SIEMENS

Data sheet

3RT1065-6AP36



power contactor, AC-3e/AC-3 265 A, 132 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	S10
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 	54 W
 at AC in hot operating state per pole 	18 W
 without load current share typical 	7.4 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	6.54 kg
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 maximum	95 %
Environmental footprint	
Environmental Product Declaration(EPD)	Yes
Global Warming Potential [CO2 eq] total	580 kg
Global Warming Potential [CO2 eq] during manufacturing	26.3 kg
Global Warming Potential [CO2 eq] during operation	559 kg
Global Warming Potential [CO2 eq] after end of life	-4.89 kg
Siemens Eco Profile (SEP)	Siemens EcoTech
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
operational current	
• at AC-1 at 400 V at ambient temperature 40 °C rated value	330 A
• at AC-1	
— up to 690 V at ambient temperature 40 °C rated value	330 A
— up to 690 V at ambient temperature 60 °C rated value	300 A
— up to 1000 V at ambient temperature 40 °C rated value	150 A
— up to 1000 V at ambient temperature 60 °C rated value	150 A
• at AC-3	
— at 400 V rated value	265 A
— at 500 V rated value	265 A
— at 690 V rated value	265 A
— at 1000 V rated value	95 A
• at AC-3e	
— at 400 V rated value	265 A
— at 500 V rated value	265 A
— at 690 V rated value	265 A
— at 1000 V rated value	95 A
• at AC-4 at 400 V rated value	230 A
• at AC-5a up to 690 V rated value	290 A
• at AC-5b up to 400 V rated value	219 A
• at AC-6a	
— up to 230 V for current peak value n=20 rated value	265 A
— up to 400 V for current peak value n=20 rated value	265 A
— up to 500 V for current peak value n=20 rated value	265 A
— up to 690 V for current peak value n=20 rated value	265 A
 — up to 1000 V for current peak value n=20 rated value 	95 A
● at AC-6a	
 — up to 230 V for current peak value n=30 rated value 	184 A
 — up to 400 V for current peak value n=30 rated value 	184 A
 — up to 500 V for current peak value n=30 rated value 	184 A
 — up to 690 V for current peak value n=30 rated value 	184 A
 — up to 1000 V for current peak value n=30 rated value 	95 A
minimum cross-section in main circuit at maximum AC-1 rated value	185 mm²
operational current for approx. 200000 operating cycles at AC-4	
• at 400 V rated value	117 A
● at 690 V rated value	105 A

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operational current	
• at 1 current path at DC-1	
— at 24 V rated value	300 A
— at 60 V rated value	300 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	200 A
- at 24 V rated value	300 A 300 A
— at 60 V rated value — at 110 V rated value	300 A
— at 220 V rated value	300 A
— at 440 V rated value	4 A
— at 600 V rated value	2 A
with 3 current paths in series at DC-1	4 N
- at 24 V rated value	300 A
— at 60 V rated value	300 A
— at 110 V rated value	300 A
— at 220 V rated value	300 A
— at 440 V rated value	11 A
— at 600 V rated value	5.2 A
• at 1 current path at DC-3 at DC-5	
— at 24 V rated value	300 A
— at 60 V rated value	11 A
— at 110 V rated value	3 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
 with 2 current paths in series at DC-3 at DC-5 	
— at 24 V rated value	300 A
— at 60 V rated value	300 A
— at 110 V rated value	300 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 	
— at 24 V rated value	300 A
— at 60 V rated value	300 A
— at 110 V rated value	300 A
— at 220 V rated value	300 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	75 kW
— at 230 V rated value — at 400 V rated value	75 KW 132 kW
— at 500 V rated value	132 KW 160 kW
— at 500 V rated value — at 690 V rated value	250 kW
— at 1000 V rated value	132 kW
• at AC-3e	
- at 230 V rated value	75 kW
— at 400 V rated value	132 kW
— at 500 V rated value	160 kW
— at 690 V rated value	250 kW
— at 1000 V rated value	132 kW
operating power for approx. 200000 operating cycles at AC-	
4	
• at 400 V rated value	66 kW
at 690 V rated value	102 kW
operating apparent power at AC-6a	

