SIEMENS

Data sheet

3RT1075-6AF36



Power contactor, AC-3 400 A, 200 kW / 400 V AC (50-60 Hz) / DC operation 110-127 V UC Auxiliary contacts 2 NO + 2 NC 3-pole, Size S12 Busbar connections Drive: conventional screw terminal

product brand name	SIRIUS
product designation	Power contactor
product type designation	3RT1
General technical data	
size of contactor	S12
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	105 W
• per pole	35 W
power loss [W] for rated value of the current without load current share typical	10 W
surge voltage resistance	
 of main circuit rated value 	8 kV
 of auxiliary circuit rated value 	6 kV
maximum permissible voltage for safe isolation between coil and main contacts acc. 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 (switching 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 acc. to IEC 81346-2	Q
Ambient conditions	
installation altitude at height above sea level maximum	2 000 m
 ambient temperature during operation 	-25 +60 °C
ambient temperature during storage	-55 +80 °C
Main circuit	
number of poles for main current circuit	3
number of NO contacts for main contacts	3



	4 000 1/
operating voltage at AC-3 rated value maximum	1 000 V
operational current	420.4
 at AC-1 at 400 V at ambient temperature 40 °C rated value 	430 A
• at AC-1	
— up to 690 V at ambient temperature 40 °C rated value	430 A
— up to 690 V at ambient temperature 60 °C rated value	400 A
— up to 1000 V at ambient temperature 40 °C rated value	200 A
— up to 1000 V at ambient temperature 60 °C rated value	200 A
• at AC-3	
— at 400 V rated value	400 A
— at 500 V rated value	400 A
— at 690 V rated value	400 A
— at 1000 V rated value	180 A
at AC-4 at 400 V rated value	350 A
• at AC-5a up to 690 V rated value	378 A
• at AC-5b up to 400 V rated value	332 A
• at AC-6a	00271
 — up to 230 V for current peak value n=20 rated value 	395 A
 — up to 400 V for current peak value n=20 rated value 	395 A
 — up to 500 V for current peak value n=20 rated value 	395 A
 — up to 690 V for current peak value n=20 rated value 	395 A
— up to 1000 V for current peak value n=20 rated value	180 A
● at AC-6a	
 — up to 230 V for current peak value n=30 rated value 	264 A
 — up to 400 V for current peak value n=30 rated value 	264 A
 — up to 500 V for current peak value n=30 rated value 	264 A
 — up to 690 V for current peak value n=30 rated value 	264 A
 — up to 1000 V for current peak value n=30 rated value 	180 A
minimum cross-section in main circuit at maximum AC-1 rated value	300 mm ²
operational current for approx. 200000 operating cycles at AC-4	
• at 400 V rated value	150 A
at 690 V rated value	135 A
operational current	
• at 1 current path at DC-1	
— at 24 V rated value	400 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 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

