SIEMENS

Data sheet 3RK1308-0DD00-0CP0

Fail-safe reversing starter electronic switching electr. overload protection up to 4 KW/400 V; 2.8 A to 9 A 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 reversing starter
• on-site operation	Yes
• Intrinsic device protection	Yes
• Remote firmware update	Yes
• for power supply Reverse polarity protection	Yes
Power loss [W] for rated value of the current	
• at AC in hot operating state per pole	1.7 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 safe isolation	
• 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)	
• of the main contacts typical	15 000 000
Type of assignment	1
Usage category	
• acc. to IEC 60947-4-2	AC53a: 9A: (8-0,7: 70-32)
Equipment marking	
• acc. to DIN 40719 extended according to IEC 204-2 acc. to IEC 750	Q
• acc. to DIN EN 61346-2	A
Product function	
• direct start	Yes
• reverse starting	Yes
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)	
• 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
Maximum short-circuit current breaking capacity (Icu) in the IT network	
• at 400 V rated value	55 kA
• at 500 V rated value	55 kA

Electromagnetic compatibility

EMC emitted interference	
• acc. to IEC 60947-1	class A
EMI immunity acc. to IEC 60947-1	Class A
Conducted interference	
• due to burst acc. to IEC 61000-4-4	3 kV
• due to conductor-earth surge acc. to IEC 61000-4-5	4 kV
• due to conductor-conductor surge acc. to IEC 61000-4-5	2 kV
• 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
• Note	4 via 3DI/LC module, 1 F-DI
• safety-related	1
Input voltage at digital input	
• at DC rated value	24 V
• with signal <0> at DC	0 ... 5 V
• for signal <1> at DC	15 ... 30
Input current at digital input	
• 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	
• when switched off via control inputs maximum	55 ms
• when switched off via supply voltage maximum	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

• 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 %
Air pressure	
• acc. to SN 31205	900 ... 1 060 hPa

Communication/ Protocol

Protocol is supported	
• PROFIBUS DP protocol	Yes
• PROFINET protocol	Yes
Product function Bus communication	Yes
Protocol is supported	
• AS-interface protocol	No
Product function	
• supports PROFIenergy measured values	Yes
• supports PROFIenergy shutdown	Yes
Address space memory of address range	
• of inputs	4 byte
• of outputs	2 byte
Type of electrical connection	
• of the communication interface	Plug contact to Base Unit

Connections/Terminals

Type of electrical connection	
• 1 for digital input signals	Pluggable module - accessory
• 2 for digital input signals	Plug contact to Base Unit
Type of electrical connection	
• 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
Wire length for motor unshielded maximum	200 m

UL/CSA ratings

Full-load current (FLA) for three-phase AC motor	
• 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]	
• 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				Functional Safety/Safety of Machinery	Declaration of Conformity
CCC	CSA	UL	EAC	Type Examination Certificate	EG-Konf.

Shipping Approval		other		
ABS	LRS	Environmental Confirmations	Confirmation	PROFINET-Certification

