## SIEMENS

## Data sheet

## 3RT1076-6AP36



power contactor, AC-3e/AC-3 500 A, 250 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

product brand name	SIRIUS
product designation	Power contactor
product type designation	3RT1
General technical data	
size of contactor	S12
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>	165 W
<ul> <li>at AC in hot operating state per pole</li> </ul>	55 W
<ul> <li>without load current share typical</li> </ul>	10 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
<ul> <li>of the contactor with added auxiliary switch block typical</li> </ul>	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	
<ul> <li>during operation</li> </ul>	-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	
maximum Iain circuit	
	2
number of poles for main current circuit	3
number of NO contacts for main contacts	3
operating voltage	4 000 \/
at AC-3 rated value maximum	1 000 V
at AC-3e rated value maximum	1 000 V
operational current	
<ul> <li>at AC-1 at 400 V at ambient temperature 40 °C rated value</li> </ul>	610 A
• at AC-1	
— up to 690 V at ambient temperature 40 °C rated	610 A
value	
— up to 690 V at ambient temperature 60 °C rated	550 A
value — up to 1000 V at ambient temperature 40 °C rated	200 A
value	2007
— up to 1000 V at ambient temperature 60 °C rated	200 A
value	
• at AC-3	
— at 400 V rated value	500 A
— at 500 V rated value	500 A
— at 690 V rated value	450 A
— at 1000 V rated value	180 A
• at AC-3e	
— at 400 V rated value	500 A
— at 500 V rated value	500 A
— at 690 V rated value	450 A
— at 1000 V rated value	180 A
• at AC-4 at 400 V rated value	430 A
<ul> <li>at AC-5a up to 690 V rated value</li> </ul>	536 A
• at AC-5b up to 400 V rated value	415 A
● at AC-6a	
— up to 230 V for current peak value n=20 rated value	414 A
— up to 400 V for current peak value n=20 rated value	414 A
— up to 500 V for current peak value n=20 rated value	414 A
— up to 690 V for current peak value n=20 rated value	414 A
— up to 1000 V for current peak value n=20 rated	180 A
value	
• at AC-6a	
<ul> <li>— up to 230 V for current peak value n=30 rated value</li> </ul>	276 A
— up to 400 V for current peak value n=30 rated value	276 A
— up to 500 V for current peak value n=30 rated value	276 A
— up to 690 V for current peak value n=30 rated value	276 A
— up to 1000 V for current peak value n=30 rated	180 A
value minimum cross-section in main circuit at maximum AC-1 rated	370 mm²
value	
operational current for approx. 200000 operating cycles at AC-4	
at 400 V rated value	175 A
• at 690 V rated value	150 A
operational current	
at 1 current path at DC-1	
— at 24 V rated value	400 A
— at 60 V rated value	330 A
— at 110 V rated value	33 A
— at 220 V rated value	3.8 A
— at 440 V rated value	0.9 A
— at 600 V rated value	0.6 A
with 2 current paths in series at DC-1     at 24 V rated value	400.4
— at 24 V rated value	400 A
— at 60 V rated value	400 A

