

SIRIUS, COMPACT STARTER, DIRECT STARTER . 690 V, 24 V DC, 3 ... 12 A, IP20, CONN. MAIN CIRCUIT: SPRING-LOADED TERMINAL, CONN. CONTROL CIRCUIT: SPRING-LOADED TERMINAL



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>	No
<b>Product extension</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>Degree of pollution</b>	3
<b>Surge voltage resistance rated value</b>	6 000 V
<b>Protection class IP</b>	IP20
<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> </ul>	10 000 000
<ul style="list-style-type: none"> <li>of auxiliary contacts typical</li> </ul>	10 000 000
<ul style="list-style-type: none"> <li>of the signaling contacts typical</li> </ul>	10 000 000

<b>Electrical endurance (switching cycles) of auxiliary contacts</b>	
<ul style="list-style-type: none"> <li>• at DC-13 at 6 A at 24 V typical</li> <li>• at AC-15 at 6 A at 230 V typical</li> </ul>	<p>30 000</p> <p>200 000</p>
<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> <li>• acc. to DIN EN 81346-2</li> </ul>	<p>Q</p> <p>Q</p>

### Ambient conditions

<b>Ambient temperature</b>	
<ul style="list-style-type: none"> <li>• during operation</li> <li>• during storage</li> <li>• during transport</li> </ul>	<p>-20 ... +60 °C</p> <p>-55 ... +80 °C</p> <p>-55 ... +80 °C</p>

### Main circuit

<b>Number of poles for main current circuit</b>	3
<b>Adjustable pick-up value current of the current-dependent overload release</b>	3 ... 12 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> <li>• at 500 V rated value</li> <li>• at 690 V rated value</li> </ul>	<p>5.5 kW</p> <p>5.5 kW</p> <p>7.5 kW</p>
<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> <li>• at AC-43 <ul style="list-style-type: none"> <li>— at 400 V rated value</li> <li>— at 500 V rated value</li> <li>— at 690 V rated value</li> </ul> </li> </ul>	<p>12 A</p> <p>11.5 A</p> <p>12.4 A</p> <p>8.9 A</p>
<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> <li>• at AC-43 acc. to IEC 60947-6-2 maximum</li> </ul>	<p>750 1/h</p> <p>250 1/h</p>

### Control circuit/ Control

<b>Type of voltage</b>	DC
<b>Holding power</b>	
<ul style="list-style-type: none"> <li>• at DC maximum</li> </ul>	2.9 W

### Auxiliary circuit

<b>Number of NC contacts</b>	
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<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>	12 A
<ul style="list-style-type: none"> <li>• at 600 V rated value</li> </ul>	12 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> <li>— at 575/600 V rated value</li> </ul> </li> </ul>	3 hp 3 hp 7.5 hp 10 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>	191 mm
<b>Width</b>	45 mm

