

D-O-L starter for ET 200SP Direct-on-line-starter Expandable Setting  
range 2.8...9A AC-3, 4 kW / 400 V Hybrid starter



Figure similar

product brand name	SIMATIC
Product designation	Motor starters
Design of the product	direct starter

General technical data:

Product function	Direct starter
• on-site operation	Yes
• Intrinsic device protection	Yes
• Adjustable current limitation	Yes
• Remote firmware update	Yes
• for power supply Reverse polarity protection	Yes
Insulation voltage	
• rated value	500 V
Degree of pollution	2
Overvoltage category	III
Surge voltage resistance rated value	6 kV
maximum permissible voltage for safe isolation	
• 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> <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>	AC55a: 4A: (3-240: 40-6) AC53a: 9A: (8-0,7: 70-32) AC51: 9A: (1,2-10: 50-360)
<b>Equipment marking</b> <ul style="list-style-type: none"> <li>• acc. to DIN 40719 extended according to IEC 204-2 acc. to IEC 750</li> <li>• acc. to DIN EN 61346-2</li> </ul>	Q  A
<b>Product function</b> <ul style="list-style-type: none"> <li>• direct start</li> <li>• reverse starting</li> </ul>	Yes  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> <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

#### Electromagnetic compatibility:

<b>EMC emitted interference</b> <ul style="list-style-type: none"> <li>• acc. to IEC 60947-1</li> </ul>	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> </ul>	2 kV 2 kV 1 kV
<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

#### Inputs/ Outputs:

<b>Number of digital inputs</b>	4
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#### Main circuit:

<b>Number of poles for main current circuit</b>	3
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<b>Design of the switching contact</b>	Hybrid
<b>Adjustable pick-up value current of the current-dependent overload release</b>	2.8 ... 9 A
<b>Minimum load [% of IM]</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>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	9 A
<b>Operating power</b> • for three-phase motors at 400 V at 50 Hz minimum • for three-phase motors at 400 V at 50 Hz maximum	0.9 kW 4 kW

#### Supply voltage:

<b>Type of voltage of the supply voltage</b>	DC
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#### Control circuit/ Control:

<b>Type of voltage of the control supply voltage</b>	DC
<b>Control supply voltage 1</b> • at DC rated value	20.4 ... 28.8 V
<b>Control current</b> • at DC in standby mode • at DC during operation • at DC when switching on	85 mA 140 mA 230 mA
<b>Switch-on delay time</b>	20 ... 25 ms
<b>Off-delay time</b>	20 ... 35 ms
<b>Power loss [W] in auxiliary and control circuit</b> • in switching state OFF — with bypass circuit — without bypass circuit • in switching state ON — with bypass circuit — without bypass circuit	1.6 W 0 W 2.7 W 0 W

#### Installation/ mounting/ dimensions:

<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>	
• with side-by-side mounting	
— upwards	50 mm
— downwards	50 mm

#### Ambient conditions:

<b>Installation altitude at height above sea level maximum</b>	2 000 m
<b>Ambient temperature</b>	
• during operation	-25 ... +60 °C
• during storage	-40 ... +70 °C
• during transport	-40 ... +70 °C
<b>Relative humidity during operation</b>	10 ... 95 %
<b>Air pressure</b>	
• acc. to SN 31205	900 ... 1 060 hPa

#### Communication/ Protocol:

<b>Product function Bus communication</b>	Yes
<b>Protocol</b>	
• is supported PROFIBUS DP protocol	Yes
• is supported PROFINET protocol	Yes
<b>Product function</b>	
• supports PROFlenergy measured values	Yes
• supports PROFlenergy shutdown	Yes

#### Connections/ Terminals:

<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>Yielded mechanical performance [hp]</b>	
• for single-phase AC motor	
— at 110/120 V rated value	0.3 hp
— at 230 V rated value	0.75 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			Declaration of Conformity	Test Certificates	other
				<a href="#">Typprüfbescheinigung/Werkszeugnis</a>	<a href="#">Bestätigungen</a>
CCC	CSA	UL	EG-Konf.		

## other

[PROFINET-Zertifizierung](#)

## 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=3RK13080AD000CP0>

### Cax online generator

<http://support.automation.siemens.com/WW/CAXorder/default.aspx?lang=en&mlfb=3RK13080AD000CP0>

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

<https://support.industry.siemens.com/cs/ww/en/ps/3RK13080AD000CP0>

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

[http://www.automation.siemens.com/bilddb/cax\\_de.aspx?mlfb=3RK13080AD000CP0&lang=en](http://www.automation.siemens.com/bilddb/cax_de.aspx?mlfb=3RK13080AD000CP0&lang=en)