Further information

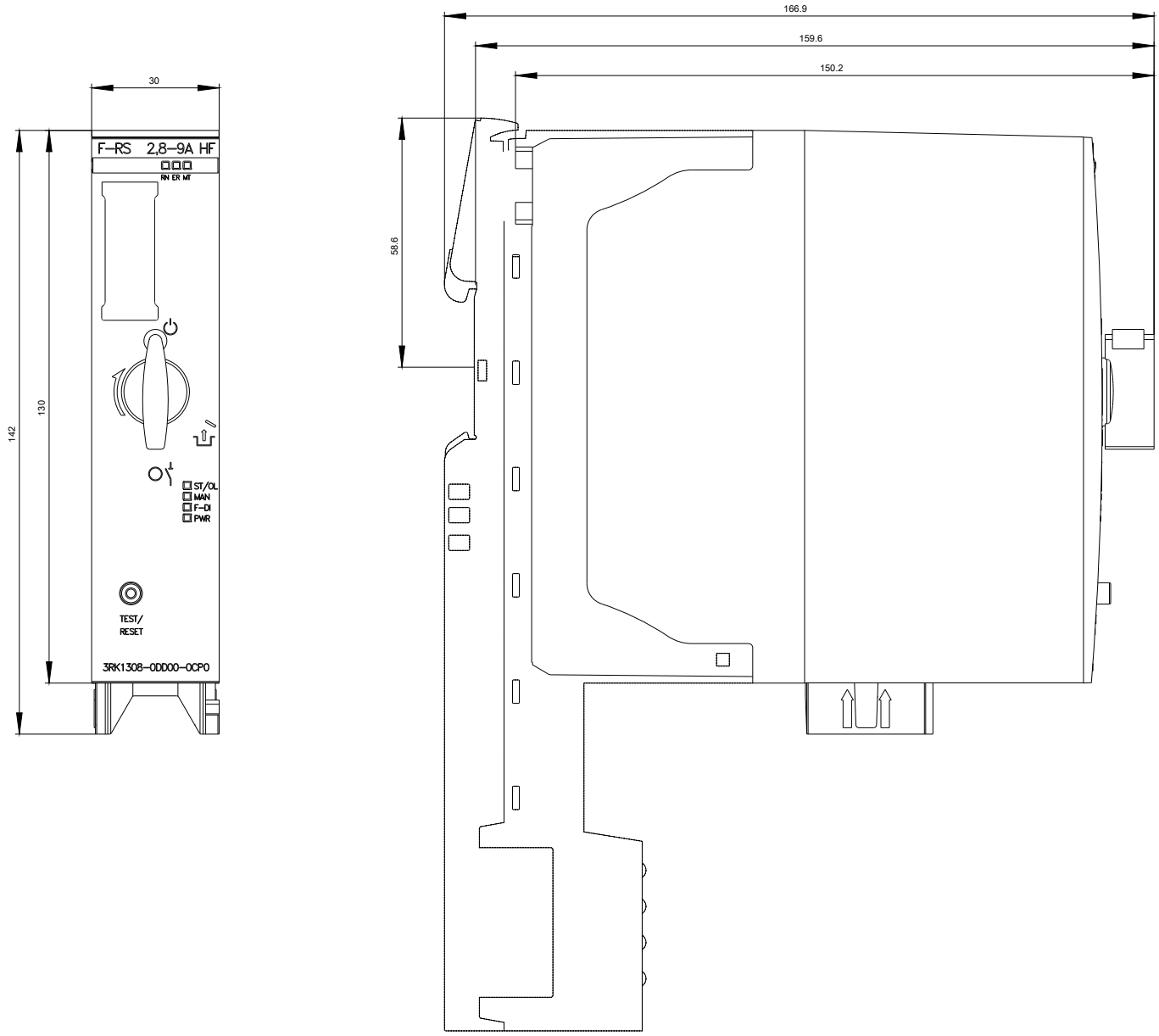
Information- and Downloadcenter (Catalogs, Brochures,…)
http://www.siemens.com/industrial-controls/catalogs

