SIEMENS

Data sheet 3RA6250-1BB33



SIRIUS Compact load feeder Reversing starter 690 V 24 V AC/DC 50...60 Hz 0.32...1.25 A IP20 Connection main circuit: plug-in, without terminals Connection control circuit: screw terminal

product brand name	SIRIUS	
product designation	compact starter	
design of the product	reversing starter	
product type designation	3RA62	
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 at AC in hot operating state	0.1 W	
• per pole	0.03 W	
power loss [W] for rated value of the current without load current share typical	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		
 between main and auxiliary circuit 	400 V	
 between auxiliary and auxiliary circuit 	250 V	
between control and auxiliary circuit	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 (switching cycles)		
 of the main contacts typical 	10 000 000	
 of auxiliary contacts typical 	10 000 000	
of the signaling contacts typical	10 000 000	
electrical endurance (switching cycles) of auxiliary contacts		
at DC-13 at 6 A at 24 V typical	30 000	
at AC-15 at 6 A at 230 V typical	200 000	
type of assignment	continous operation according to IEC 60947-6-2	
reference code acc. to IEC 81346-2	Q	
Substance Prohibitance (Date)	01.05.2012	
Ambient conditions		
installation altitude at height above sea level maximum	2 000 m	
ambient temperature		
 during operation 	-20 +60 °C	
 during storage 	-55 +80 °C	
during transport	-55 +80 °C	
relative humidity during operation	10 90 %	

Main circuit	
number of poles for main current circuit	3
adjustable current response value current of the	0.32 1.25 A
current-dependent overload release	38.4 x le
formula for making capacity limit current	38.4 x ie 32 x le
formula for breaking capacity limit current	02 A IC
yielded mechanical performance for 4-pole AC motor • at 400 V rated value	0.37 kW
at 500 V rated value at 600 V rated value	0.55 kW
at 690 V rated value apprating voltage at AC 3 rated value maximum.	0.75 kW
operating voltage at AC-3 rated value maximum operational current	690 V
at AC at 400 V rated value	1.25 A
 at AC at 400 V rated value at AC-3 at 400 V rated value 	1.25 A 1.25 A
at AC-3 at 400 V rated valueat AC-43	1.20 A
at AC-43 — at 400 V rated value	1.1 A
— at 400 V rated value — at 500 V rated value	1.1 A 1.2 A
— at 500 V rated value — at 690 V rated value	1.2 A 1.1 A
	III A
operating power ■ at AC-3 at 400 V rated value	0.37 kW
at AC-3 at 400 V rated valueat AC-43	C.O. RVV
- at 400 V rated value	370 W
— at 400 V rated value — at 500 V rated value	370 W 550 W
— at 500 V rated value — at 690 V rated value	750 W
	3 600 1/h
no-load switching frequency operating frequency	0.000 1/11
at AC-41 acc. to IEC 60947-6-2 maximum	750 1/h
 at AC-41 acc. to IEC 60947-6-2 maximum at AC-43 acc. to IEC 60947-6-2 maximum 	250 1/h
• at AC-43 acc. to IEC 60947-6-2 maximum Control circuit/ Control	200 1/11
	AC/DC
type of voltage control supply voltage 1 at AC	, WIDO
at 50 Hz rated value	24 V
at 50 Hz rated value at 50 Hz	24 V 24 24 V
at 50 Hz at 60 Hz rated value	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	
at DC rated value	24 V
at DC at DC	24 24 V
holding power	
at AC maximum	2.8 W
at DC maximum	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 for auxiliary contacts	1
unit for signaling contact	
number of CO contacts of the current-dependent overload release for signaling contact	1
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	
trip class	CLASS 10 and 20 adjustable
breaking capacity operating short-circuit current (Ics)	
• at 400 V	53 kA
• at 500 V rated value	3 kA
• at 690 V rated value	3 kA

UL/CSA ratings	
full-load current (FLA) for 3-phase AC motor	
at 480 V rated value	1.25 A
at 600 V rated value at 600 V rated value	1.25 A
yielded mechanical performance [hp] for 3-phase AC	1.2071
motor	
• at 460/480 V rated value	0.5 hp
• at 575/600 V rated value	0.5 hp
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
Short-circuit protection	
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	fuse gL/gG: 10 A
required	0.4 17 0.400.7
 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	4A gL/gG/400V
the overload release required	go. go. 100 v
Installation/ mounting/ dimensions	
mounting position	any
recommended	vertical, on horizontal standard mounting 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 and control circuit	Yes
type of electrical connection	
for main current circuit	plug-in without terminals
for auxiliary and control circuit	screw-type terminals
type of connectable conductor cross-sections	
for main contacts	
— 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	2x (16 10), 1x 8
type of connectable conductor cross-sections	(.v (v), v
• 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 2.5 mm²)
at AWG cables for auxiliary contacts	2x (20 14)
Safety related data	LA (LV 17)
	3 000 000
B10 value with high demand rate acc. to SN 31920	0 000 000
proportion of dangerous failures	40.94
with low demand rate acc. to SN 31920 with high demand rate acc. to SN 31920	40 %
with high demand rate acc. to SN 31920 failure rate [EIT] with low demand rate acc. to SN 31920	50 %
failure rate [FIT] with low demand rate acc. to SN 31920	100 FIT
T1 value for proof test interval or service life acc. to IEC 61508	20 y
protection class IP on the front acc. to IEC 60529	IP20
touch protection on the front acc. to IEC 60529	finger-safe
Communication/ Protocol	
product function bus communication	No
protocol is supported	
AS-Interface protocol	No
IO-Link protocol	No
product function control circuit interface with IO link	No

