SIEMENS

Data sheet 3RT1066-6NF36



CONTACTOR, 160KW/400V/AC-3 AC(40...60HZ)/DC OPERATION UC 96-127V AUXILIARY CONTACTS 2NO+2NC 3-POLE, SIZE S10 BAR CONNECTIONS ELECTRONIC OPERATING MECHANISM WITH 24V DC PLC INTERFACE SCREW TERMINAL

Figure similar

product brand name	SIRIUS	
Product designation	power contactor	

nsulation voltage		
Rated value	V	1 000
Degree of pollution		3
Surge voltage resistance Rated value	kV	8
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 block typical 		10 000 000
Thermal short-time current restricted to 10 s	Α	2 400
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

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
Operating current	

— at 400 V at ambient temperature 40 °C Rated value — up to 690 V at ambient temperature 40 °C Rated value — up to 690 V at ambient temperature 60 °C Rated value — up to 690 V at ambient temperature 60 °C Rated value — up to 690 V Rated value — at 400 V Rated value — at 690 V Rated value — at 400 V Rated value — at 2400 V Rated value — at 240 Rated value — at 100-1 — at 24 V Rated value — at 110 V Rated value — at 124 V Rated value — at 110 V Rated value — at 24 V Rated value — at 25 V Rated value — at 24 V Rated value — at 25 V Rated value — at 26 V Rated value — at 27 V Rated value — at 28 V Rate	• at AC-1		
up to 690 V at ambient temperature 40 °C Rated value up to 690 V at ambient temperature 60 °C Rated value up to 690 V at ambient temperature 60 °C Rated value • at AC-3 at 400 V Rated value at 690 V Rated value at 240 V Rated value at 10 V Rated value at 110 V Rated value at 24 V Rated value	— at 400 V at ambient temperature 40 °C	Α	330
Rated value — up to 690 V at ambient temperature 60 °C Rated value • at AC-3 — at 400 V Rated value — at 690 V Rated value A 280 • at AC-4 at 400 V Rated value A 280 Operating current with 1 current path • at DC-3 — at 24 V Rated value — at 110 V Rated value — at 110 V Rated value A 300 — at 110 V Rated value A 300 — at 110 V Rated value A 300 Operating current with 2 current paths in series • at DC-1 — at 24 V Rated value A 300 Operating current with 2 current paths in series • at DC-1 — at 24 V Rated value A 300 Operating current with 3 current paths in series • at DC-1 — at 24 V Rated value A 300 Operating current with 3 current paths in series • at DC-1 — at 24 V Rated value A 300 Operating current with 3 current paths in series • at DC-1 — at 24 V Rated value A 300 Operating current with 3 current paths in series • at DC-1 — at 24 V Rated value A 300 Operating current with 3 current paths in series • at DC-1 — at 24 V Rated value A 300 Operating power • at AC-1 at 400 V Rated value W 160 000 Operating power • at AC-1 — at 230 V at 60 °C Rated value	Rated value		
Rated value		Α	330
- at 400 ∨ Rated value - at 690 ∨ Rated value		Α	300
- at 690 ∨ Rated value • at AC-4 at 400 ∨ Rated value • at AC-4 at 400 ∨ Rated value A 280 Operating current with 1 current path • at DC-1 - at 24 ∨ Rated value - at 110 ∨ Rated value - at 24 ∨ Rated value - at 110 ∨ Rated value - at 24 ∨ Rated value - at 24 ∨ Rated value - at 110 ∨ Rated value - at 110 ∨ Rated value - at 24 ∨ Rated value - at 110 ∨ Rated value - at 24 ∨ Rated value - at 24 ∨ Rated value - at 300 Operating current with 3 current paths in series • at DC-1 - at 24 ∨ Rated value - at 24 ∨ Rated value - at 300 • at C-3 at DC-5 - at 110 ∨ Rated value - at 24 ∨ Rated value - at 25 ∨ Rated value - at 26 ∨ Rated value - at 26 ∨ Rated value - at 27 ∨ Rated value - at 28 ∨ Rated value - at 28 ∨ Rated val	• at AC-3		
