## **SIEMENS**

## Data sheet

## 3RA6250-2BB34



SIRIUS, COMPACT STARTER, REVERSING STARTER 690 V, 24 V AC/DC, 50 ... 60 HZ, 0.32 ... 1.25 A, IP20, MAIN CIRCUIT CONNECTION: SPRING-LOADED TERMINAL, AUXILIARY CIRCUIT CONNECTION: PLUG-IN, W/O TERMINALS

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>		Yes	
Insulation voltage			
Rated value	V	690	
maximum permissible voltage for safe isolation			
<ul> <li>between auxiliary and auxiliary circuit</li> </ul>	V	250	
<ul> <li>between control and auxiliary circuit</li> </ul>	V	300	
<ul> <li>between main and auxiliary circuit</li> </ul>	V	400	
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	

Electrical endurance (switching cycles) of the signaling 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	А	0.32 1.25
Formula for making capacity limit current	-	38.4 x le
Formula for interruption capacity limit current	_	32 x le
Mechanical power output for 4-pole AC motor		
• at 400 V Rated value	kW	0.37
• at 500 V Rated value	kW	0.55
• at 690 V Rated value	kW	0.75
Operating voltage		
<ul> <li>at AC-3 Rated value maximum</li> </ul>	V	690
Operating current		
<ul> <li>with AC at 400 V Rated value</li> </ul>	A	1.25
• at AC-43		
— at 400 V Rated value	А	1.1
— at 500 V Rated value	А	1.2
— at 690 V Rated value	А	1.1
Operating power	_	
• at AC-3		
— at 400 V Rated value	W	370
• at AC-43		
— at 400 V Rated value	W	370
— at 500 V Rated value	W	550
— at 690 V Rated value	W	750
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
Control supply voltage 1 with AC		
• at 50 Hz Rated value	V	24
• at 60 Hz Rated value	V	24

Control supply voltage 1					
<ul> <li>for DC Rated value</li> </ul>	V	24			
Rated value	Hz	50			
Control supply voltage frequency 2 Rated value	Hz	60			
Holding power	_				
<ul> <li>with AC maximum</li> </ul>	W	2.8			
• for DC maximum	W	2.9			
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>		2			
<ul> <li>of the instantaneous short-circuit release for signaling contact</li> </ul>		1			
Number of CO contacts	_				
<ul> <li>of the current-dependent overload release for signaling contact</li> </ul>		1			
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			

JL/CSA ratings:				
Full-load current (FLA) for three-phase AC motor				
• at 480 V Rated value	А	1.25		
• at 600 V Rated value	А	1.25		
yielded mechanical performance [hp]	_			
<ul> <li>for three-phase AC motor at 460/480 V Rated value</li> </ul>	metric hp	0.5		
<ul> <li>for three-phase AC motor at 575/600 V Rated value</li> </ul>	metric hp	0.5		
Contact rating of the auxiliary contacts acc. to UL		contacts 21-22, 13-14, 43-44 Q600 / A600, contacts 77-78 R300 / B300, contacts 95-96-98 R300 / D300		

kA

kA

3

3

Short-circuit:

• at 500 V Rated value

• at 690 V Rated value

<ul> <li>Design of short-circuit protection</li> <li>Design of the fuse link <ul> <li>for short-circuit protection of the auxiliary switch required</li> <li>for short-circuit protection of the signaling switch of the short-circuit release required</li> <li>for short-circuit protection of the signaling switch of the overload release required</li> </ul> </li> </ul>		electromagnetic fuse gL/gG: 10 A 6A gL/gG/400V
<ul> <li>for short-circuit protection of the auxiliary switch required</li> <li>for short-circuit protection of the signaling switch of the short-circuit release required</li> <li>for short-circuit protection of the signaling</li> </ul>		6A gL/gG/400V
<ul> <li>required</li> <li>for short-circuit protection of the signaling switch of the short-circuit release required</li> <li>for short-circuit protection of the signaling</li> </ul>		6A gL/gG/400V
<ul><li>switch of the short-circuit release required</li><li>for short-circuit protection of the signaling</li></ul>		
		$4\Lambda \approx 1/\alpha C/400V/$
		4A gL/gG/400V
nstallation/ 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>		plug-in without 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	-	
<ul> <li>for main contacts</li> </ul>		
— solid		2x (1.5 6 mm²), 1x 10 mm²
<ul> <li>finely stranded with core end processing</li> </ul>		2x (1.5 6 mm²)
<ul> <li>finely stranded without core end processing</li> </ul>		2x (1.5 6 mm²)
<ul> <li>for AWG conductors for main contacts</li> </ul>		2x (16 10), 1x 8
<ul> <li>for auxiliary contacts</li> </ul>		
— 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)
<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		3 000 000
Proportion of dangerous failures		
• with low demand rate acc. to SN 31920	%	40
• with high demand rate acc. to SN 31920	%	50

Failure rate [FIT] with low demand rate acc. to SN	FIT	100
31920		
T1 value for proof test interval or service life acc. to IEC 61508	У	20
Protection against electrical shock		finger-safe
Communication/ Protocol:		
Product function Bus communication		No
Product function Control circuit interface with IO link		No
Ambient conditions:		
Installation altitude at height above sea level maximum	m	2 000
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 61000-4-4		4 kV main contacts, 2 kV auxiliary contacts
Conducted interference due to conductor-earth surge acc. to IEC 61000-4-5		4 kV main contacts, 2 kV auxiliary contacts
Conducted interference due to conductor-conductor surge acc. to IEC 61000-4-5		2 kV main contacts, 1 kV auxiliary contacts
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		10 V/m
Electrostatic discharge acc. to IEC 61000-4-2		8 kV
Supply voltage:		
Supply voltage required Auxiliary voltage		No

Certificates/ approvals:

General Produc	t Approval			EMC	Functional Safety/Safety of Machinery
	CSA		EHC	C-TICK	VDE
Test Certificates	Shipping Approv	val			
<u>Type Test</u> Certificates/Test <u>Report</u>	BUREAU VERITAS	ĴÅ DNV DNV	Lloyd's Register LRS	PRS	RINA
Shipping Approval	other				
RMRS	Environmental Confirmations	Declaration of Conformity	other		

## Further information

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

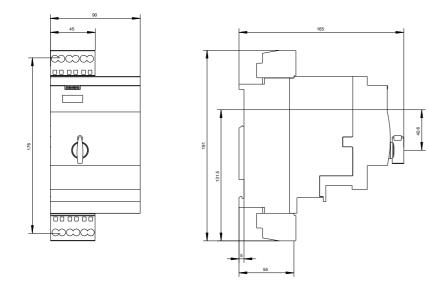
Industry Mall (Online ordering system) http://www.siemens.com/industrymall

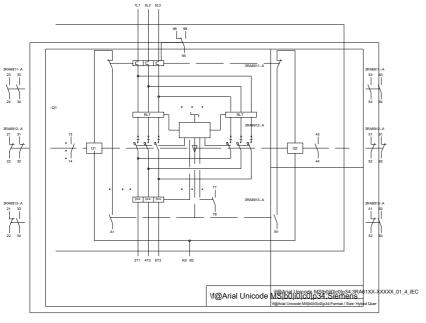
Cax online generator

http://support.automation.siemens.com/WW/CAXorder/default.aspx?lang=en&mlfb=3RA62502BB34

Service&Support (Manuals, Certificates, Characteristics, FAQs,...) http://support.automation.siemens.com/WW/view/en/3RA62502BB34/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=3RA62502BB34&lang=en





last modified:

11.03.2015