

DOL starter Electronic switching Electronic overload protection up to 1.1 kW / 400 V; 0.9 A...3 A Option: 3DI/LC module PROFlenergy



Product brand name	SIMATIC
Product category	Motor starter
Product designation	Direct-on-line starter
Product type designation	ET 200SP

General technical data	
Equipment variant acc. to IEC 60947-4-2	3
Product function	Direct-on-line starter
<ul style="list-style-type: none"> <li>on-site operation</li> </ul>	Yes
<ul style="list-style-type: none"> <li>Intrinsic device protection</li> </ul>	Yes
<ul style="list-style-type: none"> <li>Remote firmware update</li> </ul>	Yes
<ul style="list-style-type: none"> <li>for power supply Reverse polarity protection</li> </ul>	Yes
Power loss [W] for rated value of the current	
<ul style="list-style-type: none"> <li>at AC in hot operating state per pole</li> </ul>	0.2 W
Degree of pollution	2
Overvoltage category	III
Surge voltage resistance rated value	6 kV
maximum permissible voltage for safe isolation	
<ul style="list-style-type: none"> <li>between main and auxiliary circuit</li> </ul>	500 V
Protection class IP	IP20

<b>Shock resistance</b>	6g / 11 ms
<b>Mechanical service life (switching cycles)</b>	
• of the main contacts typical	30 000 000
<b>Type of assignment</b>	1
<b>Usage category</b>	
• acc. to IEC 60947-4-2	AC53a: 3A: (8-0,7: 70-32)
• acc. to IEC 60947-4-3	AC51: 3A: (1,2-10: 50-360)
<b>Reference code acc. to DIN 40719 extended according to IEC 204-2 acc. to IEC 750</b>	Q
<b>Reference code acc. to DIN EN 61346-2</b>	A
<b>Product function</b>	
• direct start	Yes
• reverse starting	No
<b>Product component Motor brake output</b>	No
<b>Product function Short circuit protection</b>	Yes
<b>Design of short-circuit protection</b>	fuse
<b>Trip class</b>	CLASS 5 and 10 adjustable
<b>Maximum short-circuit current breaking capacity (Icu)</b>	
• at 400 V rated value	55 kA
• at 500 V rated value	55 kA
• at 500 V acc. to UL 60947 rated value	100 kA
<b>Maximum short-circuit current breaking capacity (Icu) in the IT network</b>	
• at 400 V rated value	55 kA
• at 500 V rated value	55 kA

### Electromagnetic compatibility

<b>EMC emitted interference</b>	
• acc. to IEC 60947-1	class A
<b>EMI immunity acc. to IEC 60947-1</b>	Class A
<b>Conducted interference</b>	
• due to burst acc. to IEC 61000-4-4	2 kV
• due to conductor-earth surge acc. to IEC 61000-4-5	2 kV
• due to conductor-conductor surge acc. to IEC 61000-4-5	1 kV
• due to high-frequency radiation acc. to IEC 61000-4-6	Class A
<b>Field-bound parasitic coupling acc. to IEC 61000-4-3</b>	10 V/m
<b>Electrostatic discharge acc. to IEC 61000-4-2</b>	8 kV air discharge
<b>Conducted HF-interference emissions acc. to CISPR11</b>	Class A for industrial environment
<b>Field-bound HF-interference emission acc. to CISPR11</b>	Class A for industrial environment

Safety related data	
<b>MTBF</b>	48 y
<b>Safe state</b>	Load circuit open
<b>Protection against electrical shock</b>	finger-safe

Main circuit	
<b>Number of poles for main current circuit</b>	3
<b>Design of the switching contact</b>	Hybrid
<b>Adjustable pick-up value current of the current-dependent overload release</b>	0.9 ... 3 A
<b>Minimum load [%]</b>	20 %
<b>Type of the motor protection</b>	solid-state
<b>Operating voltage</b>	
• rated value	48 ... 500 V
<b>Operating frequency 1 rated value</b>	50 Hz
<b>Operating frequency 2 rated value</b>	60 Hz
<b>Relative symmetrical tolerance of the operating frequency</b>	5 %
<b>Relative positive tolerance of the operating frequency</b>	5 %
<b>Relative negative tolerance of the operating frequency</b>	5 %
<b>Operating range relative to the operating voltage at AC</b>	
• at 50 Hz	48 ... 500 V
<b>Operating current</b>	
• at AC at 400 V rated value	3 A
<b>Ampacity when starting maximum</b>	30 A

