

Fail-safe D-O-L starter electronic switching electr. overload protection up to 4 KW / 400 V; 2.8A to 9A Option: 3DI/LC module PROFIenergy



Figure similar

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	Fail-safe direct-on-line starter
<ul style="list-style-type: none"> on-site operation 	Yes
<ul style="list-style-type: none"> Intrinsic device protection 	Yes
<ul style="list-style-type: none"> Remote firmware update 	Yes
<ul style="list-style-type: none"> for power supply Reverse polarity protection 	Yes
Power loss [W] for rated value of the current	
<ul style="list-style-type: none"> at AC in hot operating state per pole 	1.7 W
Insulation voltage	
<ul style="list-style-type: none"> rated value 	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"> • between main and auxiliary circuit 	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"> • of the main contacts typical 	15 000 000
Type of assignment	1
Usage category	
<ul style="list-style-type: none"> • acc. to IEC 60947-4-2 	AC53a: 9A: (8-0,7: 70-32)
Equipment marking	
<ul style="list-style-type: none"> • acc. to DIN 40719 extended according to IEC 204-2 acc. to IEC 750 	Q
<ul style="list-style-type: none"> • acc. to DIN EN 61346-2 	A
Product function	
<ul style="list-style-type: none"> • direct start 	Yes
<ul style="list-style-type: none"> • reverse starting 	No
Product component Motor brake output	No
Product function Short circuit protection	Yes
Design of short-circuit protection	fuse
Trip class	CLASS 5 and 10 adjustable
Maximum short-circuit current breaking capacity (Icu)	
<ul style="list-style-type: none"> • at 400 V rated value 	55 kA
<ul style="list-style-type: none"> • at 500 V rated value 	55 kA
<ul style="list-style-type: none"> • at 500 V acc. to UL 60947 rated value 	100 kA
Maximum short-circuit current breaking capacity (Icu) in the IT network	
<ul style="list-style-type: none"> • at 400 V rated value 	55 kA
<ul style="list-style-type: none"> • at 500 V rated value 	55 kA

Electromagnetic compatibility

EMC emitted interference	
<ul style="list-style-type: none"> • acc. to IEC 60947-1 	class A
EMI immunity acc. to IEC 60947-1	Class A
Conducted interference	
<ul style="list-style-type: none"> • due to burst acc. to IEC 61000-4-4 	3 kV
<ul style="list-style-type: none"> • due to conductor-earth surge acc. to IEC 61000-4-5 	4 kV
<ul style="list-style-type: none"> • due to conductor-conductor surge acc. to IEC 61000-4-5 	2 kV
<ul style="list-style-type: none"> • due to high-frequency radiation acc. to IEC 61000-4-6 	Class A
Field-bound parasitic coupling acc. to IEC 61000-4-3	20 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

Safety device type acc. to IEC 61508-2	Type B
B10d value	2 200 000
Safety Integrity Level (SIL) acc. to IEC 61508	3
Performance level (PL) acc. to EN ISO 13849-1	e
Category acc. to EN ISO 13849-1	4
Stop category acc. to DIN EN 60204-1	0
Diagnostics test interval by internal test function maximum	600 s
PFH acc. to IEC 61508 relating to SIL	0.0000000036 1/h
PFDavg with low demand rate acc. to IEC 61508	0.00000041
Hardware fault tolerance acc. to IEC 61508	1
Service life maximum	20 y
Safe state	Load circuit open
Protection against electrical shock	finger-safe

Inputs/ Outputs

Number of digital inputs	5
<ul style="list-style-type: none"> Note safety-related 	4 via 3DI/LC module, 1 F-DI
Input voltage at digital input	
<ul style="list-style-type: none"> at DC rated value with signal <0> at DC for signal <1> at DC 	24 V 0 ... 5 V 15 ... 30
Input current at digital input	
<ul style="list-style-type: none"> for signal <1> typical 	0.009 A