— at 110 V rated value	400 A
— at 220 V rated value	400 A
— at 440 V rated value	4 A
— at 600 V rated value	2 A
<ul> <li>with 3 current paths in series at DC-1</li> </ul>	
— at 24 V rated value	400 A
— at 60 V rated value	400 A
— at 110 V rated value	400 A
— at 220 V rated value	400 A
— at 440 V rated value	11 A
— at 600 V rated value	5.2 A
<ul> <li>at 1 current path at DC-3 at DC-5</li> </ul>	
— at 24 V rated value	400 A
— at 60 V rated value	11 A
— at 220 V rated value	0.6 A
— at 440 V rated value	0.18 A
— at 600 V rated value	0.125 A
<ul> <li>with 2 current paths in series at DC-3 at DC-5</li> </ul>	
— at 24 V rated value	400 A
— at 60 V rated value	400 A
— at 110 V rated value	400 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
<ul> <li>with 3 current paths in series at DC-3 at DC-5</li> </ul>	
— at 24 V rated value	400 A
— at 60 V rated value	400 A
— at 110 V rated value	400 A
— at 220 V rated value	400 A
— at 440 V rated value	1.4 A
— at 600 V rated value	0.75 A
operating power	
• at AC-3	
— at 230 V rated value	160 kW
— at 400 V rated value	250 kW
— at 500 V rated value	315 kW
— at 690 V rated value	400 kW
— at 1000 V rated value	250 kW
• at AC-3e	
— at 230 V rated value	160 kW
— at 400 V rated value	250 kW
— at 500 V rated value	315 kW
— at 690 V rated value	400 kW
— at 1000 V rated value	250 kW
operating power for approx. 200000 operating cycles at AC-	
	00.1144
at 400 V rated value	98 kW
at 690 V rated value	148 kW
operating apparent power at AC-6a	100.000 10/4
up to 230 V for current peak value n=20 rated value	160 000 kVA
up to 400 V for current peak value n=20 rated value	280 000 VA
up to 500 V for current peak value n=20 rated value	350 000 VA
• up to 690 V for current peak value n=20 rated value	490 000 VA
up to 1000 V for current peak value n=20 rated value	310 000 VA
operating apparent power at AC-6a	440.000 \/A
• up to 230 V for current peak value n=30 rated value	110 000 VA
• up to 400 V for current peak value n=30 rated value	190 000 VA
• up to 500 V for current peak value n=30 rated value	230 000 VA
• up to 690 V for current peak value n=30 rated value	330 000 VA
up to 1000 V for current peak value n=30 rated value	310 000 VA
short-time withstand current in cold operating state up to	

40 °C					
<ul> <li>limited to 1 s switching at zero current maximum</li> </ul>	7 484 A; Use minimum cross-section acc. to AC-1 rated value				
<ul> <li>limited to 5 s switching at zero current maximum</li> </ul>	7 484 A; Use minimum cross-section acc. to AC-1 rated value				
<ul> <li>limited to 10 s switching at zero current maximum</li> </ul>	5 978 A; Use minimum cross-section acc. to AC-1 rated value				
<ul> <li>limited to 30 s switching at zero current maximum</li> </ul>	3 765 A; Use minimum cross-section acc. to AC-1 rated value				
<ul> <li>limited to 60 s switching at zero current maximum</li> </ul>	2 887 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	500 1/h				
• at AC-2 maximum	170 1/h				
<ul> <li>at AC-3 maximum</li> </ul>	420 1/h				
• at AC-3e maximum	420 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	700 VA				
— at 60 Hz	700 VA				
at maximum rated control supply voltage at AC					
— at 60 Hz	830 VA				
— at 50 Hz	830 VA				
apparent pick-up power of magnet coil at AC					
• at 50 Hz	830 VA				
• at 60 Hz	830 VA				
inductive power factor with closing power of the coil					
• at 50 Hz	0.9				
• at 60 Hz	0.9				
apparent holding power	0.51/4				
at minimum rated control supply voltage at DC	8.5 VA				
at maximum rated control supply voltage at DC	10 VA				
apparent holding power					
at minimum rated control supply voltage at AC	7 6 \ / A				
— at 50 Hz	7.6 VA				
— at 60 Hz	7.6 VA				
at maximum rated control supply voltage at AC	0.01/4				
- at 50 Hz	9.2 VA				
- at 60 Hz	9.2 VA				
inductive power factor with the holding power of the coil	0.0				
• at 50 Hz	0.9				
• at 60 Hz	0.9				
closing power of magnet coil at DC	920 W				
holding power of magnet coil at DC	10 W				
closing delay	45 100 mg				
• at AC	45 100 ms				