Inputs/ Outputs	
<b>Number of digital inputs</b>	4
• Note	4 via 3DI/LC module

Supply voltage	
<b>Type of voltage of the supply voltage</b>	DC
<b>Supply voltage 1 at DC rated value</b>	
• minimum permissible	20.4 V
• maximum permissible	28.8 V
<b>Supply voltage at DC rated value</b>	24 V
<b>Consumed current for rated value of supply voltage</b>	
• in standby mode	85 mA
• during operation	140 mA
• when switching on	230 mA
<b>Power loss [W] for rated value of supply voltage</b>	
• in switching state OFF with bypass circuit	2 W
• in switching state ON with bypass circuit	3.4 W

Response times	
Switch-on delay time	20 ms
Off-delay time	35 ... 50 ms

Installation/ mounting/ dimensions	
Mounting position	Vertical, horizontal, flat (observe derating)
Mounting type	pluggable in BaseUnit
Height	142 mm
Width	30 mm
Depth	150 mm
Required spacing	
<ul style="list-style-type: none"> <li>• with side-by-side mounting <ul style="list-style-type: none"> <li>— upwards</li> <li>— downwards</li> </ul> </li> </ul>	 50 mm 50 mm

Ambient conditions	
Installation altitude at height above sea level	
<ul style="list-style-type: none"> <li>• maximum</li> </ul>	4 000 m; For derating see manual
Environmental category during operation acc. to IEC 60721	3K6 (no formation of ice, no condensation), 3C3 (no salt mist), 3S2 (sand must not get into the devices)
Relative humidity during operation	10 ... 95 %
Air pressure	
<ul style="list-style-type: none"> <li>• acc. to SN 31205</li> </ul>	900 ... 1 060 hPa

Communication/ Protocol	
Protocol is supported	
<ul style="list-style-type: none"> <li>• PROFIBUS DP protocol</li> <li>• PROFINET protocol</li> </ul>	 Yes Yes
Product function Bus communication	Yes
Protocol is supported	
<ul style="list-style-type: none"> <li>• AS-Interface protocol</li> </ul>	No
Product function	
<ul style="list-style-type: none"> <li>• supports PROFIenergy measured values</li> <li>• supports PROFIenergy shutdown</li> </ul>	 Yes Yes
address range memory of address range	
<ul style="list-style-type: none"> <li>• of the inputs</li> <li>• of the outputs</li> </ul>	 4 byte 2 byte
Type of electrical connection	
<ul style="list-style-type: none"> <li>• of the communication interface</li> </ul>	Plug contact to Base Unit

Connections/ Terminals	
Type of electrical connection	
<ul style="list-style-type: none"> <li>• 1 for digital input signals</li> </ul>	Pluggable module - accessory
Type of electrical connection	
<ul style="list-style-type: none"> <li>• for main energy infeed</li> </ul>	Plug contact to Base Unit

<ul style="list-style-type: none"> <li>• for load-side outgoing feeder</li> <li>• for supply voltage line-side</li> </ul>	Plug contact to Base Unit Plug contact to Base Unit
<b>Wire length for motor unshielded maximum</b>	200 m

### 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>	3 A
<b>Current with locked rotor (LRA) for three-phase AC motor at 480 V rated value</b>	24 A
<b>Yielded mechanical performance [hp]</b>	
<ul style="list-style-type: none"> <li>• for single-phase AC motor           <ul style="list-style-type: none"> <li>— at 110/120 V rated value</li> <li>— at 230 V rated value</li> </ul> </li> <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>	0.1 hp 0.25 hp 0.5 hp 0.5 hp 1.5 hp
<b>Operating voltage</b>	
<ul style="list-style-type: none"> <li>• at AC at 60 Hz acc. to CSA and UL rated value</li> </ul>	480 V

### Certificates/ approvals

<b>General Product Approval</b>	<b>EMC</b>	<b>Declaration of Conformity</b>
 CCC	 CSA	 UL
 EAC	 RCM	 EG-Konf.