Response times

Switch-on delay time	35 ms
Off-delay time	35 ... 50 ms
Off-delay time with safety-related request	
<ul style="list-style-type: none"> when switched off via control inputs maximum when switched off via supply voltage maximum 	55 ms 120 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 [% of IM]	50 %
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
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	
• 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	95 mA
• during operation	160 mA
• when switching on	250 mA
Power loss [W] for rated value of supply voltage	
• in switching state OFF with bypass circuit	2.3 W
• in switching state ON with bypass circuit	3.8 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	
• with side-by-side mounting	
— upwards	50 mm
— downwards	50 mm

Ambient conditions

Installation altitude at height above sea level	
• maximum	2 000 m; For derating see manual
Ambient temperature	
• during operation	-25 ... +60 °C

<ul style="list-style-type: none"> during operation maximum during storage during transport 	For derating see manual -40 ... +70 °C -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 %
Air pressure	
<ul style="list-style-type: none"> acc. to SN 31205 	900 ... 1 060 hPa

Communication/ Protocol

Protocol is supported	
<ul style="list-style-type: none"> PROFIBUS DP protocol PROFINET protocol 	Yes Yes
Product function Bus communication	Yes
Protocol is supported	
<ul style="list-style-type: none"> AS-interface protocol 	No
Product function	
<ul style="list-style-type: none"> supports PROFlenergy measured values supports PROFlenergy shutdown 	Yes Yes
Address space memory of address range	
<ul style="list-style-type: none"> of inputs of outputs 	4 byte 2 byte
Type of electrical connection	
<ul style="list-style-type: none"> of the communication interface 	Plug contact to Base Unit

Connections/Terminals

Type of electrical connection	
<ul style="list-style-type: none"> 1 for digital input signals 2 for digital input signals 	Pluggable module - accessory Plug contact to Base Unit
Type of electrical connection	
<ul style="list-style-type: none"> for main energy infeed for load-side outgoing feeder for supply voltage line-side 	Plug contact to Base Unit Plug contact to Base Unit Plug contact to Base Unit
Wire length for motor unshielded maximum	200 m

UL/CSA ratings

Full-load current (FLA) for three-phase AC motor	
<ul style="list-style-type: none"> at 480 V rated value 	9 A
Current with locked rotor (LRA) for three-phase AC motor at 480 V rated value	72 A
Yielded mechanical performance [hp]	
<ul style="list-style-type: none"> for single-phase AC motor <ul style="list-style-type: none"> at 110/120 V rated value at 230 V rated value 	0.33 hp 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	For use in hazardous locations	Functional Safety/Safety of Machinery
 CCC	 CSA	 UL
 EAC	 ATEX	Type Examination Certificate

Declaration of Conformity	Test Certificates	Shipping Approval	other
 EG-Konf.	Type Test Certificates/Test Report	 ABS	 LRS
			Environmental Confirmations
			Confirmation

other

[PROFINET-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=3RK1308-0CD00-0CP0>

