## **SIEMENS**

Data sheet 3RA6250-1AB32



SIRIUS Compact load feeder Reversing starter 690 V 24 V AC/DC 50...60 Hz 0.1...0.4 A IP20 Connection main circuit: Screw terminal Connection control circuit: screw terminal

product brand name product designation design of the product product type designation SIRIUS compact starter reversing starter 3RA62

product type designation	SINAUZ
General technical data	
product function control circuit interface to parallel wiring	Yes
product extension auxiliary switch	Yes
power loss [W] for rated value of the current	
<ul> <li>at AC in hot operating state</li> </ul>	0.01 W
<ul> <li>at AC in hot operating state per pole</li> </ul>	0.01 W
<ul> <li>without load current share typical</li> </ul>	2.9 W
insulation voltage rated value	690 V
degree of pollution	3
surge voltage resistance rated value	6 000 V
maximum permissible voltage for safe isolation	
<ul> <li>between main and auxiliary circuit</li> </ul>	400 V
<ul> <li>between auxiliary and auxiliary circuit</li> </ul>	250 V
<ul> <li>between control and auxiliary circuit</li> </ul>	300 V
degree of protection NEMA rating	other
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
mechanical service life (operating cycles)	
<ul> <li>of the main contacts typical</li> </ul>	10 000 000
<ul> <li>of auxiliary contacts typical</li> </ul>	10 000 000
<ul> <li>of the signaling contacts typical</li> </ul>	10 000 000
electrical endurance (operating cycles) of auxiliary contacts	
<ul><li>at DC-13 at 6 A at 24 V typical</li></ul>	30 000
<ul><li>at AC-15 at 6 A at 230 V typical</li></ul>	200 000
type of assignment	continous operation according to IEC 60947-6-2
reference code according to IEC 81346-2	Q
Substance Prohibitance (Date)	05/01/2012
Ambient conditions	
installation altitude at height above sea level maximum	2 000 m
ambient temperature	

Main circuit

during operationduring storage

• during transport

relative humidity during operation

number of poles for main current circuit adjustable current response value current of the

3

0.1

-20 ... +60 °C

-55 ... +80 °C

-55 ... +80 °C

.. 0.4 A

10 ... 90 %

arrespt dependent arresponding	
current-dependent overload release	120 x le
formula for making capacity limit current	100 x le
formula for limit current breaking capacity	100 x ie
yielded mechanical performance for 4-pole AC motor	0.09 kW
at 400 V rated value     at 500 V rated value	
at 500 V rated value	0.12 kW
at 690 V rated value	0.18 kW
operating voltage at AC-3 rated value maximum	690 V
operational current	0.4.4
at AC at 400 V rated value	0.4 A
at AC-3 at 400 V rated value	0.4 A
• at AC-43	
— at 400 V rated value	0.3 A
— at 500 V rated value	0.32 A
— at 690 V rated value	0.35 A
operating power	0.001144
at AC-3 at 400 V rated value	0.09 kW
• at AC-43	
— at 400 V rated value	90 W
— at 500 V rated value	120 W
— at 690 V rated value	180 W
no-load switching frequency	3 600 1/h
operating frequency	
<ul> <li>at AC-41 according to IEC 60947-6-2 maximum</li> </ul>	750 1/h
at AC-43 according to IEC 60947-6-2 maximum	250 1/h
Control circuit/ Control	
type of voltage	AC/DC
control supply voltage 1 at AC	
<ul> <li>at 50 Hz rated value</li> </ul>	24 V
● at 50 Hz	24 24 V
<ul> <li>at 60 Hz rated value</li> </ul>	24 V
● at 60 Hz	24 V
control supply voltage frequency	
1 rated value	50 Hz
• 2 rated value	60 Hz
control supply voltage 1	
<ul> <li>at DC rated value</li> </ul>	24 V
• at DC	24 24 V
holding power	
<ul> <li>at AC maximum</li> </ul>	2.8 W
<ul> <li>at DC maximum</li> </ul>	2.9 W
Auxiliary circuit	
number of NC contacts for auxiliary contacts	0
number of NO contacts for auxiliary contacts	2
number of NO contacts of instantaneous short-circuit trip	1
unit for signaling contact	
number of CO contacts of the current-dependent overload	1
release for signaling contact	40.4
operational current of auxiliary contacts at AC-12 maximum	10 A
operational current of auxiliary contacts at DC-13 at 250 V	0.27 A
Protective and monitoring functions	C.E. P.
	CLASS 10 and 20 adjustable
trip class	CLASS 10 and 20 adjustable
operating short-circuit current breaking capacity (Ics)  • at 400 V	53 kA
	3 kA
<ul><li>at 500 V rated value</li><li>at 690 V rated value</li></ul>	3 kA
	3 KA
UL/CSA ratings	
full-load current (FLA) for 3-phase AC motor	
• at 480 V rated value	0.4 A
at 600 V rated value	0.4 A
contact rating of 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
	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1