 with 3 current paths in series at DC-1 	
— at 24 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
operational current	
 at 1 current path at DC-3 at DC-5 	
— at 24 V rated value	400 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	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
 with 3 current paths in series at DC-3 at DC-5 	
— at 24 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	132 kW
— at 400 V rated value	200 kW
— at 500 V rated value	250 kW
— at 690 V rated value	400 kW
— at 1000 V rated value	250 kW
operating power for approx. 200000 operating cycles at AC-4	
• at 400 V rated value	85 kW
 at 690 V rated value 	133 kW
operating apparent power at AC-6a	
 up to 230 V for current peak value n=20 rated value 	150 000 kV·A
 up to 400 V for current peak value n=20 rated value 	270 000 V·A
 up to 500 V for current peak value n=20 rated value 	340 000 V·A
• up to 690 V for current peak value n=20 rated value	470 000 V·A
 up to 1000 V for current peak value n=20 rated value 	310 000 V·A
operating apparent power at AC-6a	
 up to 230 V for current peak value n=30 rated value 	100 000 V·A
• up to 400 V for current peak value n=30 rated value	180 000 V·A
• up to 500 V for current peak value n=30 rated value	220 000 V·A
• up to 690 V for current peak value n=30 rated value	310 000 V·A
 up to 1000 V for current peak value n=30 rated 	310 000 V·A
value	
short-time withstand current in cold operating state up to 40 °C	
 limited to 1 s switching at zero current maximum 	6 600 A; Use minimum cross-section acc. to AC-1 rated value
 limited to 5 s switching at zero current maximum 	5 761 A; Use minimum cross-section acc. to AC-1 rated value
 limited to 10 s switching at zero current maximum 	4 143 A; Use minimum cross-section acc. to AC-1 rated value
 limited to 30 s switching at zero current maximum 	2 635 A; Use minimum cross-section acc. to AC-1 rated value
 limited to 60 s switching at zero current maximum 	2 088 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	700 1/h
• at AC-2 maximum	200 1/h
• at AC-3 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	Acide
at 50 Hz rated value	110 127 V
at 60 Hz rated value	110 127 V
control supply voltage at DC	110 127 V
rated value	110 127 V
operating range factor control supply voltage rated	110 127 V
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 of magnet coil at AC	
• at 50 Hz	830 V·A
inductive power factor with closing power of the coil	
• at 50 Hz	0.9
apparent holding power of magnet coil at AC	
• at 50 Hz	9.2 V·A
inductive power factor with the holding power of the coil	
• at 50 Hz	0.9
closing power of magnet coil at DC	920 W
holding power of magnet coil at DC	10 W
closing delay	10 44
• 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	2
instantaneous contact	
number of NO contacts for auxiliary contacts	2
instantaneous contact	
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 2 A
at 500 V rated value	2 A
at 690 V rated value	1 A
operational current at DC-12	10.4
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
	2.4
 at 125 V rated value at 220 V rated value 	2 A 1 A