• at AC-4 at 400 V Rated value A 280 Operating current with 1 current path • at DC-1 — at 24 V Rated value A 300 — at 110 V Rated value A 300 — at 110 V Rated value A 300 — at 24 V Rated value A 300 — at 110 V Rated value A 300 Operating current with 2 current paths in series • at DC-1 — at 24 V Rated value A 300 — at 110 V Rated value A 300 • at DC-3 at DC-5 — at 110 V Rated value A 300 • at DC-3 at DC-5 — at 110 V Rated value A 300 Operating current with 3 current paths in series • at DC-1 — at 24 V Rated value A 300 Operating current with 3 current paths in series • at DC-1 — at 24 V Rated value A 300 Operating current with 3 current paths in series • at DC-1 — at 24 V Rated value A 300 Operating current with 3 current paths in series • at DC-1 — at 24 V Rated value A 300 • at AC-1 — at 400 V Rated value A 300 Operating power • at AC-1 at 400 V Rated value W 197 • at AC-2 at 400 V Rated value W 171 • at AC-4 at 400 V Rated value W 160 000 Operating power • at AC-1 — at 230 V at 60 °C Rated value KW 113	— at 400 V Rated value	Α	300
Operating current with 1 current path • at DC-1 — at 24 V Rated value — at 110 V Rated value — at 210 V Rated value — at 24 V Rated value — at 24 V Rated value — at 24 V Rated value — at 110 V Rated value — at 110 V Rated value — at 110 V Rated value — at 24 V Rated value — at 24 V Rated value — at 110 V Rated value — at 110 V Rated value — at 24 V Rated value	— at 690 V Rated value	Α	280
• at DC-1 — at 24 V Rated value — at 110 V Rated value A 33 • at DC-3 at DC-5 — at 24 V Rated value A 300 — at 110 V Rated value A 300 — at 110 V Rated value A 300 Operating current with 2 current paths in series • at DC-1 — at 24 V Rated value A 300 • at DC-3 at DC-5 — at 110 V Rated value A 300 • at DC-3 at DC-5 — at 110 V Rated value A 300 Operating current with 3 current paths in series • at DC-1 — at 24 V Rated value A 300 Operating current with 3 current paths in series • at DC-1 — at 24 V Rated value A 300 Operating current with 3 current paths in series • at DC-3 at DC-5 — at 110 V Rated value A 300 • at DC-3 at DC-5 — at 110 V Rated value A 300 • at AC-1 at 400 V Rated value • at AC-2 at 400 V Rated value • at AC-4 at 400 V Rated value • at AC-1 — at 230 V at 60 °C Rated value RW 113	• at AC-4 at 400 V Rated value	Α	280
- at 24 V Rated value - at 110 V Rated value - at 110 V Rated value - at 24 V Rated value - at 24 V Rated value - at 110 V Rated value - at 110 V Rated value - at 110 V Rated value - at 24 V Rated value - at 24 V Rated value - at 110 V Rated value - at 24 V Rated value - at 100-1 - at 24 V Rated value - at 110 V Rated value - at 24 V Rated value - at 110 V Rated value - at 24 V Rated value - at 24 V Rated value - at 110 V Rated value - at 24 V Rated value - at 110 V Rated value - at 24 V Rated value - at 110 V Rated value - at 24 V Rated value - at 110 V Rated value - at 24 V Rated value - at 110 V Rated value - at 24 V Rated value - at 110 V Rated value - at 24 V Rated value - at 250 V Rated va	Operating current with 1 current path	_	
- at 110 V Rated value	• at DC-1		
• at DC-3 at DC-5 — at 24 V Rated value A 300 Operating current with 2 current paths in series • at DC-1 — at 24 V Rated value A 300 • at DC-3 at DC-5 — at 110 V Rated value A 300 • at DC-3 at DC-5 — at 110 V Rated value A 300 Operating current with 3 current paths in series • at DC-1 — at 24 V Rated value A 300 Operating current with 3 current paths in series • at DC-1 — at 24 V Rated value A 300 Operating current with 3 current paths in series • at DC-1 — at 24 V Rated value A 300 • at DC-3 at DC-5 — at 110 V Rated value A 300 • at DC-3 at DC-5 — at 110 V Rated value A 300 Operating power • at AC-1 at 400 V Rated value A 300 Operating power • at AC-4 at 400 V Rated value W 160 000 Operating power • at AC-1 — at 230 V at 60 °C Rated value kW 113	— at 24 V Rated value	Α	300
