

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	
Trip class	CLASS OFF / 5 / 10 adjustable
Equipment variant acc. to IEC 60947-4-2	3
Product function	Direct-on-line starter
- on-site operation - Intrinsic device protection - Remote firmware update - for power supply Reverse polarity protection	Yes Yes Yes Yes
Power loss [W] for rated value of the current	
at AC in hot operating state per pole	1.5 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	30 000 000
Type of assignment	1
Usage category • acc. to IEC 60947-4-2 • acc. to IEC 60947-4-3	AC-53a: 9 A: (8-0,7: 70-32) AC-51: 9 A: (1,2-10: 50-360); AC-55a: 4 A: (3-240: 40-6)
Reference code acc. to DIN 40719 extended according to IEC 204-2 acc. to IEC 750	Q
Reference code acc. to DIN EN 81346-2	Q
Reference code acc. to DIN EN 61346-2	A
Product function • direct start • reverse starting	Yes 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 • at 500 V rated value • at 500 V acc. to UL 60947 rated value	55 kA 55 kA 100 kA
Maximum short-circuit current breaking capacity (Icu) in the IT network • 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
EMI immunity acc. to IEC 60947-1	Class A
Conducted interference • 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	2 kV 2 kV 1 kV Class A
Field-bound parasitic coupling acc. to IEC 61000-4-3	10 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	
MTBF	46 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	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 %
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

Inputs/ Outputs	
Number of digital inputs • Note	4 4 via 3DI/LC module

Supply voltage	
Type of voltage of the supply voltage	DC
Supply voltage 1 at DC rated value • 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 • in standby mode	85 mA

- during operation - at switching on	140 mA 230 mA
Power loss [W] for rated value of supply voltage	
- in switching state OFF with bypass circuit - in switching state ON with bypass circuit	2 W 3.4 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

Switch-on delay time	20 ms
Off-delay time	35 ... 50 ms

Installation/ mounting/ dimensions

Mounting position	Vertical, horizontal (observe derating)
Mounting type	pluggable in BaseUnit
Height	142 mm
Width	30 mm
Depth	150 mm
Required spacing	
- with side-by-side mounting — 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	
- 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	
- PROFIBUS DP protocol - PROFINET protocol	Yes 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 range 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
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			EMC	Declaration of Conformity	
 CCC	 CSA	 UL		 RCM	 EG-Konf.

Declaration of Conformity	Test Certificates	Marine / Shipping			
Miscellaneous	Type Test Certificates/Test Report	 ABS	 BUREAU VERITAS	 LRS	 DNV-GL

other	
Confirmation	 Profibus

Further information

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

www.siemens.com/ic10

Industry Mall (Online ordering system)

<https://mall.industry.siemens.com/mall/en/en/Catalog/product?mlfb=3RK1308-0AD00-0CP0>

Cax online generator

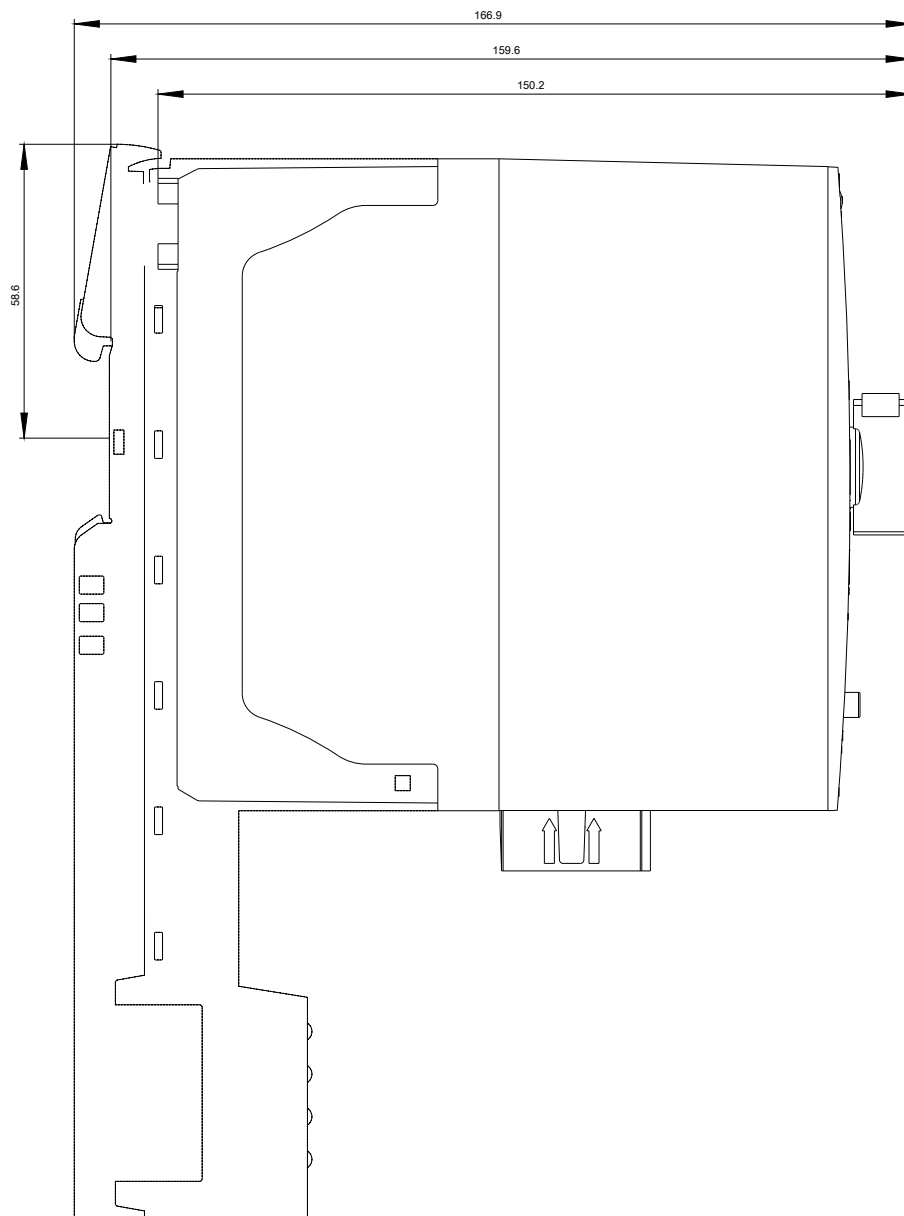
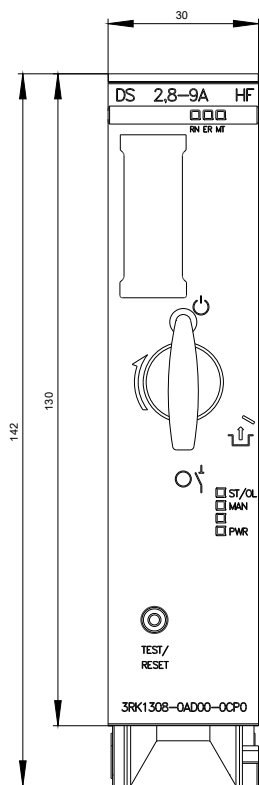
<http://support.automation.siemens.com/WW/CAXorder/default.aspx?lang=en&mlfb=3RK1308-0AD00-0CP0>

