SIEMENS

Data sheet 3RA6250-0AB30



SIRIUS Compact load feeder Reversing starter 690 V 24 V AC/DC 50...60 Hz 0.1...0.4 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	
 at AC in hot operating state 	0.01 W
 at AC in hot operating state per pole 	0.01 W
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 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
vibration resistance	f= 4 5.8 Hz, d= 15 mm; f= 5.8 500 Hz, a= 20 m/s ² ; 10 cycles
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 coordination	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	Lead - 7439-92-1 Lead monoxide (lead oxide) - 1317-36-8 2,2',6,6'-tetrabromo-4,4'-isopropylidenediphenol - 79-94-7 Lead titanium zirconium oxide - 12626-81-2 6,6'-di-tert-butyl-2,2'-methylenedi-p-cresol - 119-47-1
Weight	2.417 kg
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 storage 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-	0.1 0.4 A
dependent overload release	
formula for making capacity limit current	120 x le
formula for limit current breaking capacity	100 x le
yielded mechanical performance for 4-pole AC motor	0.0011W
• at 400 V rated value	0.09 kW
at 500 V rated valueat 690 V rated value	0.12 kW 0.18 kW
operating voltage at AC-3 rated value maximum	690 V
operating voltage at AC-3 fated value maximum	050 V
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	
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	
 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	
control supply voltage 1 at AC • at 50 Hz rated value	24 V
at 50 Hz rated valueat 50 Hz	24 24 V
 at 50 Hz rated value at 50 Hz at 60 Hz rated value 	24 24 V 24 V
 at 50 Hz rated value at 50 Hz at 60 Hz rated value at 60 Hz 	24 24 V
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 at 50 Hz rated value at 50 Hz at 60 Hz rated value at 60 Hz control supply voltage frequency 1 rated value 2 rated value control supply voltage 1 at DC rated value 	24 24 V 24 V 24 V 50 Hz 60 Hz 24 V
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at 50 Hz rated value at 50 Hz at 60 Hz rated value at 60 Hz control supply voltage frequency at rated value 2 rated value control supply voltage 1 at DC rated value control supply voltage 1 at DC holding power	24 24 V 24 V 24 V 50 Hz 60 Hz 24 V 24 24 V
at 50 Hz rated value at 50 Hz at 60 Hz rated value at 60 Hz control supply voltage frequency at rated value 2 rated value control supply voltage 1 at DC rated value control supply voltage 1 at DC holding power at AC maximum	24 24 V 24 V 24 V 50 Hz 60 Hz 24 V 24 24 V
at 50 Hz rated value at 50 Hz at 60 Hz rated value at 60 Hz control supply voltage frequency a 1 rated value a 2 rated value control supply voltage 1 at DC rated value control supply voltage 1 at DC holding power at AC maximum at DC maximum	24 24 V 24 V 24 V 50 Hz 60 Hz 24 V 24 24 V
at 50 Hz rated value at 50 Hz at 60 Hz rated value at 60 Hz control supply voltage frequency a 1 rated value a 2 rated value control supply voltage 1 at DC rated value control supply voltage 1 at DC holding power at AC maximum at DC maximum Auxiliary circuit	24 24 V 24 V 24 V 50 Hz 60 Hz 24 V 24 24 V 2.8 W 2.9 W
at 50 Hz rated value at 50 Hz at 60 Hz rated value at 60 Hz control supply voltage frequency at rated value at rated value at rated value control supply voltage 1 at DC rated value control supply voltage 1 at DC holding power at AC maximum at DC maximum Auxiliary circuit number of NC contacts for auxiliary contacts	24 24 V 24 V 24 V 50 Hz 60 Hz 24 V 24 W 24 24 V 28 W 2.9 W
at 50 Hz rated value at 50 Hz at 60 Hz rated value at 60 Hz control supply voltage frequency at rated value a rated value control supply voltage 1 at DC rated value control supply voltage 1 at DC holding power at AC maximum at DC maximum Auxiliary circuit number of NC contacts for auxiliary contacts number of NO contacts for auxiliary contacts	24 24 V 24 V 24 V 50 Hz 60 Hz 24 V 24 24 V 24 24 V 2.8 W 2.9 W
at 50 Hz rated value at 50 Hz at 60 Hz rated value at 60 Hz control supply voltage frequency at rated value at rated value at rated value control supply voltage 1 at DC rated value control supply voltage 1 at DC holding power at AC maximum at DC maximum Auxiliary circuit number of NC contacts for auxiliary contacts	24 24 V 24 V 24 V 50 Hz 60 Hz 24 V 24 W 24 24 V
at 50 Hz rated value at 50 Hz at 60 Hz rated value at 60 Hz control supply voltage frequency at rated value at rated value at rated value control supply voltage 1 at DC rated value control supply voltage 1 at DC holding power at AC maximum at DC maximum Auxiliary circuit number of NC contacts for auxiliary contacts number of NO contacts of instantaneous short-circuit trip unit for	24 24 V 24 V 24 V 50 Hz 60 Hz 24 V 24 24 V 24 24 V 2.8 W 2.9 W
at 50 Hz rated value at 50 Hz at 60 Hz rated value at 60 Hz control supply voltage frequency at rated value at rated value at rated value at rated value control supply voltage 1 at DC rated value control supply voltage 1 at DC holding power at AC maximum at DC maximum Auxiliary circuit number of NC contacts for auxiliary contacts number of NO contacts of instantaneous short-circuit trip unit for signaling contact number of CO contacts of the current-dependent overload	24 24 V 24 V 24 V 50 Hz 60 Hz 24 V 24 24 V 2.8 W 2.9 W
