

Failsafe DOL starter Electronic switching Electronic overload protection up to 1.1 kW/400 V; 0.9 A to 3 A High-Feature Option: 3DI/LC module PROFInergy



Product brand name	SIMATIC
Product category	Motor starter
Product designation	Fail-safe direct-on-line 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 • Intrinsic device protection • Remote firmware update • for power supply Reverse polarity protection 	<p>Yes</p> <p>Yes</p> <p>Yes</p> <p>Yes</p>
Power loss [W] for rated value of the current	
<ul style="list-style-type: none"> • at AC in hot operating state per pole 	0.2 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
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: 3A: (8-0,7: 70-32)
Reference code acc. to DIN 40719 extended according to IEC 204-2 acc. to IEC 750	Q
Reference code 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
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Safety related data

Safety device type acc. to IEC 61508-2	Type B
B10d value	2 300 000
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

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	0.9 ... 3 A
Minimum load [%]	50 %
Type of the motor protection	solid-state
Operating voltage <ul style="list-style-type: none"> • 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 %
Relative positive tolerance of the operating frequency	5 %
Relative negative tolerance of the operating frequency	5 %
Operating range relative to the operating voltage at AC <ul style="list-style-type: none"> • at 50 Hz 	48 ... 500 V
Operating current <ul style="list-style-type: none"> • at AC at 400 V rated value 	3 A
Ampacity when starting maximum	30 A

Inputs/ Outputs

Number of digital inputs <ul style="list-style-type: none"> • Note • safety-related 	5 4 via 3DI/LC module, 1 F-DI 1
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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

Supply voltage	
Type of voltage of the supply voltage	DC
Supply voltage 1 at DC rated value	
<ul style="list-style-type: none"> • minimum permissible • maximum permissible 	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"> • in standby mode • during operation • when switching on 	95 mA 160 mA 250 mA
Power loss [W] for rated value of supply voltage	
<ul style="list-style-type: none"> • in switching state OFF with bypass circuit • in switching state ON with bypass circuit 	2.3 W 3.8 W

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

Installation/ mounting/ dimensions	
Mounting position	Vertical, horizontal, flat (observe derating)
<ul style="list-style-type: none"> • (mounting type) 	pluggable in BaseUnit
Height	142 mm
Width	30 mm
Depth	150 mm
Required spacing	
<ul style="list-style-type: none"> • with side-by-side mounting <ul style="list-style-type: none"> — upwards — downwards 	50 mm 50 mm

Ambient conditions	
Installation altitude at height above sea level	
<ul style="list-style-type: none"> • maximum 	2 000 m; For derating see manual
Ambient temperature	
<ul style="list-style-type: none"> • during operation • during operation maximum 	-25 ... +60 °C For derating see manual

<ul style="list-style-type: none"> during storage during transport 	-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 range memory of address range <ul style="list-style-type: none"> of the inputs of the 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 	3 A
Current with locked rotor (LRA) for three-phase AC motor at 480 V rated value	24 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 for three-phase AC motor 	0.1 hp 0.25 hp

— at 200/208 V rated value	0.5 hp
— at 220/230 V rated value	0.5 hp
— at 460/480 V rated value	1.5 hp

Operating voltage	
• at AC at 60 Hz acc. to CSA and UL rated value	480 V

Certificates/approvals

General Product Approval	EMC	For use in hazardous locations
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CCC



CSA



UL



C-Tick



ATEX

Functional Safety/Safety of Machinery	Declaration of Conformity	Test Certificates	Marine / Shipping
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[Type Examination Certificate](#)



EG-Konf.

