SIEMENS

Data sheet 3RA6250-1AP33



SIRIUS, COMPACT STARTER, REVERSING STARTER 690 V, 110 ... 240 V AC/DC, 50 ... 60 HZ, 0.1 ... 0.4 A, IP20, MAIN CIRCUIT CONNECTION: PLUG-IN, W/O TERMINALS, AUXILIARY CIRCUIT CONNECTION: SCREW 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		4
Adjustable response value current of the current-	Α	0.1 0.4
dependent overload release		
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
Control supply voltage 1 with AC		
● at 50 Hz	V	110 240
● at 60 Hz	V	110 240

Control supply voltage 1		
• for DC	V	110 240
Rated value	Hz	50
Control supply voltage frequency 2 Rated value	Hz	60
Holding power		
• with AC maximum	W	6
• for DC maximum	W	5.1
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	Α	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
UL/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
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
Short-circuit:		
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

• for short-circuit protection of the signaling switch of the overload release required

6A gL/gG/400V	
---------------	--

4A gL/gG/400V

Installation/ 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	plug-in without terminals
 for auxiliary and control current circuit 	screw-type 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)
 for AWG conductors for main contacts 	2x (16 10), 1x 8
 for auxiliary contacts 	
— solid	0.5 4 mm², 2x (0.5 2.5 mm²)
 finely stranded with core end processing 	0.5 2.5 mm², 2x (0.5 1.5 mm²)
 for AWG conductors for auxiliary contacts 	2x (20 14)

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 31920	FIT	100
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 Product Approval

EMC

Functional Safety/Safety of Machinery













rest	
Certificates	

Tast

Shipping Approval

Type Test
Certificates/Test
Report



other









Shipping Approval

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

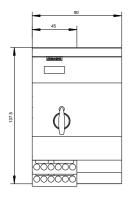
Cax online generator

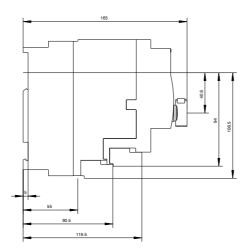
http://support.automation.siemens.com/WW/CAXorder/default.aspx?lang=en&mlfb=3RA62501AP33

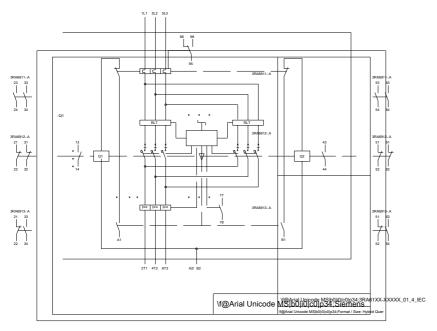
Service&Support (Manuals, Certificates, Characteristics, FAQs,...)

http://support.automation.siemens.com/WW/view/en/3RA62501AP33/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=3RA62501AP33&lang=en







last modified: 11.03.2015