SIEMENS

Data sheet 3RT1055-7AB36



power contactor, AC-3e/AC-3 150 A, 75 kW / 400 V AC (50-60 Hz) / DC Uc: 23-26 V 3-pole, auxiliary contacts 2 NO + 2 NC drive: conventional main circuit: box terminal control and auxiliary circuit: screw terminal box terminal up to 70 $\,\mathrm{mm^2}$

product brand name	SIRIUS
product designation	Power contactor
product type designation	3RT1
General technical data	
size of contactor	S6
product extension	
 function module for communication 	No
auxiliary switch	Yes
power loss [W] for rated value of the current	
 at AC in hot operating state 	27 W
 at AC in hot operating state per pole 	9 W
 without load current share typical 	5.2 W
insulation voltage	
 of main circuit with degree of pollution 3 rated value 	1 000 V
 of auxiliary circuit with degree of pollution 3 rated value 	500 V
surge voltage resistance	
of main circuit rated value	8 kV
of auxiliary circuit rated value	6 kV
maximum permissible voltage for protective separation between coil and main contacts according to EN 60947-1	690 V
shock resistance at rectangular impulse	
• at AC	8,5g / 5 ms, 4,2g / 10 ms
• at DC	8,5g / 5 ms, 4,2g / 10 ms
shock resistance with sine pulse	
• at AC	13,4g / 5 ms, 6,5g / 10 ms
• at DC	13,4g / 5 ms, 6,5g / 10 ms
mechanical service life (operating cycles)	
of contactor typical	10 000 000
 of the contactor with added electronically optimized auxiliary switch block typical 	5 000 000
 of the contactor with added auxiliary switch block typical 	10 000 000
reference code according to IEC 81346-2	Q
Substance Prohibitance (Date)	05/01/2012
SVHC substance name	Blei - 7439-92-1
Ambient conditions	
installation altitude at height above sea level maximum	2 000 m
ambient temperature	
 during operation 	-25 +60 °C
during storage	-55 +80 °C
relative humidity minimum	10 %
relative humidity at 55 °C according to IEC 60068-2-30	95 %

maximum	
ain circuit	
number of poles for main current circuit	3
number of NO contacts for main contacts	3
operating voltage	
at AC-3 rated value maximum	1 000 V
at AC-3e rated value maximum	1 000 V
operational current	
at AC-1 at 400 V at ambient temperature 40 °C rated	185 A
value	
• at AC-1	
— up to 690 V at ambient temperature 40 °C rated	185 A
value	
— up to 690 V at ambient temperature 60 °C rated	160 A
value	00.4
 up to 1000 V at ambient temperature 40 °C rated value 	90 A
— up to 1000 V at ambient temperature 60 °C rated	90 A
value	
• at AC-3	
— at 400 V rated value	150 A
— at 500 V rated value	150 A
— at 690 V rated value	150 A
— at 1000 V rated value	65 A
• at AC-3e	
— at 400 V rated value	150 A
— at 500 V rated value	150 A
— at 690 V rated value	150 A
— at 1000 V rated value	65 A
at AC-4 at 400 V rated value	132 A
at AC-5a up to 690 V rated value	162 A
at AC-5b up to 400 V rated value	124 A
• at AC-6a	
— up to 230 V for current peak value n=20 rated value	150 A
— up to 400 V for current peak value n=20 rated value	150 A
— up to 500 V for current peak value n=20 rated value	150 A
— up to 690 V for current peak value n=20 rated value	150 A
— up to 1000 V for current peak value n=20 rated	65 A
value	00 A
• at AC-6a	
— up to 230 V for current peak value n=30 rated value	105 A
— up to 400 V for current peak value n=30 rated value	105 A
— up to 500 V for current peak value n=30 rated value	105 A
— up to 690 V for current peak value n=30 rated value	105 A
— up to 1000 V for current peak value n=30 rated	65 A
value	
ninimum cross-section in main circuit at maximum AC-1 rated	95 mm²
pperational current for approx. 200000 operating cycles at	
AC-4	68 A
at 400 V rated valueat 690 V rated value	68 A 57 A
operational current	OI A
at 1 current path at DC-1	
-	160 A
— at 24 V rated value	160 A 160 A
— at 60 V rated value	
— at 110 V rated value	18 A
— at 220 V rated value	3.4 A
— at 440 V rated value	0.8 A
— at 600 V rated value	0.5 A
with 2 current paths in series at DC-1	
— at 24 V rated value	160 A
— at 60 V rated value	160 A

