## SIEMENS

## Data sheet

## 3RA6250-0DB30



SIRIUS Compact load feeder Reversing starter 690 V 24 V AC/DC 50...60 Hz 3...12 A IP20 Connection main circuit: plug-in, without terminals Connection control circuit: plug-in, without terminals

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	
<ul> <li>at AC in hot operating state</li> </ul>	1.8 W
<ul> <li>at AC in hot operating state per pole</li> </ul>	0.6 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 protective separation	
<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
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
SVHC substance name	Blei - 7439-92-1 Bleimonoxid (Bleioxid) - 1317-36-8 Bleititanzirkonoxid - 12626-81-2 2,2',6,6'-Tetrabrom-4,4'-isopropylidendi - 79-94-7
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 current- dependent overload release	3 12 A
formula for making capacity limit current	12 x le
formula for limit current breaking capacity	10 x le
yielded mechanical performance for 4-pole AC motor	
at 400 V rated value	5.5 kW
• at 500 V rated value	5.5 kW
• at 690 V rated value	7.5 kW
operating voltage at AC-3 rated value maximum	690 V
operational current	
<ul> <li>at AC at 400 V rated value</li> </ul>	12 A
<ul> <li>at AC-3 at 400 V rated value</li> </ul>	12 A
• at AC-43	
— at 400 V rated value	11.5 A
— at 500 V rated value	12.4 A
— at 690 V rated value	8.9 A
operating power	
• at AC-3 at 400 V rated value	5.5 kW
• at AC-43	
— at 400 V rated value	5 500 W
— at 500 V rated value	5 500 W
— at 690 V rated value	7 500 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
<ul> <li>at AC-43 according to IEC 60947-6-2 maximum</li> </ul>	250 1/h
Control circuit/ Control	
type of voltage	AC/DC
control supply voltage 1 at AC	
• at 50 Hz rated value	24 V
• at 50 Hz	24 24 V
• 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	24 24 V
holding power	2.0.14/
at AC maximum	2.8 W
at DC maximum	2.9 W
Auxiliary circuit	0
number of NC contacts for auxiliary contacts number of NO contacts for auxiliary contacts	0 2
number of NO contacts of instantaneous short-circuit trip unit for	1
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
<ul> <li>operating short-circuit current breaking capacity (Ics)</li> <li>at 400 V</li> </ul>	53 kA
• at 500 V rated value	3 kA
at 500 V rated value     at 690 V rated value	3 кА 3 кА
UL/CSA ratings	
full-load current (FLA) for 3-phase AC motor	
ian-ioau current (i EA) ioi o-pilase Ao Illotoi	

