Data sheet



F-RS1E-X FOR ET 200S FAILSAFE REVERSING STARTER SETTING RANGE 0.3...3A MECHANICAL SWITCHING ELECTRONIC PROTECTION EXPANDABLE FOR BRAKE CONTROL MODULE 2DI MODULE 2DI MODULE SIGNAL FROM CIRCUIT-BREAKER PARAMETERIZABLE

Figure similar

Product brand name	Sirius
Product designation	motor starter ET 200S
Design of the product	reversing starter

General technical data	
Product function	
 on-site operation 	Yes
Power loss [W] typical	9 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 safe isolation	
 between main and auxiliary circuit 	400 V
Protection class IP	IP20
Shock resistance	5g / 11 ms
Vibration resistance	2g
Operating frequency maximum	80 1/h

Mechanical service life (switching cycles)	
` ,	400.000
of the main contacts typical	100 000
Type of assignment	2
Equipment marking	
 acc. to DIN 40719 extended according to IEC 	A
204-2 acc. to IEC 750	
• acc. to DIN EN 61346-2	Q
• acc. to DIN EN 81346-2	Q
Product function	
direct start	No
• reverse starting	Yes
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
Trip class	CLASS 10 and 20 adjustable
Maximum short-circuit current breaking capacity (Icu)	
• at 400 V rated value	50 kA

Electromagnetic compatibility	
EMC emitted interference	
● acc. to IEC 60947-1	CISPR11, ambience A (industrial sector)
EMI immunity acc. to IEC 60947-1	corresponds to degree of severity 3, ambience A (industrial sector)
Conducted interference	
• due to burst acc. to IEC 61000-4-4	2 kV on voltage supply, inputs and outputs
 due to conductor-earth surge acc. to IEC 61000-4-5 	2 kV (U > 24 V DC)
 due to conductor-conductor surge acc. to IEC 61000-4-5 	1 kV (U > 24 V DC)
Field-bound parasitic coupling acc. to IEC 61000-4-3	80 MHz 1 GHz 10 V/m, 1.4 GHz2 Hz 3 V/m, 2 GHz 2.7 GHz 1 V/m

Safety related data	
Safety device type acc. to IEC 61508-2	Type B
SIL Claim Limit (subsystem) acc. to EN 62061	SILCL 3
Performance level (PL) acc. to EN ISO 13849-1	е
Category acc. to EN ISO 13849-1	4
Stop category acc. to DIN EN 60204-1	0

