SIEMENS

Data sheet

3RA6250-2BB33



SIRIUS, COMPACT STARTER, REVERSING STARTER 690 V, 24 V AC/DC, 50 ... 60 HZ, 0.32 ... 1.25 A, IP20, MAIN CIRCUIT CONNECTION: PLUG-IN, W/O TERMINALS, AUXILIARY CIRCUIT CONNECTION: 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 		Yes	
Insulation voltage			
Rated value	V	690	
maximum permissible voltage for safe isolation			
 between auxiliary and auxiliary circuit 	V	250	
 between control and auxiliary circuit 	V	300	
 between main and auxiliary circuit 	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)			
 of the main contacts typical 		10 000 000	
 of the auxiliary contacts typical 		10 000 000	
 of the signaling contacts typical 		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	A	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	_	
 at AC-3 Rated value maximum 	V	690
Operating current		
 with AC at 400 V Rated value 	А	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		
 for DC Rated value 	V	24
Rated value	Hz	50
Control supply voltage frequency 2 Rated value	Hz	60
Holding power	_	
 with AC maximum 	W	2.8
• for DC maximum	W	2.9
Auxiliary circuit:		
Number of NC contacts		
 for auxiliary contacts 		0
Number of NO contacts		
 for auxiliary contacts 		2
 of the instantaneous short-circuit release for signaling contact 		1
Number of CO contacts	_	
 of the current-dependent overload release for signaling contact 		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

UL/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]	-			
 for three-phase AC motor at 460/480 V Rated value 	metric hp	0.5		
 for three-phase AC motor at 575/600 V Rated value 	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

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
 for short-circuit protection of the signaling switch of the short-circuit release required 		6A gL/gG/400V
 for short-circuit protection of the signaling switch of the overload release required 		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		
 for main current circuit 		plug-in without terminals
 for auxiliary and control current circuit 		spring-loaded terminals
Product function		
 removable terminal for main circuit 		Yes
 removable terminal for auxiliary and control circuit 		Yes
Type of connectable conductor cross-section		
 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)
 for AWG conductors for main contacts 		2x (16 10), 1x 8
 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 conductors for auxiliary contacts		2x (24 16)
Safety related data:		
B10 value with high demand rate acc. to SN 31920		3 000 000
Proportion of dangerous failures		
 Proportion of dangerous failures with low demand rate acc. to SN 31920 	%	40

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			
 during operation 	°C	-20 +60	
during storage	°C	-55 +80	
 during transport 	°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 Appro	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	<u>other</u>		

Further information

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

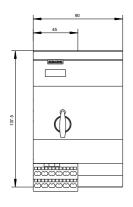
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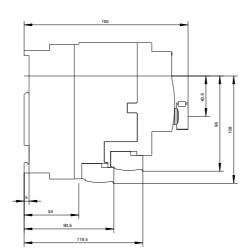
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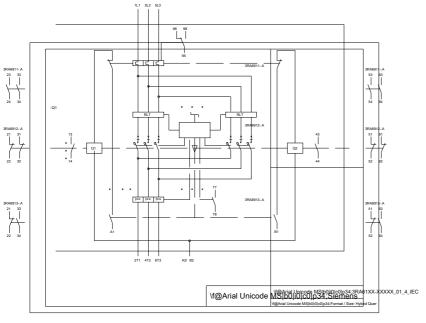
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Service&Support (Manuals, Certificates, Characteristics, FAQs,...) http://support.automation.siemens.com/WW/view/en/3RA62502BB33/all

Image database (product images, 2D dimension drawings, 3D models, device circuit diagrams, EPLAN macros, ...) http://www.automation.siemens.com/bilddb/cax_de.aspx?mlfb=3RA62502BB33&lang=en







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