Short-circuit protection	
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 required</li> </ul>	fuse gL/gG: 10 A
<ul> <li>for short-circuit protection of the signaling switch of the short-circuit release required</li> </ul>	6A gL/gG/400V
for short-circuit protection of the signaling switch of the overload release required	4A gL/gG/400V
Installation/ mounting/ dimensions	
mounting position	any
recommended	vertical, on horizontal standard DIN rail
fastening method	screw and snap-on mounting
height	170 mm
width	90 mm
depth	165 mm
Connections/ Terminals	
product component removable terminal for main	Yes
circuit	
product component removable terminal for auxiliary	Yes
and control circuit	
type of electrical connection	
for main current circuit     for auxilians and control circuit	screw-type terminals
for auxiliary and control circuit	screw-type terminals
type of connectable conductor cross-sections	
• for main contacts	Ov. (4.5 C. mann2) 4.v. 4.0 mann2
— solid	2x (1.5 6 mm²), 1x 10 mm²
— finely stranded with core end processing	2x (1.5 6 mm²)
at AWG cables for main contacts  Type of connectable conductor group continue	2x (16 10), 1x 8
type of connectable conductor cross-sections	
for auxiliary contacts     — solid	0 F 4 mm <sup>2</sup> 2v (0 F 2 F mm <sup>2</sup> )
— finely stranded with core end processing	0.5 4 mm², 2x (0.5 2.5 mm²) 0.5 2.5 mm², 2x (0.5 1.5 mm²)
at AWG cables for auxiliary contacts	2x (20 14)
	ZX (20 14)
Safety related data	0.000.000
B10 value with high demand rate according to SN 31920	3 000 000
<ul><li>proportion of dangerous failures</li><li>with low demand rate according to SN 31920</li></ul>	40 %
	50 %
<ul> <li>with high demand rate according to SN 31920</li> <li>failure rate [FIT] with low demand rate according to SN</li> </ul>	100 FIT
31920	100 F11
T1 value for proof test interval or service life according to IEC 61508	20 y
protection class IP on the front according to IEC 60529	IP20
touch protection on the front according to IEC 60529	finger-safe
Communication/ Protocol	
product function bus communication	No
protocol is supported	
AS-Interface protocol	No
IO-Link protocol      In the protocol      In	No
product function control circuit interface with IO link	No
Electromagnetic compatibility	
conducted interference	
<ul> <li>due to burst according to IEC 61000-4-4</li> <li>due to conductor-earth surge according to IEC</li> </ul>	4 kV main contacts, 2 kV auxiliary contacts 4 kV main contacts, 2 kV auxiliary contacts
<ul> <li>61000-4-5</li> <li>due to conductor-conductor surge according to IEC</li> <li>61000-4-5</li> </ul>	2 kV main contacts, 1 kV auxiliary contacts
<ul> <li>due to high-frequency radiation according to IEC 61000-4-6</li> </ul>	0.15-80Mhz at 10V
field-based interference according to IEC 61000-4-3	10 V/m
electrostatic discharge according to IEC 61000-4-2	8 kV

conducted HF interference emissions according to

field-bound HF interference emission according to CISPR11

150 kHz ... 30 MHz Class A

30 ... 1000 MHz Class A

Supply voltage

Supply voltage required Auxiliary voltage No

Display

number of LEDs 3

Certificates/ approvals

**General Product Approval** 

**EMC** 





Confirmation







Functional Safety/Safety of Machinery

**Declaration of Conformity** 

**Test Certificates** 

Marine / Shipping







Type Test Certificates/Test Report





Marine / Shipping

....