Cax online generator

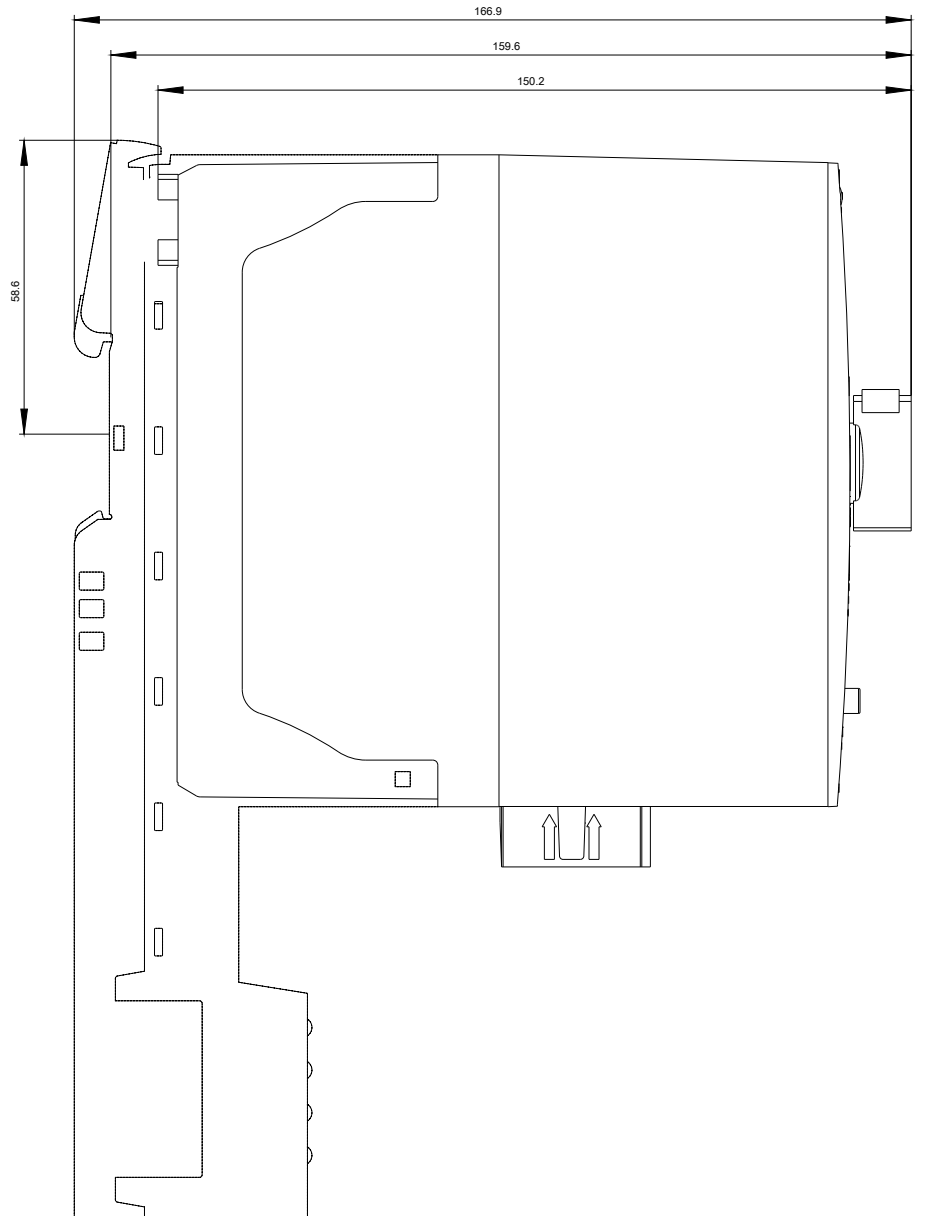
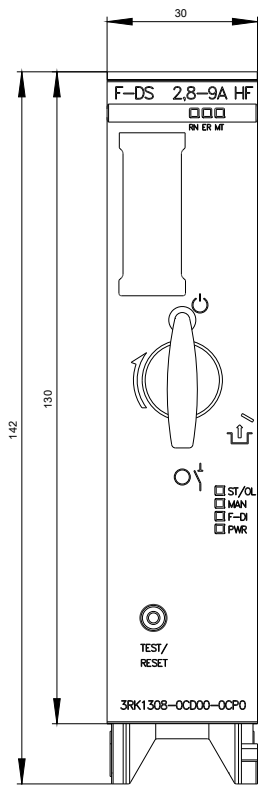
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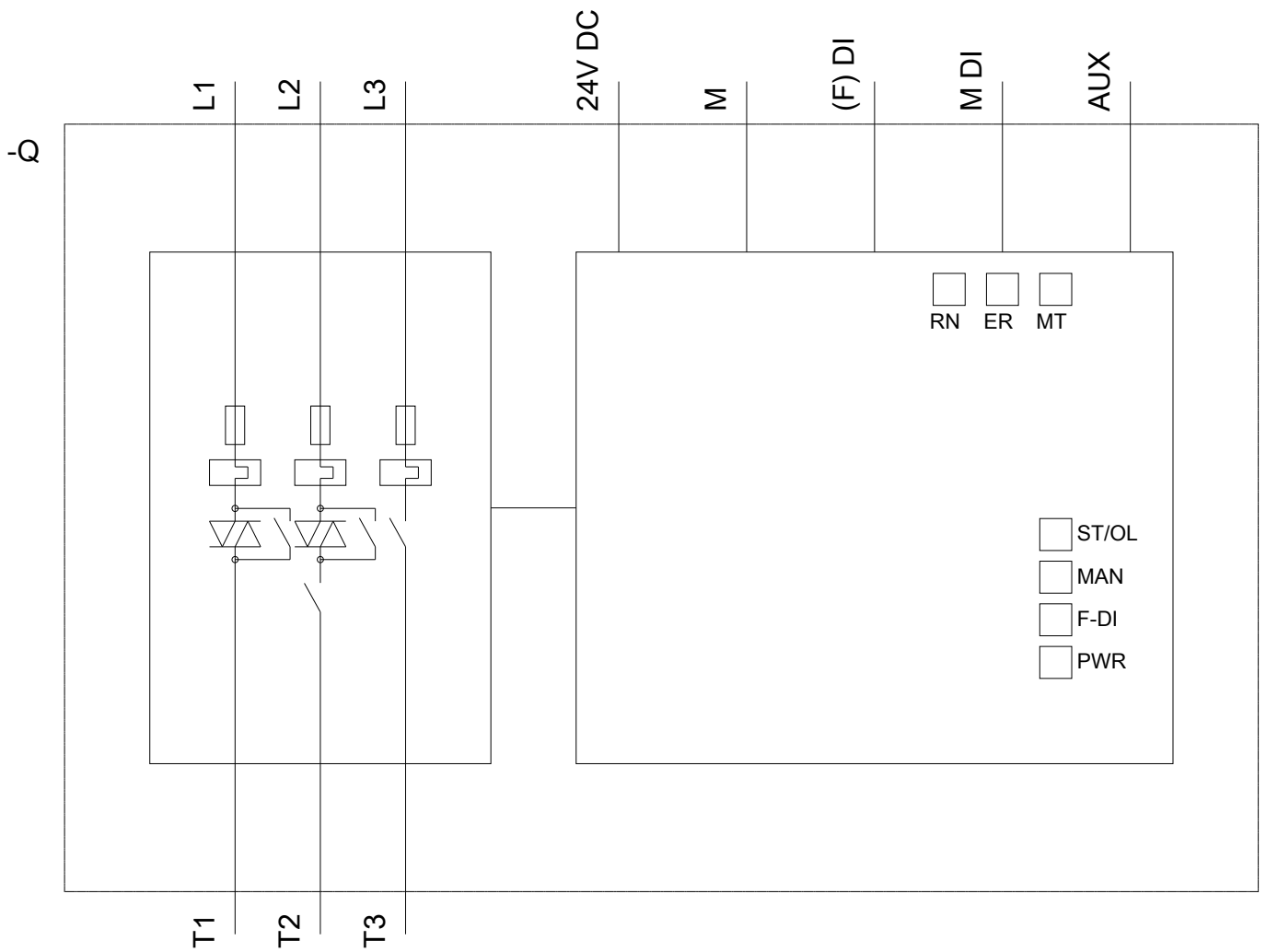
Service&Support (Manuals, Certificates, Characteristics, FAQs,...)

<https://support.industry.siemens.com/cs/ww/en/ps/3RK1308-0CD00-0CP0>

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

http://www.automation.siemens.com/bilddb/cax_de.aspx?mlfb=3RK1308-0CD00-0CP0&lang=en





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