<b>Depth</b>	165 mm
<b>Connections/Terminals</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>Type of electrical connection</b>	
<ul style="list-style-type: none"> <li>for main current circuit</li> </ul>	spring-loaded terminals
<ul style="list-style-type: none"> <li>for auxiliary and control current circuit</li> </ul>	spring-loaded terminals
<b>Type of connectable conductor cross-sections</b>	
<ul style="list-style-type: none"> <li>for main contacts <ul style="list-style-type: none"> <li>— solid</li> </ul> </li> </ul>	2x (1.5 ... 6 mm <sup>2</sup> ), 1x 10 mm <sup>2</sup>
<ul style="list-style-type: none"> <li>— finely stranded with core end processing</li> </ul>	2x (1.5 ... 6 mm <sup>2</sup> )
<ul style="list-style-type: none"> <li>— finely stranded without core end processing</li> </ul>	2x (1.5 ... 6 mm <sup>2</sup> )
<ul style="list-style-type: none"> <li>at AWG conductors for main contacts</li> </ul>	2x (16 ... 10), 1x 8
<b>Type of connectable conductor cross-sections</b>	
<ul style="list-style-type: none"> <li>for auxiliary contacts <ul style="list-style-type: none"> <li>— solid</li> </ul> </li> </ul>	2x (0.25 ... 1.5 mm <sup>2</sup> )
<ul style="list-style-type: none"> <li>— finely stranded with core end processing</li> </ul>	2x (0.25 ... 1.5 mm <sup>2</sup> )
<ul style="list-style-type: none"> <li>— finely stranded without core end processing</li> </ul>	2x (0.25 ... 1.5 mm <sup>2</sup> )
<ul style="list-style-type: none"> <li>at AWG conductors for auxiliary contacts</li> </ul>	2x (24 ... 16)
<b>Safety related data</b>	
<b>B10 value</b>	
<ul style="list-style-type: none"> <li>with high demand rate acc. to SN 31920</li> </ul>	3 000 000
<b>Proportion of dangerous failures</b>	
<ul style="list-style-type: none"> <li>with high demand rate acc. to SN 31920</li> </ul>	50 %
<b>Communication/ Protocol</b>	
<b>Product function Bus communication</b>	Yes
<b>Protocol is supported</b>	
<ul style="list-style-type: none"> <li>IO-Link protocol</li> </ul>	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>	
<ul style="list-style-type: none"> <li>of the address area of the inputs with cyclical transfer total</li> </ul>	2 byte
<ul style="list-style-type: none"> <li>of the address area of the outputs with cyclical transfer total</li> </ul>	2 byte

## Electromagnetic compatibility

Field-bound parasitic coupling acc. to IEC 61000-4-3	80 ... 3000 MHz at 10V/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	Yes
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## Display

Display version	
<ul style="list-style-type: none"> <li>as status display of the input/output link device</li> </ul>	green/red dual LED

## Certificates/approvals

General Product Approval	EMC	Functional Safety/Safety of Machinery
 CCC	 CSA	 UL
		
 C-Tick		
 VDE		

Declaration of Conformity	Test Certificates	Marine / Shipping
 EG-Konf.	<a href="#">Type Test Certificates/Test Report</a>	 BUREAU VERITAS
 LRS		
 PRS		
 RINA		

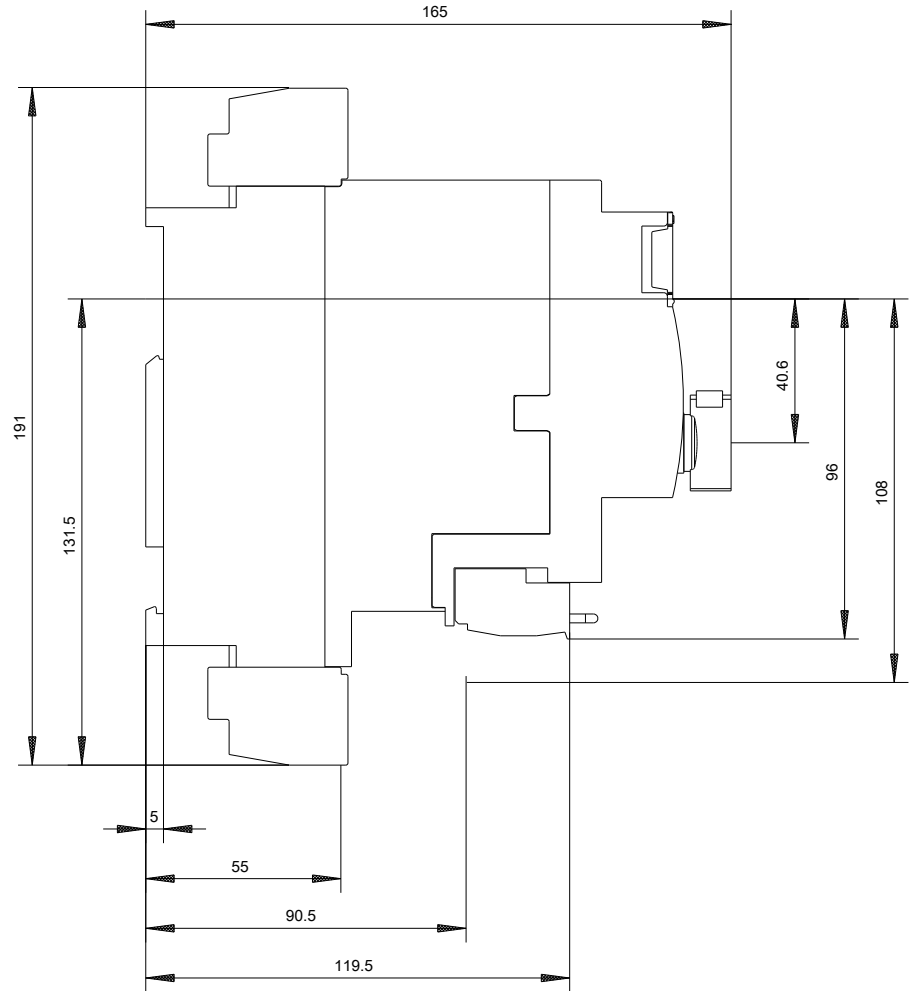
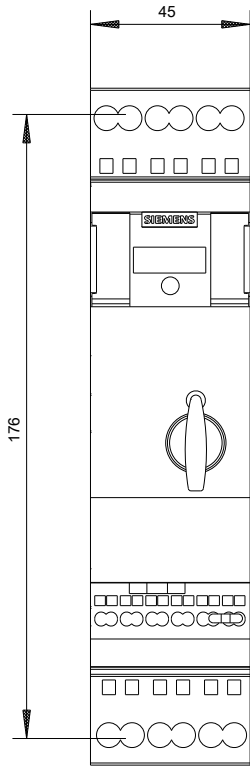
Marine / Shipping	other
 RMRS	<a href="#">Environmental Confirmations</a>
<a href="#">Confirmation</a>	

