# **SIEMENS**

# Data sheet

# 3RA6500-2EB42



SIRIUS, COMPACT STARTER, REVERSING STARTER . 400 V, 24 V DC, 8 ... 32 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		
<ul> <li>Control circuit interface to parallel wiring</li> </ul>		No
Insulation voltage	-	
Rated value	V	690
Degree of pollution	-	3
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
Surge voltage resistance Rated value	V	6 000
Mechanical service life (switching cycles)	-	
<ul> <li>of the main contacts typical</li> </ul>		10 000 000
<ul> <li>of the auxiliary contacts typical</li> </ul>		10 000 000
<ul> <li>of the signaling contacts typical</li> </ul>		10 000 000
Electrical endurance (switching cycles) of the auxiliary contacts		
• at DC-13 at 6 A at 24 V typical		100 000
• at AC-15 at 6 A at 230 V typical		500 000
Type of assignment		continous operation according to IEC 60947-6-2
Protection class IP		IP20
Equipment marking		
• acc. to DIN EN 61346-2		Q

Main circuit:		
Number of poles for main current circuit		3
Adjustable response value current of the current- dependent overload release	A	8 32
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	kW	15
Operating voltage	_	
<ul> <li>at AC-3 Rated value maximum</li> </ul>	V	400
Operating current	_	
<ul> <li>with AC at 400 V Rated value</li> </ul>	А	32
• at AC-43		
— at 400 V Rated value	А	29
Operating power		
• at AC-3		
— at 400 V Rated value	kW	15
• at AC-43		
— at 400 V Rated value	W	15 000
Operating frequency	_	
• at AC-41 acc. to IEC 60947-6-2 maximum	1/h	750
• at AC-43 acc. to IEC 60947-6-2 maximum	1/h	250
No-load switching frequency	1/h	3 600
Control circuit/ Control:		
Type of voltage		AC
Holding power	_	
• for DC maximum	W	3.4
Auxiliary circuit:		
Number of NC contacts		
<ul> <li>for auxiliary contacts</li> </ul>		0
Number of NO contacts		
<ul> <li>for auxiliary contacts</li> </ul>		0
<ul> <li>of the instantaneous short-circuit release for signaling contact</li> </ul>		0
Number of CO contacts		
<ul> <li>of the current-dependent overload release for signaling contact</li> </ul>		0
Product expansion Auxiliary switch		Yes
Operating current of the auxiliary contacts at AC-12 maximum	A	10
Operating current of the auxiliary contacts at DC-13		
• at 250 V	А	0.27

Protective and monitoring functions:		
Trip class		CLASS 10 and 20 adjustable
OFF-delay time	ms	50
Operational short-circuit current breaking capacity (Ics)	_	
• at 400 V	kA	53
UL/CSA ratings:	_	
Full-load current (FLA) for three-phase AC motor		
• at 480 V Rated value	А	32
yielded mechanical performance [hp]	_	
<ul> <li>for three-phase AC motor at 200/208 V Rated value</li> </ul>	metric hp	7.5
<ul> <li>for three-phase AC motor at 220/230 V Rated value</li> </ul>	metric hp	10
<ul> <li>for three-phase AC motor at 460/480 V Rated value</li> </ul>	metric hp	20
Short-circuit:		
Product function Short circuit protection		Yes
Design of short-circuit protection	_	electromagnetic
Design of the fuse link	_	
<ul> <li>for short-circuit protection of the auxiliary switch required</li> </ul>		fuse gL/gG: 10 A
Installation/ mounting/ dimensions:		
mounting position		any
• recommended		vertical, on horizontal standard mounting rail
Mounting type		screw and snap-on mounting
Height	mm	191
Width	mm	90
Depth	mm	165
Connections/ Terminals:		
Type of electrical connection		
<ul> <li>for main current circuit</li> </ul>		spring-loaded terminals
<ul> <li>for auxiliary and control current circuit</li> </ul>		spring-loaded terminals
Product function		
<ul> <li>removable terminal for main circuit</li> </ul>		Yes
<ul> <li>removable terminal for auxiliary and control circuit</li> </ul>		Yes
Type of connectable conductor cross-section		
• for main contacts		
— solid		2x (2.5 6 mm²), 1x 10 mm²
— finely stranded with core end processing		2x (2.5 6 mm²)
<ul> <li>for AWG conductors for main contacts</li> </ul>		2x (14 10), 1x 8

