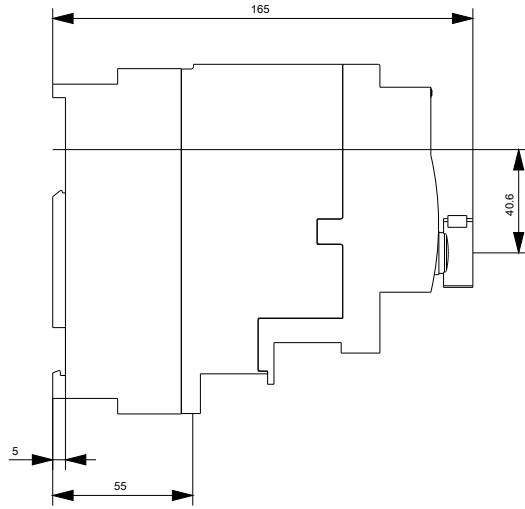
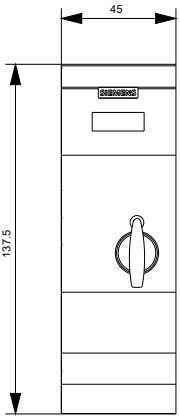
<http://support.automation.siemens.com/WW/CAXorder/default.aspx?lang=en&mfb=3RA61200EP30>

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

<https://support.industry.siemens.com/cs/ww/en/ps/3RA61200EP30>

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

[http://www.automation.siemens.com/bilddb/cax\\_de.aspx?mfb=3RA61200EP30&lang=en](http://www.automation.siemens.com/bilddb/cax_de.aspx?mfb=3RA61200EP30&lang=en)



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