SIEMENS

Data sheet

3RT1044-1AP04



CONTACTOR, AC-3 30 KW/400 V, AC 230 V, 50 HZ, 2 NO + 2 NC 3-POLE, SIZE S3, SCREW CONNECTION

Figure similar	
product brand name	SIRIUS
Product designation	power contactor
General technical data:	
Size of contactor	\$3
Insulation voltage	
Rated value	1 000 V
Degree of pollution	3
Surge voltage resistance Rated value	6 kV
Mechanical service life (switching cycles)	
 of the contactor typical 	10 000 000
 of the contactor with added electronics- 	5 000 000
compatible auxiliary switch block typical	
 of the contactor with added auxiliary switch 	10 000 000
block typical	
Protection class IP	
• on the front	IP00
• of the terminal	IP00
Equipment marking	
• acc. to DIN EN 61346-2	Q
• acc. to DIN EN 81346-2	Q
Ambient conditions:	
Installation altitude at height above sea level	2 000 m
maximum	
Ambient temperature	
 during operation 	-25 +60 °C

• during storage	-55 +80 °C
Main circuit:	
Number of poles for main current circuit	3
Number of NC contacts for main contacts	0
Number of NO contacts for main contacts	3
Connectable conductor cross-section in main circuit	
at AC-1	
• at 60 °C minimum permissible	35 mm ²
• at 40 °C minimum permissible	35 mm²
Operating current	
• at AC-1 at 400 V	
— at ambient temperature 40 °C Rated value	100 A
• at AC-1 up to 690 V	
— at ambient temperature 40 °C Rated value	100 A
— at ambient temperature 60 °C Rated value	90 A
● at AC-3	
— at 400 V Rated value	65 A
— at 690 V Rated value	47 A
 at AC-4 at 400 V Rated value 	55 A
Operating current for ≥ 200000 operating cycles at AC-4	
at 400 V Rated value	28 A
• at 690 V Rated value	20 A
Operating current	
with 1 current path at DC-1	
— at 24 V Rated value	90 A
— at 110 V Rated value	4.5 A
 with 2 current paths in series at DC-1 	
— at 24 V Rated value	90 A
— at 110 V Rated value	90 A
 with 3 current paths in series at DC-1 	
— at 24 V Rated value	90 A
— at 110 V Rated value	90 A
Operating current	
with 1 current path at DC-3 at DC-5	
— at 24 V Rated value	40 A
— at 110 V Rated value	2.5 A
 with 2 current paths in series at DC-3 at DC-5 	
— at 110 V Rated value	90 A
— at 24 V Rated value	90 A
 with 3 current paths in series at DC-3 at DC-5 	
- with o current paths in series at DO-5 at DO-5	

	90 A
— at 110 V Rated value	
— at 24 V Rated value	90 A
Operating power	
• at AC-1	
— at 230 V at 60 °C Rated value	34 kW
— at 690 V at 60 °C Rated value	102 kW
Operating power for ≥ 200000 operating cycles at AC-4	
• at 400 V Rated value	15.1 kW
• at 690 V Rated value	18.6 kW
Thermal short-time current restricted to 10 s	600 A
Active power loss at AC-3 at 400 V for rated value of	4.6 W
the operating current per conductor	
No-load switching frequency	
• with AC	5 000 1/h
Operating frequency	
• at AC-1 maximum	1 000 1/h
• at AC-2 maximum	400 1/h
• at AC-3 maximum	1 000 1/h
• at AC-4 maximum	300 1/h
Control circuit/ Control:	
Type of voltage of the control supply voltage	AC
Control supply voltage with AC	
• at 50 Hz Rated value	230 V
Rated value	50 Hz
Operating range factor control supply voltage rated	
value of the magnet coil with AC	
● at 50 Hz	0.8 1.1
Apparent pick-up power of the magnet coil with AC	218 V·A
Inductive power factor with closing power of the coil	0.61
Apparent holding power of the magnet coil with AC	21 V·A
Inductive power factor with the holding power of the coil	0.26
Closing delay	
• with AC	16 57 ms
Arcing time	10 15 ms
Auxiliary circuit:	
Number of NC contacts	
 for auxiliary contacts 	
— instantaneous contact	2
Number of NO contacts	
 for auxiliary contacts 	

