Data sheet 3RT1055-7AB36-0SF1



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
eneral 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
type of calculation of power loss depending on pole	quadratic
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	Lead - 7439-92-1
Weight	3.71 kg
mbient 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 value 	185 A
• at AC-1	
— up to 690 V at ambient temperature 40 °C rated	185 A
value	10071
— up to 690 V at ambient temperature 60 $^{\circ}\text{C}$ rated value	160 A
— up to 1000 V at ambient temperature 40 $^{\circ}\text{C}$ rated value	90 A
— up to 1000 V at ambient temperature 60 °C rated value	90 A
• 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	450 A
— 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 150 A
 up to 690 V for current peak value n=20 rated value 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 value	65 A
minimum cross-section in main circuit at maximum AC-1 rated value	95 mm²
operational current for approx. 200000 operating cycles at AC-4	
at 400 V rated value	68 A
at 690 V rated value	57 A
operational current	
at 1 current path at DC-1 at 24 V and declare	400 A
— at 24 V rated value	160 A
— at 60 V rated value	160 A
— at 110 V rated value	18 A
— at 220 V rated value	3.4 A
— at 440 V rated value	0.8 A
	11 5 0
 at 600 V rated value with 2 current paths in series at DC-1 	0.5 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 	
— 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	0.017
— 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
	0.75 A
operating power ● at AC-2 at 400 V rated value	75 kW
• at AC-3	15 KVV
— at 230 V rated value	AE IAM
	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	45 DW
— 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-	
 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 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 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 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 up to 690 V for current peak value n=30 rated value	120 000 VA
Sp to 555 1 to. Salitonic pount raido il Oo lated raido	

	440,000,141
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	
	2.727 At Liea minimum cross scotion ago, to AC 4 retady value
limited to 1 s switching at zero current maximum limited to 5 s switching at zero current maximum	2 727 A; Use minimum cross-section acc. to AC-1 rated value 1 831 A; Use minimum cross-section acc. to AC-1 rated value
 limited to 5 s switching at zero current maximum limited to 10 s switching at zero current maximum 	
<u> </u>	1 300 A; Use minimum cross-section acc. to AC-1 rated value
limited to 30 s switching at zero current maximum limited to 60 s switching at zero current maximum	850 A; Use minimum cross-section acc. to AC-1 rated value
Iimited to 60 s switching at zero current maximum	703 A; Use minimum cross-section acc. to AC-1 rated value
no-load switching frequency	0.000 4 //-
• 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 magnet coil at AC	
	0.8 1.1
• 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	250.VA
— at 50 Hz	250 VA
— at 60 Hz	250 VA
at maximum rated control supply voltage at AC	200.1/4
— at 60 Hz	300 VA
— at 50 Hz	300 VA
apparent pick-up power of magnet coil at AC	000.1/4
• 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 60 Hz	0.9
apparent holding power	
 at minimum rated control supply voltage at DC 	4.3 VA
at maximum rated control supply voltage at DC	5.2 VA
apparent holding power	
 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 00 1110
• at AC	40 60 ms
• at DC	40 60 ms
arcing time	10 15 ms
control version of the switch operating mechanism	Standard A1 - A2
Auxiliary circuit	otanidate A1 - A2
number of NC contacts for auxiliary contacts instantaneous	2
contact	-
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 side-by-side mounting	Yes
fastening method	screw fixing
height	172 mm
width	120 mm
depth	170 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
Connections/ Terminals	
type of electrical connection	
for main current circuit	box terminal
for auxiliary and control circuit	spring-loaded terminals
at contactor for auxiliary contacts	Spring-type terminals
of magnet coil	Spring-type terminals
type of connectable conductor cross-sections	
• for main contacts	
— stranded	max. 1x 50, 1x 70 mm ²
— solid or stranded	max. 1x 50, 1x 70 mm ²
finely stranded with core end processing	max. 1x 50, 1x 70 mm ²
— finely stranded with 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	2.4 110
stranded	16 70 mm²
finely stranded with core end processing	16 70 mm²
	16 70 mm²
finely stranded without core end processing	16 70 IIIIII
connectable conductor cross-section for auxiliary contacts	0.05 0.52
solid or stranded	0.25 2.5 mm²
finely stranded with core end processing	0.25 1.5 mm²
• finely stranded without core end processing	0.25 2.5 mm²
type of connectable conductor cross-sections	
for auxiliary contacts	
— solid	2x (0.25 2.5 mm²)
— solid or stranded	2x (0,25 2,5 mm²)
— finely stranded with core end processing	2x (0.25 1.5 mm²)
— finely stranded without core end processing	2x (0.25 2.5 mm²)
for AWG cables for auxiliary contacts	2x (24 14)
AWG number as coded connectable conductor cross section	
for auxiliary contacts	18 14
Safety related data	10 17
-	
product function	Voc
mirror contact according to IEC 60947-4-1 positively driven population according to IEC 60047 5.1	Yes
positively driven operation according to IEC 60947-5-1	No Yes
suitable for safety function	Yes
suitability for use safety-related switching OFF	Yes
service life maximum	20 a
test wear-related service life necessary	Yes
proportion of dangerous failures	
• with low demand rate according to SN 31020	
with low demand rate according to SN 31920	40 %
with high demand rate according to SN 31920	73 %

