## **SIEMENS**

Data sheet 3RA6500-1AB42



SIRIUS, COMPACT STARTER, REVERSING STARTER . 690 V, 24 V DC, 0.1 ... 0.4 A, IP20, CONN. MAIN CIRCUIT: SCREW TERMINAL, CONN. CONTROL CIRCUIT: SCREW 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

Aain circuit:		
Number of poles for main current circuit		3
Adjustable response value current of the current- dependent overload release	Α	0.1 0.4
Formula for making capacity limit current		120 x le
Formula for interruption capacity limit current		100 x le
Mechanical power output for 4-pole AC motor		
• at 400 V Rated value	kW	0.09
• at 500 V Rated value	kW	0.12
• at 690 V Rated value	kW	0.18
Operating voltage		
• at AC-3 Rated value maximum	V	690
Operating current		
• with AC at 400 V Rated value	Α	0.4
• at AC-43		
— at 400 V Rated value	Α	0.3
— at 500 V Rated value	Α	0.32
— at 690 V Rated value	Α	0.35
Operating power		
• at AC-3		
— at 400 V Rated value	W	90
• at AC-43		
— at 400 V Rated value	W	90
— at 500 V Rated value	W	120
— at 690 V Rated value	W	180
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	2.9
uxiliary circuit:		
Number of NC contacts		
• for auxiliary contacts		0
Number of NO contacts		
for auxiliary contacts		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	А	10
Operating current of the auxiliary contacts at DC-13		
● at 250 V	Α	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
• at 500 V Rated value	kA	3
• at 690 V Rated value	kA	3
JL/CSA ratings:		
Full-load current (FLA) for three-phase AC motor		
• at 480 V Rated value	Α	0.4
● at 600 V Rated value	Α	0.4
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
nstallation/ mounting/ dimensions:		
mounting position		any
• recommended		vertical, on horizontal standard mounting rail
Mounting type		screw and snap-on mounting
Height	mm	170
Width	mm	90
Depth	mm	165
Connections/ Terminals:		
Type of electrical connection		
• for main current circuit		screw-type terminals
<ul> <li>for auxiliary and control current circuit</li> </ul>		screw-type terminals
Product function		
• removable terminal for main circuit		Yes
<ul> <li>removable terminal for auxiliary and control circuit</li> </ul>		Yes
Type of connectable conductor cross-section		

• for main contacts		
— solid	2:	x (1.5 6 mm²), 1x 10 mm²
— finely stranded with core end processing	2:	x (1.5 6 mm²)
• for AWG conductors for main contacts	2:	x (16 10), 1x 8
• for auxiliary contacts		
— solid	0.	0.5 4 mm², 2x (0.5 2.5 mm²)
— finely stranded with core end processing	0.	0.5 2.5 mm², 2x (0.5 1.5 mm²)
• for AWG conductors for auxiliary contacts	2:	x (20 14)

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</li> </ul>	byte	2
transfer total		
<ul> <li>of the address area of the outputs with cyclical</li> </ul>	byte	2
transfer total		

Ambient conditions:		
Installation altitude at height above sea level	m	2 000
maximum		
Ambient temperature		
<ul><li>during operation</li></ul>	°C	-20 <b>+</b> 60
during storage	°C	-55 <b>+</b> 80
during transport	°C	-55 <b>+</b> 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 radiation acc. to IEC 61000-4-6	0.15-80Mhz at 10V
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

Supply voltage:

Supply voltage required Auxiliary voltage Yes

Display:

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 Machinery













Test Shipping Approval Certificates

Type Test
Certificates/Test
Report













other

Environmental Confirmations

Declaration of Conformity

other

## Further information

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

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

Industry Mall (Online ordering system)

http://www.siemens.com/industrymall

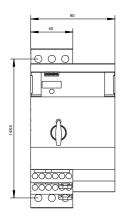
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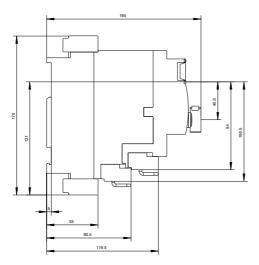
http://support.automation.siemens.com/WW/CAXorder/default.aspx?lang=en&mlfb=3RA65001AB42

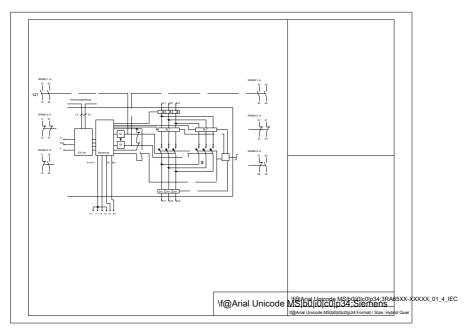
Service&Support (Manuals, Certificates, Characteristics, FAQs,...)

http://support.automation.siemens.com/WW/view/en/3RA65001AB42/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=3RA65001AB42&lang=en







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