

Direct-on-line starter High Feature; Electronic switching; Electronic overload protection up to 0.25 kW / 400 V; Adjustment range 0.3 .. 1 A; PROFIenergy; Option: 3DI/LC module



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

General technical data	
Trip class	CLASS OFF / 5 / 10 adjustable
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> <li>• Intrinsic device protection</li> <li>• Remote firmware update</li> <li>• for power supply Reverse polarity protection</li> </ul>	<ul style="list-style-type: none"> <li>Yes</li> <li>Yes</li> <li>Yes</li> <li>Yes</li> </ul>
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>	0.02 W
Insulation voltage	
<ul style="list-style-type: none"> <li>• rated value</li> </ul>	500 V
Degree of pollution	2
Overvoltage category	III
Surge voltage resistance rated value	6 kV

<b>maximum permissible voltage for safe isolation</b>	
<ul style="list-style-type: none"> <li>• between main and auxiliary circuit</li> </ul>	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>	
<ul style="list-style-type: none"> <li>• of the main contacts typical</li> </ul>	30 000 000
<b>Type of assignment</b>	1
<b>Usage category</b>	
<ul style="list-style-type: none"> <li>• acc. to IEC 60947-4-2</li> <li>• acc. to IEC 60947-4-3</li> </ul>	AC-53a: 1 A: (8-0,7: 70-32) AC-51: 1 A: (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 81346-2</b>	Q
<b>Reference code acc. to DIN EN 61346-2</b>	A
<b>Product function</b>	
<ul style="list-style-type: none"> <li>• direct start</li> <li>• reverse starting</li> </ul>	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>Maximum short-circuit current breaking capacity (Icu)</b>	
<ul style="list-style-type: none"> <li>• at 400 V rated value</li> <li>• at 500 V rated value</li> <li>• at 500 V acc. to UL 60947 rated value</li> </ul>	55 kA 55 kA 100 kA
<b>Maximum short-circuit current breaking capacity (Icu) in the IT network</b>	
<ul style="list-style-type: none"> <li>• at 400 V rated value</li> <li>• at 500 V rated value</li> </ul>	55 kA 55 kA

### Electromagnetic compatibility

<b>EMC emitted interference</b>	
<ul style="list-style-type: none"> <li>• acc. to IEC 60947-1</li> </ul>	class A
<b>EMI immunity acc. to IEC 60947-1</b>	Class A
<b>Conducted interference</b>	
<ul style="list-style-type: none"> <li>• due to burst acc. to IEC 61000-4-4</li> <li>• due to conductor-earth surge acc. to IEC 61000-4-5</li> <li>• due to conductor-conductor surge acc. to IEC 61000-4-5</li> <li>• due to high-frequency radiation acc. to IEC 61000-4-6</li> </ul>	2 kV 2 kV 1 kV 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

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	48 y
Safe state	Load circuit open
Protection against electrical shock	finger-safe

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	0.3 ... 1 A
Minimum load [%]	50 %; from smallest adjustable rated current
Type of the motor protection	solid-state
Operating voltage <ul style="list-style-type: none"> <li>• rated value</li> </ul>	48 ... 500 V
Relative symmetrical tolerance of the operating voltage	10 %
Operating frequency 1 rated value	50 Hz
Operating frequency 2 rated value	60 Hz
Relative symmetrical tolerance of the operating frequency	5 %
Relative positive tolerance of the operating frequency	5 %
Relative negative tolerance of the operating frequency	5 %
Operating current <ul style="list-style-type: none"> <li>• at AC at 400 V rated value</li> </ul>	1 A
Ampacity when starting maximum	10 A
Operating power for three-phase motors at 400 V at 50 Hz	0.09 ... 0.25 kW

Inputs/ Outputs	
Number of digital inputs <ul style="list-style-type: none"> <li>• Note</li> </ul>	4 4 via 3DI/LC module