<b>Declaration of Conformity</b>	<b>Test Certificates</b>	<b>Marine / Shipping</b>	<b>other</b>
<a href="#">Miscellaneous</a>	<a href="#">Type Test Certificates/Test Report</a>	 ABS	<a href="#">Confirmation</a>
		 LRS	
		 DNV-GL DNVGL.COM/AF	

<b>other</b>
<a href="#">PROFINET-Certification</a>

### Further information

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

[www.siemens.com/sirius/catalogs](http://www.siemens.com/sirius/catalogs)

**Industry Mall (Online ordering system)**

<https://mall.industry.siemens.com/mall/en/en/Catalog/product?mfb=3RK1308-0AC00-0CP0>

**Cax online generator**

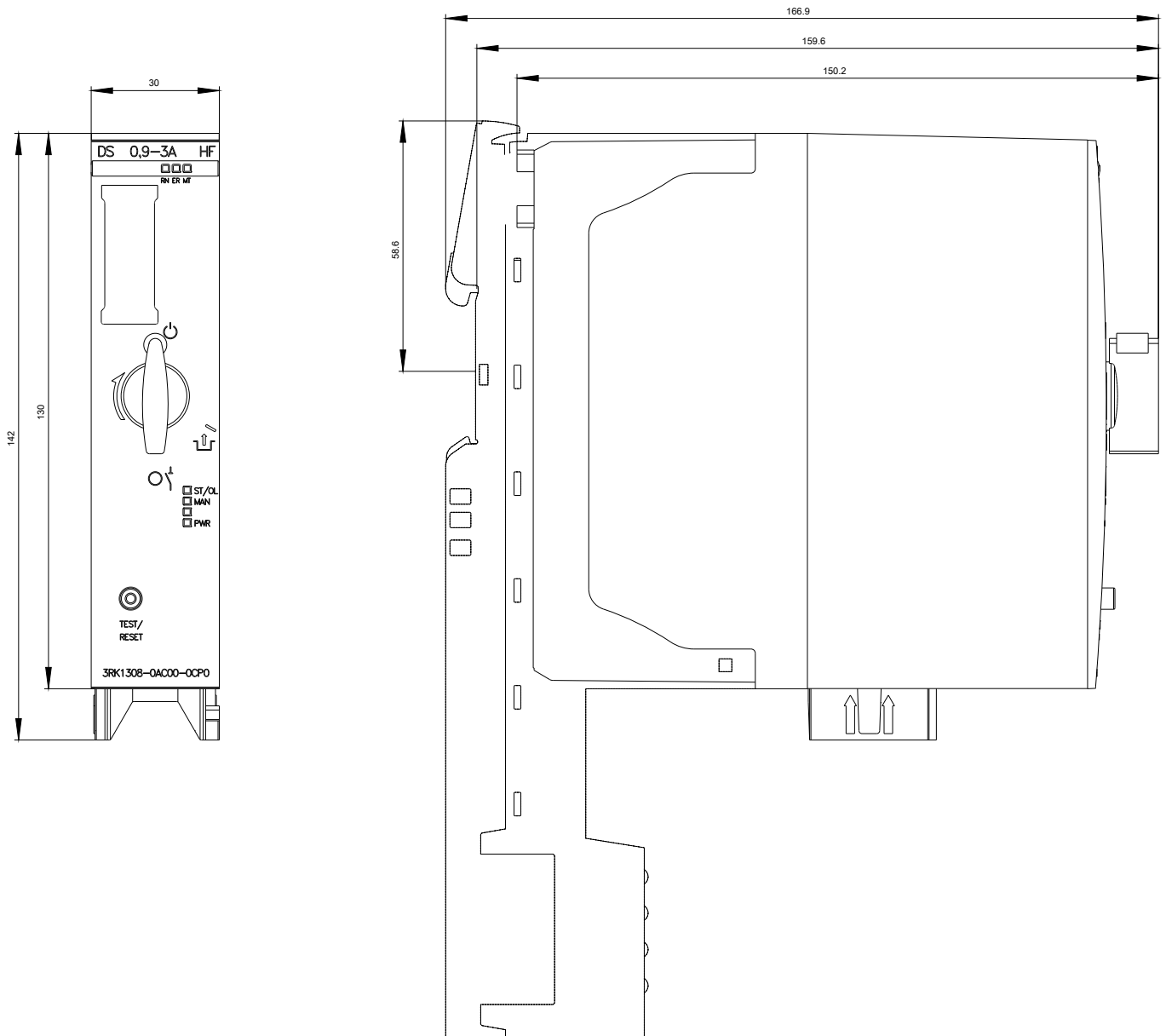
<http://support.automation.siemens.com/WW/CAXorder/default.aspx?lang=en&mfb=3RK1308-0AC00-0CP0>

