## SIEMENS

## Data sheet

## 3RT1055-6AP36



power contactor, AC-3e/AC-3 150 A, 75 kW / 400 V AC (50-60 Hz) / DC Uc: 220-240 V 3-pole, auxiliary contacts 2 NO + 2 NC drive: conventional main circuit: busbar control and auxiliary circuit: screw terminal

and the formed and the	
product brand name	SIRIUS Dower contactor
product designation	Power contactor
product type designation	3RT1
General technical data	
size of contactor	S6
product extension	
<ul> <li>function module for communication</li> </ul>	No
auxiliary switch	Yes
power loss [W] for rated value of the current	
<ul> <li>at AC in hot operating state</li> </ul>	27 W
<ul> <li>at AC in hot operating state per pole</li> </ul>	9 W
without load current share typical	5.2 W
insulation voltage	
<ul> <li>of main circuit with degree of pollution 3 rated value</li> </ul>	1 000 V
<ul> <li>of auxiliary circuit with degree of pollution 3 rated value</li> </ul>	500 V
surge voltage resistance	
<ul> <li>of main circuit rated value</li> </ul>	8 kV
<ul> <li>of auxiliary circuit rated value</li> </ul>	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)	
<ul> <li>of contactor typical</li> </ul>	10 000 000
<ul> <li>of the contactor with added electronically optimized auxiliary switch block typical</li> </ul>	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				
Main 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 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 value	185 A			
— up to 690 V at ambient temperature 60 °C rated value	160 A			
— up to 1000 V at ambient temperature 40 °C rated value	90 A			
— up to 1000 V at ambient temperature 60 °C rated value	90 A			
• at AC-3	450.4			
— 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			
<ul> <li>at AC-4 at 400 V rated value</li> </ul>	132 A			
<ul> <li>at AC-5a up to 690 V rated value</li> </ul>	162 A			
<ul> <li>at AC-5b up to 400 V rated value</li> </ul>	124 A			
● at AC-6a				
<ul> <li>— up to 230 V for current peak value n=20 rated value</li> </ul>	150 A			
<ul> <li>— up to 400 V for current peak value n=20 rated value</li> </ul>	150 A			
<ul> <li>— up to 500 V for current peak value n=20 rated value</li> </ul>	150 A			
<ul> <li>— up to 690 V for current peak value n=20 rated value</li> </ul>	150 A			
— up to 1000 V for current peak value n=20 rated value	65 A			
• at AC-6a				
<ul> <li>up to 230 V for current peak value n=30 rated value</li> </ul>	105 A			
<ul> <li>— up to 400 V for current peak value n=30 rated value</li> </ul>	105 A			
<ul> <li>— up to 500 V for current peak value n=30 rated value</li> </ul>	105 A			
<ul> <li>— up to 690 V for current peak value n=30 rated value</li> </ul>	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			
<ul> <li>operational current for approx. 200000 operating cycles at</li> <li>AC-4</li> <li>at 400 V rated value</li> </ul>	68 A			
at 400 V rated value     at 690 V rated value	57 A			
• at 690 v rated value operational current				
at 1 current path at DC-1				
- at 24 V rated value	160 A			
— at 60 V rated value	160 A			
	18 A			
- at 110 V rated value				
- 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
<ul> <li>with 3 current paths in series at DC-1</li> </ul>	
— 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
<ul> <li>at 1 current path at DC-3 at DC-5</li> </ul>	
— 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	0.0174
— 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	0.1074
• 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	
<ul> <li>up to 230 V for current peak value n=20 rated value</li> </ul>	60 000 kVA
<ul> <li>up to 400 V for current peak value n=20 rated value</li> </ul>	100 000 VA
<ul> <li>up to 500 V for current peak value n=20 rated value</li> </ul>	130 000 VA
<ul> <li>up to 690 V for current peak value n=20 rated value</li> </ul>	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
<ul> <li>up to 690 V for current peak value n=30 rated value</li> </ul>	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				
Imited to 1 s switching at zero current maximum	2 727 A; Use minimum cross-section acc. to AC-1 rated value			
Imited to 1 s switching at zero current maximum				
-	1 831 A; Use minimum cross-section acc. to AC-1 rated value			
<ul> <li>limited to 10 s switching at zero current maximum</li> <li>limited to 30 s switching at zero current maximum</li> </ul>	1 300 A; Use minimum cross-section acc. to AC-1 rated value			
<ul> <li>limited to 30 s switching at zero current maximum</li> <li>limited to 60 s switching at zero surrent maximum</li> </ul>	850 A; Use minimum cross-section acc. to AC-1 rated value			
Imited 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 //			
• at AC	2 000 1/h			
• at DC	2 000 1/h			
operating frequency				
<ul> <li>at AC-1 maximum</li> </ul>	800 1/h			
<ul> <li>at AC-2 maximum</li> </ul>	300 1/h			
<ul> <li>at AC-3 maximum</li> </ul>	750 1/h			
<ul> <li>at AC-3e maximum</li> </ul>	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	220 240 V			
at 60 Hz rated value	220 240 V			
control supply voltage at DC				
rated value	220 240 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				
• 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				
<ul> <li>at minimum rated control supply voltage at AC</li> </ul>				
— at 50 Hz	250 VA			
— at 60 Hz	250 VA			
<ul> <li>at maximum rated control supply voltage at AC</li> </ul>				
— 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	0.9			
	0.3			
apparent holding power	4.2.1/A			
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			
<ul> <li>at maximum rated control supply voltage at AC</li> </ul>				
— at 50 Hz	5.8 VA			
— at 60 Hz	5.8 VA			
apparent holding power of magnet coil 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			
sissing power or magnet con at DO				