<ul> <li>for auxiliary contacts</li> </ul>		
— solid		2x (0.25 1.5 mm²)
<ul> <li>finely stranded with core end processing</li> </ul>		2x (0.25 1.5 mm²)
<ul> <li>finely stranded without core end</li> </ul>		2x (0.25 1.5 mm²)
processing		
<ul> <li>for AWG conductors for auxiliary contacts</li> </ul>		2x (24 16)
Safety related data:		
B10 value with high demand rate acc. to SN 31920		1 500 000
Proportion of dangerous failures		
<ul> <li>with high demand rate acc. to SN 31920</li> </ul>	%	50
Protection against electrical shock		finger-safe
Communication/ Protocol:		
Product function Bus communication		Yes
Protocol is supported		
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	ms	2.5
device minimum		
Type of voltage supply via input/output link master		No
Amount of data	-	
<ul> <li>of the address area of the inputs with cyclical transfer total</li> </ul>	byte	2
<ul> <li>of the address area of the outputs with cyclical transfer total</li> </ul>	byte	2
Ambient conditions:		
Installation altitude at height above sea level	m	2 000
maximum		
Ambient temperature		
<ul> <li>during operation</li> </ul>	°C	-20 +60
• during storage	°C	-55 +80
<ul> <li>during transport</li> </ul>	°C	-55 +80
Relative humidity during operation	%	10 90
Electromagnetic compatibility:		
Conducted interference due to burst acc. to IEC		4 kV main circuits, 2 kV auxiliary circuits, 2 kV IO-
61000-4-4		Link, 2 kV limit switches, 2 kV line hand-held device
Conducted interference due to conductor-earth surge		4 kV main circuits, 0.5 kV auxiliary voltage with
acc. to IEC 61000-4-5		upstream overvoltage protection
Conducted interference due to conductor-conductor		2 kV main circuits, 0.5 kV auxiliary voltage with
surge acc. to IEC 61000-4-5		upstream overvoltage protection
Conducted interference due to high-frequency		0.15-80Mhz at 10V
radiation acc. to IEC 61000-4-6		

	tic coupling acc. to IE	C 61000-4-3	80 300	00 MHz at 10V/m	
ectrostatic discha	arge acc. to IEC 6100	0-4-2	8 kV		
ipply voltage:					
supply voltage req	uired Auxiliary voltage	•	Yes		
splay:					
isplay version					
<ul> <li>as status disp</li> </ul>	play of the input/outpu	It link device	green/ree	d dual LED	
rtificates/ appro	vals:				
General Produ	ct Approval			EMC	Functional Safety/Safety of Machinery
(m)			гпг		
	CSA		EHE	с-тіск	
ccc Test Certificates	Shipping Appro		τĦL		VDE
Test	Shipping Appro		<b>ERL</b>		VDE VDE
Test Certificates Type Test Certificates/Test	B U R E A U	val Lloyd's Register		C-TICK	

#### Further information

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

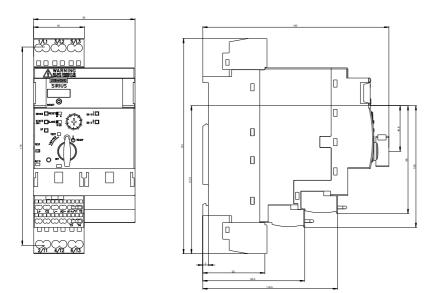
# Industry Mall (Online ordering system) http://www.siemens.com/industrymall

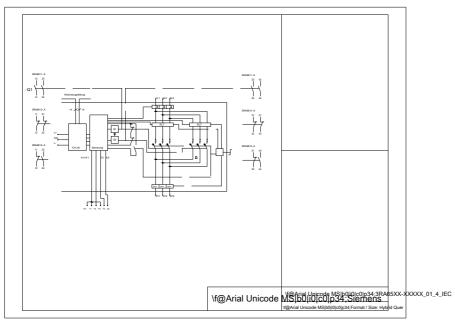
### Cax online generator

http://support.automation.siemens.com/WW/CAXorder/default.aspx?lang=en&mlfb=3RA65002EB42

Service&Support (Manuals, Certificates, Characteristics, FAQs,...) http://support.automation.siemens.com/WW/view/en/3RA65002EB42/all

Image database (product images, 2D dimension drawings, 3D models, device circuit diagrams, EPLAN macros, ...) http://www.automation.siemens.com/bilddb/cax\_de.aspx?mlfb=3RA65002EB42&lang=en





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