 up to 230 V for current peak value n=20 rated value 	100 000 kVA			
 up to 400 V for current peak value n=20 rated value 	180 000 VA			
 up to 500 V for current peak value n=20 rated value 	220 000 VA			
 up to 690 V for current peak value n=20 rated value 	310 000 VA			
 up to 1000 V for current peak value n=20 rated value 	160 000 VA			
operating apparent power at AC-6a				
 up to 230 V for current peak value n=30 rated value 	70 000 VA			
 up to 400 V for current peak value n=30 rated value 	120 000 VA			
 up to 500 V for current peak value n=30 rated value 	150 000 VA			
 up to 690 V for current peak value n=30 rated value 	220 000 VA			
 up to 1000 V for current peak value n=30 rated value 	160 000 VA			
short-time withstand current in cold operating state up to 40 °C				
 limited to 1 s switching at zero current maximum 	4 880 A; Use minimum cross-section acc. to AC-1 rated value			
 limited to 5 s switching at zero current maximum 	4 045 A; Use minimum cross-section acc. to AC-1 rated value			
 limited to 10 s switching at zero current maximum 	2 785 A; Use minimum cross-section acc. to AC-1 rated value			
 limited to 30 s switching at zero current maximum 	1 664 A; Use minimum cross-section acc. to AC-1 rated value			
 limited to 60 s switching at zero current maximum 	1 276 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	250 1/h			
• at AC-3 maximum	500 1/h			
• at AC-3e maximum	500 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 operating range factor control supply voltage rated value of magnet coil at AC	1.1			
• at 50 Hz	0.8 1.1			
• at 60 Hz	0.8 1.1			
design of the surge suppressor	with varistor			
	with valistor			
apparent pick-up power • at minimum rated control supply voltage at AC				
• at minimum rated control supply voltage at AC — at 50 Hz	490 VA			
— at 60 Hz	490 VA 490 VA			
at maximum rated control supply voltage at AC				
— at 60 Hz	590 VA			
— at 50 Hz	590 VA			
apparent pick-up power of magnet coil at AC				
• at 50 Hz	590 VA			
• at 60 Hz	590 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	6.1 VA			
 at maximum rated control supply voltage at DC at maximum rated control supply voltage at DC 	7.4 VA			
apparent holding power				
at minimum rated control supply voltage at AC				
• at minimum rated control supply voltage at AC — at 50 Hz	5.6 VA			
— at 50 Hz — at 60 Hz	5.6 VA			
	J.U VA			

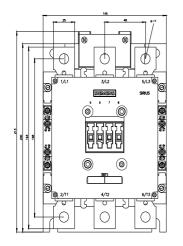
• at maximum rated control supply voltage at AC	
- at 50 Hz	6.7 VA
— at 50 Hz — at 60 Hz	6.7 VA
	0.7 VA
inductive power factor with the holding power of the coil	
• at 50 Hz	0.9
• at 60 Hz	0.9
closing power of magnet coil at DC	650 W
holding power of magnet coil at DC	7.4 W
closing delay	
• at AC	30 95 ms
at DC	30 95 ms
opening delay	
• at AC	40 80 ms
• at DC	40 80 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	1 A
at 600 V rated value	0.15 A
operational current at DC-13	0.1071
at 24 V rated value	10 A
at 48 V rated value	2 A
• at 60 V rated value	2 A 2 A
	1 A
at 110 V rated value	
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	240 A
at 600 V rated value	242 A
yielded mechanical performance [hp]	
• for 3-phase AC motor	
— at 200/208 V rated value	75 hp
— at 220/230 V rated value	100 hp
— at 460/480 V rated value	200 hp
— at 575/600 V rated value	250 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: 500 A (690 V, 100 kA)
 — with type of assignment 2 required 	gG: 400 A (690 V, 100 kA), aM: 315 A (690 V, 50 kA), BS88: 400 A (415 V, 50
	kA)