ISO 13849	
device type according to ISO 13849-1	3
overdimensioning according to ISO 13849-2 necessary	Yes
IEC 61508	
safety device type according to IEC 61508-2	Type 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, for vertical contact from the front
Approvals Certificates	

General Product Approval







Confirmation



<u>KC</u>

General Product Approval

EMV

Functional Saftey

Test Certificates

Marine / Shipping





Type Examination Certificate

Type Test Certificates/Test Report

Special Test Certificate



Marine / Shipping









Miscellaneous

other

Confirmation

other

Railway

Environment

Miscellaneous

Special Test Certificate

Environmental Confirmations

Further information

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=3RT1055-7AB36-0SF1

Cax online generator

http://support.automation.siemens.com/WW/CAXorder/default.aspx?lang=en&mlfb=3RT1055-7AB36-0SF1

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

https://support.industry.siemens.com/cs/ww/en/ps/3RT1055-7AB36-0SF1

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

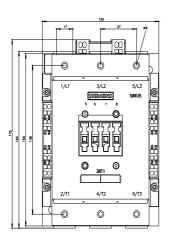
http://www.automation.siemens.com/bilddb/cax_de.aspx?mlfb=3RT1055-7AB36-0SF1&lang=en

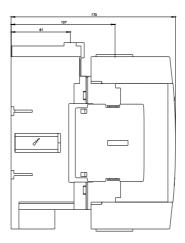
Characteristic: Tripping characteristics, I2t, Let-through current

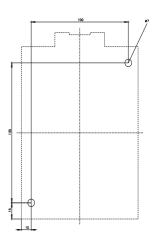
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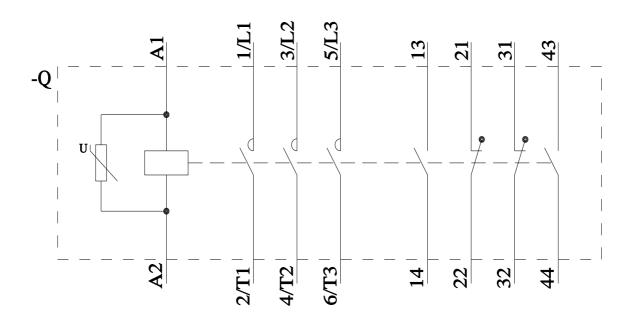
Further characteristics (e.g. electrical endurance, switching frequency)

http://www.automation.siemens.com/bilddb/index.aspx?view=Search&mlfb=3RT1055-7AB36-0SF1&objecttype=14&gridview=view1









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