SIEMENS

Data sheet

3RA6500-2BB43



SIRIUS Compact load feeder Reversing starter for IO-Link 690 V 24 V DC 0.32...1.25 A IP20 Connection main circuit: plug-in, without terminals Connection control circuit: Spring-type terminal

and the second sec	
product brand name	SIRIUS
product designation	Compact starter for IO-Link
design of the product	reversing starter
product type designation	3RA65
General technical data	
product function control circuit interface to parallel wiring	No
product extension auxiliary switch	Yes
power loss [W] for rated value of the current	
 at AC in hot operating state 	0.1 W
 at AC in hot operating state per pole 	0.03 W
 without load current share typical 	2.9 W
insulation voltage rated value	690 V
degree of pollution	3
surge voltage resistance rated value	6 000 V
degree of protection NEMA rating	other
shock resistance	a=60 m/s2 (6g) with 10 ms per 3 shocks in all axes
vibration resistance	f= 4 5.8 Hz, d= 15 mm; f= 5.8 500 Hz, a= 20 m/s²; 10 cycles
mechanical service life (operating cycles)	
 of the main contacts typical 	10 000 000
 of auxiliary contacts typical 	10 000 000
 of the signaling contacts typical 	10 000 000
electrical endurance (operating cycles) of auxiliary contacts	
 at DC-13 at 6 A at 24 V typical 	30 000
 at AC-15 at 6 A at 230 V typical 	200 000
type of assignment	continous operation according to IEC 60947-6-2
reference code according to IEC 81346-2	Q
Substance Prohibitance (Date)	05/01/2012
Ambient conditions	
installation altitude at height above sea level maximum	2 000 m
ambient temperature	
 during operation 	-20 +60 °C
during storage	-55 +80 °C
during transport	-55 +80 °C
relative humidity during operation	10 90 %
Main circuit	
number of poles for main current circuit	3
adjustable current response value current of the current- dependent overload release	0.32 1.25 A
formula for making capacity limit current	38.4 x le
formula for limit current breaking capacity	32 x le

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yielded mechanical performance for 4-pole AC motor	0.07.144
• at 400 V rated value	0.37 kW
• at 500 V rated value	0.55 kW
at 690 V rated value	0.75 kW
operating voltage at AC-3 rated value maximum	690 V
operational current	
 at AC at 400 V rated value 	1.25 A
 at AC-3 at 400 V rated value 	1.25 A
• at AC-43	
— at 400 V rated value	1.1 A
— at 500 V rated value	1.2 A
— at 690 V rated value	1.1 A
operating power	
 at AC-3 at 400 V rated value 	0.37 kW
• at AC-43	
— at 400 V rated value	370 W
— at 500 V rated value	550 W
— at 690 V rated value	750 W
no-load switching frequency	3 600 1/h
operating frequency	
at AC-41 according to IEC 60947-6-2 maximum	750 1/h
• at AC-43 according to IEC 60947-6-2 maximum	250 1/h
Control circuit/ Control	
type of voltage	DC
control supply voltage 1	
• at DC rated value	24 V
• at DC	24 24 V
holding power	
at DC maximum	2.9 W
Auxiliary circuit	2.5 W
	0
number of NC contacts for auxiliary contacts	
number of NO contacts for auxiliary contacts	0
number of NO contacts of instantaneous short-circuit trip unit for signaling contact	0
number of CO contacts of the current-dependent overload release for signaling contact	0
operational current of auxiliary contacts at AC-12 maximum	10 A
operational current of auxiliary contacts at DC-13 at 250 V	0.27 A
Protective and monitoring functions	
trip class	CLASS 10 and 20 adjustable
operating short-circuit current breaking capacity (Ics)	·
• at 400 V	53 kA
• at 500 V rated value	3 kA
at 690 V rated value	3 kA
UL/CSA ratings	
full-load current (FLA) for 3-phase AC motor	
	1.25 A
at 480 V rated value	1.25 A
tat 600 V rated value	1.25 A
yielded mechanical performance [hp] for 3-phase AC motor	0.5 hz
• at 460/480 V rated value	0.5 hp
• at 575/600 V rated value	0.5 hp
Short-circuit protection	
product function short circuit protection	Yes
design of short-circuit protection	electromagnetic
design of the fuse link	
• for short-circuit protection of the auxiliary switch required	fuse gL/gG: 10 A
Installation/ mounting/ dimensions	
mounting position	any
recommended	vertical, on horizontal standard DIN rail
fastening method	screw and snap-on mounting
height	191 mm