[Type Test Certificates/Test Report](#)



ABS



LRS



DNVGL.COM/AF

other

[Confirmation](#)

[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=3RK1308-0CC00-0CP0>

Cax online generator

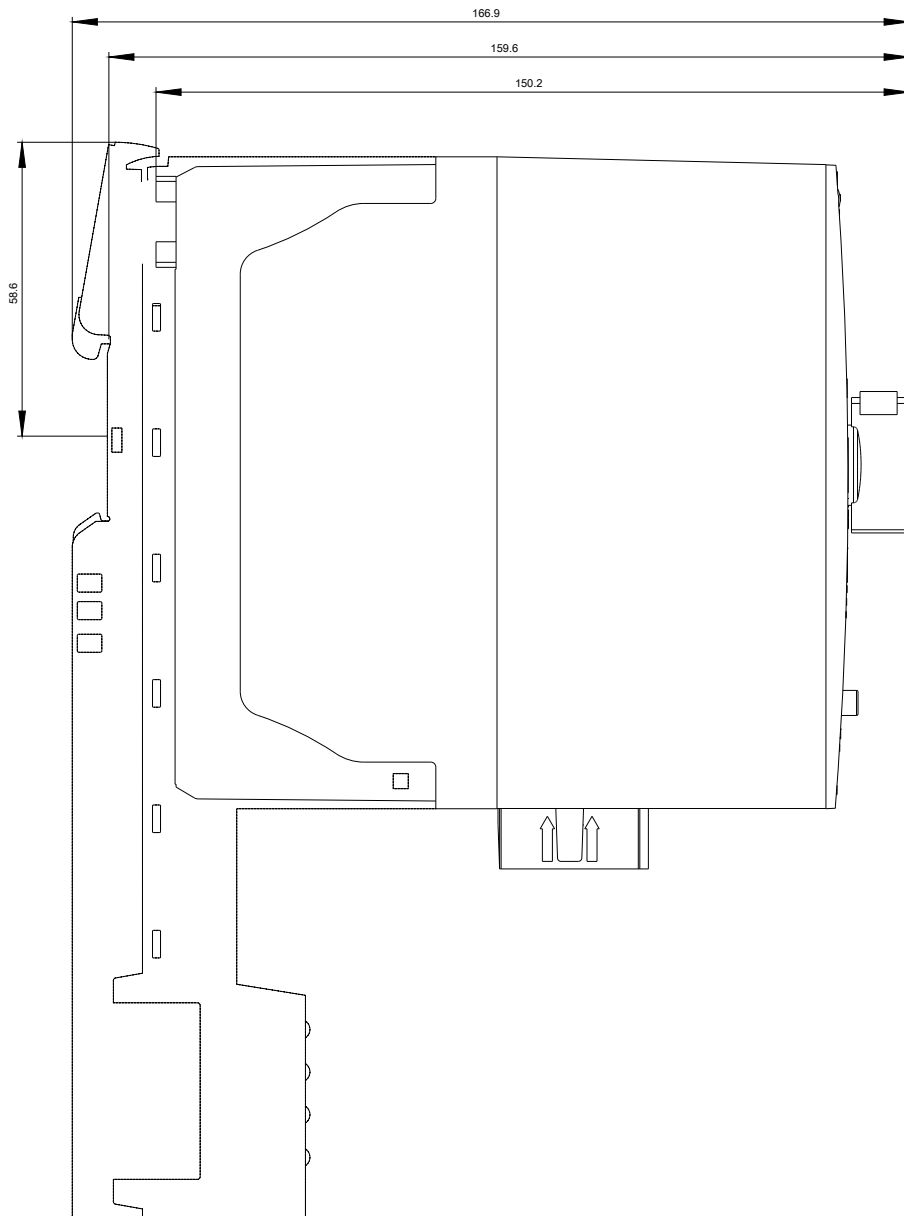
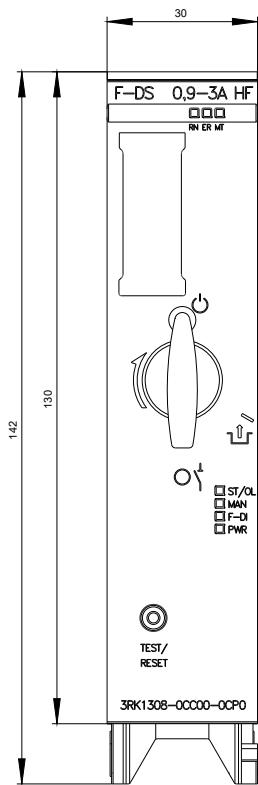
<http://support.automation.siemens.com/WW/CAXorder/default.aspx?lang=en&mlfb=3RK1308-0CC00-0CP0>