	10.4
at 480 V rated value	12 A
• at 600 V rated value	12 A
yielded mechanical performance [hp] for 3-phase AC motor	
at 200/208 V rated value	3 hp
at 220/230 V rated value	3 hp
• at 460/480 V rated value	7.5 hp
• at 575/600 V rated value	10 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	
<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 circuit	Yes
product component removable terminal for auxiliary and control circuit	Yes
type of electrical connection	
for main current circuit	plug-in without terminals
<ul> <li>for auxiliary and control circuit</li> </ul>	plug-in without terminals
	plug in without terminals
Safety related data	
·	
Safety related data	40 %
Safety related data proportion of dangerous failures	
Safety related data proportion of dangerous failures • with low demand rate according to SN 31920	40 %
Safety related data proportion of dangerous failures • with low demand rate according to SN 31920 • with high demand rate according to SN 31920 failure rate [FIT] with low demand rate according to SN	40 % 50 %
Safety related data proportion of dangerous failures • with low demand rate according to SN 31920 • with high demand rate according to SN 31920 failure rate [FIT] with low demand rate according to SN 31920	40 % 50 % 100 FIT
Safety related data         proportion of dangerous failures         • with low demand rate according to SN 31920         • with high demand rate according to SN 31920         failure rate [FIT] with low demand rate according to SN 31920         B10 value with high demand rate according to SN 31920         T1 value for proof test interval or service life according to	40 % 50 % 100 FIT 3 000 000
Safety related data         proportion of dangerous failures         • with low demand rate according to SN 31920         • with high demand rate according to SN 31920         failure rate [FIT] with low demand rate according to SN 31920         B10 value with high demand rate according to SN 31920         T1 value for proof test interval or service life according to IEC 61508	40 % 50 % 100 FIT 3 000 000 20 a
Safety related data         proportion of dangerous failures         • with low demand rate according to SN 31920         • with high demand rate according to SN 31920         failure rate [FIT] with low demand rate according to SN 31920         B10 value with high demand rate according to SN 31920         T1 value for proof test interval or service life according to IEC 61508         protection class IP on the front according to IEC 60529	40 % 50 % 100 FIT 3 000 000 20 a IP20
Safety related data         proportion of dangerous failures         • with low demand rate according to SN 31920         • with high demand rate according to SN 31920         failure rate [FIT] with low demand rate according to SN 31920         B10 value with high demand rate according to SN 31920         T1 value for proof test interval or service life according to IEC 61508         protection class IP on the front according to IEC 60529         touch protection on the front according to IEC 60529	40 % 50 % 100 FIT 3 000 000 20 a IP20
Safety related data         proportion of dangerous failures         • with low demand rate according to SN 31920         • with high demand rate according to SN 31920         failure rate [FIT] with low demand rate according to SN 31920         B10 value with high demand rate according to SN 31920         T1 value for proof test interval or service life according to IEC 61508         protection class IP on the front according to IEC 60529         touch protection on the front according to IEC 60529         Communication/ Protocol	40 % 50 % 100 FIT 3 000 000 20 a IP20 finger-safe
Safety related data         proportion of dangerous failures         • with low demand rate according to SN 31920         • with high demand rate according to SN 31920         failure rate [FIT] with low demand rate according to SN 31920         B10 value with high demand rate according to SN 31920         T1 value for proof test interval or service life according to IEC 61508         protection class IP on the front according to IEC 60529         touch protection on the front according to IEC 60529         Communication/ Protocol         product function bus communication	40 % 50 % 100 FIT 3 000 000 20 a IP20 finger-safe
Safety related data         proportion of dangerous failures         • with low demand rate according to SN 31920         • with high demand rate according to SN 31920         failure rate [FIT] with low demand rate according to SN 31920         B10 value with high demand rate according to SN 31920         T1 value for proof test interval or service life according to IEC 61508         protection class IP on the front according to IEC 60529         touch protection on the front according to IEC 60529         Communication/ Protocol         product function bus communication         protocol is supported	40 % 50 % 100 FIT 3 000 000 20 a IP20 finger-safe No
Safety related data         proportion of dangerous failures         • with low demand rate according to SN 31920         • with high demand rate according to SN 31920         failure rate [FIT] with low demand rate according to SN 31920         B10 value with high demand rate according to SN 31920         T1 value for proof test interval or service life according to IEC 61508         protection class IP on the front according to IEC 60529         touch protection on the front according to IEC 60529         Communication/ Protocol         product function bus communication         protocol is supported         • AS-Interface protocol	40 % 50 % 100 FIT 3 000 000 20 a IP20 finger-safe No
Safety related data         proportion of dangerous failures         • with low demand rate according to SN 31920         • with high demand rate according to SN 31920         failure rate [FIT] with low demand rate according to SN 31920         B10 value with high demand rate according to SN 31920         T1 value for proof test interval or service life according to IEC 61508         protection class IP on the front according to IEC 60529         touch protection on the front according to IEC 60529         Communication/ Protocol         product function bus communication         protocol is supported         • AS-Interface protocol         • IO-Link protocol	40 % 50 % 100 FIT 3 000 000 20 a IP20 finger-safe No No
Safety related data         proportion of dangerous failures         • with low demand rate according to SN 31920         • with high demand rate according to SN 31920         failure rate [FIT] with low demand rate according to SN 31920         failure rate [FIT] with low demand rate according to SN 31920         B10 value with high demand rate according to SN 31920         T1 value for proof test interval or service life according to IEC 61508         protection class IP on the front according to IEC 60529         touch protection on the front according to IEC 60529         Communication/ Protocol         product function bus communication         protocol is supported         • AS-Interface protocol         • IO-Link protocol         product function control circuit interface with IO link	40 % 50 % 100 FIT 3 000 000 20 a IP20 finger-safe No No
Safety related data         proportion of dangerous failures         • with low demand rate according to SN 31920         • with high demand rate according to SN 31920         failure rate [FIT] with low demand rate according to SN 31920         B10 value with high demand rate according to SN 31920         T1 value for proof test interval or service life according to IEC 61508         protection class IP on the front according to IEC 60529         touch protection on the front according to IEC 60529         Communication/ Protocol         product function bus communication         protocol is supported         • AS-Interface protocol         • IO-Link protocol         product function control circuit interface with IO link         Electromagnetic compatibility	40 % 50 % 100 FIT 3 000 000 20 a IP20 finger-safe No No
Safety related data         proportion of dangerous failures         • with low demand rate according to SN 31920         • with high demand rate according to SN 31920         failure rate [FIT] with low demand rate according to SN 31920         B10 value with high demand rate according to SN 31920         T1 value for proof test interval or service life according to IEC 61508         protection class IP on the front according to IEC 60529         touch protection on the front according to IEC 60529         Communication/ Protocol         product function bus communication         protocol is supported         • AS-Interface protocol         product function control circuit interface with IO link         Electromagnetic compatibility         conducted interference	40 % 50 % 100 FIT 3 000 000 20 a IP20 finger-safe No No No No
Safety related data         proportion of dangerous failures         • with low demand rate according to SN 31920         • with high demand rate according to SN 31920         failure rate [FIT] with low demand rate according to SN 31920         B10 value with high demand rate according to SN 31920         T1 value for proof test interval or service life according to IEC 61508         protection class IP on the front according to IEC 60529         touch protection on the front according to IEC 60529         Communication/ Protocol         product function bus communication         product function control circuit interface with IO link         Electromagnetic compatibility         conducted interference         • due to burst according to IEC 61000-4-4	40 % 50 % 100 FIT 3 000 000 20 a IP20 finger-safe No No No No No No No
Safety related data         proportion of dangerous failures         • with low demand rate according to SN 31920         • with high demand rate according to SN 31920         failure rate [FIT] with low demand rate according to SN 31920         B10 value with high demand rate according to SN 31920         T1 value for proof test interval or service life according to IEC 61508         protection class IP on the front according to IEC 60529         touch protection on the front according to IEC 60529         Communication/ Protocol         product function bus communication         product function control circuit interface with IO link         Electromagnetic compatibility         conducted interference         • due to burst according to IEC 61000-4-4         • due to conductor-earth surge according to IEC 61000-4-5         • due to conductor-conductor surge according to IEC 61000-4-5	40 % 50 % 100 FIT 3 000 000 20 a IP20 finger-safe No No No No No No No No No
Safety related data         proportion of dangerous failures         • with low demand rate according to SN 31920         • with high demand rate according to SN 31920         failure rate [FIT] with low demand rate according to SN 31920         B10 value with high demand rate according to SN 31920         T1 value for proof test interval or service life according to IEC 61508         protection class IP on the front according to IEC 60529         touch protection on the front according to IEC 60529         Communication/ Protocol         product function bus communication         product function control circuit interface with IO link         Electromagnetic compatibility         conducted interference         • due to burst according to IEC 61000-4-4         • due to conductor-earth surge according to IEC 61000-4-5         • due to conductor-conductor surge according to IEC 61000-4-5         • due to high-frequency radiation according to IEC 61000-4-5	40 % 50 % 100 FIT 3 000 000 20 a IP20 finger-safe No No No No No No No No No No
Safety related data         proportion of dangerous failures         • with low demand rate according to SN 31920         • with high demand rate according to SN 31920         failure rate [FIT] with low demand rate according to SN 31920         B10 value with high demand rate according to SN 31920         T1 value for proof test interval or service life according to IEC 61508         protection class IP on the front according to IEC 60529         touch protection on the front according to IEC 60529         Communication/ Protocol         product function bus communication         protocol is supported         • AS-Interface protocol         • IO-Link protocol         product function control circuit interface with IO link         Electromagnetic compatibility         conducted interference         • due to burst according to IEC 61000-4-4         • due to conductor-earth surge according to IEC 61000-4-5         • due to high-frequency radiation according to IEC 61000-4-6	40 % 50 % 100 FIT 3 000 000 20 a IP20 finger-safe No No No No No No No No No No
Safety related data         proportion of dangerous failures         • with low demand rate according to SN 31920         • with high demand rate according to SN 31920         failure rate [FIT] with low demand rate according to SN 31920         B10 value with high demand rate according to SN 31920         T1 value for proof test interval or service life according to IEC 61508         protection class IP on the front according to IEC 60529         touch protection on the front according to IEC 60529         Communication/ Protocol         product function bus communication         product function control circuit interface with IO link         Electromagnetic compatibility         conducted interference         • due to burst according to IEC 61000-4-4         • due to conductor-earth surge according to IEC 61000-4-5         • due to high-frequency radiation according to IEC 61000-4-6         field-based interference according to IEC 61000-4-3	40 % 50 % 100 FIT 3 000 000 20 a IP20 finger-safe No No No No No No No No No No
Safety related data         proportion of dangerous failures         • with low demand rate according to SN 31920         • with high demand rate according to SN 31920         failure rate [FIT] with low demand rate according to SN 31920         B10 value with high demand rate according to SN 31920         T1 value for proof test interval or service life according to IEC 61508         protection class IP on the front according to IEC 60529         touch protection on the front according to IEC 60529         communication/ Protocol         product function bus communication         protocol is supported         • AS-Interface protocol         • IO-Link protocol         product function control circuit interface with IO link         Electromagnetic compatibility         conducted interference         • due to burst according to IEC 61000-4-4         • due to conductor-conductor surge according to IEC 61000-4-5         • due to high-frequency radiation according to IEC 61000-4-5         • due to high-frequency radiation according to IEC 61000-4-3         electrostatic discharge according to IEC 61000-4-3         electrostatic discharge according to IEC 61000-4-2	40 % 50 % 100 FIT 3 000 000 20 a IP20 finger-safe No No No No No No No No No No

Supply voltage requi	red Auxiliary voltage	No			
Display					
number of LEDs		3			
Approvals Certificates					
General Product App	proval			EMC	Functional Safety/Safety of Ma- chinery
	<u>Confirmation</u>	(UL)	EHC	RCM	
Declaration of Confo	ormity	Test Certificates	Marine / Shipping		
UK CA	CE EG-Konf.	<u>Type Test Certific-</u> ates/Test Report	ABS		Lloyd's Register urs
Marine / Shipping	other	Dangerous Good			
PRS	<u>Confirmation</u>	Transport Information			

## **Further information**

Siemens has decided to exit the Russian market (see here). https://press.siemens.com/global/en/pressrelease/siemens-wind-down-russian-business Siemens is working on the renewal of the current EAC certificates.

Please contact your local Siemens office on the status of validity of the EAC certification if you intend to import or offer to supply these products to an EAC relevant market (other than the sanctioned EAEU member states Russia or Belarus).

Information on the packaging

https://support.industry.siemens.com/cs/ww/en/view/109813875

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=3RA6250-0DB30

Cax online generator

http://support.automation.siemens.com/WW/CAXorder/default.aspx?lang=en&mlfb=3RA6250-0DB30

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

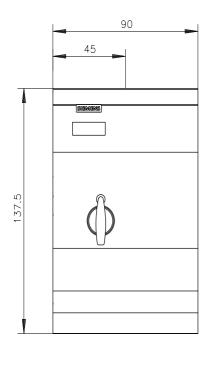
https://support.industry.siemens.com/cs/ww/en/ps/3RA6250-0DB30

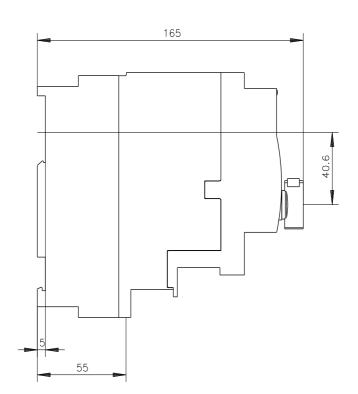
Image database (product images, 2D dimension drawings, 3D models, device circuit diagrams, EPLAN macros, ...) http://www.automation.siemens.com/bilddb/cax\_de.aspx?mlfb=3RA6250-0DB30&lang=en

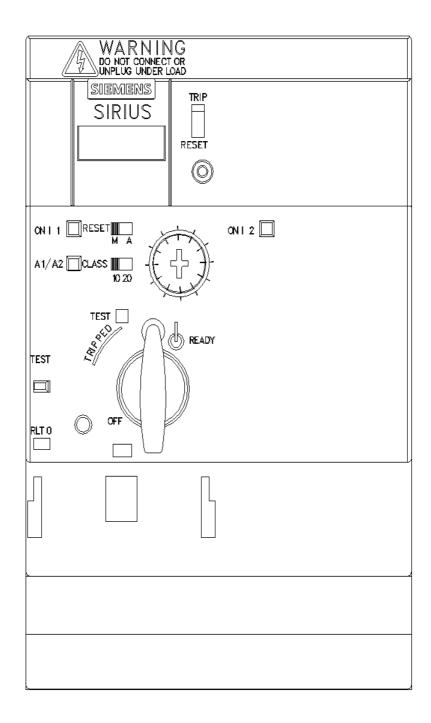
Characteristic: Tripping characteristics, I2t, Let-through current

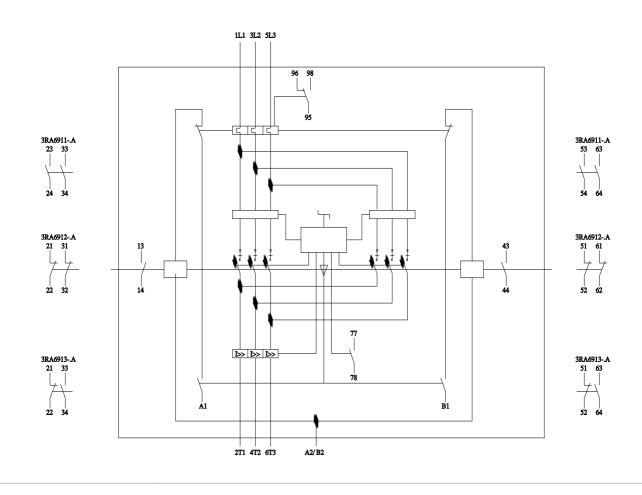
https://support.industry.siemens.com/cs/ww/en/ps/3RA6250-0DB30/char

Further characteristics (e.g. electrical endurance, switching frequency) http://www.automation.siemens.com/bilddb/index.aspx?view=Search&mlfb=3RA6250-0DB30&objecttype=14&gridview=view1









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