	— at 110 V Rated value	Α	33
— at 110 V Rated value A 3 Operating current with 2 current paths in series ■ at DC-1 — at 24 V Rated value A 300 — at 110 V Rated value A 300 ■ at DC-3 at DC-5 — at 110 V Rated value A 300 Operating current with 3 current paths in series ■ at DC-1 — at 24 V Rated value A 300 Operating current with 3 current paths in series ■ at DC-1 — at 24 V Rated value A 300 ■ at DC-3 at DC-5 — at 110 V Rated value A 300 ■ at DC-3 at DC-5 — at 110 V Rated value A 300 ■ at DC-3 at DC-5 — at 110 V Rated value A 300 ■ at DC-3 at DC-5 — at 110 V Rated value A 300 ■ at DC-3 at DC-5 — at 140 V Rated value A 300 Operating power ■ at AC-1 at 400 V Rated value W 197 ■ at AC-2 at 400 V Rated value W 171 ■ at AC-4 at 400 V Rated value W 160 000 Operating power ■ at AC-1 — at 230 V at 60 °C Rated value KW 113	• at DC-3 at DC-5		
Operating current with 2 current paths in series ● at DC-1 — at 24 V Rated value A 300 — at 110 V Rated value A 300 • at DC-3 at DC-5 A 300 — at 24 V Rated value A 300 Operating current with 3 current paths in series • at DC-1 — at 24 V Rated value A 300 — at 110 V Rated value A 300 • at DC-3 at DC-5 — at 110 V Rated value — at 24 V Rated value A 300 Operating power • at AC-1 at 400 V Rated value kW 197 • at AC-2 at 400 V Rated value kW 171 • at AC-4 at 400 V Rated value W 160 000 Operating power • at AC-1 • at AC-1 — at 230 V at 60 °C Rated value	— at 24 V Rated value	Α	300
■ at DC-1 — at 24 V Rated value — at 110 V Rated value ■ at DC-3 at DC-5 — at 110 V Rated value A 300 ● at DC-3 at DC-5 — at 24 V Rated value A 300 Operating current with 3 current paths in series ■ at DC-1 — at 24 V Rated value A 300 Operating current with 3 current paths in series ■ at DC-1 — at 24 V Rated value A 300 — at 110 V Rated value A 300 ● at DC-3 at DC-5 — at 110 V Rated value A 300 ● at AC-1 at 400 V Rated value A 300 Operating power ● at AC-2 at 400 V Rated value A 4 300 Operating power ● at AC-4 at 400 V Rated value W 197 ● at AC-4 at 400 V Rated value W 160 000 Operating power ● at AC-1 — at 230 V at 60 °C Rated value KW 113	— at 110 V Rated value	Α	3
at 24 V Rated value at 110 V Rated value at 10 V Rated value at 10 V Rated value at 110 V Rated value at 24 V Rated value at 10 V Rated value at 24 V Rated value at 25 V Rated value at 26 V Rated value at 27 V Rated value at 28 V Rated va	Operating current with 2 current paths in series		
— at 110 V Rated value • at DC-3 at DC-5 — at 110 V Rated value A 300 Operating current with 3 current paths in series • at DC-1 — at 24 V Rated value A 300 Operating current with 3 current paths in series • at DC-1 — at 24 V Rated value A 300 • at DC-3 at DC-5 — at 110 V Rated value A 300 • at DC-3 at DC-5 — at 110 V Rated value A 300 Operating power • at AC-1 at 400 V Rated value kW 197 • at AC-2 at 400 V Rated value kW 171 • at AC-4 at 400 V Rated value W 160 000 Operating power • at AC-1 — at 230 V at 60 °C Rated value kW 113	• at DC-1		
at DC-3 at DC-5 — at 110 V Rated value — at 24 V Rated value A 300 Operating current with 3 current paths in series at DC-1 — at 24 V Rated value A 300 — at 110 V Rated value A 300 — at 110 V Rated value A 300 — at 110 V Rated value A 300 — at 24 V Rated value A 300 Operating power at AC-1 at 400 V Rated value kW 197 at AC-2 at 400 V Rated value value at AC-4 at 400 V Rated value	— at 24 V Rated value	Α	300