## Further information

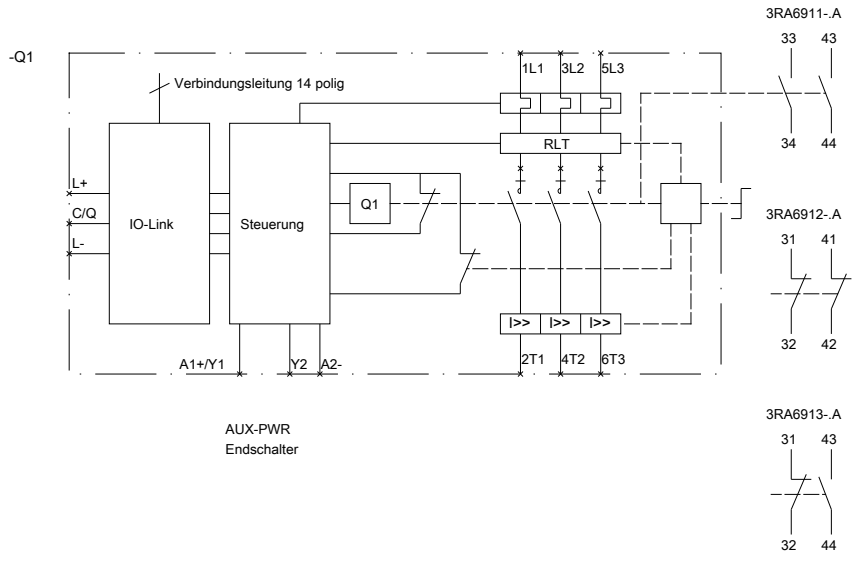
**Information- and Downloadcenter (Catalogs, Brochures,...)**  
<http://www.siemens.com/industrial-controls/catalogs>

**Industry Mall (Online ordering system)**  
<https://mall.industry.siemens.com/mall/en/en/Catalog/product?mlfb=3RA6400-2DB42>

**Cax online generator**  
<http://support.automation.siemens.com/WW/CAXorder/default.aspx?lang=en&mlfb=3RA6400-2DB42>







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last modified:

07/14/2017