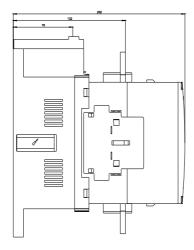
• for short-circuit protection of the auxiliary switch required

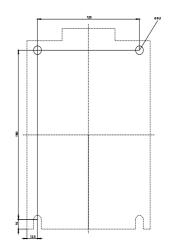
gG: 10 A (500 V, 1 kA)

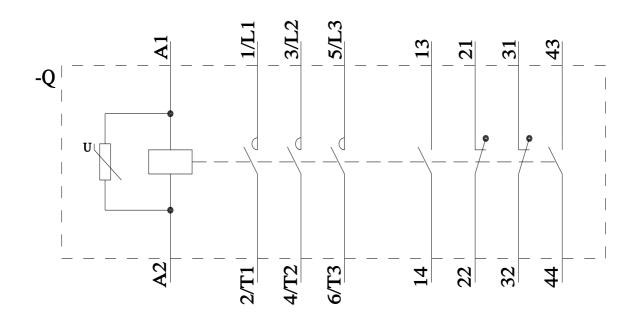
nstallation/ mounting/ dimensions			
mounting position	with vertical mounting surface \pm /-90° rotatable, with vertical mounting surface		
fastening method side-by-side mounting	+/- 22.5° tiltable to the front and back Yes		
fastening method	screw fixing		
height	210 mm		
width	145 mm		
depth	202 mm		
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	Connection bar		
 for auxiliary and control circuit 	screw-type terminals		
at contactor for auxiliary contacts	Screw-type terminals		
of magnet coil	Screw-type terminals		
width of connection bar	25 mm		
thickness of connection bar	6 mm		
diameter of holes	11 mm		
number of holes	1		
	1		
type of connectable conductor cross-sections			
for AWG cables for main contacts	2/0 500 kcmil		
connectable conductor cross-section for main contacts			
• stranded	70 240 mm²		
connectable conductor cross-section for auxiliary contacts			
solid or stranded	0.5 4 mm²		
 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		
Safety related data			
product function			
 mirror contact according to IEC 60947-4-1 	Yes		
 positively driven operation according to IEC 60947-5-1 	No		
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 high demand rate according to SN 31920			73 %				
B10 value with high demand rate according to SN 31920 failure rate [FIT] with low demand rate according to SN			000 000 00 FIT				
31920 ISO 13849							
device type according to	DISO 13849-1	3					
overdimensioning accord			es				
IEC 61508		libeeccury					
safety device type accor	rding to IEC 61508-2	T	ype A				
Electrical Safety							
protection class IP on th			200; IP20 with box terminal/c				
touch protection on the Approvals Certificates	front according to le	11	finger-safe, for vertical contact from the front with box terminal/cover				
General Product Approv	val						
CCC	CE EG-Konf.	UK CA	<u>Confirmation</u>		KC		
General Product Ap- proval	EMV	Functional Saftey	Test Certificates				
EHC	RCM	<u>Type Examination Control Type Examination Con</u>	er- <u>Special Test Certific-</u> <u>ate</u>	<u>Type Test Certific-</u> ates/Test Report	<u>Miscellaneous</u>		
Marine / Shipping					other		
ABS		Lloyds Register uxs	PRS	RMRS	<u>Miscellaneous</u>		
other			Railway	Environment			
<u>Confirmation</u>	<u>Confirmation</u>	<u>Miscellaneous</u>	Special Test Certific- ate	EPD	Siemens EcoTech		
Environment							
Environmental Con- firmations							
Further information							
Information on the pack https://support.industry.sig		view/109813875					
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