



Direct-on-line starter High Feature; Electronic switching; Electronic overload protection up to 4 kW / 400 V; Adjustment range 2.8 .. 9 A; PROFlenergy; Option: 3DI/LC module

product brand name	SIMATIC
product category	Motor starter
product designation	Direct-on-line starter
product type designation	ET 200SP
<b>General technical data</b>	
equipment variant according 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>	Yes Yes Yes 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>	1.5 W
insulation voltage rated value	500 V
degree of pollution	2
overvoltage category	III
surge voltage resistance rated value	6 kV
maximum permissible voltage for protective separation	
<ul style="list-style-type: none"> <li>between main and auxiliary circuit</li> </ul>	500 V
shock resistance	6g / 11 ms
vibration resistance	15 mm to 6 Hz; 2g to 500 Hz
operating frequency maximum	1 1/s
mechanical service life (operating cycles) of the main contacts typical	30 000 000
type of assignment	1
utilization category	
<ul style="list-style-type: none"> <li>according to IEC 60947-4-2</li> <li>according to IEC 60947-4-3</li> </ul>	AC-53a: 9 A: (8-0,7: 70-32) AC-51: 9 A: (1,2-10: 50-360); AC-55a: 4 A: (3-240: 40-6)
reference code according to IEC 81346-2	Q
Substance Prohibitance (Date)	04/15/2016
SVHC substance name	Lead - 7439-92-1 Lead monoxide (lead oxide) - 1317-36-8
Weight	0.534 kg
product function	
<ul style="list-style-type: none"> <li>direct start</li> <li>reverse starting</li> </ul>	Yes No
product component motor brake output	No
product function short circuit protection	Yes
design of short-circuit protection	fuse
maximum short-circuit current breaking capacity (Icu)	
<ul style="list-style-type: none"> <li>at 400 V rated value</li> </ul>	55 kA

<ul style="list-style-type: none"> <li>at 500 V rated value</li> </ul>	55 kA
<ul style="list-style-type: none"> <li>at 500 V according to UL 60947 rated value</li> </ul>	100 kA
<b>maximum short-circuit current breaking capacity (I<sub>cu</sub>) in the IT network</b>	
<ul style="list-style-type: none"> <li>at 400 V rated value</li> </ul>	55 kA
<ul style="list-style-type: none"> <li>at 500 V rated value</li> </ul>	55 kA
<b>Electromagnetic compatibility</b>	
EMC emitted interference according to IEC 60947-1	class A
EMC immunity according to IEC 60947-1	Class A
<b>conducted interference</b>	
<ul style="list-style-type: none"> <li>due to burst according to IEC 61000-4-4</li> </ul>	2 kV
<ul style="list-style-type: none"> <li>due to conductor-earth surge according to IEC 61000-4-5</li> </ul>	2 kV
<ul style="list-style-type: none"> <li>due to conductor-conductor surge according to IEC 61000-4-5</li> </ul>	1 kV
<ul style="list-style-type: none"> <li>due to high-frequency radiation according to IEC 61000-4-6</li> </ul>	Class A
<b>field-based interference according to IEC 61000-4-3</b>	10 V/m
<b>electrostatic discharge according to IEC 61000-4-2</b>	8 kV air discharge
<b>conducted HF interference emissions according to CISPR11</b>	Class A for industrial environment
<b>field-bound HF interference emission according to CISPR11</b>	Class A for industrial environment
<b>Safety related data</b>	
<b>MTBF</b>	46 a
<b>Electrical Safety</b>	
<b>touch protection against electrical shock</b>	finger-safe
<b>protection class IP on the front according to IEC 60529</b>	IP20
<b>touch protection on the front according to IEC 60529</b>	finger-safe
<b>Main circuit</b>	
<b>number of poles for main current circuit</b>	3
<b>design of the switching contact</b>	Hybrid
<b>adjustable current response value current of the current-dependent overload release</b>	2.8 ... 9 A
<b>minimum load [%]</b>	50 %; from smallest adjustable rated current
<b>type of the motor protection</b>	solid-state
operating voltage rated value	48 ... 500 V
<b>relative symmetrical tolerance of the operating voltage</b>	10 %
<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 %
operational current at AC at 400 V rated value	9 A
<b>ampacity when starting maximum</b>	90 A
operating power for 3-phase motors at 400 V at 50 Hz	1.5 ... 4 kW
<b>Inputs/ Outputs</b>	
<b>number of digital inputs</b>	4
<ul style="list-style-type: none"> <li>note</li> </ul>	4 via 3DI/LC module
<b>Supply voltage</b>	
<b>type of voltage of the supply voltage</b>	DC
<b>supply voltage 1 at DC rated value</b>	
<ul style="list-style-type: none"> <li>minimum permissible</li> </ul>	20.4 V
<ul style="list-style-type: none"> <li>maximum permissible</li> </ul>	28.8 V
<b>supply voltage at DC rated value</b>	24 V
<b>consumed current for rated value of supply voltage</b>	
<ul style="list-style-type: none"> <li>in standby mode of operation</li> </ul>	85 mA
<ul style="list-style-type: none"> <li>during operation</li> </ul>	140 mA
<ul style="list-style-type: none"> <li>at switching on of motor</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
inrush current peak at 24 V	25 A; Observe the manual for group configuration
duration of inrush current peak at 24 V	0.145 ms

Response times	
<b>ON-delay time</b>	20 ms
<b>OFF-delay time</b>	35 ... 50 ms
Power Electronics	
<b>operational current</b>	
• at 40 °C rated value	9 A
• at 50 °C rated value	9 A
• at 55 °C rated value	9 A
• at 60 °C rated value	9 A
Installation/ mounting/ dimensions	
<b>mounting position</b>	Vertical, horizontal (observe derating)
<b>fastening method</b>	pluggable in BaseUnit
<b>height</b>	142 mm
<b>width</b>	30 mm
<b>depth</b>	150 mm
required spacing with side-by-side mounting	
• upwards	50 mm
• downwards	50 mm
Ambient conditions	
installation altitude at height above sea level maximum	4 000 m; For derating see manual
<b>ambient temperature</b>	
• during operation	-25 ... +60 °C; For derating see manual
• during storage	-40 ... +70 °C
• during transport	-40 ... +70 °C
environmental category during operation according 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 according 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
protocol is supported AS-Interface protocol	No
<b>product function</b>	
• supports PROFenergy measured values	Yes
• supports PROFenergy shutdown	Yes
<b>address space memory of address range</b>	
• of the inputs	4 byte
• of the outputs	2 byte
type of electrical connection 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	
full-load current (FLA) for 3-phase AC motor at 480 V rated value	9 A
current with locked rotor (LRA) for 3-phase AC motor at 480 V rated value	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 3-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 according to CSA and UL rated value

480 V

## Approvals Certificates

### General Product Approval



EG-Konf.

[Confirmation](#)



CCC



UL



### EMV

### Test Certificates

### Marine / Shipping



RCM

[KC](#)

[Type Test Certificates/Test Report](#)



ABS



BUREAU  
VERITAS



DNV

### Marine / Shipping

### other

### Environment

### Industrial Communication



LRS

[Confirmation](#)

[Environmental Confirmations](#)



Profibus

## Further information

### Information on the packaging

<https://support.industry.siemens.com/cs/ww/en/view/109813875>

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

<https://www.siemens.com/ic10>

### 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)