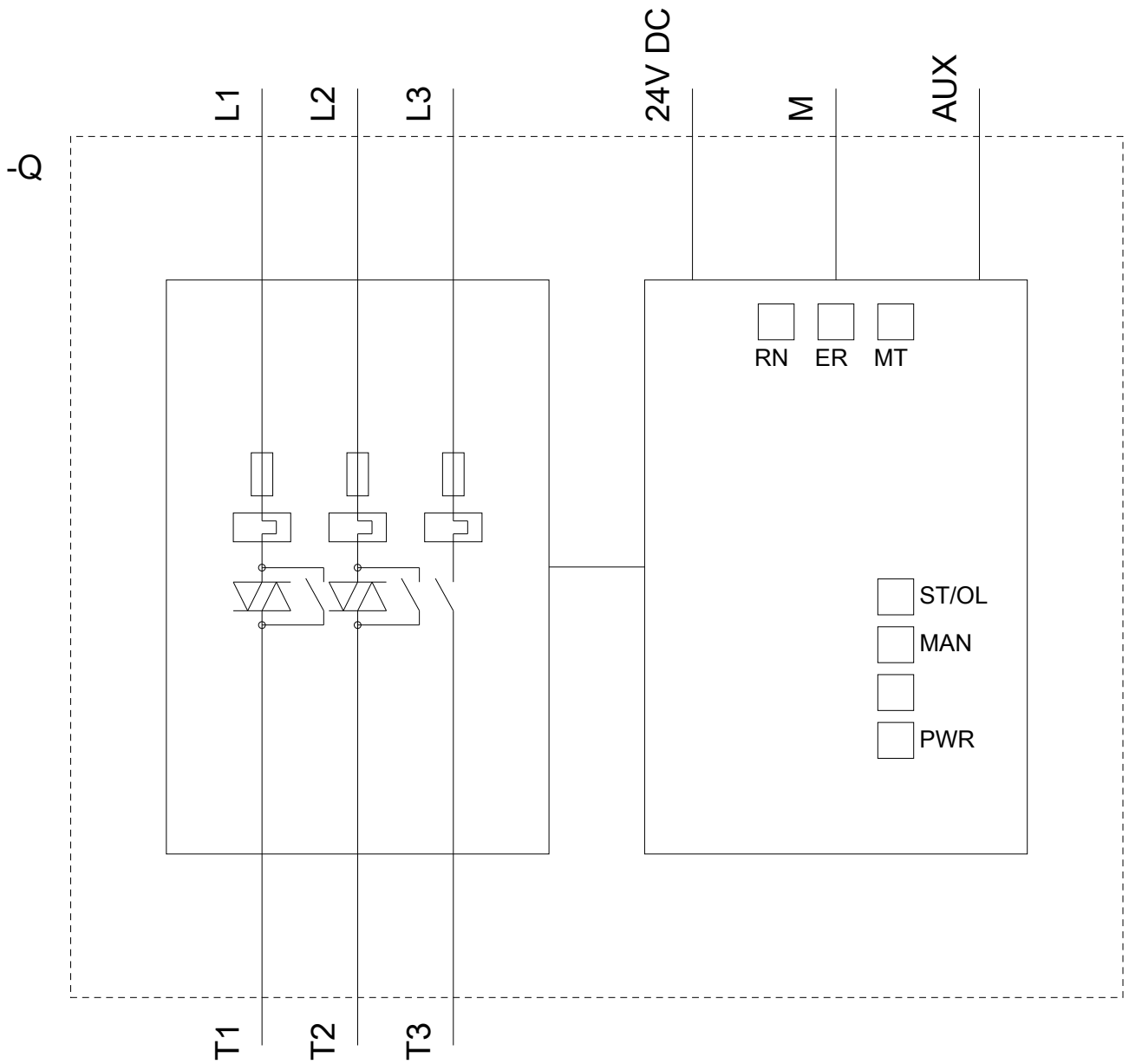
**Service&Support (Manuals, Certificates, Characteristics, FAQs,...)**

<https://support.industry.siemens.com/cs/ww/en/ps/3RK1308-0AC00-0CP0>

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

[http://www.automation.siemens.com/bilddb/cax\\_de.aspx?mfb=3RK1308-0AC00-0CP0&lang=en](http://www.automation.siemens.com/bilddb/cax_de.aspx?mfb=3RK1308-0AC00-0CP0&lang=en)





last modified:

07/26/2019