SIEMENS

Data sheet

3RT1066-6NB36



CONTACTOR, 160KW/400V/AC-3 AC(40...60HZ)/DC OPERATION UC 21-27.3V AUXILIARY CONTACTS 2NO+2NC 3-POLE, SIZE S10 BAR CONNECTIONS ELECTRONIC OPERATING MECHANISM WITH 24V DC PLC INTERFACE SCREW TERMINAL

product brand name	SIRIUS
Product designation	power contactor
General technical data:	
Size of contactor	S10
Insulation voltage	
Rated value	1 000 V
Degree of pollution	3
Surge voltage resistance Rated value	8 kV
Mechanical service life (switching cycles)	
 of the contactor typical 	10 000 000
 of the contactor with added electronics- compatible auxiliary switch block typical 	5 000 000
 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

lain 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	185 mm²
• at 40 °C minimum permissible	185 mm²
Operating 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
— at ambient temperature 60 °C Rated value	300 A
• at AC-3	
— at 400 V Rated value	300 A
— at 690 V Rated value	280 A
• at AC-4 at 400 V Rated value	280 A
Operating current for \geq 200000 operating cycles at AC-4	
at 400 V Rated value	125 A
• at 690 V Rated value	115 A
Operating current	
• with 1 current path at DC-1	
— at 24 V Rated value	300 A
— at 110 V Rated value	33 A
 with 2 current paths in series at DC-1 	
— at 24 V Rated value	300 A
— at 110 V Rated value	300 A
 with 3 current paths in series at DC-1 	
— at 24 V Rated value	300 A
— at 110 V Rated value	300 A
Operating current	
• with 1 current path at DC-3 at DC-5	
— at 24 V Rated value	300 A
— at 110 V Rated value	3 A
 with 2 current paths in series at DC-3 at DC-5 	
— at 110 V Rated value	300 A
— at 24 V Rated value	300 A

— at 110 V Rated value	300 A
— at 24 V Rated value	300 A
Operating power	
● at AC-1	
— at 230 V at 60 °C Rated value	113 kW
— at 690 V at 60 °C Rated value	340 kW
Operating power for ≥ 200000 operating cycles at AC-4	
• at 400 V Rated value	71 kW
• at 690 V Rated value	112 kW
Thermal short-time current restricted to 10 s	2 400 A
Active power loss at AC-3 at 400 V for rated value of the operating current per conductor	22 W
No-load switching frequency	
• with AC	2 000 1/h
• for DC	2 000 1/h
Operating frequency	
● at AC-1 maximum	750 1/h
● at AC-2 maximum	250 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 with AC	
• at 50 Hz Rated value	21 27.3 V
• at 60 Hz Rated value	21 27.3 V
Control supply voltage for DC	
Rated value	21 27.3 V
Rated value	40 Hz
Control supply voltage frequency 2 Rated value	60 Hz

Type of voltage of the control supply voltage	AC/DC
Control supply voltage with AC	
• at 50 Hz Rated value	21 27.3 V
• at 60 Hz Rated value	21 27.3 V
Control supply voltage for DC	
Rated value	21 27.3 V
Rated value	40 Hz
Control supply voltage frequency 2 Rated value	60 Hz
Operating range factor control supply voltage rated value of the magnet coil with AC	
● at 50 Hz	0.8 1.1
● at 60 Hz	0.8 1.1
Operating range factor control supply voltage rated value of the magnet coil for DC	0.8 1.1
Design of the surge suppressor	with varistor
Apparent pick-up power of the magnet coil with AC	530 V·A
Inductive power factor with closing power of the coil	0.8
Apparent holding power of the magnet coil with AC	5 V·A
Inductive power factor with the holding power of the coil	0.4
Closing power of the magnet coil for DC	580 W

Holding power of the magnet coil for DC	3.8 W
Closing delay	
• with AC	45 80 ms
• for DC	45 80 ms
Arcing time	10 15 ms
- 	
Auxiliary circuit: Number of NC contacts	
for auxiliary contacts	
instantaneous contact	2
Number of NO contacts	2
for auxiliary contacts	2
— instantaneous contact	2
Operating current at AC-12 maximum	10 A
Operating current at AC-15	6.4
• 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
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: 500 A
— with type of assignment 2 required	fuse gL/gG: 400 A
 for short-circuit protection of the auxiliary switch 	fuse gL/gG: 10 A
required	
Installation/ mounting/ dimensions:	
Mounting type	screw fixing
Side-by-side mounting	Yes
Height	210 mm
Width	145 mm
Depth	202 mm
Required spacing	

 for grounded parts 	s					
— at the side			10 mm			
onnections/ Termina	ls:					
ype of electrical conne	ection					
 for main current c 	ircuit		screw-type terminals			
 for auxiliary and c 	control current cire	cuit	screw-type terminals			
ype of connectable co	nductor cross-se	ction				
 for AWG conductors for main contacts 		2/0 500 kcmil				
ype of connectable co	nductor cross-se	ction				
 for auxiliary contain 	icts					
— solid			2x (0.5 1.5 mm²), 2x (0.75 2.5 mm²), max. 2x (0.75 4 mr			
— finely stranded with core end processing		2x (0.5 1.5 mm²), 2x	: (0.75 2.5 mm²)			
 for AWG conducted 	ors for auxiliary c	ontacts	2x (20 16), 2x (18 14), 1x 12			
	CSA CSA	EAC	UL	Safety/Safety of Machinery Type Examination	Conformity	
Test Certificates		Shipping A	pproval			
<u>Type Test</u> Certificates/Test <u>Report</u>	Special Test Certificate	ABS		GL	RMRS	
other						

urther information

Information- and Downloadcenter (Catalogs, Brochures,...) http://www.siemens.com/industrial-controls/catalogs

Industry Mall (Online ordering system) http://www.siemens.com/industrymall

Cax online generator

http://support.automation.siemens.com/WW/CAXorder/default.aspx?lang=en&mlfb=3RT10666NB36

Service&Support (Manuals, Certificates, Characteristics, FAQs,...) https://support.industry.siemens.com/cs/ww/en/ps/3RT10666NB36



