# SIEMENS

## **Product 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

General technical data:		
Product brand name		SIRIUS
product designation		compact starter
Design of the product		reversing feeder
Trip class		CLASS 10 and 20 adjustable
Product function		
<ul> <li>control circuit interface to parallel wiring</li> </ul>		Yes
bus-communication		No
short circuit protection		Yes
control circuit interface with IO link		No
Type of assignement		continous operation according to IEC 60947-6-2
Protection class IP		IP20
Degree of pollution		3
Built in orientation / recommended		vertical, on horizontal standard mounting rail
Installation altitude / at a height over sea level		
• maximum	m	2,000
Ambient temperature		
during storage	°C	-55 80
during operating	°C	-20 60
during transport	°C	-55 80

	-	
Relative humidity		
during operating phase	%	10 90
Resistance against shock	_	a=60 m/s2 (6g) with 10 ms per 3 shocks in all axes
Resistance against vibration		f= 4 5.8 Hz, d= 15 mm; f= 5.8 500 Hz, a= 20 m/s²; 10 cycles
Impulse voltage resistance / rated value	V	6,000
Field-bound parasitic coupling		
according to IEC 61000-4-3		10 V/m
Insulation voltage / rated value	V	690
Conductor-bound parasitic coupling conductor-earth SURGE		
according to IEC 61000-4-5		4 kV main contacts, 2 kV auxiliary contacts
Conductor-bound parasitic coupling conductor-conductor SURGE		
according to IEC 61000-4-5		2 kV main contacts, 1 kV auxiliary contacts
Conductor-bound parasitic coupling BURST		
according to IEC 61000-4-4		4 kV main contacts, 2 kV auxiliary contacts
Maximum permissible voltage for safe disconnection		
<ul> <li>between main circuit and auxiliary circuit</li> </ul>	V	400
<ul> <li>between control and auxiliary circuit</li> </ul>	V	300
<ul> <li>between auxiliary circuit and auxiliary circuit</li> </ul>	V	250
Item designation		
<ul> <li>according to DIN 40719 extendable after IEC 204-2 / according to IEC 750</li> </ul>		Q
according to DIN EN 61346-2		Q
Main circuit:		
Operating voltage / at AC-3 / rated value		
• maximum	V	400
Number of poles / for main current circuit		3
Adjustable response current		
<ul> <li>of the current-dependent overload release</li> </ul>	А	8 32
Formula for making capacity limit current		12 x le
Formula for interruption capacity limit current		10 x le
Emitted mechanical power / for 4-pole three-phase motor		
• at 400 V / rated value	kW	15
Service power / at AC-3 / at 400 V / rated value	kW	15
Frequency of operation / at AC-41 / according to IEC 60947-6-2 / maximum	1/h	750
Frequency of operation / at AC-43 / according to IEC 60947-6-2 / maximum	1/h	250
Off-load operating frequency	1/h	3,600
Mechanical operating cycles as operating time		

of the main contacts / typical		10,000,000
<ul> <li>of the auxiliary contacts / typical</li> </ul>		10,000,000
<ul> <li>of the signal contacts / typical</li> </ul>		10,000,000
Control circuit:		
type of voltage		AC
Control supply voltage / 1		
• for DC		
initial rated value	V	110
final rated value	V	240
• at 50 Hz / for AC		
initial rated value	V	110
• final rated value	V	240
• at 60 Hz / for AC		
initial rated value	V	110
final rated value	V	240
Holding power		
• for AC / maximum	W	5.2
• for DC / maximum	W	5.8
Switch-off delay time	ms	50
Start-up delay time	ms	70

# Auxiliary circuit:

Auxiliary circuit:		
Product extension		
auxiliary switch		Yes
Number of NC contacts		
<ul> <li>for auxiliary contacts</li> </ul>		0
Number of NO contacts		
<ul> <li>for auxiliary contacts</li> </ul>		2
• of the non-delayed short-circuit release / for alarm contact		1
Number of changeover contacts / of the current-dependent overload release / for alarm contact		1
Operating current / of the auxiliary contacts / at AC-12		
• maximum	А	10
Electrical switching cycle as operating time / of the auxiliary contacts		
• at AC-15 / at 6 A / at 230 V / typical		500,000
• at DC-13 / at 6 A / at 24 V / typical		100,000
Electrical switching cycle as operating time / of the signal contacts		
• at AC-15 / at 6 A / at 230 V / typical		500,000

