

DOL starter Electronic switching Electronic overload protection up to 4 kW / 400 V, 2.8 A to 9 A Option: 3DI/LC module PROFlenergy



Figure similar

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
• on-site operation	Yes
• Intrinsic device protection	Yes
• Remote firmware update	Yes
• for power supply Reverse polarity protection	Yes
Power loss [W] for rated value of the current	
• at AC in hot operating state per pole	1.5 W
Insulation voltage	
• rated value	500 V
Degree of pollution	2
Overvoltage category	III

<b>Surge voltage resistance rated value</b>	6 kV
<b>maximum permissible voltage for safe isolation</b> • between main and auxiliary circuit	500 V
<b>Protection class IP</b>	IP20
<b>Shock resistance</b>	6g / 11 ms
<b>Vibration resistance</b>	15 mm to 6 Hz; 2g to 500 Hz
<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 • acc. to IEC 60947-4-3	AC53a: 9A: (8-0,7: 70-32) AC51: 9A: (1,2-10: 50-360); AC55a: 4A: (3-240: 40-6)
<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 • reverse starting	Yes 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 • at 500 V rated value • at 500 V acc. to UL 60947 rated value	55 kA 55 kA 100 kA
<b>Maximum short-circuit current breaking capacity (Icu) in the IT network</b> • at 400 V rated value • at 500 V rated value	55 kA 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 • due to conductor-earth surge acc. to IEC 61000-4-5 • due to conductor-conductor surge acc. to IEC 61000-4-5 • due to high-frequency radiation acc. to IEC 61000-4-6	2 kV 2 kV 1 kV Class A
<b>Field-bound parasitic coupling acc. to IEC 61000-4-3</b>	10 V/m

Electrostatic discharge acc. to IEC 61000-4-2	8 kV air discharge
Conducted HF-interference emissions acc. to CISPR11	Class A for industrial environment
Field-bound HF-interference emission acc. to CISPR11	Class A for industrial environment
Safety related data	
MTBF	46 y
Safe state	Load circuit open
Protection against electrical shock	finger-safe
Inputs/ Outputs	
Number of digital inputs	4
• Note	4 via 3DI/LC module
Response times	
Switch-on delay time	20 ms
Off-delay time	35 ... 50 ms
Main circuit	
Number of poles for main current circuit	3
Design of the switching contact	Hybrid
Adjustable pick-up value current of the current-dependent overload release	2.8 ... 9 A
Minimum load [%]	20 %
Type of the motor protection	solid-state
Operating voltage	
• rated value	48 ... 500 V
Operating frequency 1 rated value	50 Hz
Operating frequency 2 rated value	60 Hz
Relative symmetrical tolerance of the operating frequency	5 %
Operating range relative to the operating voltage at AC	
• at 50 Hz	48 ... 500 V
Operating current	
• at AC at 400 V rated value	9 A
Ampacity when starting maximum	90 A
Supply voltage	
Type of voltage of the supply voltage	DC
Supply voltage 1 at DC rated value	
• minimum permissible	20.4 V
• maximum permissible	28.8 V
Supply voltage at DC rated value	24 V
Consumed current for rated value of supply voltage	
• in standby mode	85 mA

<ul style="list-style-type: none"> <li>• during operation</li> </ul>	140 mA
<ul style="list-style-type: none"> <li>• when switching on</li> </ul>	230 mA
<b>Power loss [W] for rated value of supply voltage</b>	
<ul style="list-style-type: none"> <li>• in switching state OFF with bypass circuit</li> </ul>	2 W
<ul style="list-style-type: none"> <li>• in switching state ON with bypass circuit</li> </ul>	3.4 W

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

Ambient conditions	
<b>Installation altitude at height above sea level</b>	
<ul style="list-style-type: none"> <li>• maximum</li> </ul>	4 000 m; For derating see manual
<b>Ambient temperature</b>	
<ul style="list-style-type: none"> <li>• during operation</li> </ul>	-25 ... +60 °C
<ul style="list-style-type: none"> <li>• during operation maximum</li> </ul>	For derating see manual
<ul style="list-style-type: none"> <li>• during storage</li> </ul>	-40 ... +70 °C
<ul style="list-style-type: none"> <li>• during transport</li> </ul>	-40 ... +70 °C
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 %
<b>Air pressure</b>	
<ul style="list-style-type: none"> <li>• acc. to SN 31205</li> </ul>	900 ... 1 060 hPa

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

<b>Type of electrical connection</b>	
• of the communication interface	Plug contact to Base Unit

