

## Data sheet

## 3RK1301-1KB00-0AA2



Figure similar

DS1-X for ET 200S Standard DOL starter expandable Setting range 9...12 A AC-3, 5.5 kW / 400 V Electromechanical starter for brake control module

<b>product brand name</b>	SIMATIC
<b>product designation</b>	Motor starters
<b>design of the product</b>	direct starter
<b>product type designation</b>	ET 200S
<b>General technical data</b>	
product function on-site operation	Yes
<b>power loss [W] for rated value of the current</b>	
• at AC in hot operating state	11 W
• at AC in hot operating state per pole	3.67 W
• without load current share typical	4.12 W
<b>insulation voltage rated value</b>	500 V
<b>degree of pollution</b>	3 at 400 V, 2 at 500 V according to IEC60664 (IEC61131)
<b>surge voltage resistance rated value</b>	6 kV
maximum permissible voltage for protective separation between main and auxiliary circuit	400 V
<b>shock resistance</b>	5g / 11 ms
<b>vibration resistance</b>	2g
<b>operating frequency maximum</b>	750 1/h
mechanical service life (operating cycles) of the main contacts typical	100 000
<b>type of coordination</b>	1
<b>reference code according to IEC 81346-2</b>	Q
<b>Substance Prohibitance (Date)</b>	10/26/2016
<b>SVHC substance name</b>	Lead - 7439-92-1 Lead monoxide (lead oxide) - 1317-36-8 2-methyl-1-(4-methylthiophenyl)-2-morpholinopropan-1-one - 71868-10-5
<b>Net Weight</b>	0.937 kg
<b>product function</b>	
• direct start	Yes
• reverse starting	No
<b>product component motor brake output</b>	Yes
<b>product feature</b>	
• 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
<b>product extension braking module for brake control</b>	Yes
<b>product function short circuit protection</b>	Yes
<b>design of short-circuit protection</b>	circuit-breakers

<b>maximum short-circuit current breaking capacity (Icu)</b>	
• at 400 V rated value	50 kA
<b>Electromagnetic compatibility</b>	
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)
<b>conducted interference</b>	
• 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)
<b>field-based interference according to IEC 61000-4-3</b>	80 MHz ... 1 GHz 10 V/m, 1.4 GHz ... 2 Hz 3 V/m, 2 GHz ... 2.7 GHz 1 V/m
<b>Safety related data</b>	
<b>proportion of dangerous failures</b>	
• with low demand rate according to SN 31920	50 %
• with high demand rate according to SN 31920	75 %
<b>B10 value with high demand rate according to SN 31920</b>	1 000 000
<b>failure rate [FIT] with low demand rate according to SN 31920</b>	100 FIT
IEC 61508	
T1 value for proof test interval or service life according to IEC 61508	20 a
<b>Electrical Safety</b>	
<b>protection class IP on the front according to IEC 60529</b>	IP20
<b>touch protection on the front according to IEC 60529</b>	finger-safe
<b>Main circuit</b>	
<b>number of poles for main current circuit</b>	3
<b>design of the switching contact</b>	electromechanical
<b>adjustable current response value current of the current-dependent overload release</b>	9 ... 12 A
<b>type of the motor protection</b>	bimetal
operating voltage rated value	200 ... 400 V
<b>operating frequency 1 rated value</b>	50 Hz
<b>operating frequency 2 rated value</b>	60 Hz
<b>relative positive tolerance of the operating frequency</b>	10 %
<b>relative negative tolerance of the operating frequency</b>	10 %
operating range relative to the operating voltage at AC at 50 Hz	200 ... 440 V
<b>operational current</b>	
• at AC-3 at 400 V rated value	12 A
operating power at AC-3 at 400 V rated value	5.5 kW
operating power for 3-phase motors at 400 V at 50 Hz	5.5 ... 5.5 kW
<b>Inputs/ Outputs</b>	
<b>product function</b>	
• digital inputs parameterizable	No
• digital outputs parameterizable	No
<b>number of digital inputs</b>	0
<b>number of sockets</b>	
• for digital output signals	0
• for digital input signals	0
<b>Supply voltage</b>	
<b>type of voltage of the supply voltage</b>	DC
<b>supply voltage 1 at DC</b>	24 ... 24 V
<b>supply voltage 1 at DC rated value</b>	
• minimum permissible	20.4 V
• maximum permissible	28.8 V
<b>Control circuit/ Control</b>	
<b>type of voltage of the control supply voltage</b>	DC
<b>control supply voltage at DC rated value</b>	20.4 ... 28.8 V
<b>control supply voltage 1 at DC rated value</b>	20.4 ... 28.8 V
<b>control supply voltage 1 at DC</b>	24 ... 24 V
<b>power loss [W] in auxiliary and control circuit</b>	

• in switching state OFF	0.3744 W
— with bypass circuit	0.374 W
— without bypass circuit	
• in switching state ON	4.1184 W
— with bypass circuit	4.118 W
— without bypass circuit	
<b>Installation/ mounting/ dimensions</b>	
mounting position	vertical, horizontal
fastening method	pluggable on terminal module
height	265 mm
width	45 mm
depth	120 mm
<b>Ambient conditions</b>	
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 %
<b>Communication/ Protocol</b>	
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 PROFlenergy measured values	No
• supports PROFlenergy 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
<b>Connections/ Terminals</b>	
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
<b>UL/CSA ratings</b>	
operating voltage at AC at 60 Hz according to CSA and UL	
rated value	600 V
<b>Approvals Certificates</b>	
General Product Approval	EMV



For use in hazard-	Test Certificates	other	Dangerous goods	Environment
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### 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=3RK1301-1KB00-0AA2>

#### Cax online generator

<https://support.automation.siemens.com/WW/CAXorder/default.aspx?lang=en&mlfb=3RK1301-1KB00-0AA2>

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

<https://support.industry.siemens.com/cs/ww/en/ps/3RK1301-1KB00-0AA2>

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

[https://www.automation.siemens.com/bilddb/cax\\_de.aspx?mlfb=3RK1301-1KB00-0AA2&lang=en](https://www.automation.siemens.com/bilddb/cax_de.aspx?mlfb=3RK1301-1KB00-0AA2&lang=en)

#### Characteristic curves

[https://curves.simaris.siemens.com/curves/<mmp\\_prod\\_noCOMP="HAUPT"></mmp\\_prod\\_no>](https://curves.simaris.siemens.com/curves/<mmp_prod_noCOMP=)