at 50 Hz rated value at 50 Hz at 60 Hz rated value at 60 Hz control supply voltage frequency at rated value at rated value at rated value at rated value control supply voltage 1 at DC rated value control supply voltage 1 at DC holding power at AC maximum at DC maximum Auxiliary circuit number of NC contacts for auxiliary contacts number of NO contacts of instantaneous short-circuit trip unit for signaling contact number of CO contacts of the current-dependent overload release for signaling contact	24 24 V 24 V 24 V 50 Hz 60 Hz 24 V 24 24 V 24 24 V 2.8 W 2.9 W
at 50 Hz rated value at 50 Hz at 60 Hz rated value at 60 Hz control supply voltage frequency a 1 rated value a 2 rated value control supply voltage 1 at DC rated value control supply voltage 1 at DC holding power at AC maximum at DC maximum Auxiliary circuit number of NC contacts for auxiliary contacts number of NO contacts of instantaneous short-circuit trip unit for signaling contact number of CO contacts of the current-dependent overload release for signaling contact operational current of auxiliary contacts at AC-12 maximum	24 24 V 24 V 24 V 50 Hz 60 Hz 24 V 24 24 V 24 24 V 2.8 W 2.9 W
at 50 Hz rated value at 50 Hz at 60 Hz rated value at 60 Hz control supply voltage frequency a 1 rated value a 2 rated value control supply voltage 1 at DC rated value control supply voltage 1 at DC holding power at AC maximum at DC maximum Auxiliary circuit number of NC contacts for auxiliary contacts number of NO contacts of instantaneous short-circuit trip unit for signaling contact number of CO contacts of the current-dependent overload release for signaling contact operational current of auxiliary contacts at AC-12 maximum operational current of auxiliary contacts at DC-13 at 250 V	24 24 V 24 V 24 V 50 Hz 60 Hz 24 V 24 24 V 24 24 V 2.8 W 2.9 W
at 50 Hz rated value at 50 Hz at 60 Hz rated value at 60 Hz control supply voltage frequency at rated value control supply voltage 1 at DC rated value control supply voltage 1 at DC holding power at AC maximum at DC maximum Auxiliary circuit number of NC contacts for auxiliary contacts number of NO contacts for auxiliary contacts number of NO contacts of instantaneous short-circuit trip unit for signaling contact number of CO contacts of the current-dependent overload 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	24 24 V 24 V 24 V 50 Hz 60 Hz 24 V 24 24 V 24 24 V 2.8 W 2.9 W 0 2 1 1 1 10 A 0.27 A
at 50 Hz rated value at 50 Hz at 60 Hz rated value at 60 Hz control supply voltage frequency at rated value control supply voltage 1 at DC rated value control supply voltage 1 at DC holding power at AC maximum at DC maximum Auxiliary circuit number of NC contacts for auxiliary contacts number of NO contacts for auxiliary contacts number of NO contacts of instantaneous short-circuit trip unit for signaling contact number of CO contacts of the current-dependent overload 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	24 24 V 24 V 24 V 50 Hz 60 Hz 24 V 24 24 V 24 24 V 2.8 W 2.9 W 0 2 1 1 10 A 0.27 A
at 50 Hz rated value at 50 Hz at 60 Hz rated value at 60 Hz control supply voltage frequency at rated value control supply voltage 1 at DC rated value control supply voltage 1 at DC holding power at AC maximum at DC maximum Auxiliary circuit number of NC contacts for auxiliary contacts number of NO contacts for auxiliary contacts number of NO contacts of instantaneous short-circuit trip unit for signaling contact number of CO contacts of the current-dependent overload 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)	24 24 V 24 V 24 V 50 Hz 60 Hz 24 V 24 24 V 24 24 V 2.8 W 2.9 W 0 2 1 1 1 10 A 0.27 A CLASS 10 and 20 adjustable 53 kA 3 kA
at 50 Hz rated value at 50 Hz at 60 Hz rated value at 60 Hz control supply voltage frequency at rated value at rated value at rated value at rated value at a DC rated value control supply voltage 1 at DC rated value control supply voltage 1 at DC holding power at AC maximum at DC maximum Auxiliary circuit number of NC contacts for auxiliary contacts number of NO contacts for auxiliary contacts number of NO contacts of instantaneous short-circuit trip unit for signaling contact number of CO contacts of the current-dependent overload 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 rated value	24 24 V 24 V 24 V 50 Hz 60 Hz 24 V 24 24 V 24 24 V 2.8 W 2.9 W 0 2 1 1 1 10 A 0.27 A CLASS 10 and 20 adjustable 53 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
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
mounting position 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 	plug-in without terminals
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 %
B10 value with high demand rate according to SN 31920	3 000 000
failure rate [FIT] with low demand rate according to SN	100 FIT
31920	
IEC 61508	
T1 value for proof test interval or service life according to IEC 61508	20 a
Electrical Safety	
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	No
Electromagnetic compatibility	
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-frequency radiation according to IEC 61000- 4-6 	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 CISPR11	150 kHz 30 MHz Class A
field-bound HF interference emission according to CISPR11	30 1000 MHz Class A
Supply voltage	
Supply voltage required Auxiliary voltage	No

