



Figure similar

Fail-safe direct-on-line starter High Feature; Electronic switching; Electronic overload protection up to 0.09 kW / 400 V; Adjustment range 0.1 .. 0.4 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	
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	0.02 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
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

<ul style="list-style-type: none"> at 500 V acc. to UL 60947 rated value 	100 kA
breaking capacity maximum short-circuit current (I_{cu}) in the IT network	
<ul style="list-style-type: none"> at 400 V rated value at 500 V rated value 	55 kA 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	
<ul style="list-style-type: none"> due to burst acc. to IEC 61000-4-4 due to conductor-earth surge acc. to IEC 61000-4-5 due to conductor-conductor surge acc. to IEC 61000-4-5 due to high-frequency radiation acc. to IEC 61000-4-6 	3 kV 4 kV 2 kV 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	10 100 000
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	0.1 ... 0.4 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	0.4 A
ampacity when starting maximum	4 A
operating power for 3-phase motors at 400 V at 50 Hz	0.06 ... 0.12 kW
Inputs/ Outputs	
number of digital inputs	5
<ul style="list-style-type: none"> note safety-related 	4 via 3DI/LC module 1
type of input characteristic	Type 1 in accordance with EN 61131-2

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 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 of operation • during operation • at switching on of motor 	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
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	
<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 (observe derating)
fastening method	pluggable in BaseUnit
height	142 mm
width	30 mm
depth	150 mm
required spacing 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 maximum	4 000 m; For derating see manual
ambient temperature	
<ul style="list-style-type: none"> • during operation • during storage • during transport 	-25 ... +60 °C; 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 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 AS-Interface protocol	No
product function	
<ul style="list-style-type: none"> • supports PROFenergy measured values • supports PROFenergy shutdown 	Yes Yes
address space memory of address range	
<ul style="list-style-type: none"> • of the inputs • of the outputs 	4 byte 2 byte
type of electrical connection of the communication	Plug contact to Base Unit

interface	
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 3-phase AC motor at 480 V rated value	0.4 A
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



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



[Type Test Certificates/Test Report](#)



Marine / Shipping	other
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[Confirmation](#)



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?mfb=3RK1308-0CA00-0CP0>

Cax online generator

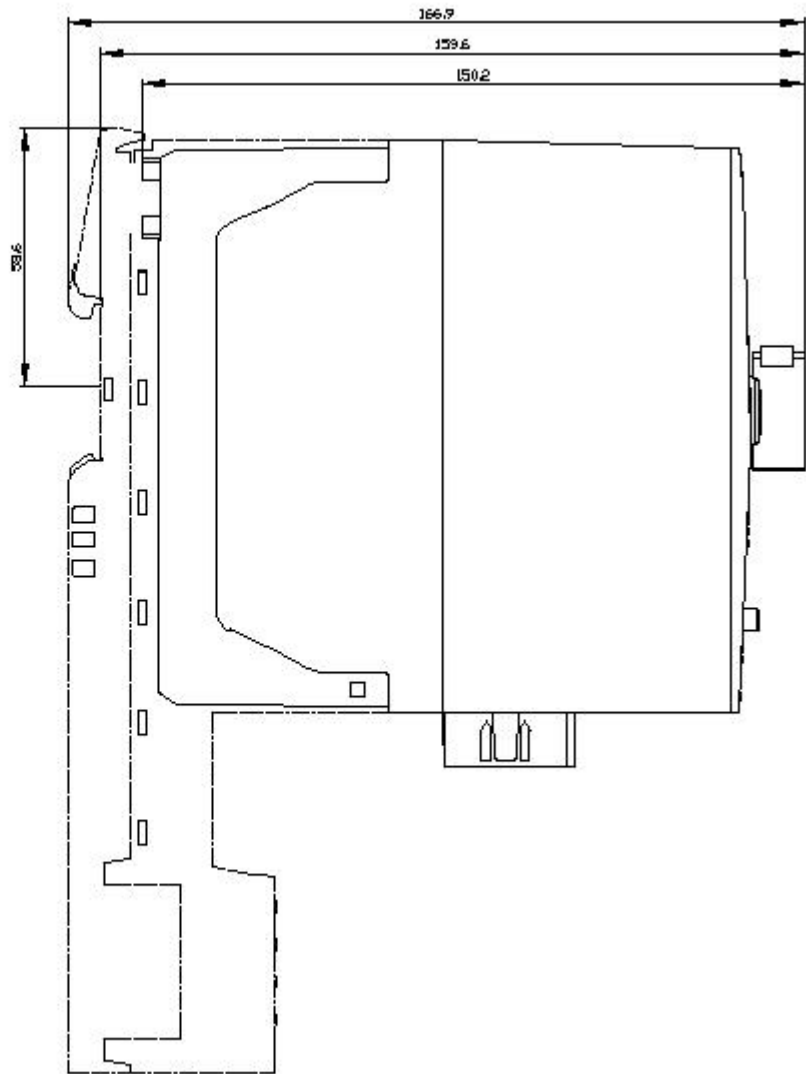
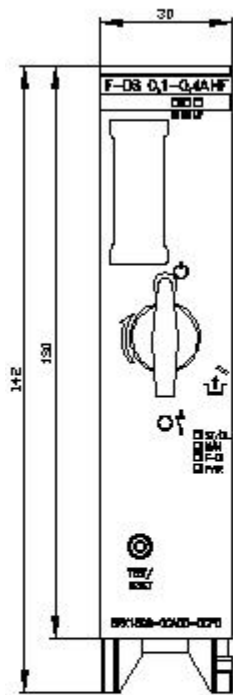
<http://support.automation.siemens.com/WW/CAXorder/default.aspx?lang=en&mfb=3RK1308-0CA00-0CP0>