Electromagnetic compatibility conducted interference • due to burst acc. to IEC 61000-4-4 4 kV main contacts, 2 kV auxiliary contacts • due to conductor-earth surge acc. to IEC 61000-4-5 4 kV main contacts, 2 kV auxiliary contacts • due to conductor-conductor surge acc. to IEC 2 kV main contacts, 1 kV auxiliary contacts 61000-4-5 • due to high-frequency radiation acc. to IEC 61000-0.15-80Mhz at 10V 4-6 field-based interference acc. to IEC 61000-4-3 10 V/m electrostatic discharge acc. to IEC 61000-4-2 8 kV conducted HF interference emissions acc. to CISPR11 150 kHz ... 30 MHz Class A field-bound HF interference emission acc. to CISPR11 30 ... 1000 MHz Class A Supply voltage required Auxiliary voltage No Display number of LEDs 3 Certificates/ approvals

General Product Approval

EMC

Functional Safety/Safety of Machinery













Declaration of Conformity

Test Certificates

Marine / Shipping

UK Declaration of Conformity



Type Test Certificates/Test Report







Marine / Shipping









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=3RA6250-1BB33

Cax online generator

http://support.automation.siemens.com/WW/CAXorder/default.aspx?lang=en&mlfb=3RA6250-1BB33

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

https://support.industry.siemens.com/cs/ww/en/ps/3RA6250-1BB33

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

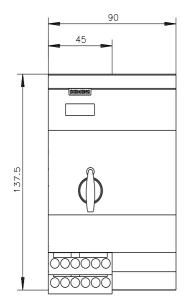
http://www.automation.siemens.com/bilddb/cax_de.aspx?mlfb=3RA6250-1BB33&lang=en

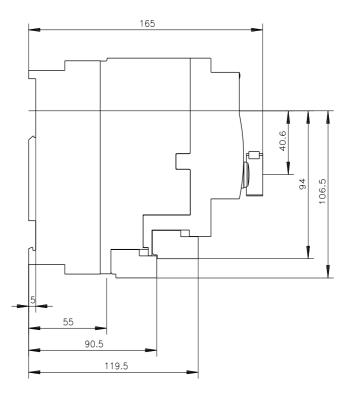
Characteristic: Tripping characteristics, I2t, Let-through current

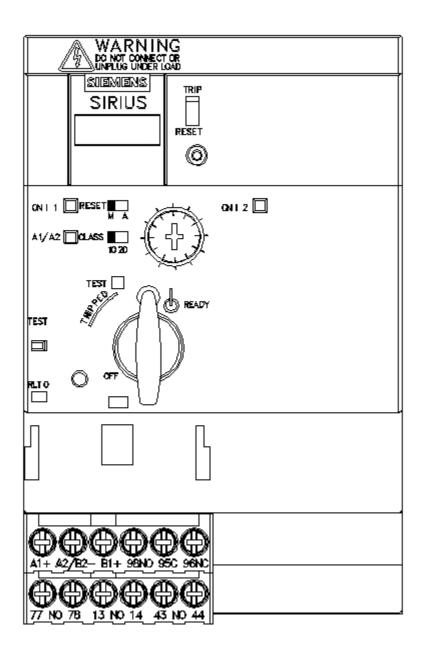
https://support.industry.siemens.com/cs/ww/en/ps/3RA6250-1BB33/char

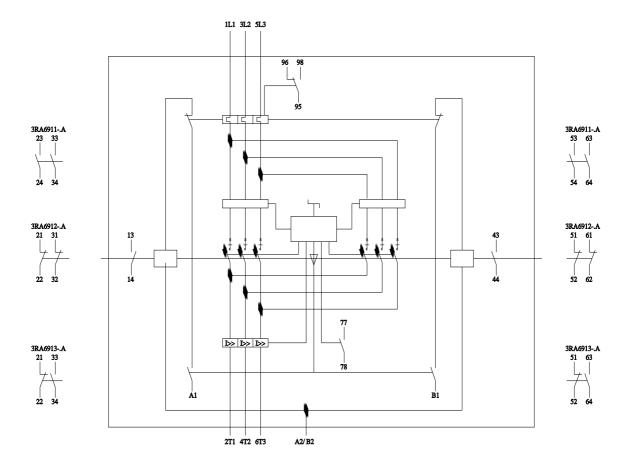
Further characteristics (e.g. electrical endurance, switching frequency)

http://www.automation.siemens.com/bilddb/index.aspx?view=Search&mlfb=3RA6250-1BB33&objecttype=14&gridview=view1









last modified: 10/12/2021 🖸