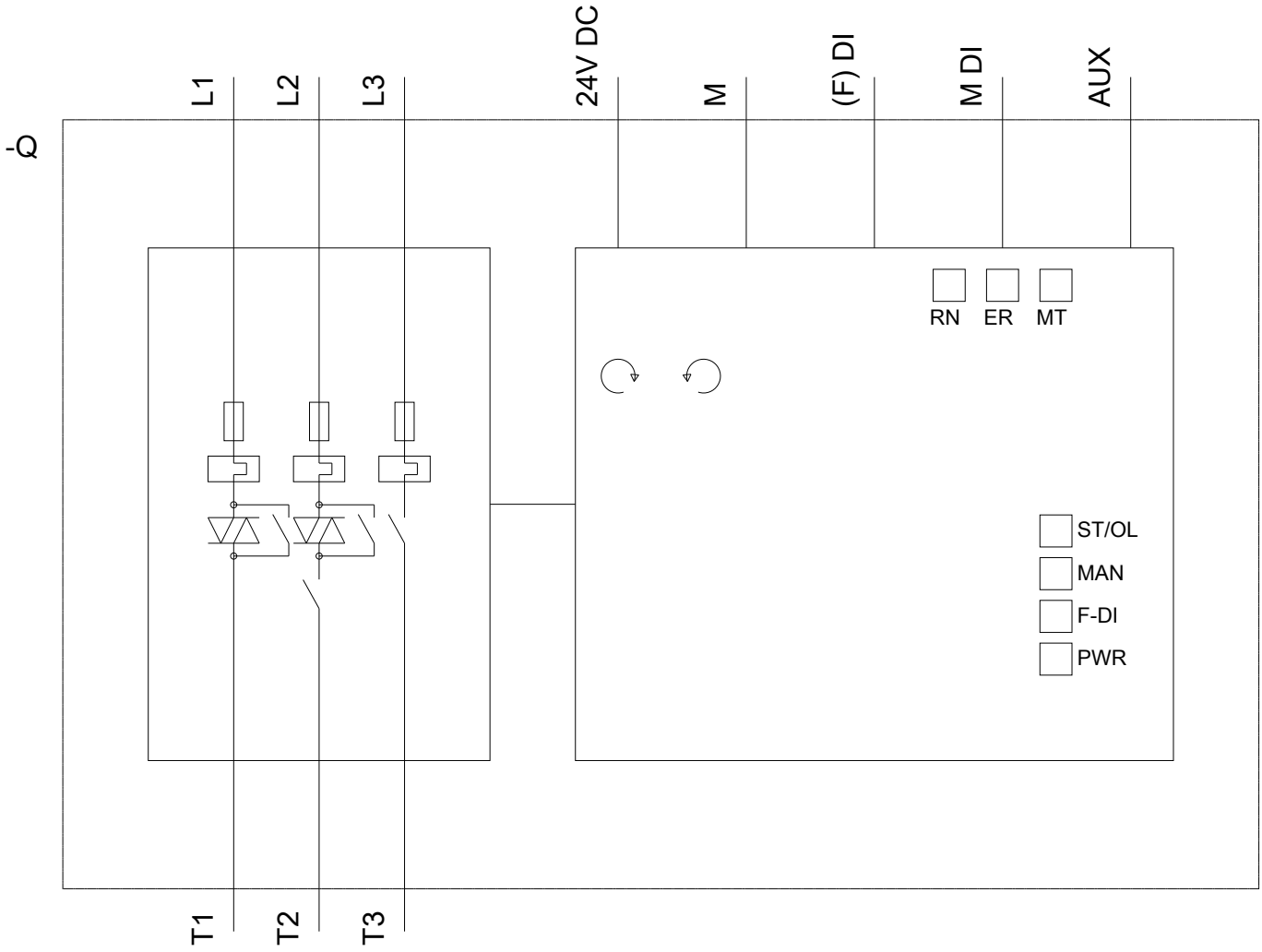
Industry Mall (Online ordering system)
https://mall.industry.siemens.com/mall/en/en/Catalog/product?mlfb=3RK1308-0DD00-0CP0

Cax online generator
http://support.automation.siemens.com/WW/CAXorder/default.aspx?lang=en&mlfb=3RK1308-0DD00-0CP0

Service&Support (Manuals, Certificates, Characteristics, FAQs,...)
https://support.industry.siemens.com/cs/ww/en/ps/3RK1308-0DD00-0CP0

Image database (product images, 2D dimension drawings, 3D models, device circuit diagrams, EPLAN macros, ...)
http://www.automation.siemens.com/bilddb/cax_de.aspx?mlfb=3RK1308-0DD00-0CP0&lang=en





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