• at 600 V rated value	0.15 A			
operational current at DC-13	0.1077			
at 24 V rated value	10 A			
at 48 V rated value	2 A			
at 40 V rated value	2 A			
at 110 V rated value	1A			
at 125 V rated value	1 A 0.9 A			
at 220 V rated value				
at 600 V rated value	0.3 A			
contact reliability of auxiliary contacts	0.1 A 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	361 A			
at 600 V rated value	382 A			
yielded mechanical performance [hp]	502 A			
• for 3-phase AC motor				
•	125 hz			
- at 200/208 V rated value	125 hp			
— at 220/230 V rated value	150 hp			
— at 460/480 V rated value	300 hp			
— at 575/600 V rated value	400 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: 400 A (690 V, 50 kA), BS88: 450 A (415 V, 50 kA)			
• for short-circuit protection of the auxiliary switch	gG: 10 A (500 V, 1 kA)			
required				
Installation/ mounting/ dimensions				
Installation/ mounting/ dimensions mounting position	with vertical mounting surface +/-90° rotatable, with vertical mounting surface +/- 22.5° tiltable to the front and back			
mounting position	surface +/- 22.5° tiltable to the front and back			
mounting position fastening method	surface +/- 22.5° tiltable to the front and back screw fixing			
mounting position fastening method • side-by-side mounting	surface +/- 22.5° tiltable to the front and back screw fixing Yes			
mounting position fastening method • side-by-side mounting height	surface +/- 22.5° tiltable to the front and back screw fixing Yes 214 mm			
mounting position fastening method o side-by-side mounting height width	surface +/- 22.5° tiltable to the front and back screw fixing Yes 214 mm 160 mm			
mounting position fastening method o side-by-side mounting height width depth	surface +/- 22.5° tiltable to the front and back screw fixing Yes 214 mm 160 mm			
mounting position fastening method • side-by-side mounting height width depth required spacing	surface +/- 22.5° tiltable to the front and back screw fixing Yes 214 mm 160 mm			
mounting position fastening method • side-by-side mounting height width depth required spacing • with side-by-side mounting	surface +/- 22.5° tiltable to the front and back screw fixing Yes 214 mm 160 mm 225 mm			
mounting position fastening method • side-by-side mounting height width depth required spacing • with side-by-side mounting — forwards	surface +/- 22.5° tiltable to the front and back screw fixing Yes 214 mm 160 mm 225 mm 20 mm			
mounting position fastening method • side-by-side mounting height width depth required spacing • with side-by-side mounting — forwards — upwards	surface +/- 22.5° tiltable to the front and back screw fixing Yes 214 mm 160 mm 225 mm 20 mm 10 mm			
mounting position fastening method • side-by-side mounting height width depth required spacing • with side-by-side mounting — forwards — upwards — downwards	surface +/- 22.5° tiltable to the front and back screw fixing Yes 214 mm 160 mm 225 mm 20 mm 10 mm 10 mm			
mounting position fastening method • side-by-side mounting height width depth required spacing • with side-by-side mounting — forwards — upwards — downwards — at the side	surface +/- 22.5° tiltable to the front and back screw fixing Yes 214 mm 160 mm 225 mm 20 mm 10 mm 10 mm			
mounting position fastening method • side-by-side mounting height width depth required spacing • with side-by-side mounting — forwards — upwards — downwards — at the side • for grounded parts	surface +/- 22.5° tiltable to the front and back screw fixing Yes 214 mm 160 mm 225 mm 20 mm 10 mm 10 mm 0 mm			
mounting position fastening method • side-by-side mounting height width depth required spacing • with side-by-side mounting — forwards — upwards — at the side • for grounded parts — forwards	surface +/- 22.5° tiltable to the front and back screw fixing Yes 214 mm 160 mm 225 mm 20 mm 10 mm 0 mm 20 mm			
mounting position fastening method • side-by-side mounting height width depth required spacing • with side-by-side mounting — forwards — upwards — downwards — at the side • for grounded parts — upwards — upwards	surface +/- 22.5° tiltable to the front and back screw fixing Yes 214 mm 160 mm 225 mm 20 mm 10 mm 0 mm 20 mm 10 mm			
mounting position fastening method • side-by-side mounting height width depth required spacing • with side-by-side mounting — forwards — upwards — at the side • for grounded parts — upwards — at the side — forwards — upwards — at the side — forwards — upwards — at the side	surface +/- 22.5° tiltable to the front and back screw fixing Yes 214 mm 160 mm 225 mm 20 mm 10 mm 0 mm 20 mm 10 mm 10 mm 10 mm			
mounting position fastening method • side-by-side mounting height width depth required spacing • with side-by-side mounting — forwards — upwards — downwards — at the side • for grounded parts — upwards — at the side — at the side — at the side — downwards	surface +/- 22.5° tiltable to the front and back screw fixing Yes 214 mm 160 mm 225 mm 20 mm 10 mm 0 mm 20 mm 10 mm 10 mm 10 mm			
mounting position fastening method • side-by-side mounting height width depth required spacing • with side-by-side mounting — forwards — upwards — downwards — at the side • for grounded parts — oforwards — at the side — ownwards — at the side — ownwards — at the side — forwards — the side — forwards — lownwards — at the side — forwards — the side — for upwards — at the side — for upwards — with side — forwards — the side — downwards • for live parts	surface +/- 22.5° tiltable to the front and back screw fixing Yes 214 mm 160 mm 225 mm 20 mm 10 mm 0 mm 20 mm 10 mm 10 mm 10 mm 10 mm			
mounting position fastening method • side-by-side mounting height width depth required spacing • with side-by-side mounting — forwards — upwards — downwards — at the side • for grounded parts — forwards — at the side • for grounded parts — downwards — at the side — forwards — at the side — forwards — at the side — for live parts — for wards • for live parts — forwards	surface +/- 22.5° tiltable to the front and back screw fixing Yes 214 mm 160 mm 225 mm 20 mm 10 mm 0 mm 20 mm 10 mm 10 mm 10 mm 10 mm 20 mm			
mounting position fastening method • side-by-side mounting height width depth required spacing • with side-by-side mounting — forwards — upwards — downwards — at the side • for grounded parts — forwards — at the side • for grounded parts — forwards — at the side — forwards — at the side — forwards — at the side — downwards — other side — upwards — upwards — upwards • for live parts — upwards — upwards	surface +/- 22.5° tiltable to the front and back screw fixing Yes 214 mm 160 mm 225 mm 20 mm 10 mm 10 mm 0 mm 20 mm 10 mm 10 mm 10 mm 10 mm 10 mm 10 mm 10 mm 10 mm			
mounting position fastening method • side-by-side mounting height width depth required spacing • with side-by-side mounting — forwards — upwards — downwards — at the side • for grounded parts — oforwards — upwards — other side • for grounded parts — forwards — upwards — other side — ownwards — at the side — downwards • for live parts — forwards — upwards — at the side — downwards — at the side	surface +/- 22.5° tiltable to the front and back screw fixing Yes 214 mm 160 mm 225 mm 20 mm 10 mm 0 mm 20 mm 10 mm 10 mm 10 mm 10 mm 10 mm 10 mm 10 mm			
mounting position fastening method • side-by-side mounting height width depth required spacing • with side-by-side mounting — forwards — upwards — downwards — at the side • for grounded parts — oforwards — at the side • for live parts — forwards — at the side — downwards • for live parts — forwards — upwards — at the side — downwards • for live parts — forwards — upwards — at the side — downwards — at the side — downwards — at the side Mountains — at the side — downwards — at the side Mountains — he side Mountains Mountains Mountains Mountains Mountains	surface +/- 22.5° tiltable to the front and back screw fixing Yes 214 mm 160 mm 225 mm 20 mm 10 mm 0 mm 20 mm 10 mm 10 mm 10 mm 10 mm 10 mm 10 mm 10 mm			
mounting position fastening method • side-by-side mounting height width depth required spacing • with side-by-side mounting — forwards — upwards — downwards — at the side • for grounded parts — of orwards — upwards — other side • for grounded parts — forwards — upwards — other side — ownwards — at the side — downwards • for live parts — forwards — upwards — at the side — downwards — at the side	surface +/- 22.5° tiltable to the front and back screw fixing Yes 214 mm 160 mm 225 mm 20 mm 10 mm 10 mm 20 mm 10 mm 10 mm 10 mm 10 mm 10 mm 10 mm 10 mm 10 mm 10 mm			
mounting position fastening method • side-by-side mounting height width depth required spacing • with side-by-side mounting — forwards — upwards — downwards — at the side • for grounded parts — forwards — at the side • for live parts — forwards — upwards — at the side — downwards • for live parts — forwards — upwards — at the side — downwards — at the side Connections/ Terminals width of connection bar thickness of connection bar	surface +/- 22.5° tiltable to the front and back screw fixing Yes 214 mm 160 mm 225 mm 20 mm 10 mm 0 mm 20 mm 10 mm 10 mm 10 mm 10 mm 10 mm 10 mm 10 mm 10 mm 20 mm 10 mm 10 mm			
mounting position fastening method • side-by-side mounting height width depth required spacing • with side-by-side mounting - forwards - upwards - downwards - at the side • for grounded parts - forwards - at the side - forwards - at the side - downwards - at the side - downwards - at the side - downwards - for wards - at the side - downwards - forwards - at the side - downwards - at the side - at the side - at the side - at the side Connections/ Terminals width of connection bar	surface +/- 22.5° tiltable to the front and back screw fixing Yes 214 mm 160 mm 225 mm 20 mm 10 mm 10 mm 0 mm 20 mm 10 mm 10 mm 10 mm 10 mm 10 mm 10 mm 10 mm 20 mm			

