SIEMENS

Data sheet 3RA6500-2CB42



SIRIUS, COMPACT STARTER, REVERSING STARTER . 690 V, 24 V DC, 1 ... 4 A, IP20, CONN. MAIN CIRCUIT: SPRING-LOADED TERMINAL, CONN. CONTROL CIRCUIT: SPRING-LOADED TERMINAL

Product brand name	SIRIUS
Product designation	compact starter
Design of the product	reversing feeder

General technical data	
Product function	
 Control circuit interface to parallel wiring 	No
Product extension	
 Auxiliary switch 	Yes
Insulation voltage	
• rated value	690 V
Degree of pollution	3
Surge voltage resistance rated value	6 000 V
Protection class IP	IP20
Vibration resistance	f= 4 5.8 Hz, d= 15 mm; f= 5.8 500 Hz, a= 20 m/s²; 10 cycles
Mechanical service life (switching 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 (switching cycles) of auxiliary	
contacts	30 000
• at DC-13 at 6 A at 24 V typical	200 000
• at AC-15 at 6 A at 230 V typical	
Type of assignment	continous operation according to IEC 60947-6-2
Equipment marking	
• acc. to DIN EN 61346-2	Q
• acc. to DIN EN 81346-2	Q
Ambient conditions	
Ambient temperature	
 during operation 	-20 +60 °C
during storage	-55 +80 °C
during transport	-55 +80 °C
Main circuit	
Number of poles for main current circuit	3
Adjustable pick-up value current of the current-	1 4 A
dependent overload release	
Formula for making capacity limit current	12 x le
Formula for interruption capacity limit current	10 x le
Mechanical power output for 4-pole AC motor	
• at 400 V rated value	1.5 kW
• at 500 V rated value	2.2 kW
• at 690 V rated value	3 kW
Operating voltage	
 at AC-3 rated value maximum 	690 V
Operating current	
• at AC at 400 V rated value	4 A
• at AC-43	
— at 400 V rated value	3.6 A
— at 500 V rated value	3.9 A
— at 690 V rated value	3.8 A
No-load switching frequency	3 600 1/h
Operating frequency	
• at AC-41 acc. to IEC 60947-6-2 maximum	750 1/h
• at AC-43 acc. to IEC 60947-6-2 maximum	250 1/h
Control circuit/ Control	
Type of voltage	DC
Holding power	
• at DC maximum	2.9 W
Auxiliary circuit	
Number of NC contacts	

 for auxiliary contacts 	0
Number of NO contacts	
 for auxiliary contacts 	0
 of instantaneous short-circuit trip unit for signaling contact 	0
Number of CO contacts	
 of the current-dependent overload release for signaling contact 	0
Operating current of auxiliary contacts at AC-12 maximum	10 A
Operating current of auxiliary contacts at DC-13	
● at 250 V	0.27 A
Protective and monitoring functions	
Trip class	CLASS 10 and 20 adjustable
Off-delay time	50 ms
Operational 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 three-phase AC motor	
• at 480 V rated value	4 A
• at 600 V rated value	4 A
Yielded mechanical performance [hp]	
for three-phase AC motor	
— at 200/208 V rated value	0.75 hp
— at 220/230 V rated value	0.75 hp
— at 460/480 V rated value	2 hp
— at 575/600 V rated value	3 hp
Short-circuit protection	
Product function Short circuit protection	Yes
Design of the fuse link	
• for short-circuit protection of the auxiliary switch	fuse gL/gG: 10 A
required	
Installation/ mounting/ dimensions	
Mounting position	any
• recommended	vertical, on horizontal standard mounting rail
Mounting type	screw and snap-on mounting
Height	191 mm
Width	90 mm

Depth	165 mm
Connections/Terminals	
Product function	
 removable terminal for main circuit 	Yes
 removable terminal for auxiliary and control circuit 	Yes
Type of electrical connection	
• for main current circuit	spring-loaded terminals
 for auxiliary and control current 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)
 at AWG conductors for main contacts 	2x (16 10), 1x 8
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)
 at AWG conductors for auxiliary contacts 	2x (24 16)
Safety related data	
B10 value	
 with high demand rate acc. to SN 31920 	1 500 000
Proportion of dangerous failures	
• with high demand rate acc. to SN 31920	50 %
Communication/ Protocol	
Product function Bus communication	Yes
Protocol is supported	
• IO-Link protocol	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
Amount of data	
 of the address area of the inputs with cyclical transfer total 	2 byte
 of the address area of the outputs with cyclical transfer total 	2 byte

Electromagnetic compatibility	
Field-bound parasitic coupling acc. to IEC 61000-4-3	80 3000 MHz at 10V/m
Electrostatic discharge acc. to IEC 61000-4-2	8 kV
Conducted HF-interference emissions acc. to CISPR11	150 kHz 30 MHz Class A
Field-bound HF-interference emission acc. to CISPR11	30 1000 MHz Class A

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Supply voltage required Auxiliary voltage Yes

Display version

green/red dual LED • as status display of the input/output link device

General Product Approval	EMC	Functional
		Safety/Safety
		of Machinery













Declaration of	Test	Marine / Shipping
Conformity	Certificates	



Type Test Certificates/Test Report









Marine /	other
Shipping	



Environmental Confirmations

Confirmation

Further information

Information- and Downloadcenter (Catalogs, Brochures,...) http://www.siemens.com/industrial-controls/catalogs

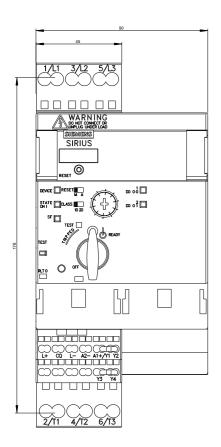
Industry Mall (Online ordering system)

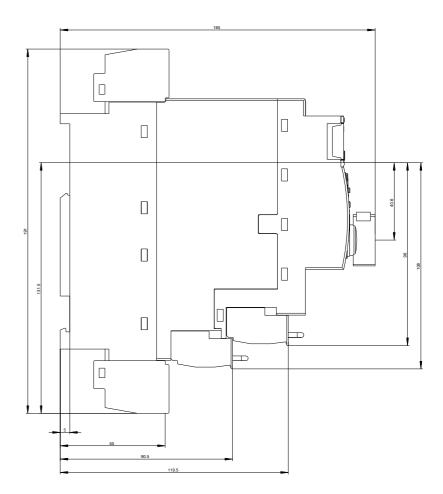
https://mall.industry.siemens.com/mall/en/en/Catalog/product?mlfb=3RA6500-2CB42

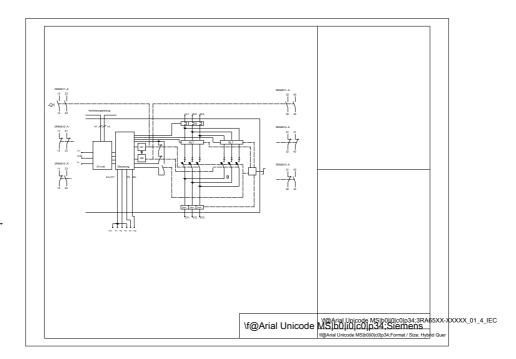
Cax online generator

 $\underline{\text{http://support.automation.siemens.com/WW/CAXorder/default.aspx?lang=en\&mlfb=3RA6500-2CB42}$

Image database (product images, 2D dimension drawings, 3D models, device circuit diagrams, EPLAN macros, ...) http://www.automation.siemens.com/bilddb/cax_de.aspx?mlfb=3RA6500-2CB42&lang=en







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