Display

number of LEDs

3

Approvals Certificates

General Product Approval

EMV













Functional Saftey

Test Certificates

Maritime application

other

Dangerous goods



Type Test Certificates/Test Report





Confirmation

Transport Information

Environment

Environmental Confirmations

Further information

Information on the packaging

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

Information for data generation and storage

https://support.industry.siemens.com/cs/ww/en/view/109995012

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=3RA6250-0AB30

Cax online generator

 $\underline{\text{https://support.automation.siemens.com/WW/CAXorder/default.aspx?lang=en\&mlfb=3RA6250-0AB30}$

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

 $\underline{https://support.industry.siemens.com/cs/ww/en/ps/3RA6250-0AB30}$

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

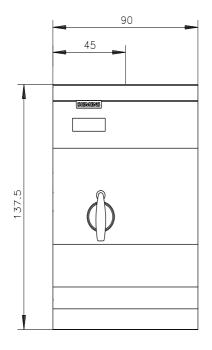
 $\underline{\text{https://www.automation.siemens.com/bilddb/cax_de.aspx?mlfb=3RA6250-0AB30\&lang=en}}$

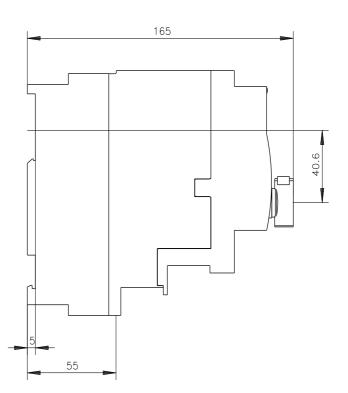
Characteristic: Tripping characteristics, I^2t , Let-through current

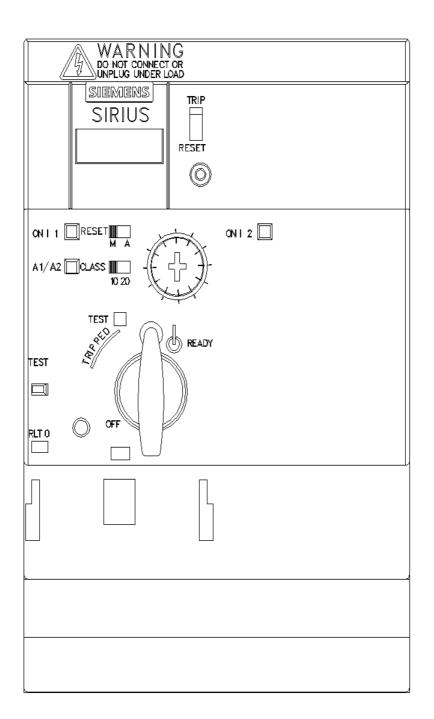
https://support.industry.siemens.com/cs/ww/en/ps/3RA6250-0AB30/char

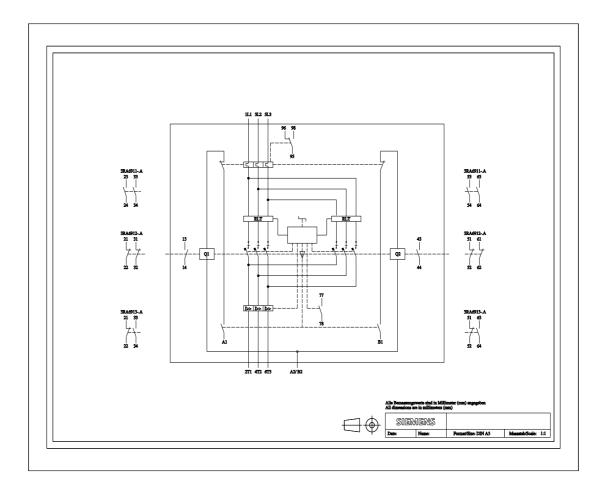
Further characteristics (e.g. electrical endurance, switching frequency)

https://www.automation.siemens.com/bilddb/index.aspx?view=Search&mlfb=3RA6250-0AB30&objecttype=14&gridview=view1









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