type of electrical co	nnection						
 for main current circuit 			Connection bar				
 for auxiliary and 	 for auxiliary and control circuit 						
 at contactor for 	auxiliary contacts		Screw-type terminals				
of magnet coil		Screw-type terminals					
type of connectable	conductor cross-section	ons					
 at AWG cables 	for main contacts		2/0 500 kcmil				
	ctor cross-section for r	nain					
contacts							
stranded			70 240 mm²				
	ctor cross-section for a	luxiliary					
	contacts			0.5 4 mm²			
	 solid or stranded finally stranded with core and processing 			0.5 4 mm ² 0.5 2.5 mm ²			
	finely stranded with core end processing type of connectable conductor cross-sections			0.5 2.5 mm²			
 for auxiliary cor 		0115					
- solid	liacis		2x (0.5 1.5 mm²), 2x (0.7	$5 - 2.5 \text{ mm}^2$ may 2	$(0.75 \ (1.000)^2)$		
	anded		2x (0.5 1.5 mm ²), 2x (0.7 2x (0,5 1,5 mm ²), 2x (0,7				
— solid or str		esing	· · · · · · · · · · · · · · · · · · ·	,	(0,75 4 mm ⁻)		
	nded with core end proce for auxiliary contacts	soniy	2x (0.5 1.5 mm ²), 2x (0.7 2x (20 16) 2x (18 14)				
			2x (20 16), 2x (18 14),	17.12			
	as coded connectable co	nductor	18 14				
cross section for							
Safety related data			4 000 000				
	lemand rate acc. to SN 3	31920	1 000 000				
product function							
	acc. to IEC 60947-4-1		Yes				
	n operation acc. to IEC 6		No				
	on the front acc. to IEC		IP00; IP20 with box termina				
	the front acc. to IEC 6		finger-safe, for vertical contact from the front with box terminal/cover				
,	ety-related switching OFI	=	Yes				
Certificates/ approval	S						
General Product Ap	proval			EMC	Declaration of Conformity		
					Comornity		
(Ch	(m)	ŝ	rnr		()		
U	(uiii)	জ	L H L	25			
CSA	ccc	UL		RCM	EG-Konf.		
Declaration of	Test Certificates			Marina / Chinning			
Conformity	lest Certificates			Marine / Shipping			
Miscellaneous	<u>Type Test</u>	Special Te		and the second			
	<u>Certificates/Test</u> <u>Report</u>	Certificate	2				
	<u>rtoport</u>			ABS	RMRS		
Marine / Shipping	other				Railway		
	Confirmati	M2	Openfine il	Mis U			
And and a second second	Confirmation	Miscellaneo	us <u>Confirmation</u>	<u>Miscellaneous</u>	<u>Special Test</u> Certificate		
DNV-GL					<u></u>		
DAVOLICIONION							
Further information							
	wnloadcenter (Catalog	R Brochuroc					
https://www.siemens.		s, brochures,.	•••)				