Supply voltage	
Type of voltage of the supply voltage	DC
Supply voltage 1 at DC rated value <ul style="list-style-type: none"> <li>• minimum permissible</li> <li>• maximum permissible</li> </ul>	20.4 V 28.8 V
Supply voltage at DC rated value	24 V
Consumed current for rated value of supply voltage <ul style="list-style-type: none"> <li>• in standby mode</li> </ul>	85 mA

<ul style="list-style-type: none"> <li>during operation</li> <li>at switching on</li> </ul>	<p>140 mA</p> <p>230 mA</p>
<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> <li>in switching state ON with bypass circuit</li> </ul>	<p>2 W</p> <p>3.4 W</p>
<b>Inrush current peak</b> <ul style="list-style-type: none"> <li>at 24 V</li> </ul>	25 A; Observe the manual for group configuration
<b>Duration of inrush current peak</b> <ul style="list-style-type: none"> <li>at 24 V</li> </ul>	0.145 ms

Response times	
<b>Switch-on delay time</b>	20 ms
<b>Off-delay time</b>	35 ... 50 ms

Installation/ mounting/ dimensions	
<b>Mounting position</b>	Vertical, horizontal (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 <ul style="list-style-type: none"> <li>— upwards</li> <li>— downwards</li> </ul> </li> </ul>	<p>50 mm</p> <p>50 mm</p>

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> <li>during storage</li> <li>during transport</li> </ul>	<p>-25 ... +60 °C; For derating see manual</p> <p>-40 ... +70 °C</p> <p>-40 ... +70 °C</p>
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> <li>PROFINET protocol</li> </ul>	<p>Yes</p> <p>Yes</p>
<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> <li>• supports PROFIenergy shutdown</li> </ul>	<p>Yes</p> <p>Yes</p>
<b>address range memory of address range</b>	
<ul style="list-style-type: none"> <li>• of the inputs</li> <li>• of the outputs</li> </ul>	<p>4 byte</p> <p>2 byte</p>
<b>Type of electrical connection</b>	
<ul style="list-style-type: none"> <li>• of the communication interface</li> </ul>	Plug contact to Base Unit

### Connections/ Terminals

<b>Type of electrical connection</b>	
<ul style="list-style-type: none"> <li>• 1 for digital input signals</li> </ul>	Pluggable module - accessory
<b>Type of electrical connection</b>	
<ul style="list-style-type: none"> <li>• for main energy infeed</li> <li>• for load-side outgoing feeder</li> <li>• for supply voltage line-side</li> </ul>	<p>Plug contact to Base Unit</p> <p>Plug contact to Base Unit</p> <p>Plug contact to Base Unit</p>
<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>	1 A
<b>Current with locked rotor (LRA) for three-phase AC motor at 480 V rated value</b>	8 A
<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

General Product Approval	EMC	Declaration of Conformity
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CCC



CSA



UL



RCM



EG-Konf.

Declaration of Conformity	Test Certificates	Marine / Shipping
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[Miscellaneous](#)

[Type Test Certificates/Test Report](#)



ABS



BUREAU VERITAS



LRS



DNV-GL  
DNVGL.COM/AF

other
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[Confirmation](#)



Profibus

### Further information

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

[www.siemens.com/ic10](http://www.siemens.com/ic10)

**Industry Mall (Online ordering system)**

<https://mall.industry.siemens.com/mall/en/en/Catalog/product?mlfb=3RK1308-0AB00-0CP0>