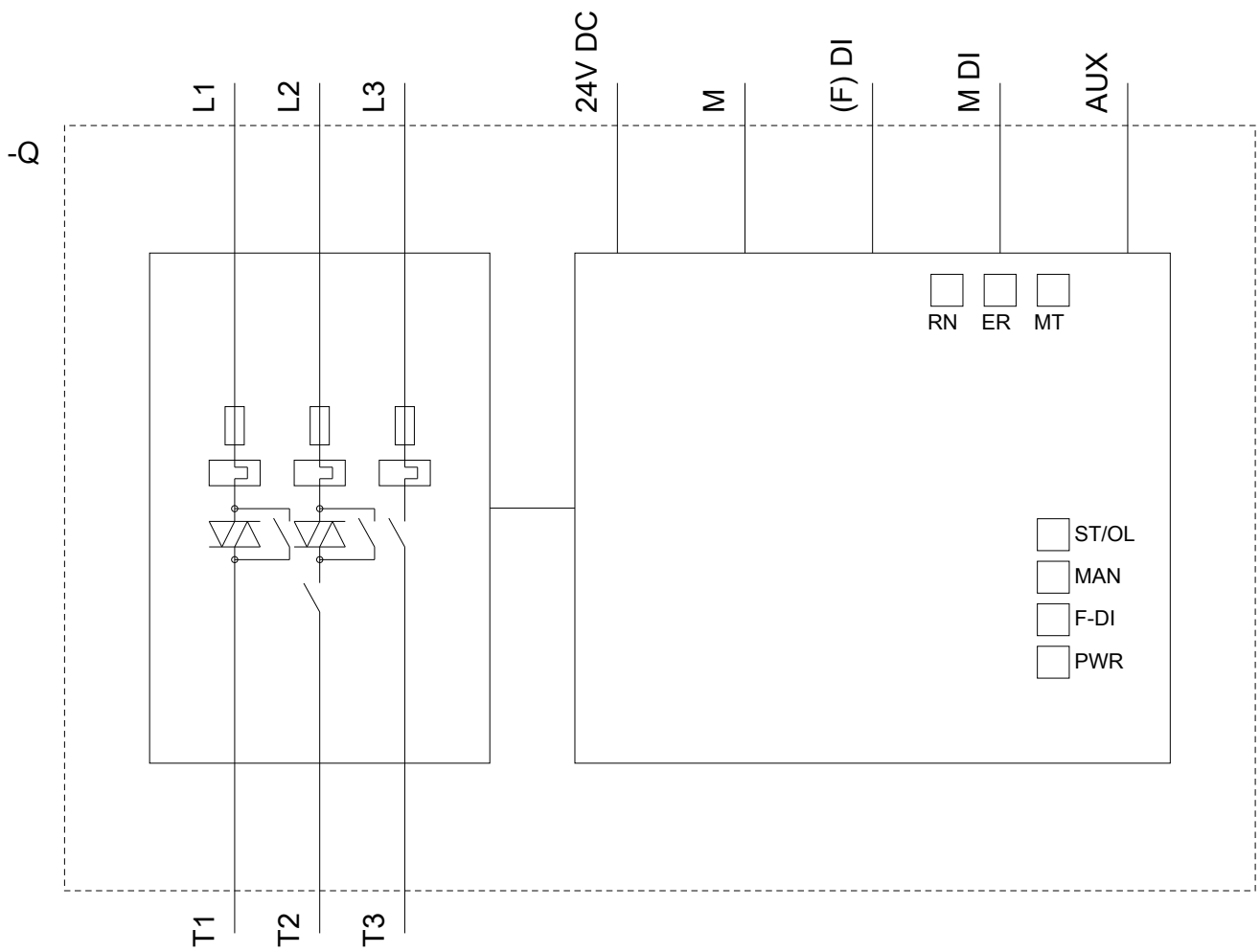
Service&Support (Manuals, Certificates, Characteristics, FAQs,...)

<https://support.industry.siemens.com/cs/ww/en/ps/3RK1308-0CC00-0CP0>

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

http://www.automation.siemens.com/bilddb/cax_de.aspx?mlfb=3RK1308-0CC00-0CP0&lang=en





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