## Connections/Terminals

<b>Type of electrical connection</b>	
• 1 for digital input signals	Pluggable module - accessory
<b>Type of electrical connection</b>	
• for main energy infeed	Plug contact to Base Unit
• for load-side outgoing feeder	Plug contact to Base Unit
• for supply voltage line-side	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>	
• at 480 V rated value	9 A
<b>Current with locked rotor (LRA) for three-phase AC motor at 480 V rated value</b>	72 A
<b>Yielded mechanical performance [hp]</b>	
• for single-phase AC motor	
— at 110/120 V rated value	0.33 hp
— at 230 V rated value	1 hp
• for three-phase AC motor	
— at 200/208 V rated value	2 hp
— at 220/230 V rated value	2 hp
— at 460/480 V rated value	5 hp
<b>Operating voltage</b>	
• at AC at 60 Hz acc. to CSA and UL rated value	480 V

## Certificates/approvals

General Product Approval	EMC	Declaration of Conformity
 CCC	 EAC	 EG-Konf.
 CSA	 C-Tick	
 UL		

Test Certificates	Marine / Shipping	other
<a href="#">Type Test Certificates/Test Report</a>	 ABS	<a href="#">Confirmation</a>
	 LRS	<a href="#">PROFINET-Certification</a>
	 DNV-GL DNVGL.COM/AF	

## 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=3RK1308-0AD00-0CP0>

### Cax online generator

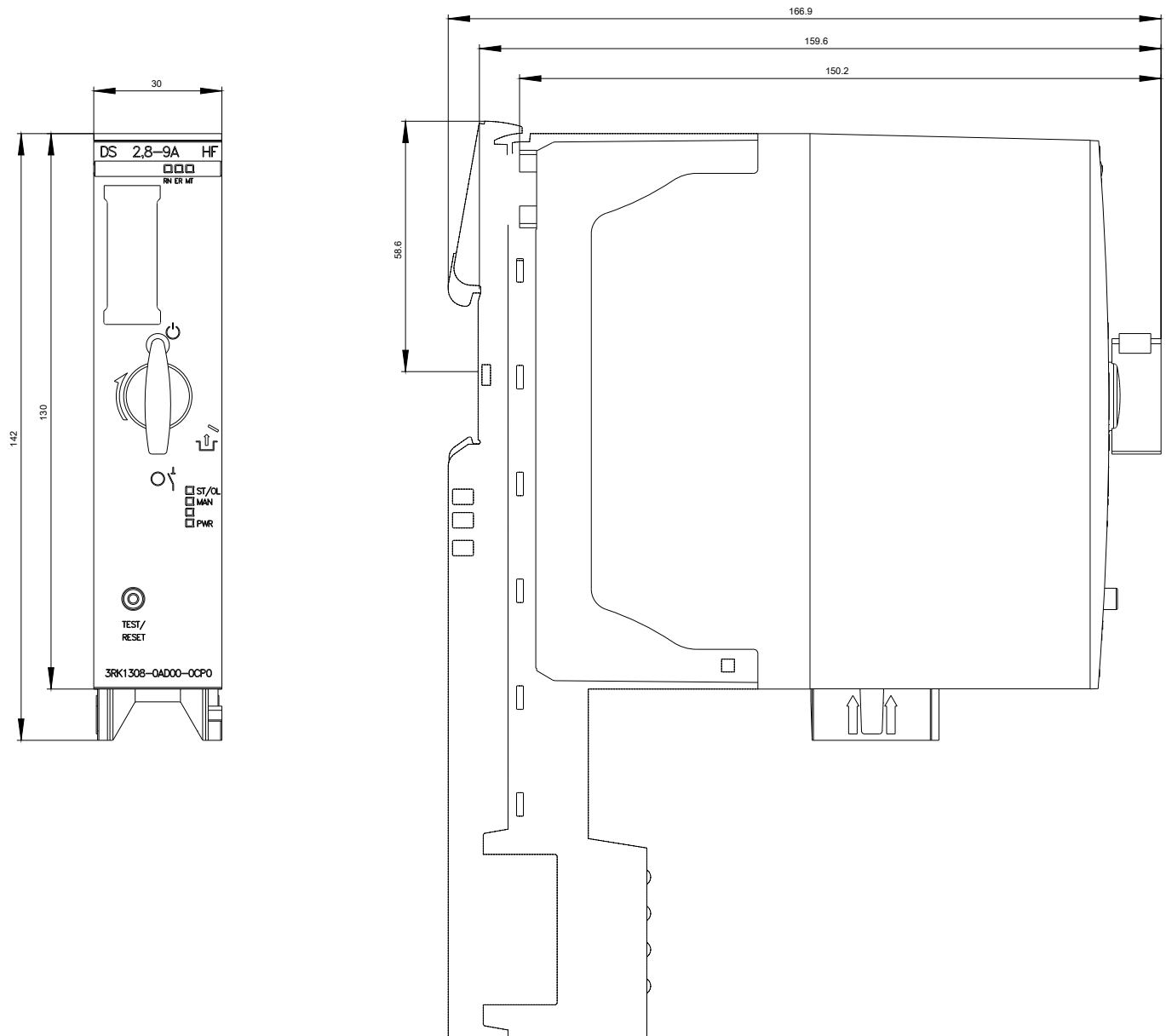
<http://support.automation.siemens.com/WW/CAXorder/default.aspx?lang=en&mlfb=3RK1308-0AD00-0CP0>