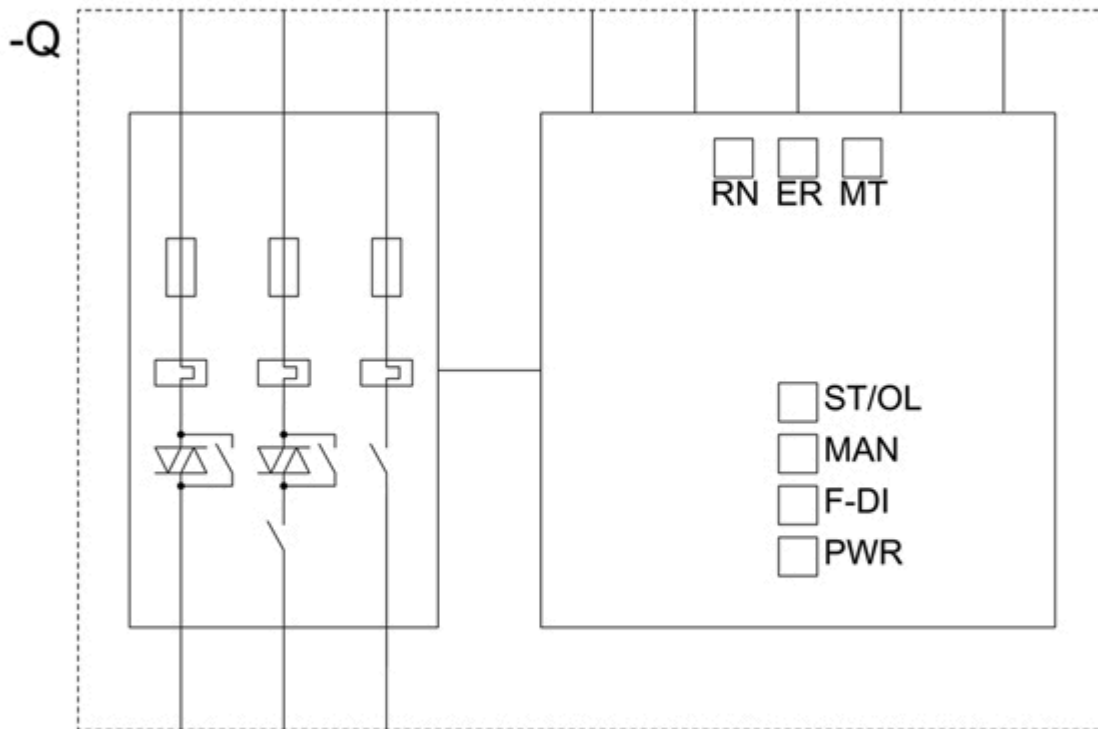
Service&Support (Manuals, Certificates, Characteristics, FAQs,...)

<https://support.industry.siemens.com/cs/ww/en/ps/3RK1308-0CA00-0CP0>

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

http://www.automation.siemens.com/bilddb/cax_de.aspx?mfb=3RK1308-0CA00-0CP0&lang=en





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