Average diagnostic coverage level (DCavg) Failure rate [FIT] • at rate of recognizable hazardous failures (Add) • at rate of non-recognizable hazardous failures (Adu) PFID with high demand rate acc. to EN 62061 PFID with high demand rate acc. to IEC 61508 Average probability of failure on demand (PFDavg) with low demand rate acc. to IEC 61508 MTBF 11 y MTTFG 11 y MTTFG 11 y MTTFG 11 y MTTFG 11 y MITFG 11 y MITFG 11 y MITFG 10 y Mile for proof test interval or service life acc. to IEC 61508 Safe state Protection against electrical shock Inger-safe Ingurs/ Outputs Product function • digital inputs parameterizable • digital outputs parameterizable • digital outputs parameterizable • for digital output signals • for digital inputs No Number of poles for main current cloult 3 electromethanical Adjustable pickup value current of the current- dependent overload release • reted value Operating requency 2 rated value Operating frequency 2 rated value Operating range relative to the operating voltage at AC • at 50 Hz Operating power • at AC3 — at 400 V rated value Operating power • at AC3 — at 400 V rated value Operating power for three-phase motors at 400 V at 50 Hz Other three for three phase motors at 400 V at 50 Hz Other three for three phase motors at 400 V at 50 Hz Other three for three phase motors at 400 V at 50 Hz Other three for three phase motors at 400 V at 50 Hz Other three for three phase motors at 400 V at 50 Hz Other three for three phase motors at 400 V at 50 Hz Other three for three phase motors at 400 V at 50 Hz Other three for three phase motors at 400 V at 50 Hz Other three for three phase motors at 400 V at 50 Hz	Safe failure fraction (SFF)	99.5 %	
* at rate of recognizable hazardous failures (Add) * at rate of non-recognizable non-recognizable (Add) * at rate of non-recognizable non-recog	Average diagnostic coverage level (DCavg)	99 %	
• at rate of non-recognizable hazardous failures (Adu) PFHD with high demand rate acc. to EN 62061 PFDavg with low demand rate acc. to IEC 61508 Average probability of failure on demand (PFDavg) with low demand rate acc. to IEC 61508 Average probability of failure on demand (PFDavg) with low demand rate acc. to IEC 61508 ATTBF I1 y MTTFG 31 y Hardware fault tolerance acc. to IEC 61508 I1 oy IEC 61508 Safe state Load circuit open finger-safe Inputs/ Outputs Product function • digital inputs parameterizable • digital inputs parameterizable • digital inputs parameterizable • for digital output signals • for digital input signals • for digital input signals • for digital input sparameter of the current-dependent overload release Type of the motor protection Operating voltage • rated value Operating frequency 1 rated value Operating frequency 2 rated value Operating prequency 2 rated value Operating prequency 2 rated value Operating prequency 2 rated value • at AC-3 — at 400 V rated value Operating power • at AC-3 — at 400 V rated value Operating power • at AC-3 — at 400 V rated value Operating power for three-phase motors at 400 V at Other and the composition of the composit	Failure rate [FIT]		
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AC		60 Hz	
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— at 400 V rated value 1.1 kW Operating power for three-phase motors at 400 V at 0.1 1.1 kW	Operating power		
Operating power for three-phase motors at 400 V at 0.1 1.1 kW	● at AC-3		
	— at 400 V rated value	1.1 kW	
	·	0.1 1.1 kW	

Supply voltage				
Type of voltage of the supply voltage	DC			
Supply voltage 1 at DC	24 24 V			
Supply voltage 1 at DC rated value				
minimum permissible	20.4 V			
maximum permissible	28.8 V			
maximam pormisolisis				
Control circuit/ Control				
Type of voltage of the control supply voltage	DC			
Control supply voltage at DC				
rated value	21.6 26.4 V			
Control supply voltage 1				
at DC rated value	21.6 26.4 V			
• at DC	24 24 V			
Power Electronics				
Relative negative tolerance of the operating	10 %			
frequency				
Relative positive tolerance of the operating frequency	10 %			
Installation/ mounting/ dimensions				
Mounting position	vertical, horizontal			
Mounting type	pluggable on terminal module			
Height	290 mm			
Width	130 mm			
Depth	150 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	V			
PROFIBUS DP protocol	Yes			
PROFINET protocol	Yes			
Design of the interface	V			
PROFINET protocol	Yes			
Product function Bus communication	Yes			
Protocol is supported	Na			
AS-interface protocol	No			
Product function				

 supports PROFlenergy measured values 	No
supports PROFlenergy shutdown	No
Address space memory of address range	
• of inputs	2 byte
of outputs	2 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 acc. to CSA and UL rated value

600 V

Certificates/approvals

General Product Approval	Functional	Declaration of
	Safety/Safety	Conformity
	of Machinery	









Type Examination



Test Certificates	other			
Type Test Certificates/Test	Environmental Confirmations	Confirmation		

Report

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

http://www.siemens.com/industrial-controls/catalogs

Industry Mall (Online ordering system)
https://mall.industry.siemens.com/mall/en/en/Catalog/product?mlfb=3RK1301-0AB13-1AA4

Cax online generator

http://support.automation.siemens.com/WW/CAXorder/default.aspx?lang=en&mlfb=3RK1301-0AB13-1AA4

Service&Support (Manuals, Certificates, Characteristics, FAQs,...) https://support.industry.siemens.com/cs/ww/en/ps/3RK1301-0AB13-1AA4

Image database (product images, 2D dimension drawings, 3D models, device circuit diagrams, EPLAN macros, ...) http://www.automation.siemens.com/bilddb/cax_de.aspx?mlfb=3RK1301-0AB13-1AA4&lang=en

10/06/2017 last modified: