SIEMENS

Data sheet

3RA6250-1CP33



SIRIUS Compact load feeder Reversing starter 690 V 110...240 V AC/DC 50...60 Hz 1...4 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 	1 W			
 at AC in hot operating state per pole 	0.33 W			
 without load current share typical 	6 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				
 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			
mechanical service life (operating 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 (operating 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 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	1 4 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	1.5 kW
at 500 V rated value	2.2 kW
at 690 V rated value	3 kW
operating voltage at AC-3 rated value maximum	690 V
operational current	
at AC at 400 V rated value	4 A
• at AC-3 at 400 V rated value	4 A
• at AC-43	
- at 400 V rated value	3.6 A
— at 500 V rated value	3.9 A
at 690 V rated value	3.8 A
operating power	
• at AC-3 at 400 V rated value	1.5 kW
• at AC-43	4 500 M
— at 400 V rated value	1 500 W
— at 500 V rated value	2 200 W
— at 690 V rated value	3 000 W
no-load switching frequency	3 600 1/h
operating frequency	
 at AC-41 according to IEC 60947-6-2 maximum 	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	
• at 50 Hz rated value	240 V
• at 50 Hz	110 240 V
• at 60 Hz	110 240 V
control supply voltage frequency	
• 1 rated value	50 Hz
2 rated value	60 Hz
control supply voltage 1	
 at DC rated value 	240 V
• at DC	110 240 V
holding power	
at AC maximum	6 W
● at DC maximum	5.1 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 unit for signaling contact	1
number of CO contacts of the current-dependent overload release for signaling contact	1
	1 10 A
release for signaling contact	
release for signaling contact operational current of auxiliary contacts at AC-12 maximum	10 A
release for signaling contact operational current of auxiliary contacts at AC-12 maximum operational current of auxiliary contacts at DC-13 at 250 V	10 A
release for signaling contact operational current of auxiliary contacts at AC-12 maximum operational current of auxiliary contacts at DC-13 at 250 V Protective and monitoring functions	10 A 0.27 A
release for signaling contact operational current of auxiliary contacts at AC-12 maximum operational current of auxiliary contacts at DC-13 at 250 V Protective and monitoring functions trip class	10 A 0.27 A
release for signaling contact operational current of auxiliary contacts at AC-12 maximum operational current of auxiliary contacts at DC-13 at 250 V Protective and monitoring functions trip class operating short-circuit current breaking capacity (Ics)	10 A 0.27 A CLASS 10 and 20 adjustable
release for signaling contact operational current of auxiliary contacts at AC-12 maximum operational current of auxiliary contacts at DC-13 at 250 V Protective and monitoring functions trip class operating short-circuit current breaking capacity (Ics) • at 400 V • at 500 V rated value	10 A 0.27 A CLASS 10 and 20 adjustable 53 kA 3 kA
release for signaling contact operational current of auxiliary contacts at AC-12 maximum operational current of auxiliary contacts at DC-13 at 250 V Protective and monitoring functions trip class operating short-circuit current breaking capacity (Ics) • at 400 V • at 500 V rated value • at 690 V rated value	10 A 0.27 A CLASS 10 and 20 adjustable 53 kA
release for signaling contact operational current of auxiliary contacts at AC-12 maximum operational current of auxiliary contacts at DC-13 at 250 V Protective and monitoring functions trip class operating short-circuit current breaking capacity (Ics) • at 400 V • at 500 V rated value • at 690 V rated value UL/CSA ratings	10 A 0.27 A CLASS 10 and 20 adjustable 53 kA 3 kA
release for signaling contact operational current of auxiliary contacts at AC-12 maximum operational current of auxiliary contacts at DC-13 at 250 V Protective and monitoring functions trip class operating short-circuit current breaking capacity (Ics) • at 400 V • at 500 V rated value • at 690 V rated value	10 A 0.27 A CLASS 10 and 20 adjustable 53 kA 3 kA

• at 600 V rated value	4 A		
yielded mechanical performance [hp] for 3-phase AC motor			
• at 200/208 V rated value	0.75 hp		
• at 220/230 V rated value	0.75 hp		
• at 460/480 V rated value	2 hp		
• at 575/600 V rated value	3 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 required 	fuse gL/gG: 10 A		
 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 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		
for auxiliary and control circuit	screw-type terminals		
type of connectable conductor cross-sections for main contacts			
solid	2x (1.5 6 mm ²), 1x 10 mm ²		
finely stranded with core end processing type of connectable conductor cross-sections	2x (1.5 6 mm²)		
for auxiliary contacts			
— solid	0.5 4 mm², 2x (0.5 2.5 mm²)		
 — finely stranded with core end processing 	0.5 2.5 mm ² , 2x (0.5 1.5 mm ²)		
for AWG cables for auxiliary contacts	2x (20 14)		
Safety related data			
proportion of dangerous failures			
with low demand rate according to SN 31920	40 %		
 with high demand rate according to SN 31920 	50 %		
failure rate [FIT] with low demand rate according to SN 31920	100 FIT		
B10 value with high demand rate according to SN 31920	3 000 000		
T1 value for proof test interval or service life according to IEC 61508	20 a		
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	No		
product function control circuit interface with IO link Electromagnetic compatibility	No		
conducted interference			
due to burst according to IEC 61000-4-4	4 kV main contacts, 2 kV auxiliary contacts		
due to conductor-earth surge according to IEC 61000-4-5	4 kV main contacts, 2 kV auxiliary contacts		
• due to conductor-conductor surge according to IEC 61000-4-5	2 kV main contacts, 1 kV auxiliary contacts		

 due to high-freque 4-6 	ency radiation according	to IEC 61000-	0.15-8	0Mhz at 10V		
field-based interferen	ce according to IEC 610	00-4-3	10 V/m	ı		
electrostatic discharg	e according to IEC 6100	0-4-2	8 kV			
conducted HF interfer CISPR11	rence emissions accord	ing to	150 k⊢	łz 30 MHz Class A		
field-bound HF interfe	erence emission accordi	ing to CISPR11	30 1	000 MHz Class A		
Supply voltage						
Supply voltage require	ed Auxiliary voltage		No			
Display						
number of LEDs			3			
Approvals Certificates						
General Product App	roval				EMC	Functional Safety/Safety of Ma- chinery
	<u>Confirmation</u>			EHC	RCM	DVE
Declaration of Confor	rmity	Test Certificate	es	Marine / Shipping		
CE EG-Konf.	UK CA	<u>Type Test Cert</u> ates/Test Rep	<u>tific-</u> port	ABS		Lloyd's Kegister uts
Marine / Shipping	other	Dangerous Go	od			
PRS	<u>Confirmation</u>	Transport Inform	nation			

Further	Intorn	nation
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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=3RA6250-1CP33

Cax online generator

.automation.siemens.com/WW/CAXorder/default.aspx?lang=en&mlfb=3RA6250-1CP33 http://supp

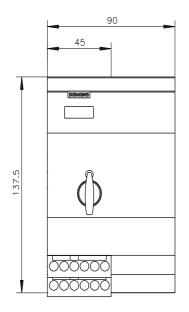
Service&Support (Manuals, Certificates, Characteristics, FAQs,...) https://support.industry.siemens.com/cs/ww/en/ps/3RA6250-1CP33

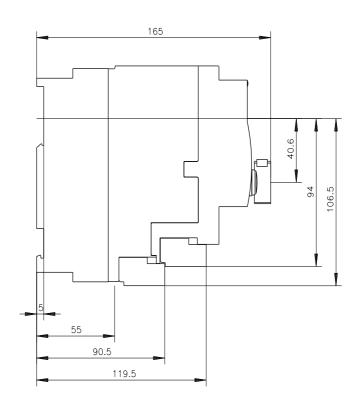
Image database (product images, 2D dimension drawings, 3D models, device circuit diagrams, EPLAN macros, ...) http://www.automation.siemens.com/bilddb/cax_de.aspx?mlfb=3RA6250-1CP33&lang=en

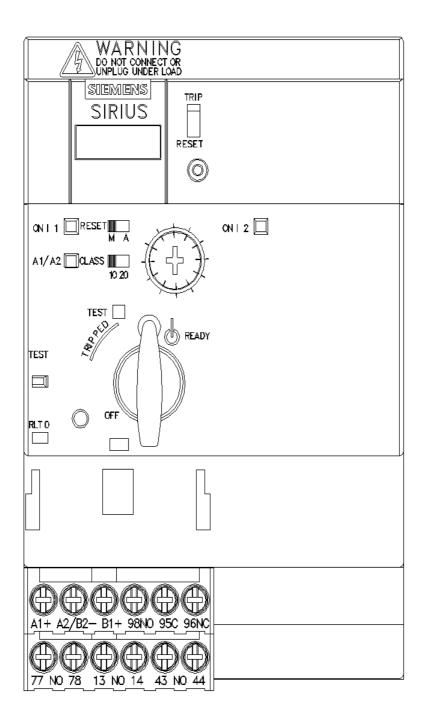
Characteristic: Tripping characteristics, I²t, Let-through current https://su

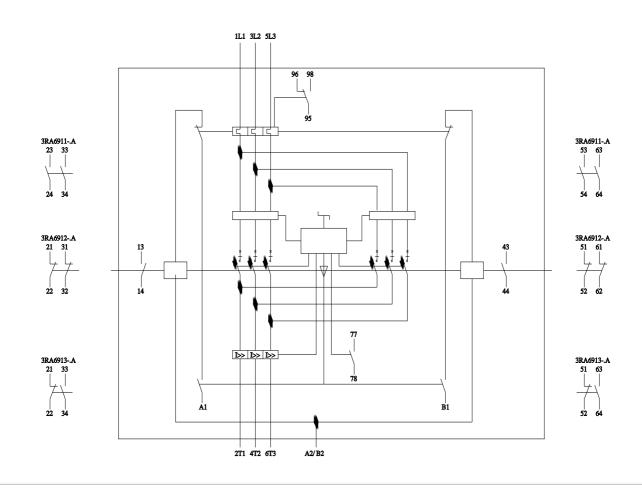
Further characteristics (e.g. electrical endurance, switching frequency)

http://www.automation.siemens.com/bilddb/index.aspx?view=Search&mlfb=3RA6250-1CP33&objecttype=14&gridview=view1









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