SIEMENS

Data sheet 3RK1308-0CD00-0CP0

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

product brand name	SIMATIC
product category	Motor starter
product designation	Direct-on-line starter
product type designation	ET 200SP
General technical data	
trip class	CLASS OFF / 5 / 10 adjustable
equipment variant acc. to IEC 60947-4-2	3
product function	Fail-safe direct-on-line 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
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 (switching cycles) of the main contacts typical	30 000 000
type of assignment	1
utilization category	
● acc. to IEC 60947-4-2	AC-53a: 9 A: (8-0,7: 70-32)
reference code acc. to IEC 81346-2	Q
Substance Prohibitance (Date)	15.04.2016 00:00:00
product function	
● direct start	Yes
● reverse starting	No
product component motor brake output	No
product function short circuit protection	Yes
design of short-circuit protection	fuse
breaking capacity maximum short-circuit current (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
breaking capacity maximum short-circuit current (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
EMC 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-based interference 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
T1 value for proof test interval or service life acc. to IEC 61508	20 y
safe state	Load circuit open
protection class IP on the front acc. to IEC 60529	IP20
touch protection on the front acc. to IEC 60529	finger-safe
Main circuit	
number of poles for main current circuit	3
design of the switching contact	Hybrid
adjustable current response value current of the current-dependent overload release	2.8 ... 9 A
minimum load [%]	50 %; from smallest adjustable rated current
type of the motor protection	solid-state
operating voltage rated value	48 ... 500 V
relative symmetrical tolerance of the operating voltage	10 %
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 %
operational current at AC at 400 V rated value	9 A
ampacity when starting maximum	90 A
operating power for 3-phase motors at 400 V at 50 Hz	1.5 ... 4 kW
Inputs/ Outputs	
number of digital inputs	5
● note	4 via 3DI/LC module
● safety-related	1

type of input characteristic	Type 1 in accordance with EN 61131-2
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
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 of operation	95 mA
● during operation	160 mA
● at switching on of motor	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
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	
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
Installation/ mounting/ dimensions	
mounting position	Vertical, horizontal (observe derating)
fastening method	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	4 000 m; For derating see manual
ambient temperature	
● during operation	-25 ... +60 °C; 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 the inputs	4 byte
● of the 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 3-phase AC motor at 480 V rated value	9 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 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 acc. to CSA and UL rated value	480 V

Certificates/ approvals

General Product Approval				EMC	For use in hazard-ous locations
CSA	CCC	UL	EAC	RCM	ATEX

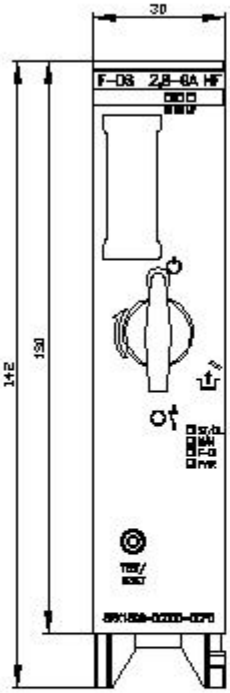
Functional Safety/Safety of Machinery	Declaration of Conformity	Test Certificates	Marine / Shipping		
Type Examination Certificate	EG-Konf.	Type Test Certific-ates/Test Report	ABS	BUREAU VERITAS	LRS