• at DC	45 100 ms				
opening delay					
• at AC	60 100 ms				
• at DC	60 100 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 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	1A				
• 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	1A				
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	477 A				
at 600 V rated value	472 A				
yielded mechanical performance [hp]					
• for 3-phase AC motor					
— at 200/208 V rated value	150 hp				
— at 220/230 V rated value	200 hp				
— at 460/480 V rated value	400 hp				
— at 575/600 V rated value	500 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: 630 A (690 V, 100 kA)				
— with type of assignment 2 required	gG: 500 A (690 V, 100 kA), aM: 500 A (690 V, 50 kA), BS88: 500 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				
- factorian math1					
fastening method     ide hy side recurting	screw fixing				
fastening method side-by-side mounting	Yes				
height	214 mm				
width	160 mm				
depth required spacing	225 mm				

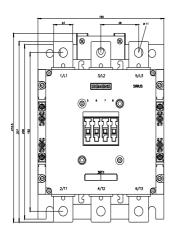
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2x (0.5 1.5 mm²), 2x (0.75 2.5 mm²), max. 2x (0.75 4 mm²)				
2x (0,5 1,5 mm²), 2x (0,75 2,5 mm²), max. 2x (0,75 4 mm²)				
1.5 mm²), 2x (0.75 2.5 mm²)				
2x (20 16), 2x (18 14), 1x 12				
Yes; applies only to contactor operating mechanism				
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finger-safe, for vertical contact from the front with box terminal/cover				
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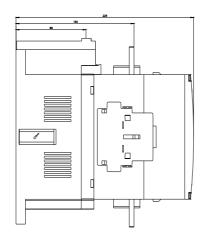
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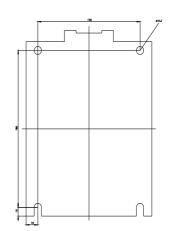
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<u>Miscellaneous</u>	<u>Confirmation</u>	Special Test Certific- ate	EPD Typ II/III (with life cylce assessment)			
Information on the packaging https://support.industry.siemens.com/cs/ww/en/view/109813875 Information- and Downloadcenter (Catalogs, Brochures,) https://www.siemens.com/ic10 Industry Mall (Online ordering system) https://mall.industry.siemens.com/mall/en/en/Catalog/product?mlfb=3RT1076-6AP36 Cax online generator http://support.automation.siemens.com/WW/CAXorder/default.aspx?lang=en&mlfb=3RT1076-6AP36 Service&Support (Manuals, Certificates, Characteristics, FAQs,) https://support.industry.siemens.com/cs/ww/en/ps/3RT1076-6AP36 Image database (product images, 2D dimension drawings, 3D models, device circuit diagrams, EPLAN macros,) http://www.automation.siemens.com/bilddb/cax_de.aspx?mlfb=3RT1076-6AP36⟨=en						
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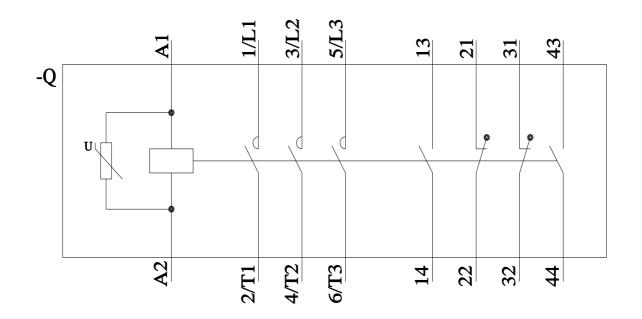
Characteristic: Tripping characteristics, I<sup>2</sup>t, Let-through current https://support.industry.siemens.com/cs/ww/en/ps/3RT1076-6AP36/char

Further characteristics (e.g. electrical endurance, switching frequency) http://www.automation.siemens.com/bilddb/index.aspx?view=Search&mlfb=3RT1076-6AP36&objecttype=14&gridview=view1









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