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Confirmation

other

<u>Transport Information</u>

**Dangerous Good** 

## Further information

Information- and Downloadcenter (Catalogs, Brochures,...)

https://www.siemens.com/ic10

Industry Mall (Online ordering system)

https://mall.industry.siemens.com/mall/en/en/Catalog/product?mlfb=3RA6250-1AB32

Cax online generator

http://support.automation.siemens.com/WW/CAXorder/default.aspx?lang=en&mlfb=3RA6250-1AB32

 ${\bf Service \& Support~(Manuals,~Certificates,~Characteristics,~FAQs,...)}$ 

https://support.industry.siemens.com/cs/ww/en/ps/3RA6250-1AB32

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

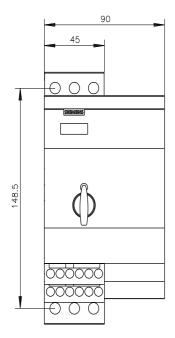
 $\underline{\text{http://www.automation.siemens.com/bilddb/cax\_de.aspx?mlfb=3RA6250-1AB32\&lang=en}}$ 

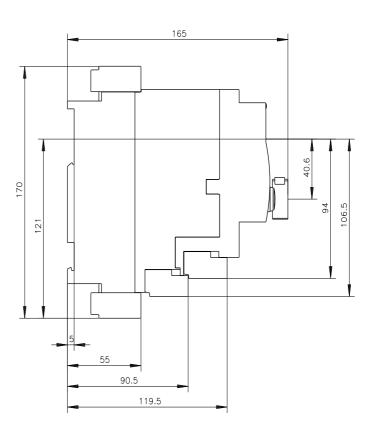
Characteristic: Tripping characteristics, I2t, Let-through current

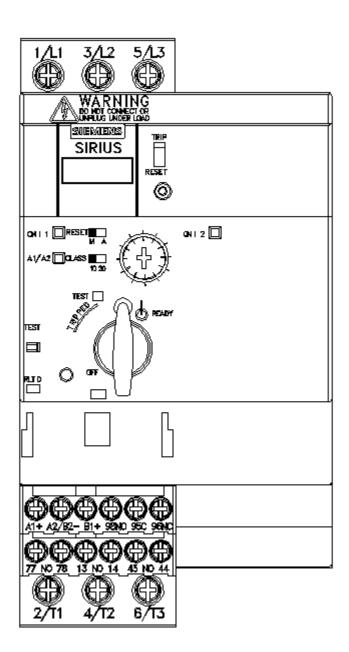
https://support.industry.siemens.com/cs/ww/en/ps/3RA6250-1AB32/char

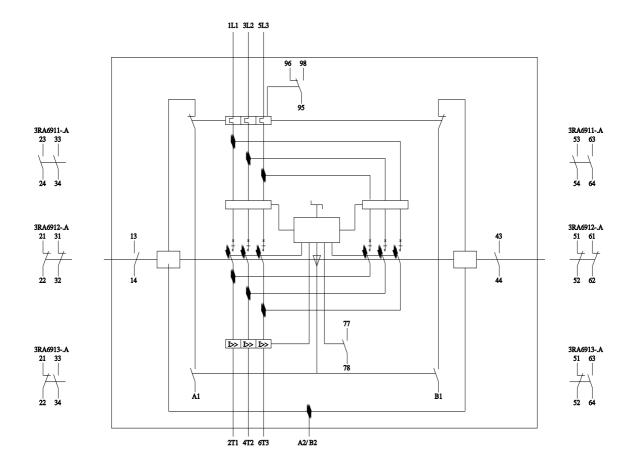
Further characteristics (e.g. electrical endurance, switching frequency)

http://www.automation.siemens.com/bilddb/index.aspx?view=Search&mlfb=3RA6250-1AB32&objecttype=14&gridview=view1









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