## **SIEMENS**

Data sheet 3RA6250-1EP33



SIRIUS, COMPACT STARTER, REVERSING STARTER 400 V, 110 ... 240 V AC/DC, 50 ... 60 HZ, 8 ... 32 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		
<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

Main circuit:		
Number of poles for main current circuit		3
Adjustable response value current of the current-	Α	8 32
dependent overload release		
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>	Α	32
• at AC-43		
— at 400 V Rated value	Α	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
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		
<ul><li>with AC maximum</li></ul>	W	5.2

• for DC maximum	W	5.8
Auxiliary circuit:		
Number of NC contacts		
• for auxiliary contacts		0
Number of NO contacts		
• for auxiliary contacts		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	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
UL/CSA ratings:		
Full-load current (FLA) for three-phase AC motor		
● at 480 V Rated value	Α	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
• for three-phase AC motor at 460/480 V Rated	metric	20
value	hp	
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		
<ul> <li>for short-circuit protection of the auxiliary switch</li> </ul>		fuse gL/gG: 10 A

required

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

6A gL/gG/400V

<ul> <li>for short-circuit protection of the signaling</li> </ul>
switch of the overload release required

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
<ul> <li>for auxiliary and control current circuit</li> </ul>	screw-type terminals
Product function	
<ul> <li>removable terminal for main circuit</li> </ul>	Yes
<ul> <li>removable terminal for auxiliary and control</li> </ul>	Yes
circuit	
Type of connectable conductor cross-section	
• for main contacts	
— solid	2x (2.5 6 mm²), 1x 10 mm²
<ul> <li>finely stranded with core end processing</li> </ul>	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	0.5 4 mm², 2x (0.5 2.5 mm²)
<ul> <li>finely stranded with core end processing</li> </ul>	0.5 2.5 mm², 2x (0.5 1.5 mm²)
<ul> <li>for AWG conductors for auxiliary contacts</li> </ul>	2x (20 14)

B10 value with high demand rate acc. to SN 31920		2 000 000
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		
<ul> <li>during operation</li> </ul>	°C	-20 +60
during storage	°C	-55 +80
<ul> <li>during transport</li> </ul>	°C	-55 <b>+</b> 80
Relative humidity during operation	%	10 90

Electromagnetic compatibility:		
Conducted interference due to burst acc. to IEC 61000-4-4	4 kV main contact	s, 2 kV auxiliary contacts
Conducted interference due to conductor-earth surge acc. to IEC 61000-4-5	4 kV main contact	s, 2 kV auxiliary contacts
Conducted interference due to conductor-conductor surge acc. to IEC 61000-4-5	2 kV main contact	s, 1 kV auxiliary contacts
Conducted interference due to high-frequency radiation acc. to IEC 61000-4-6	0.15-80Mhz at 10 <sup>1</sup>	V
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











Shipping Approval other

pprovai



Declaration of Conformity

Environmental Confirmations

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

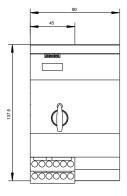
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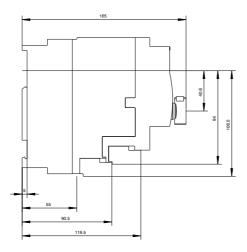
http://support.automation.siemens.com/WW/CAXorder/default.aspx?lang=en&mlfb=3RA62501EP33

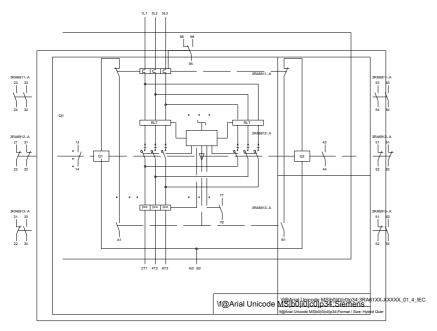
Service&Support (Manuals, Certificates, Characteristics, FAQs,...)

http://support.automation.siemens.com/WW/view/en/3RA62501EP33/all

Image database (product images, 2D dimension drawings, 3D models, device circuit diagrams, EPLAN macros, ...) <a href="http://www.automation.siemens.com/bilddb/cax\_de.aspx?mlfb=3RA62501EP33&lang=en">http://www.automation.siemens.com/bilddb/cax\_de.aspx?mlfb=3RA62501EP33&lang=en</a>







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