



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

product brand name	SIMATIC
product designation	Motor starters
design of the product	direct starter
product type designation	ET 200S
<b>General technical data</b>	
product function on-site operation	Yes
power loss [W] for rated value of the current	
• 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
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	5g / 11 ms
vibration resistance	2g
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 (Date)	10/26/2016
SVHC substance name	Lead - 7439-92-1 Lead monoxide (lead oxide) - 1317-36-8 2-methyl-1-(4-methylthiophenyl)-2-morpholinopropan-1-one - 71868-10-5
Net Weight	0.937 kg
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

<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 • due to conductor-earth surge according to IEC 61000-4-5 • due to conductor-conductor surge according to IEC 61000-4-5	2 kV on voltage supply, inputs and outputs 2 kV (U > 24 V DC) 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 • with high demand rate according to SN 31920	50 % 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
<b>IEC 61508</b>	
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 • digital outputs parameterizable	No No
<b>number of digital inputs</b>	0
<b>number of sockets</b> • for digital output signals • for digital input signals	0 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 • maximum permissible	20.4 V 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>	

<ul style="list-style-type: none"> <li>• in switching state OFF <ul style="list-style-type: none"> <li>— with bypass circuit</li> <li>— without bypass circuit</li> </ul> </li> <li>• in switching state ON <ul style="list-style-type: none"> <li>— with bypass circuit</li> <li>— without bypass circuit</li> </ul> </li> </ul>	0.3744 W 0.374 W 4.1184 W 4.118 W
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#### 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 <ul style="list-style-type: none"> <li>• during operation</li> <li>• during storage</li> <li>• during transport</li> </ul>	0 ... 60 °C -40 ... +70 °C -40 ... +70 °C
relative humidity during operation	5 ... 95 %

#### Communication/ Protocol

protocol is supported <ul style="list-style-type: none"> <li>• PROFIBUS DP protocol</li> <li>• PROFINET protocol</li> </ul>	Yes Yes
design of the interface PROFINET protocol	Yes
product function bus communication	Yes
protocol is supported AS-Interface protocol	No
product function <ul style="list-style-type: none"> <li>• supports PROFienergy measured values</li> <li>• supports PROFienergy shutdown</li> </ul>	No No
address space memory of address range <ul style="list-style-type: none"> <li>• of the inputs</li> <li>• of the outputs</li> </ul>	1 byte 1 byte
type of electrical connection <ul style="list-style-type: none"> <li>• of the communication interface</li> <li>• for communication transmission</li> </ul>	via backplane bus via backplane bus

#### Connections/ Terminals

type of electrical connection for main current circuit	screw-type terminals
type of electrical connection <ul style="list-style-type: none"> <li>• 1 for digital input signals</li> <li>• 2 for digital input signals</li> </ul>	using control module using control module
type of electrical connection <ul style="list-style-type: none"> <li>• at the manufacturer-specific device interface</li> <li>• for main energy infeed</li> <li>• for load-side outgoing feeder</li> <li>• for main energy transmission</li> <li>• for supply voltage line-side</li> <li>• for supply voltage transmission</li> </ul>	plug screw-type terminals Screw-type terminals via energy bus via backplane bus via backplane bus

#### UL/CSA ratings

operating voltage at AC at 60 Hz according to CSA and UL rated value	600 V
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#### Approvals Certificates

General Product Approval	EMV
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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,...)

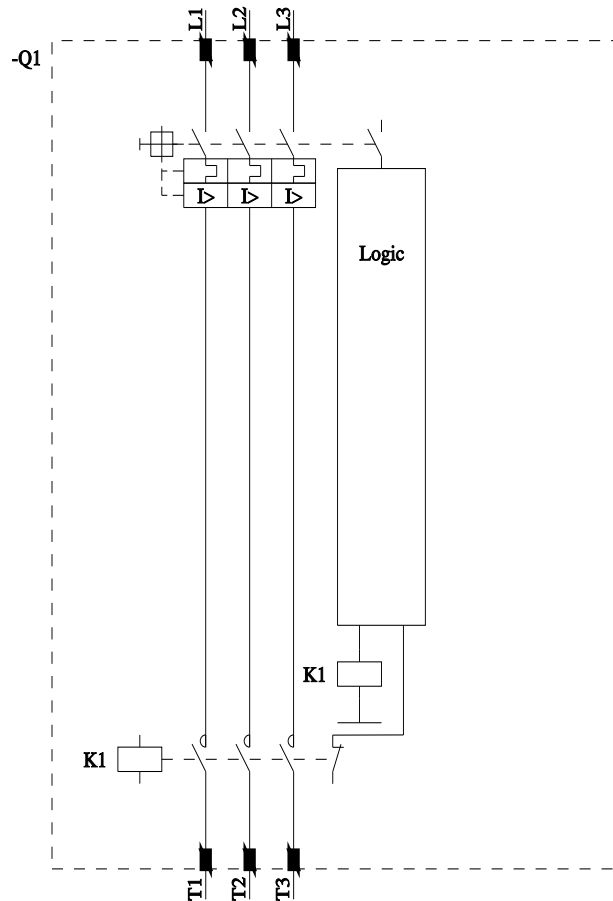
<https://support.industry.siemens.com/cs/ww/en/ps/3RK1301-1KB00-0AA2>

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='HAUPT'></mmp_prod_no>)



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