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

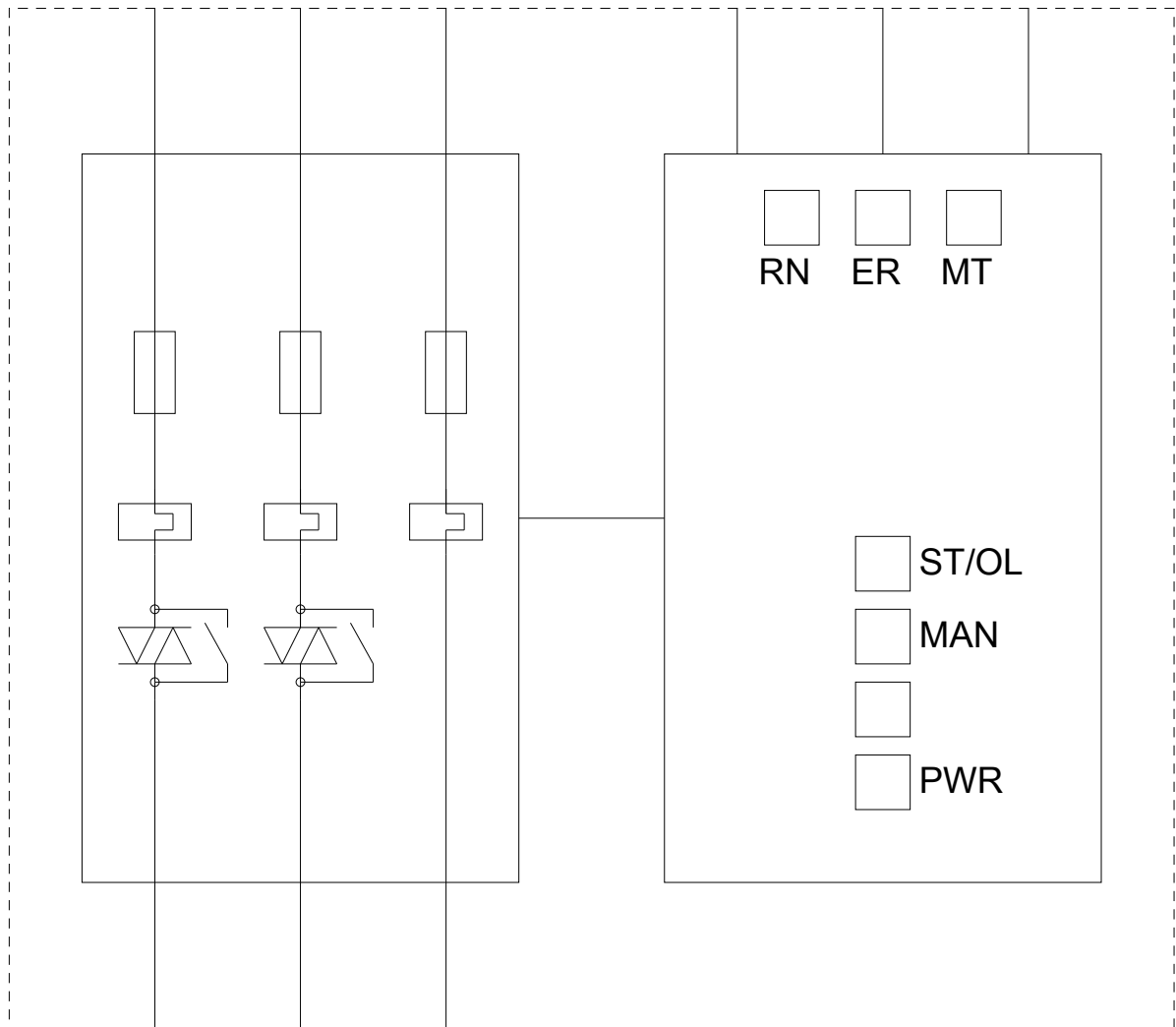
<https://support.industry.siemens.com/cs/ww/en/ps/3RK1308-0AD00-0CP0>

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

http://www.automation.siemens.com/bilddb/cax_de.aspx?mlfb=3RK1308-0AD00-0CP0&lang=en



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