width	90 mm				
depth	165 mm				
Connections/ Terminals					
product component removable terminal for main circuit	Yes				
product component removable terminal for auxiliary and control circuit	Yes				
type of electrical connection					
 for main current circuit 	plug-in without terminals				
 for auxiliary and control circuit 	spring-loaded terminals				
type of connectable conductor cross-sections for main contacts					
• solid	2x (1.5 6 mm²), 1x 10 mm²				
 finely stranded with core end processing 	2x (1.5 6 mm²)				
 finely stranded without core end processing 	2x (1.5 6 mm²)				
type of connectable conductor cross-sections					
 for auxiliary contacts 					
— solid	2x (0.25 1.5 mm²)				
 finely stranded with core end processing 	2x (0.25 1.5 mm²)				
 finely stranded without core end processing 	2x (0.25 1.5 mm²)				
 for AWG cables for auxiliary contacts 	2x (24 16)				
Safety related data					
B10 value with high demand rate according to SN 31920	1 500 000				
proportion of dangerous failures					
 with high demand rate according to SN 31920 	50 %				
protection class IP on the front according to IEC 60529	IP20				
touch protection on the front according to IEC 60529	finger-safe				
Communication/ Protocol					
product function bus communication	Yes				
protocol is supported					
 AS-Interface protocol 	No				
IO-Link protocol	Yes				
product function control circuit interface with IO link	Yes				
IO-Link transfer rate	COM2 (38,4 kBaud)				
point-to-point cycle time between master and IO-Link device minimum	2.5 ms				
type of voltage supply via input/output link master	No				
data volume					
 of the address range of the inputs with cyclical transfer total 	2 byte				
 of the address range of the outputs with cyclical transfer total 	2 byte				
Electromagnetic compatibility					
conducted interference					
• due to burst according to IEC 61000-4-4	4 kV main circuits, 2 kV auxiliary circuits, 2 kV IO-Link, 2 kV limit switches, 2 kV line hand-held device				
• due to conductor-earth surge according to IEC 61000-4-5	4 kV main circuits, 0.5 kV auxiliary voltage with upstream overvoltage protection				
due to conductor-conductor surge according to IEC 61000-4-5	2 kV main circuits, 0.5 kV auxiliary voltage with upstream overvoltage protection				
due to high-frequency radiation according to IEC 61000- 4-6 field based interference according to IEC 61000 4.3	0.15-80Mhz at 10V				
field-based interference according to IEC 61000-4-3	80 3000 MHz at 10V/m 8 kV				
electrostatic discharge according to IEC 61000-4-2 conducted HF interference emissions according to					
CISPR11	150 kHz 30 MHz Class A				
field-bound HF interference emission according to CISPR11 Supply voltage	30 1000 MHz Class A				
Supply voltage required Auxiliary voltage	Yes				
Display					
number of LEDs	5				
display version as status display of the input/output link device	green/red dual LED				
Certificates/ approvals					
General Product Approval	EMC Functional Safety/Safety of Ma				

