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; PROFlenergy; 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	
equipment variant according 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 protective separation	
 between main and auxiliary circuit 	500 V
consumed current maximum	180 mA
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 (operating cycles) of the main contacts typical	30 000 000
type of assignment	1
utilization category	
according to IEC 60947-4-2	AC-53a: 9 A: (8-0,7: 70-32)
reference code according to IEC 81346-2	Q
Substance Prohibitance (Date)	04/15/2016
SVHC substance name	Lead - 7439-92-1 Lead monoxide (lead oxide) - 1317-36-8
Weight	0.548 kg
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
maximum short-circuit current breaking capacity (Icu)	
• at 400 V rated value	55 kA

at 500 V rated value	55 kA
at 500 V according 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 according to IEC 60947-1	class A
EMC immunity according to IEC 60947-1	Class A
conducted interference	Oldos A
due to burst according to IEC 61000-4-4	3 kV
 due to burst according to IEC 01000-4-4 due to conductor-earth surge according to IEC 61000-4-5 	4 kV
-	2 kV
 due to conductor-conductor surge according to IEC 61000-4-5 	Z KV
 due to high-frequency radiation according to IEC 61000- 	Class A
4-6	
field-based interference according to IEC 61000-4-3	20 V/m
electrostatic discharge according to IEC 61000-4-2	8 kV air discharge
conducted HF interference emissions according to	Class A for industrial environment
CISPR11 field-bound HF interference emission according to CISPR11	Class A for industrial environment
Safety related data	Oldoo / Clor induction of the office of the
-	Yes
product function suitable for safety function	100
suitability for use	No
safety-related switching on	No
safety-related switching OFF	Yes
safe state	Load circuit open
test wear-related service life necessary	Yes
function test interval maximum	0.083 a
diagnostics test interval by internal test function maximum	600 s
stop category according to IEC 60204-1	0
proportion of dangerous failures with high demand rate according to SN 31920	50 %
B10 value with high demand rate according to SN 31920	1 000 000
IEC 62061	
Safety Integrity Level (SIL) according to IEC 62061	SIL 3
ISO 13849	
performance level (PL) according to ISO 13849-1	PL e
category according to ISO 13849-1	4
device type according to ISO 13849-1	1
overdimensioning according to ISO 13849-2 necessary	No
IEC 61508	
Safety Integrity Level (SIL) according to IEC 61508	SIL 3
safety device type according to IEC 61508-2	Type B
PFH according to IEC 61508 relating to SIL	6E-9 1/h
PFDavg with low demand rate according to IEC 61508	8E-7
Safe failure fraction (SFF)	99.5 %
hardware fault tolerance according to IEC 61508	1
T1 value	,
of service life according to IEC 61508	20 a
Electrical Safety	20 0
touch protection against electrical shock	finger-safe
protection class IP on the front according to IEC 60529	IP20
touch protection on the front according to IEC 60529	finger-safe
ATEX	mgor care
Safety Integrity Level (SIL) according to IEC 61508 relating	SIL1
to ATEX	
hardware fault tolerance according to IEC 61508 relating to ATEX	1
Main circuit	
number of poles for main current circuit	3
design of the switching contact	Hybrid
adjustable current response value current of the current-	2.8 9 A