— at 110 V rated value	160 A
— at 220 V rated value	20 A
— at 440 V rated value	3.2 A
— at 600 V rated value	1.6 A
 with 3 current paths in series at DC-1 	
— at 24 V rated value	160 A
— at 60 V rated value	160 A
— at 110 V rated value	160 A
— at 220 V rated value	160 A
— at 440 V rated value	11.5 A
— at 600 V rated value	4 A
• at 1 current path at DC-3 at DC-5	
— at 24 V rated value	160 A
— at 60 V rated value	7.5 A
— at 220 V rated value	0.6 A
— at 440 V rated value	0.17 A
— at 600 V rated value	0.12 A
with 2 current paths in series at DC-3 at DC-5	0.127
— at 24 V rated value	160 A
— at 60 V rated value	160 A
— at 110 V rated value	160 A
— at 220 V rated value	2.5 A
— at 440 V rated value	0.65 A
— at 600 V rated value	0.37 A
with 3 current paths in series at DC-3 at DC-5	400 A
— at 24 V rated value	160 A
— at 60 V rated value	160 A
— at 110 V rated value	160 A
— at 220 V rated value	160 A
— at 440 V rated value	1.4 A
— at 600 V rated value	0.75 A
operating power	
at AC-2 at 400 V rated value	75 kW
• at AC-3	
— at 230 V rated value	45 kW
— at 400 V rated value	75 kW
— at 500 V rated value	90 kW
— at 690 V rated value	132 kW
— at 1000 V rated value	90 kW
• at AC-3e	
— at 230 V rated value	45 kW
— at 400 V rated value	75 kW
— at 500 V rated value	90 kW
— at 690 V rated value	132 kW
— at 1000 V rated value	90 kW
operating power for approx. 200000 operating cycles at AC-	
4	
at 400 V rated value	38 kW
at 690 V rated value	55 kW
operating apparent power at AC-6a	
• up to 230 V for current peak value n=20 rated value	60 000 kVA
 up to 400 V for current peak value n=20 rated value 	100 000 VA
• up to 500 V for current peak value n=20 rated value	130 000 VA
• up to 690 V for current peak value n=20 rated value	170 000 VA
• up to 1000 V for current peak value n=20 rated value	110 000 VA
operating apparent power at AC-6a	
• up to 230 V for current peak value n=30 rated value	40 000 VA
• up to 400 V for current peak value n=30 rated value	70 000 VA
• up to 500 V for current peak value n=30 rated value	90 000 VA
• up to 690 V for current peak value n=30 rated value	120 000 VA
• up to 1000 V for current peak value n=30 rated value	110 000 VA

short-time withstand current in cold operating state up to 40 °C	
Iimited to 1 s switching at zero current maximum	2 727 A; Use minimum cross-section acc. to AC-1 rated value
Ilmited to 1's switching at zero current maximum Ilmited to 5's switching at zero current maximum	1 831 A; Use minimum cross-section acc. to AC-1 rated value
limited to 10 s switching at zero current maximum	1 300 A; Use minimum cross-section acc. to AC-1 rated value
limited to 30 s switching at zero current maximum	850 A; Use minimum cross-section acc. to AC-1 rated value
Ilimited to 60 s switching at zero current maximum	703 A; Use minimum cross-section acc. to AC-1 rated value
no-load switching frequency	·
• at AC	2 000 1/h
• at DC	2 000 1/h
operating frequency	
• at AC-1 maximum	800 1/h
• at AC-2 maximum	300 1/h
• at AC-3 maximum	750 1/h
• at AC-3e maximum	750 1/h
• at AC-4 maximum	130 1/h
Control circuit/ Control	
type of voltage of the control supply voltage	AC/DC
control supply voltage at AC	
• at 50 Hz rated value	23 26 V
at 60 Hz rated value	23 26 V
control supply voltage at DC	
rated value	23 26 V
operating range factor control supply voltage rated value of	
magnet coil at DC • initial value	0.8
full-scale value	1.1
operating range factor control supply voltage rated value of	1.1
magnet coil at AC	
● at 50 Hz	0.8 1.1
• at 60 Hz	0.8 1.1
design of the surge suppressor	with varistor
apparent pick-up power	
 at minimum rated control supply voltage at AC 	
— at 50 Hz	250 VA
— at 60 Hz	250 VA
 at maximum rated control supply voltage at AC 	
— at 60 Hz	300 VA
— at 50 Hz	300 VA
apparent pick-up power of magnet coil at AC	
• at 50 Hz	300 VA
• at 60 Hz	300 VA
inductive power factor with closing power of the coil • at 50 Hz	0.9
• at 50 Hz • at 60 Hz	0.9
● at 60 Hz apparent holding power	0.8
at minimum rated control supply voltage at DC	4.3 VA
at maximum rated control supply voltage at DC at maximum rated control supply voltage at DC	5.2 VA
apparent holding power	V.2 VI.
at minimum rated control supply voltage at AC	
— at 50 Hz	4.8 VA
— at 60 Hz	4.8 VA
at maximum rated control supply voltage at AC	
— at 50 Hz	5.8 VA
— at 60 Hz	5.8 VA
inductive power factor with the holding power of the coil	
• at 50 Hz	0.8
● at 60 Hz	0.8
closing power of magnet coil at DC	360 W
holding power of magnet coil at DC	5.2 W
closing delay	
at AC	20 95 ms