					chinery			
	<u>Confirmation</u>		EHC	RCM				
Declaration of Confo	rmity	Test Certificates	Marine / Shipping					
CE EG-Konf.	UK CA	Type Test Certific- ates/Test Report	ABS	Llovd's Register us	PRS			
Marine / Shipping	other	Dangerous Good						
RINA	<u>Confirmation</u>	Transport Information						
F								
Further information Siemens has decided to exit the Russian market (see here). https://press.siemens.com/global/en/pressrelease/siemens-wind-down-russian-business								
Siemens is working on the renewal of the current EAC certificates. Please contact your local Siemens office on the status of validity of the EAC certification if you intend to import or offer to supply these products to an EAC relevant market (other than the sanctioned EAEU member states Russia or Belarus).								
Information on the packaging https://support.industry.siemens.com/cs/ww/en/view/109813875								
Information- and Dow	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=3RA6500-2BB43

Cax online generator

http://support.automation.siemens.com/WW/CAXorder/default.aspx?lang=en&mlfb=3RA6500-2BB43

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

https://support.industry.siemens.com/cs/ww/en/ps/3RA6500-2BB43

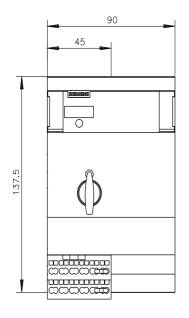
Image database (product images, 2D dimension drawings, 3D models, device circuit diagrams, EPLAN macros, ...)

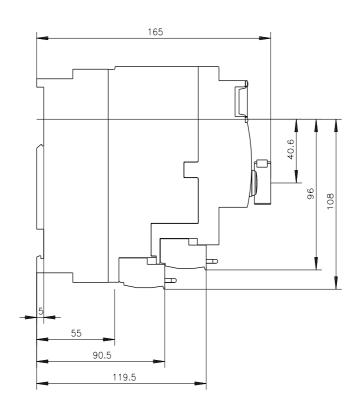
http://www.automation.siemens.com/bilddb/cax_de.aspx?mlfb=3RA6500-2BB43&lang=en

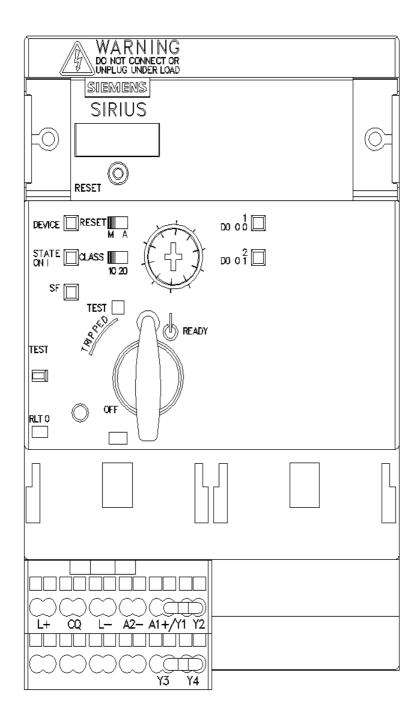
Characteristic: Tripping characteristics, I2t, Let-through current

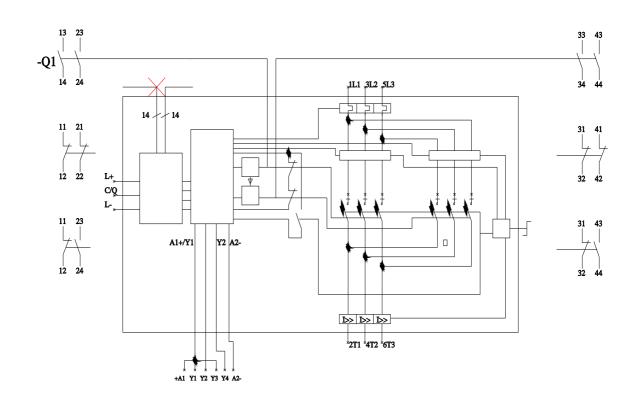
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Further characteristics (e.g. electrical endurance, switching frequency) http://www.automation.siemens.com/bilddb/index.aspx?view=Search&mlfb=3RA6500-2BB43&objecttype=14&gridview=view1









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