holding power of magnet coil at DC	5.2 W
closing delay	
• at AC	20 95 ms
● at DC	20 95 ms
opening delay	
• 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	
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	
<ul> <li>at 230 V rated value</li> </ul>	6 A
at 400 V rated value	3 A
at 500 V rated value	2 A
at 690 V rated value	1A
operational current at DC-12	
at 24 V rated value	10 A
at 24 V fated value     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
<ul> <li>at 220 V rated value</li> </ul>	1 A
at 600 V rated value	0.15 A
operational current at DC-13	
• at 24 V rated value	10 A
<ul> <li>at 48 V rated value</li> </ul>	2 A
<ul> <li>at 60 V rated value</li> </ul>	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 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	
<ul> <li>for short-circuit protection of the main circuit</li> </ul>	
<ul> <li>— with type of coordination 1 required</li> </ul>	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)
<ul> <li>for short-circuit protection of the auxiliary switch required</li> </ul>	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
<ul> <li>side-by-side mounting</li> </ul>	Yes

height	172 mm			
vidth	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			
<ul> <li>for grounded parts</li> </ul>				
— forwards	20 mm			
— upwards	10 mm			
— at the side	10 mm			
— downwards	10 mm			
<ul> <li>for live parts</li> </ul>				
— forwards	20 mm			
— upwards	10 mm			
— downwards	10 mm			
— at the side	10 mm			
onnections/ Terminals				
type of electrical connection				
for main current circuit	Connection bar			
<ul> <li>for auxiliary and control circuit</li> </ul>	screw-type terminals			
<ul> <li>at contactor for auxiliary contacts</li> </ul>	Screw-type terminals			
of magnet coil	Screw-type terminals			
width of connection bar	17 mm			
thickness of connection bar	3 mm			
diameter of holes	9 mm			
number of holes	1			
connectable conductor cross-section for main contacts				
stranded	25 120 mm²			
connectable conductor cross-section for auxiliary contacts				
solid or stranded	0.5 4 mm²			
<ul> <li>finely stranded with core end processing</li> </ul>	0.5 2.5 mm²			
type of connectable conductor cross-sections				
<ul> <li>for auxiliary contacts</li> </ul>				
— 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)			
<ul> <li>for AWG cables for auxiliary contacts</li> </ul>	2x (20 16), 2x (18 14), 1x 12			
AWG number as coded connectable conductor cross section				
	18 14			
for auxiliary contacts	18 14			
afety related data				
product function	Van			
mirror contact according to IEC 60947-4-1	Yes			
positively driven operation according to IEC 60947-5-1	No			
suitability for use safety-related switching OFF	Yes			
310 value with high demand rate according to SN 31920	1 000 000			
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	IP00; IP20 with box terminal/cover			
touch protection on the front according to IEC 60529	finger-safe, for vertical contact from the front with box terminal/cover			
entificates / engravels				
ertificates/ approvals				

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EMC	Functional Safety/Safety of Ma- chinery	Declaration of Conformit	y	Test Certificates	
RCM	<u>Type Examination Cer-</u> tificate	CE EG-Konf.	UK CA	Type Test Certific- ates/Test Report	<u>Special Test Certific-</u> <u>ate</u>
Test Certificates	Marine / Shipping				
<u>Miscellaneous</u>	ABS	Hoyd's Register us	PRS	RMRS	
other				Railway	
<u>Miscellaneous</u>	<u>Confirmation</u>	<b>Confirmation</b>	<u>Miscellaneous</u>	<u>Special Test Certific-</u> <u>ate</u>	Vibration and Shock

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=3RT1055-6AP36

Cax online generator

http://support.automation.siemens.com/WW/CAXorder/default.aspx?lang=en&mlfb=3RT1055-6AP36

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

https://support.industry.siemens.com/cs/ww/en/ps/3RT1055-6AP36

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

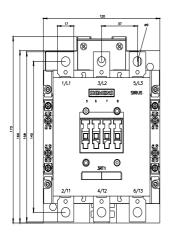
http://www.automation.siemens.com/bilddb/cax\_de.aspx?mlfb=3RT1055-6AP36&lang=en

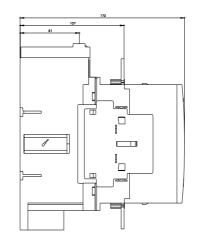
Characteristic: Tripping characteristics, I<sup>2</sup>t, Let-through current

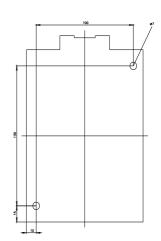
https://support.industry.siemens.com/cs/ww/en/ps/3RT1055-6AP36/char

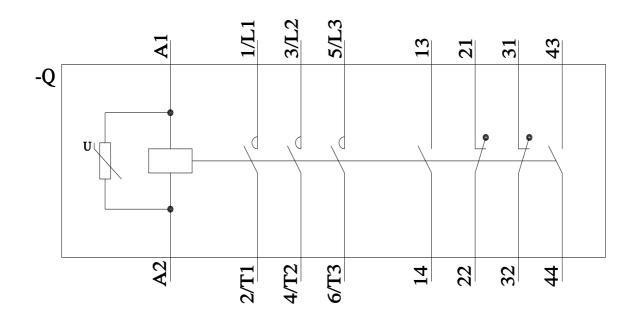
Further characteristics (e.g. electrical endurance, switching frequency)

http://www.automation.siemens.com/bilddb/index.aspx?view=Search&mlfb=3RT1055-6AP36&objecttype=14&gridview=view1









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