**Cax online generator**

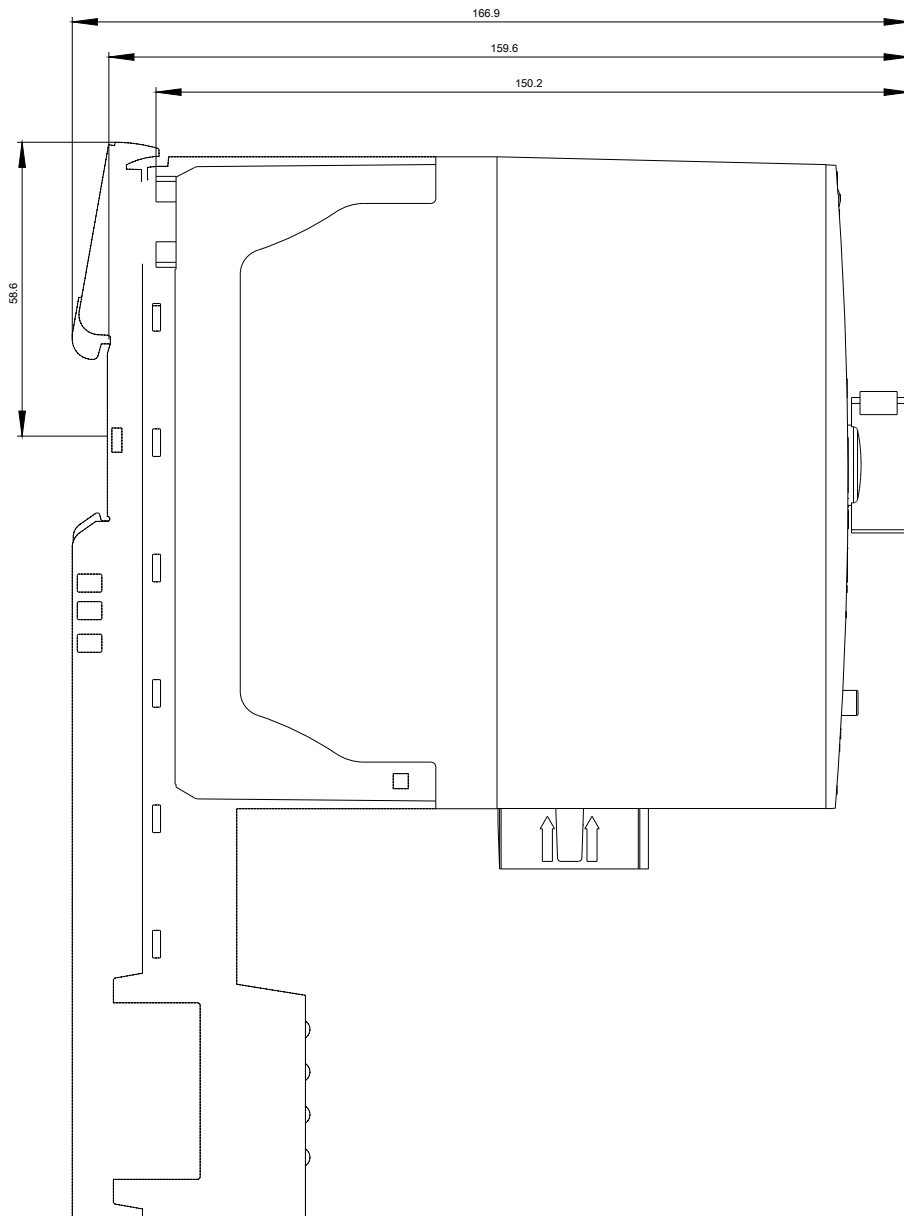
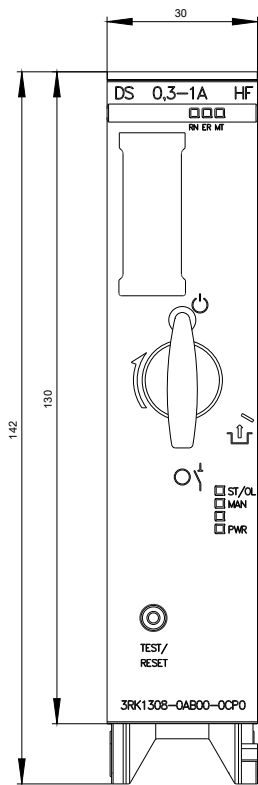
<http://support.automation.siemens.com/WW/CAXorder/default.aspx?lang=en&mlfb=3RK1308-0AB00-0CP0>