— instantaneous contact	2
Operating current at AC-12 maximum	10 A
Operating current at AC-15	
at 230 V Rated value	6 A
• at 400 V Rated value	3 A
Operating current at DC-12	
at 60 V Rated value	6 A
at 110 V Rated value	3 A
at 220 V Rated value	1 A
Operating current at DC-13	
at 24 V Rated value	10 A
at 60 V Rated value	2 A
at 110 V Rated value	1 A
at 220 V Rated value	0.3 A
Contact reliability of the auxiliary contacts	1 faulty switching per 100 million (17 V, 1 mA)
UL/CSA ratings:	
Contact rating of the auxiliary contacts acc. to UL	A600 / Q600
Short-circuit:	
Design of the fuse link	
 for short-circuit protection of the main circuit 	
 — with type of assignment 1 required 	fuse gL/gG: 250 A
 — with type of assignment 2 required 	fuse gL/gG: 125 A
 for short-circuit protection of the auxiliary switch 	fuse gL/gG: 10 A
required	
Installation/ mounting/ dimensions:	
Mounting type	screw and snap-on mounting onto 35 mm and 75 mm standard
	mounting rail
 Side-by-side mounting 	Yes
Height	146 mm
Width	70 mm
Depth	188 mm
Required spacing	
 for grounded parts 	
— at the side	6 mm
Connections/ Terminals:	
Type of electrical connection	
 for main current circuit 	screw-type terminals
 for auxiliary and control current circuit 	screw-type terminals
Type of connectable conductor cross-section	
• for main contacts	
— solid	2x (2.5 16 mm²)

— stranded		:	2x (10 50 mm²)		
— single or r	nulti-stranded	:	2x (2,5 16 mm²)		
— finely stra	nded with core end p	processing	2x (2.5 35 mm²)		
— finely stra	nded without core er	nd 2	2x (10 35 mm²)		
processing					
 for AWG conduct 	uctors for main conta	acts	2x (10 1/0)		
Type of connectable	conductor cross-see	ction			
 for auxiliary co 	ntacts				
— solid		2	2x (0.5 1.5 mm²), 2	x (0.75 2.5 mm²), max	a. 2x (0.75 4 mm²)
— finely stra	nded with core end p	processing	2x (0.5 1.5 mm²), 2	x (0.75 2.5 mm²)	
 for AWG conduct 	uctors for auxiliary co	ontacts	2x (20 16), 2x (18 .	14), 1x 12	
Certificates/ approv	als:	_			
General Product				Functional	Declaration of
General Floud				Safety/Safety	Conformity
				of Machinery	
				Type Examination	
	(SF)	(Jh)	101	Type Examination	CE
	SP		EHC	Type Examination	CE EG-Konf.
	CSA		EHC	Type Examination	EG-Konf.
ccc	CSA	UL	EHC	Type Examination	EG-Konf.
ccc Test	CSA Shipping Approv		EHC	Type Examination	EG-Konf.
	Shipping Approv		EHC	Type Examination	EG-Konf.
Test Certificates Special Test	Shipping Approv		EAC	Type Examination	EG-Konf.
Test Certificates	Shipping Approv		EHC	Type Examination	EG-Konf.
Test Certificates Special Test	Shipping Approv		EFFC LRS	Type Examination	EG-Konf.
Test Certificates Special Test	Supervision of the second seco	val	Lloyd's Kegister	Type Examination	EG-Konf.
Test Certificates Special Test Certificate	Supervision of the second seco	val	Lloyd's Kegister	Type Examination	EG-Konf.
Test Certificates Special Test Certificate	ABS	val GL _{GL}	Lloyd's Kegister	Type Examination	СССКОП.
Test Certificates Special Test Certificate	ABS	val	Lloyd's Kegister	Type Examination	ССС EG-Konf.
Test Certificates Special Test Certificate	ABS	val GL _{GL}	Lloyd's Kegister	Type Examination	СССКОП.
Test Certificates Special Test Certificate	ABS	val GL _{GL}	Lloyd's Kegister	Type Examination	СССКОП.
Test Certificates Special Test Certificate	ABS	val GL _{GL}	Lloyd's Kegister	Type Examination	СССКопf.

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