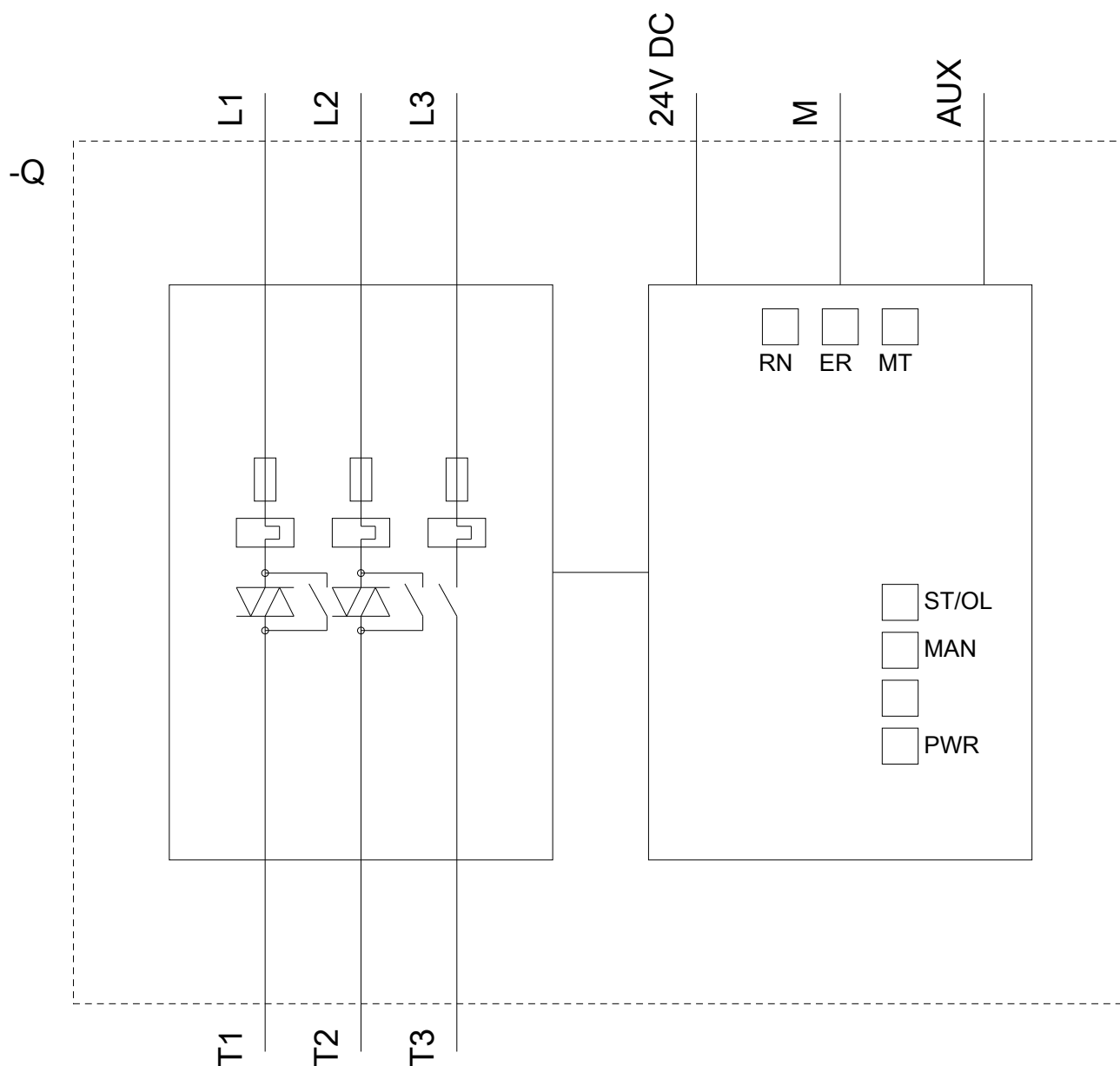
### Service&Support (Manuals, Certificates, Characteristics, FAQs,...)

<https://support.industry.siemens.com/cs/ww/en/ps/3RK1308-0AD00-0CP0>

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

[http://www.automation.siemens.com/bilddb/cax\\_de.aspx?mlfb=3RK1308-0AD00-0CP0&lang=en](http://www.automation.siemens.com/bilddb/cax_de.aspx?mlfb=3RK1308-0AD00-0CP0&lang=en)





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