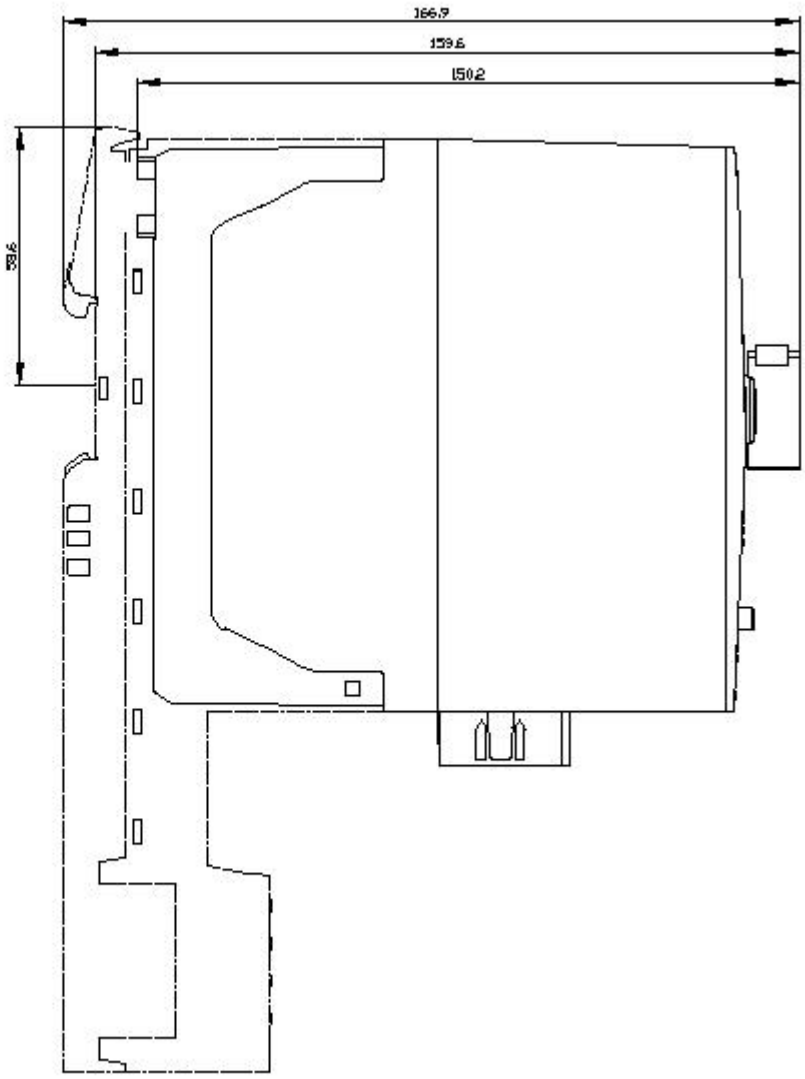
Marine / Shipping	other	
DNV-GL	Confirmation	Profibus

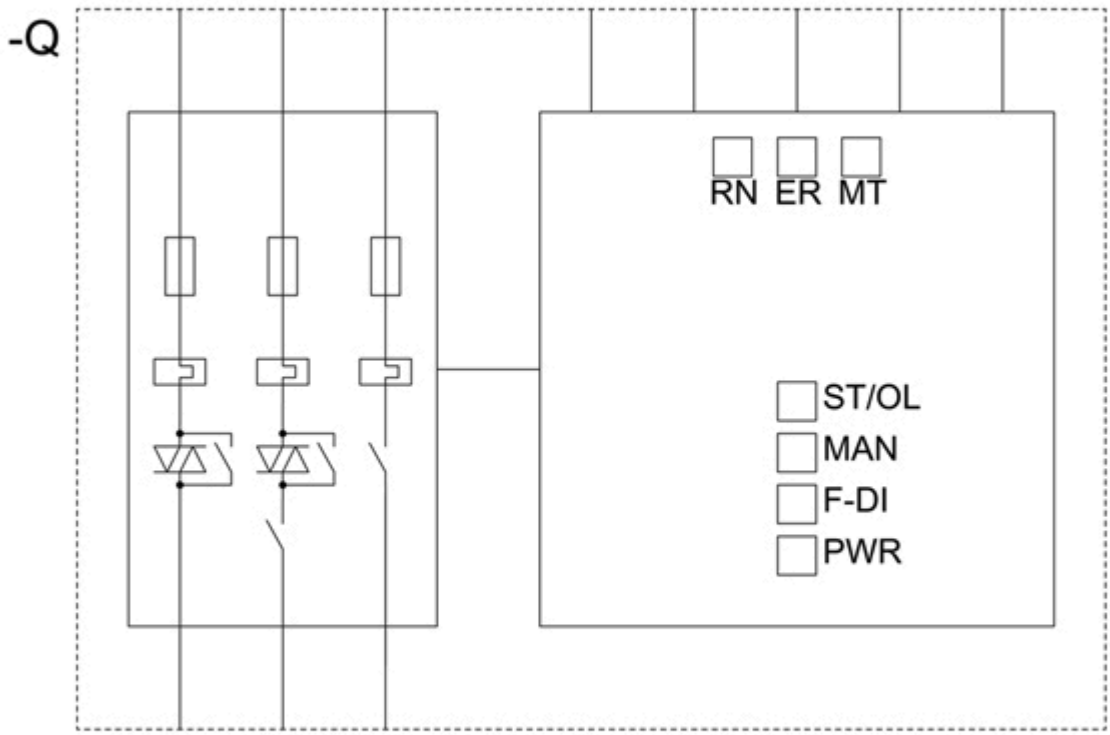
Further information

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=3RK1308-0CD00-0CP0
Cax online generator
http://support.automation.siemens.com/WW/CAXorder/default.aspx?lang=en&mlfb=3RK1308-0CD00-0CP0
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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