

Reversing starter electronic switching electr. overload protection up to 4 kW / 400 V; 2.8A to 9A Option: 3DI/LC module PROFlenergy

Product brand name	SIMATIC
Product category	Motor starter
Product type designation	ET 200SP

### General technical data

Equipment variant acc. to IEC 60947-4-2	3
Product function	Reversing 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>	1.7 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
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
Shock resistance	6g / 11 ms
Vibration resistance	15 mm to 6 Hz; 2g to 500 Hz
Mechanical service life (switching cycles)	
<ul style="list-style-type: none"> <li>of the main contacts typical</li> </ul>	30 000 000
Type of assignment	1
Usage category	
<ul style="list-style-type: none"> <li>acc. to IEC 60947-4-2</li> </ul>	AC53a: 9A: (8-0,7: 70-32)
Equipment marking	
<ul style="list-style-type: none"> <li>acc. to DIN 40719 extended according to IEC 204-2 acc. to IEC 750</li> </ul>	Q
<ul style="list-style-type: none"> <li>acc. to DIN EN 61346-2</li> </ul>	A
Product function	
<ul style="list-style-type: none"> <li>direct start</li> </ul>	Yes
<ul style="list-style-type: none"> <li>reverse starting</li> </ul>	Yes
Product component Motor brake output	No
Product function Short circuit protection	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>	46 y
<b>Safe state</b>	Load circuit open
<b>Protection against electrical shock</b>	finger-safe

#### Inputs/ Outputs

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

#### Response times

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

#### Main circuit

<b>Number of poles for main current circuit</b>	3
<b>Design of the switching contact</b>	Hybrid

Adjustable pick-up value current of the current-dependent overload release	2.8 ... 9 A
Minimum load [% of IM]	20 %
Type of the motor protection	solid-state
Operating voltage <ul style="list-style-type: none"> <li>• rated value</li> </ul>	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 <ul style="list-style-type: none"> <li>• at 50 Hz</li> </ul>	48 ... 500 V
Operating current <ul style="list-style-type: none"> <li>• at AC at 400 V rated value</li> </ul>	9 A
Ampacity when starting maximum	90 A
Operating power for three-phase motors at 400 V at 50 Hz	1.5 ... 4 kW

#### 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> <li>• during operation</li> <li>• when switching on</li> </ul>	85 mA 140 mA 230 mA
Power loss [W] for rated value of supply voltage <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>	2 W 3.4 W

#### 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

<b>Installation altitude at height above sea level</b>	
• maximum	4 000 m; For derating see manual
<b>Ambient temperature</b>	
• during operation	-25 ... +60 °C
• during operation maximum	For derating see manual
• during storage	-40 ... +70 °C
• during transport	-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>	
• acc. to SN 31205	900 ... 1 060 hPa

#### Communication/ Protocol

<b>Protocol is supported</b>	
• PROFIBUS DP protocol	Yes
• PROFINET protocol	Yes
<b>Product function Bus communication</b>	Yes
<b>Protocol is supported</b>	
• AS-interface protocol	No
<b>Product function</b>	
• supports PROFIenergy measured values	Yes
• supports PROFIenergy shutdown	Yes
<b>Address space memory of address range</b>	
• of inputs	4 byte
• of outputs	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

#### Operating voltage

- at AC at 60 Hz acc. to CSA and UL rated value 480 V

### Certificates/approvals

#### General Product Approval

#### Declaration of Conformity

#### Test Certificates



CCC



CSA



UL



EG-Konf.

[Type Test  
Certificates/Test  
Report](#)

#### Shipping Approval

#### other



ABS



LRS

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Confirmations](#)

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Certification](#)

### 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=3RK1308-0BD00-0CP0>

#### Cax online generator

<http://support.automation.siemens.com/WW/CAXorder/default.aspx?lang=en&mlfb=3RK1308-0BD00-0CP0>

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

<https://support.industry.siemens.com/cs/ww/en/ps/3RK1308-0BD00-0CP0>

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

[http://www.automation.siemens.com/bilddb/cax\\_de.aspx?mlfb=3RK1308-0BD00-0CP0&lang=en](http://www.automation.siemens.com/bilddb/cax_de.aspx?mlfb=3RK1308-0BD00-0CP0&lang=en)

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