at 110 V Rated value A 300 at 24 V Rated value A 300 Operating current with 3 current paths in series ■ at DC-1 —- at 24 V Rated value A 300 —- at 110 V Rated value A 300 ■ at DC-3 at DC-5 —- at 110 V Rated value A 300 —- at 24 V Rated value A 300 Operating power ■ at AC-1 at 400 V Rated value kW 197 ■ at AC-4 at 400 V Rated value W 171 ■ at AC-4 at 400 V Rated value W 160 000 Operating power ■ at AC-1 —- at 230 V at 60 °C Rated value kW 113	— at 110 V Rated value	Α	300
— at 24 V Rated value A 300 Operating current with 3 current paths in series	• at DC-3 at DC-5		
Operating current with 3 current paths in series • at DC-1 — at 24 V Rated value A — at 110 V Rated value A • at DC-3 at DC-5 — at 110 V Rated value A — at 24 V Rated value A Operating power • at AC-1 at 400 V Rated value kW • at AC-2 at 400 V Rated value kW • at AC-4 at 400 V Rated value W • at AC-1 at 400 V Rated value W • at AC-1 at 400 V Rated value W	— at 110 V Rated value	Α	300
 at DC-1 — at 24 V Rated value — at 110 V Rated value at DC-3 at DC-5 at 110 V Rated value at 24 V Rated value at 24 V Rated value Operating power at AC-1 at 400 V Rated value at AC-2 at 400 V Rated value at AC-4 at 400 V Rated value at AC-4 at 400 V Rated value at AC-3 at 400 V Rated value Operating power at AC-1 at AC-1 at AC-3 at AC-4 at AC-1 at AC-1 at AC-1 	— at 24 V Rated value	Α	300
- at 24 V Rated value A 300 - at 110 V Rated value A 300 ● at DC-3 at DC-5 - at 110 V Rated value A 300 A 300 A 300 A 300 Operating power ● at AC-1 at 400 V Rated value BW 197 ● at AC-2 at 400 V Rated value BW 171 ● at AC-4 at 400 V Rated value BW 160 000 Operating power ● at AC-1 - at 230 V at 60 °C Rated value BW 113	Operating current with 3 current paths in series		
 — at 110 V Rated value ● at DC-3 at DC-5 — at 110 V Rated value — at 24 V Rated value A 300 Operating power ● at AC-1 at 400 V Rated value ★W 197 ● at AC-2 at 400 V Rated value ★W 171 ● at AC-4 at 400 V Rated value W 160 000 Operating power ● at AC-1 — at 230 V at 60 °C Rated value ★W 113 	• at DC-1		
 at DC-3 at DC-5 at 110 V Rated value at 24 V Rated value Operating power at AC-1 at 400 V Rated value at AC-2 at 400 V Rated value at AC-4 at 400 V Rated value at AC-4 at 400 V Rated value at AC-1 at 400 V Rated value Operating power at AC-1 at AC-1 at 230 V at 60 °C Rated value kW 113 	— at 24 V Rated value	Α	300
— at 110 V Rated value A 300 — at 24 V Rated value A 300 Operating power • at AC-1 at 400 V Rated value kW 197 • at AC-2 at 400 V Rated value kW 171 • at AC-4 at 400 V Rated value W 160 000 Operating power • at AC-1 — at 230 V at 60 °C Rated value kW 113	— at 110 V Rated value	Α	300
— at 24 V Rated value A 300 Operating power ● at AC-1 at 400 V Rated value kW 197 ● at AC-2 at 400 V Rated value kW 171 ● at AC-4 at 400 V Rated value W 160 000 Operating power ● at AC-1 — at 230 V at 60 °C Rated value kW 113	• at DC-3 at DC-5		
Operating power • at AC-1 at 400 V Rated value	— at 110 V Rated value	Α	300
 at AC-1 at 400 V Rated value at AC-2 at 400 V Rated value at AC-4 at 400 V Rated value at AC-4 at 400 V Rated value at AC-1 at AC-1 at 230 V at 60 °C Rated value kW 197 171 160 000 160 000 113 	— at 24 V Rated value	Α	300
• at AC-2 at 400 V Rated value	Operating power		
at AC-4 at 400 V Rated value Operating power at AC-1 — at 230 V at 60 °C Rated value W 160 000 W 160 000	• at AC-1 at 400 V Rated value	kW	197
Operating power • at AC-1 — at 230 V at 60 °C Rated value kW 113	• at AC-2 at 400 V Rated value	kW	171
• at AC-1 — at 230 V at 60 °C Rated value kW 113	• at AC-4 at 400 V Rated value	W	160 000
— at 230 V at 60 °C Rated value kW 113	Operating power		
	● at AC-1		
— at 690 V at 60 °C Rated value kW 340	— at 230 V at 60 °C Rated value	kW	113
— at 650 v at 60 C Trated value	— at 690 V at 60 °C Rated value	kW	340
— at 690 V Rated value kW 340	— at 690 V Rated value	kW	340
• at AC-3	● at AC-3		

