SIEMENS

Data sheet 3RK1301-1JB00-0AA2

	DS1-X for ET 200S Standard DOL starter expandable Setting range 7...10 A AC-3, 4 kW / 400 V Electromechanical starter for brake control module
product brand name	SIMATIC
product designation	Motor starters
design of the product	direct starter
product type designation	ET 200S
General technical data	
product function on-site operation	Yes
power loss [W] for rated value of the current	
● at AC in hot operating state	10 W
● at AC in hot operating state per pole	3.33 W
● without load current share typical	4.12 W
insulation voltage rated value	500 V
degree of pollution	3 at 400 V, 2 at 500 V according to IEC60664 (IEC61131)
surge voltage resistance rated value	6 kV
maximum permissible voltage for protective separation between main and auxiliary circuit	400 V
shock resistance	5 g / 11 ms
vibration resistance	2 g
operating frequency maximum	750 1/h
mechanical service life (operating cycles) of the main contacts typical	100 000
type of coordination	1
reference code according to IEC 81346-2	Q
Substance Prohibitance (day/month/year)	10/26/2016
SVHC substance name	Lead CAS-No. 7439-92-1 Lead monoxide (lead oxide) CAS-No. 1317-36-8 2-methyl-1-(4-methylthiophenyl)-2-morpholinopropan-1-one CAS-No. 71868-10-5 Melamine CAS-No. 108-78-1
Net Weight	933 g
product function	
● direct start	Yes
● reverse starting	No
product component motor brake output	Yes
product feature	
● brake control with 230 V AC	No
● brake control with 24 V DC	No
● brake control with 180 V DC	No
● brake control with 500 V DC	No
product extension braking module for brake control	Yes
product function short circuit protection	Yes
design of short-circuit protection	circuit-breakers
maximum short-circuit current breaking capacity (Icu)	
● at 400 V rated value	50 kA
Electromagnetic compatibility	
EMC emitted interference according to IEC 60947-1	CISPR11, ambience A (industrial sector)
EMC immunity according to IEC 60947-1	corresponds to degree of severity 3, ambience A (industrial sector)
conducted interference	
● due to burst according to IEC 61000-4-4	2 kV on voltage supply, inputs and outputs
● due to conductor-earth surge according to IEC 61000-4-5	2 kV (U > 24 V DC)
● due to conductor-conductor surge according to IEC 61000-4-5	1 kV (U > 24 V DC)

field-based interference according to IEC 61000-4-3	80 MHz ... 1 GHz 10 V/m, 1.4 GHz ...2 Hz 3 V/m, 2 GHz ... 2.7 GHz 1 V/m
Safety related data	
proportion of dangerous failures	
● with low demand rate according to SN 31920	50 %
● with high demand rate according to SN 31920	75 %
B10 value with high demand rate according to SN 31920	1 000 000
failure rate [FIT] with low demand rate according to SN 31920	100 FIT
IEC 61508	
T1 value for proof test interval or service life according to IEC 61508	20 a
Electrical Safety	
protection class IP on the front according to IEC 60529	IP20
touch protection on the front according to IEC 60529	finger-safe
Main circuit	
number of poles for main current circuit	3
design of the switching contact	electromechanical
adjustable current response value current of the current-dependent overload release	7 ... 10 A
type of the motor protection	bimetal
operating voltage rated value	200 ... 400 V
operating frequency 1 rated value	50 Hz
operating frequency 2 rated value	60 Hz
relative positive tolerance of the operating frequency	10 %
relative negative tolerance of the operating frequency	10 %
operating range relative to the operating voltage at AC at 50 Hz	200 ... 440 V
operational current	
● at AC-3 at 400 V rated value	10 A
operating power at AC-3 at 400 V rated value	4 kW
operating power for 3-phase motors at 400 V at 50 Hz	4 kW
Inputs/ Outputs	
product function	
● digital inputs parameterizable	No
● digital outputs parameterizable	No
number of digital inputs	0
number of sockets	
● for digital output signals	0
● for digital input signals	0
Supply voltage	
type of voltage of the supply voltage	DC
supply voltage 1 at DC	24 V
supply voltage 1 at DC rated value	
● minimum permissible	20.4 V
● maximum permissible	28.8 V
Control circuit/ Control	
type of voltage of the control supply voltage	DC
control supply voltage at DC rated value	20.4 ... 28.8 V
control supply voltage 1 at DC rated value	20.4 ... 28.8 V
control supply voltage 1 at DC	24 V
power loss [W] in auxiliary and control circuit	
● in switching state OFF	
— with bypass circuit	0.3744 W
— without bypass circuit	0.374 W
● in switching state ON	
— with bypass circuit	4.1184 W
— without bypass circuit	4.118 W
Installation/ mounting/ dimensions	
mounting position	vertical, horizontal
fastening method	pluggable on terminal module

height	265 mm
width	45 mm
depth	120 mm
Ambient conditions	
installation altitude at height above sea level maximum	2 000 m
ambient temperature	
● during operation	0 ... 60 °C
● during storage	-40 ... +70 °C
● during transport	-40 ... +70 °C
relative humidity during operation	5 ... 95 %
Communication/ Protocol	
protocol is supported	
● PROFIBUS DP protocol	Yes
● PROFINET protocol	Yes
design of the interface PROFINET protocol	Yes
product function bus communication	Yes
protocol is supported AS-Interface protocol	No
product function	
● supports PROFIenergy measured values	No
● supports PROFIenergy shutdown	No
address space memory of address range	
● of the inputs	1 byte
● of the outputs	1 byte
type of electrical connection	
● of the communication interface	via backplane bus
● for communication transmission	via backplane bus
Connections/ Terminals	
type of electrical connection for main current circuit	screw-type terminals
type of electrical connection	
● 1 for digital input signals	using control module
● 2 for digital input signals	using control module
type of electrical connection	
● at the manufacturer-specific device interface	plug
● for main energy infeed	screw-type terminals
● for load-side outgoing feeder	Screw-type terminals
● for main energy transmission	via energy bus
● for supply voltage line-side	via backplane bus
● for supply voltage transmission	via backplane bus
UL/CSA ratings	
operating voltage at AC at 60 Hz according to CSA and UL rated value	600 V

Approvals Certificates

General Product Approval					EMV
CCC	UL	EAC	CE EG-Konf.	UKCA	RCM

For use in hazardous locations	Test Certificates	other		Dangerous goods	Environment
ATEX	Type Test Certificates/Test Report	Confirmation	产品合格 QC PASS	Transport Information	Environmental Confirmations

Further information

Information on the packaging
https://support.industry.siemens.com/cs/ww/en/view/109813875

Information for data generation and storage
https://support.industry.siemens.com/cs/ww/en/view/109995012
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=3RK1301-1JB00-0AA2
Cax online generator
https://support.automation.siemens.com/WW/CAXorder/default.aspx?lang=en&mlfb=3RK1301-1JB00-0AA2
Service&Support (Manuals, Certificates, Characteristics, FAQs,...)
https://support.industry.siemens.com/cs/ww/en/ps/3RK1301-1JB00-0AA2
Image database (product images, 2D dimension drawings, 3D models, device circuit diagrams, EPLAN macros, ...)
https://www.automation.siemens.com/bilddb/cax_de.aspx?mlfb=3RK1301-1JB00-0AA2&lang=en
Characteristic curves
https://curves.simaris.siemens.com/curves/<mmp_prod_noCOMP="HAUPT"></mmp_prod__no>

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