dependent overload release	
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 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	90 mA
at switching on of motor	180 mA
power loss [W] for rated value of supply voltage	
 in switching state OFF with bypass circuit 	2.2 W
• in switching state ON with bypass circuit	4.32 W
inrush current peak at 24 V	25 A; Observe the manual for group configuration
duration of inrush current peak at 24 V	0.14 ms
Response times	
ON-delay time	35 ms
OFF-delay time	35 50 ms
OFF-delay time with safety-related request	00 00 mo
when switched off via control inputs maximum	55 ms
when switched off via supply voltage maximum	120 ms
Power Electronics	
operational current	
at 40 °C rated value	9 A
at 50 °C rated value at 50 °C rated value	9 A
	9 A
at bb *(`rated value	
• at 55 °C rated value	ΟΔ
• at 60 °C rated value	9 A
• at 60 °C rated value Installation/ mounting/ dimensions	
at 60 °C rated value Installation/ mounting/ dimensions mounting position	Vertical, horizontal (observe derating)
at 60 °C rated value Installation/ mounting/ dimensions mounting position fastening method	Vertical, horizontal (observe derating) pluggable in BaseUnit
at 60 °C rated value Installation/ mounting/ dimensions mounting position fastening method height	Vertical, horizontal (observe derating) pluggable in BaseUnit 142 mm
at 60 °C rated value Installation/ mounting/ dimensions mounting position fastening method height width	Vertical, horizontal (observe derating) pluggable in BaseUnit 142 mm 30 mm
at 60 °C rated value Installation/ mounting/ dimensions mounting position fastening method height width depth	Vertical, horizontal (observe derating) pluggable in BaseUnit 142 mm
at 60 °C rated value Installation/ mounting/ dimensions mounting position fastening method height width depth required spacing with side-by-side mounting	Vertical, horizontal (observe derating) pluggable in BaseUnit 142 mm 30 mm 150 mm
at 60 °C rated value Installation/ mounting/ dimensions mounting position fastening method height width depth required spacing with side-by-side mounting upwards	Vertical, horizontal (observe derating) pluggable in BaseUnit 142 mm 30 mm 150 mm
at 60 °C rated value Installation/ mounting/ dimensions mounting position fastening method height width depth required spacing with side-by-side mounting	Vertical, horizontal (observe derating) pluggable in BaseUnit 142 mm 30 mm 150 mm

ambient temperature • during operation • during storage	4 000 m; For derating see manual
	05 + 00 °C For death and a second
during storage	-25 +60 °C; For derating see manual
	-40 +70 °C
during transport	-40 +70 °C
environmental category during operation according 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 according to SN 31205	900 1 060 hPa
ommunication/ 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 PROFlenergy measured values 	Yes
 supports PROFlenergy 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
onnections/ 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
L/CSA ratings	
full-load current (FLA) for 3-phase AC motor at 480 V rated value	9 A
current with locked rotor (LRA) for 3-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 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 according to CSA and UL rated value	480 V

Approvals Certificates

General Product Approval







Confirmation





EMV For use in hazardous locations

Functional Saftey

Test Certificates

Marine / Shipping



<u>KC</u>



Type Examination Certificate Type Test Certificates/Test Report









Confirmation

Transport Information

Environmental Con-<u>firmations</u>

Industrial Communication



Profibus

Further information

Information on the packaging

https://support.industry.siemens.com/cs/ww/en/view/109813875

Information- and Downloadcenter (Catalogs, Brochures,...)

https://www.siemens.com/ic10

Industry Mall (Online ordering system)

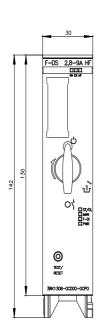
https://mall.industry.siemens.com/mall/en/en/Catalog/product?mlfb=3RK1308-0CD00-0CP0

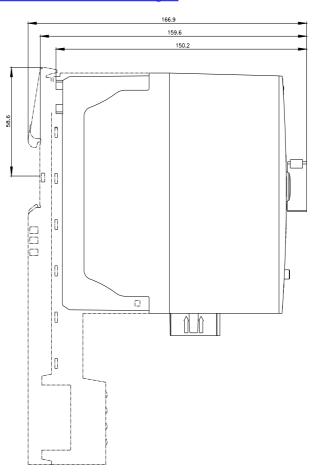
Cax online generator

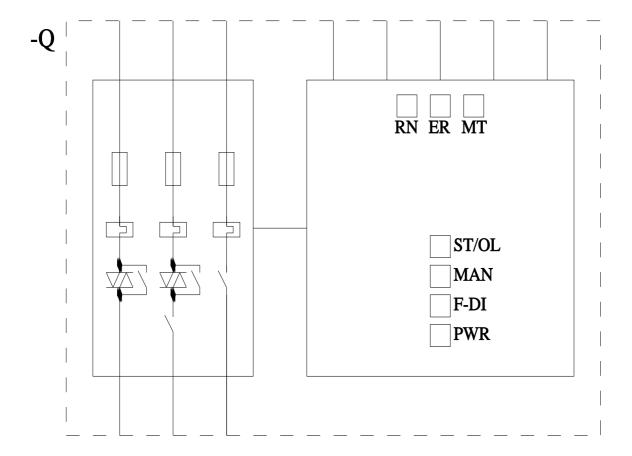
http://support.automation.siemens.com/WW/CAXorder/default.aspx?lang=en&mlfb=3RK1308-0CD00-0CP0

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

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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