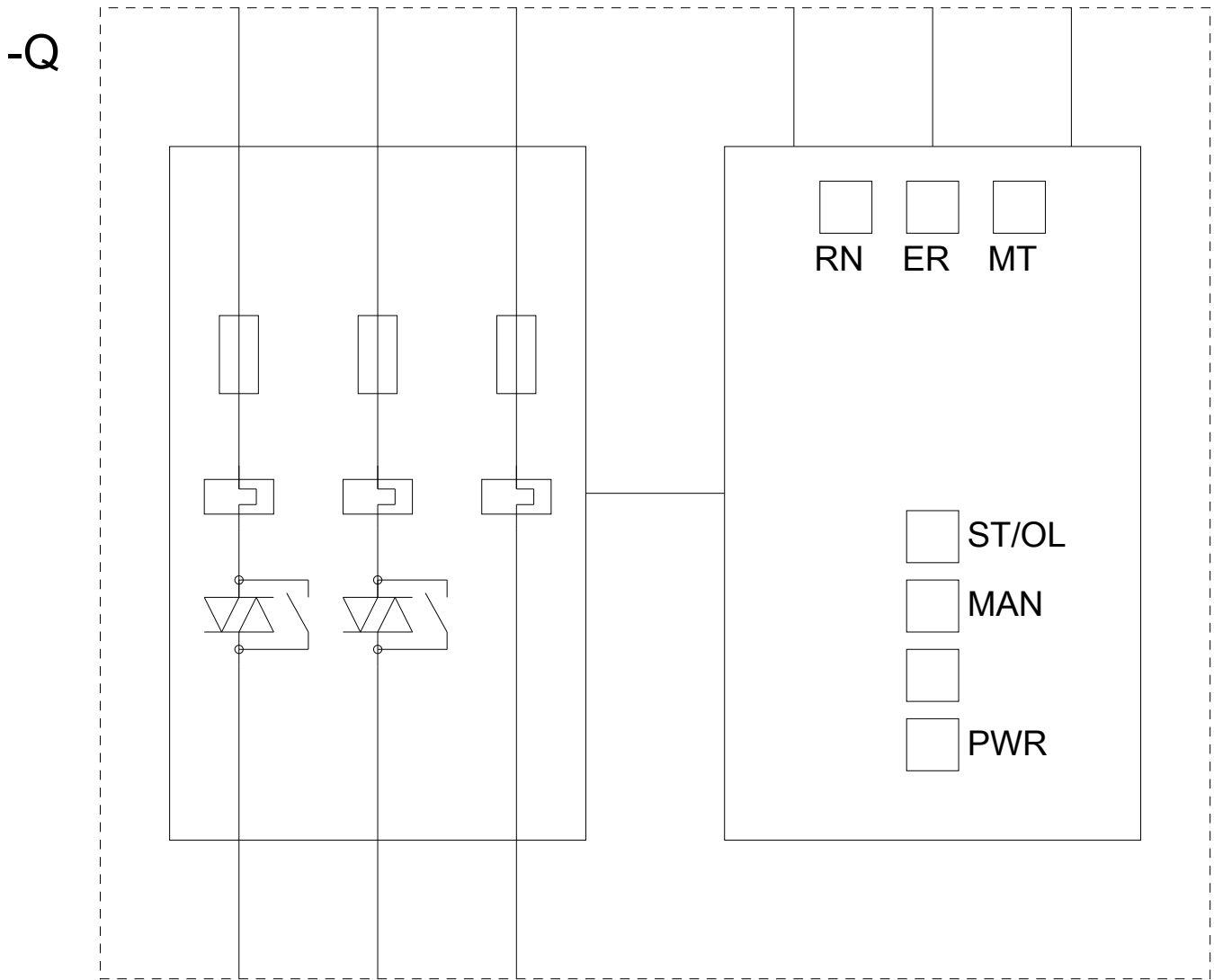
**Service&Support (Manuals, Certificates, Characteristics, FAQs,...)**

<https://support.industry.siemens.com/cs/ww/en/ps/3RK1308-0AB00-0CP0>

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

[http://www.automation.siemens.com/bilddb/cax\\_de.aspx?mlfb=3RK1308-0AB00-0CP0&lang=en](http://www.automation.siemens.com/bilddb/cax_de.aspx?mlfb=3RK1308-0AB00-0CP0&lang=en)





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