• at DC-13 / at 6 A / at 24 V / typical		100,000
Short-circuit:		
Design of the fuse link / for short-circuit protection of the auxiliary switch		
• required		fuse gL/gG: 10 A
Installation/mounting/dimensions:		
Type of mounting		screw and snap-on mounting
Width	mm	90
Height	mm	170
Depth	mm	165
Built in orientation		any
Connections:		
Product function		
removable terminal for main circuit		Yes
<ul> <li>removable terminal for auxiliary and control circuit</li> </ul>		Yes
Design of the electrical connection		
for main current circuit		plug-in without terminals
<ul> <li>for auxiliary and control current circuit</li> </ul>		screw-type terminals
Type of the connectable conductor cross-section	-	
for main contacts		
• solid		2x (2.5 6 mm²), 1x 10 mm²
finely stranded		
<ul> <li>with conductor end processing</li> </ul>		2x (2.5 6 mm²)
<ul> <li>for auxiliary contacts</li> </ul>		
• solid		0.5 4 mm², 2x (0.5 2.5 mm²)
finely stranded		
with conductor end processing		0.5 2.5 mm², 2x (0.5 1.5 mm²)
for AWG conductors		
for main contacts		2x (14 10), 1x 8
for auxiliary contacts		2x (20 14)
Certificates/approvals:		

Verification of suitability

IEC / EN 60947-6-2

General Product	Approval			Functional Safety / Safety of Machinery	Test Certificates
coc	(SA)	ROSTEST		other	Manufacturer
Shipping Approv	ral			other	
B U REAU VERITAS		PRS	RINA	<u>Manufacturer</u>	<u>other</u>

yielded mechanical performance (hp) / for three-phase squirrel cage motors		
• at 200/208 V / rated value	hp	7.5
• at 220/230 V / rated value	hp	10
• at 460/480 V / rated value	hp	20
Operating current (FLA) / for three-phase squirrel cage motors		
• at 480 V / rated value	А	32
Contact rating designation / for auxiliary contacts / according to UL		contacts 21-22, 13-14, 43-44 Q600 / A600, contacts 77-78 R300 / B300, contacts 95-96-98 R300 / D300

Reliability figures:			
B10 value		3,000,000	
Proportion of dangerous failures	%	50	
Proportion of dangerous failures / with low demand rate / according to SN 31920	%	40	
Protection against electrical shock		finger-safe	
Failure rate (FIT value) / with low demand rate / according to SN 31920	FIT	100	

#### **Further information:**

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

#### Industry Mall (Online ordering system)

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

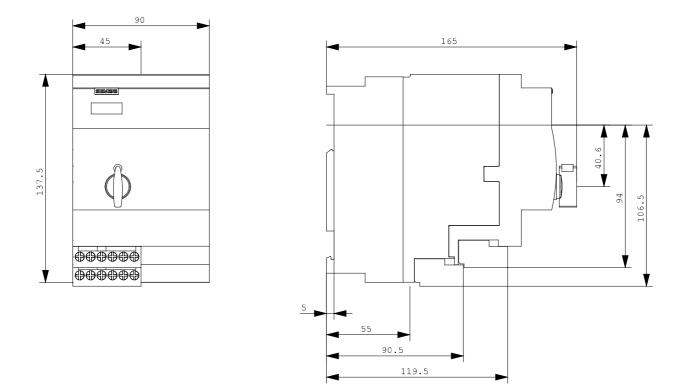
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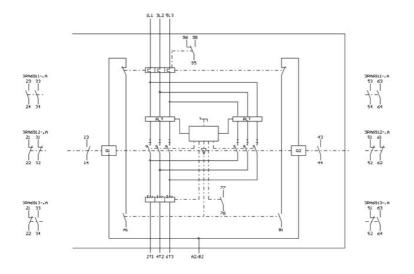
http://www.siemens.com/cax

Service&Support (Manuals, Certificates, Characteristics, FAQs,...) http://support.automation.siemens.com/WW/view/en/3RA6250-1EP33/all

### Image database (product images, 2D dimension drawings, 3D models, device circuit diagrams, ...)

http://www.automation.siemens.com/bilddb/cax\_en.aspx?mlfb=3RA6250-1EP33





last change:

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