• at DC	20 95 ms
opening delay	20 9J III8
at AC	40 60 ms
• at DC	40 60 ms
	10 15 ms
arcing time control version of the switch operating mechanism	Standard A1 - A2
Auxiliary circuit	Standard A1 - A2
number of NC contacts for auxiliary contacts instantaneous	2
contact	2
number of NO contacts for auxiliary contacts instantaneous contact	2
operational current at AC-12 maximum	10 A
operational current at AC-15	
• at 230 V rated value	6 A
• at 400 V rated value	3 A
• at 500 V rated value	2 A
• at 690 V rated value	1 A
operational current at DC-12	
at 24 V rated value	10 A
at 48 V rated value	6 A
at 60 V rated value	6 A
at 110 V rated value	3 A
• at 125 V rated value	2 A
at 220 V rated value	1 A
• at 600 V rated value	0.15 A
operational current at DC-13	
• at 24 V rated value	10 A
• at 48 V rated value	2 A
• at 60 V rated value	2 A
• at 110 V rated value	1 A
• at 125 V rated value	0.9 A
• at 220 V rated value	0.3 A
• at 600 V rated value	0.1 A
contact reliability of auxiliary contacts	1 faulty switching per 100 million (17 V, 1 mA)
UL/CSA ratings	
full-load current (FLA) for 3-phase AC motor	
• at 480 V rated value	156 A
at 600 V rated value	144 A
yielded mechanical performance [hp]	
 for single-phase AC motor 	
— at 230 V rated value	30 hp
• for 3-phase AC motor	
— at 200/208 V rated value	50 hp
— at 220/230 V rated value	60 hp
— at 460/480 V rated value	125 hp
— at 575/600 V rated value	150 hp
contact rating of auxiliary contacts according to UL	A600 / Q600
Short-circuit protection	
design of the fuse link	
 for short-circuit protection of the main circuit 	
 — with type of coordination 1 required 	gG: 355 A (690 V, 100 kA)
— with type of assignment 2 required	gG: 315 A (690 V, 100 kA), aM: 200 A (690 V, 50 kA), BS88: 315 A (415 V, 50 kA)
for short-circuit protection of the auxiliary switch required	gG: 10 A (500 V, 1 kA)
Installation/ mounting/ dimensions	
mounting position	with vertical mounting surface +/-90° rotatable, with vertical mounting surface +/- 22.5° tiltable to the front and back
fastening method	screw fixing
side-by-side mounting	Yes
	4=0
height	172 mm
height width	1/2 mm 120 mm