Industry Mall (Online ordering system)

https://mall.industry.siemens.com/mall/en/en/Catalog/product?mlfb=3RT1075-6AF36

Cax online generator

http://support.automation.siemens.com/WW/CAXorder/default.aspx?lang=en&mlfb=3RT1075-6AF36

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

https://support.industry.siemens.com/cs/ww/en/ps/3RT1075-6AF36

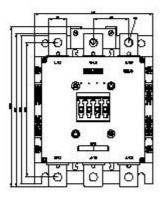
Image database (product images, 2D dimension drawings, 3D models, device circuit diagrams, EPLAN macros, ...) http://www.automation.siemens.com/bilddb/cax_de.aspx?mlfb=3RT1075-6AF36&lang=en

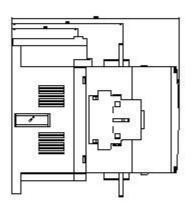
Characteristic: Tripping characteristics, I²t, Let-through current

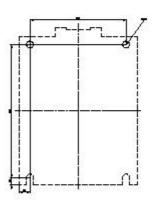
https://support.industry.siemens.com/cs/ww/en/ps/3RT1075-6AF36/char

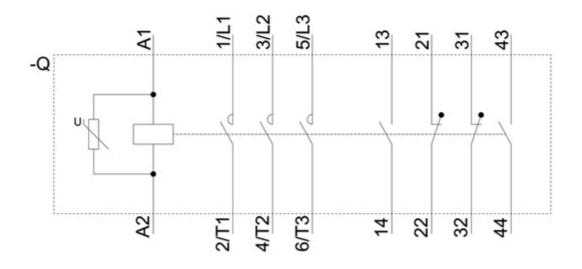
Further characteristics (e.g. electrical endurance, switching frequency)

http://www.automation.siemens.com/bilddb/index.aspx?view=Search&mlfb=3RT1075-6AF36&objecttype=14&gridview=view1









last modified:

12/18/2020 🖸