required spacing	
 with side-by-side mounting 	
— forwards	20 mm
— upwards	10 mm
— downwards	10 mm
— at the side	0 mm
for grounded parts	
— forwards	20 mm
— upwards	10 mm
— at the side	10 mm
— downwards	10 mm
• for live parts	
— forwards	20 mm
— upwards	10 mm
— downwards	10 mm
— at the side	10 mm
onnections/ Terminals	
type of electrical connection	
• for main current circuit	box terminal
for auxiliary and control circuit	screw-type terminals
at contactor for auxiliary contacts	Screw-type terminals Screw-type terminals
-	· · · · · · · · · · · · · · · · · · ·
of magnet coil type of connectable conductor cross-sections	Screw-type terminals
• for main contacts	many 4y 50, 4y 70 mm²
— stranded	max. 1x 50, 1x 70 mm²
— solid or stranded	max. 1x 50, 1x 70 mm²
— finely stranded with core end processing	max. 1x 50, 1x 70 mm²
— finely stranded without core end processing	max. 1x 50, 1x 70 mm ²
for AWG cables for main contacts	2x 1/0
connectable conductor cross-section for main contacts	40. 70. 2
• stranded	16 70 mm²
finely stranded with core end processing	16 70 mm²
finely stranded without core end processing	16 70 mm²
connectable conductor cross-section for auxiliary contacts	
solid or stranded	0.5 4 mm ²
finely stranded with core end processing	0.5 2.5 mm ²
type of connectable conductor cross-sections	
• for auxiliary contacts	
— solid	2x (0.5 1.5 mm²), 2x (0.75 2.5 mm²), max. 2x (0.75 4 mm²)
— solid or stranded	2x (0,5 1,5 mm²), 2x (0,75 2,5 mm²), max. 2x (0,75 4 mm²)
— finely stranded with core end processing	2x (0.5 1.5 mm²), 2x (0.75 2.5 mm²)
for AWG cables for auxiliary contacts	2x (20 16), 2x (18 14), 1x 12
AWG number as coded connectable conductor cross section	
for auxiliary contacts	18 14
afety related data	10 14
	4 000 000
B10 value with high demand rate according to SN 31920	1 000 000
product function positively driven operation according to IEC 60947-5-1	No
product function mirror contact according to IEC 60947-4-1	Yes
suitability for use safety-related switching OFF	Yes
IEC 61508 T1 value for proof test interval or service life according to	20 a
IEC 61508	
Electrical Safety	
protection class IP on the front according to IEC 60529	IP20
·	
touch protection on the front according to IEC 60529 pprovals Certificates	finger-safe, for vertical contact from the front







Confirmation





General Product Approval

EMV

Test Certificates

Marine / Shipping

<u>KC</u>





Type Test Certificates/Test Report Special Test Certificate



Marine / Shipping

Lloyd's Register





<u>Miscellaneous</u>

other

Confirmation

other

Railway

Miscellaneous

Confirmation

Special Test Certificate

ate

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=3RT1055-7AB36

Cax online generator

http://support.automation.siemens.com/WW/CAXorder/default.aspx?lang=en&mlfb=3RT1055-7AB36

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

https://support.industry.siemens.com/cs/ww/en/ps/3RT1055-7AB36

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

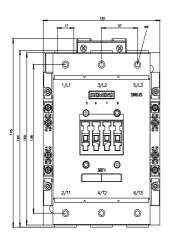
http://www.automation.siemens.com/bilddb/cax_de.aspx?mlfb=3RT1055-7AB36&lang=en

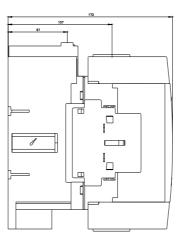
Characteristic: Tripping characteristics, I²t, Let-through current

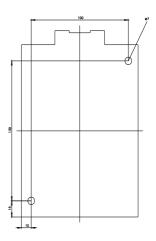
https://support.industry.siemens.com/cs/ww/en/ps/3RT1055-7AB36/char

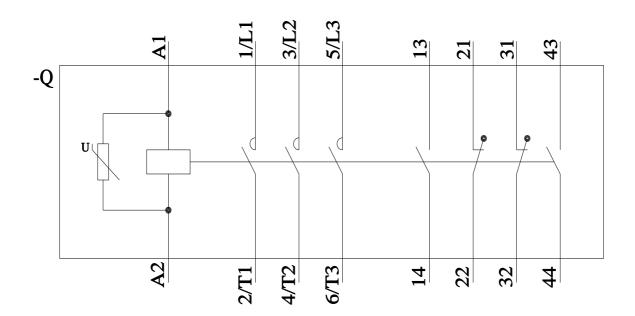
Further characteristics (e.g. electrical endurance, switching frequency)

http://www.automation.siemens.com/bilddb/index.aspx?view=Search&mlfb=3RT1055-7AB36&objecttype=14&gridview=view1









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