— at 230 V Rated value	kW	97
— at 400 V Rated value	kW	171
— at 500 V Rated value	kW	215
— at 690 V Rated value	kW	280
Operating power for ≥ 200000 operating cycles at AC-4		
• at 400 V Rated value	kW	71
• at 690 V Rated value	kW	112
Operating frequency		
• at AC-3 maximum	1/h	500

Control circuit/ Control:		
Type of voltage of the control supply voltage		AC/DC
Control supply voltage with AC		
● at 50 Hz Rated value	V	96 127
● at 60 Hz Rated value	V	96 127
Control supply voltage for DC		
Rated value	V	96 127
Rated value	Hz	40
Control supply voltage frequency 2 Rated value	Hz	60
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		0.8 1.1
value of the magnet coil for DC		
Design of the surge suppressor		with varistor
Apparent pick-up power of the magnet coil with AC	V·A	530
Apparent holding power of the magnet coil with AC	V·A	5
Closing power of the magnet coil for DC	W	580
Holding power of the magnet coil for DC	W	3.8
Inductive power factor		
with closing power of the coil		0.8
with the holding power of the coil		0.4

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-15		
• at 230 V Rated value	Α	6

• at 400 V Rated value	Α	3
Operating current		
• at DC-12 at 220 V Rated value	Α	1
• at DC-13 at 220 V Rated value	Α	0.3
Operating current		
• at DC-12		
— at 60 V Rated value	Α	6
— at 110 V Rated value	Α	3
• at DC-13		
— at 24 V Rated value	Α	10
— at 60 V Rated value	Α	2
— at 110 V Rated value	Α	1
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	mm	210
Width	mm	145
Depth	mm	202
Demolecular action		
Required spacing		
for grounded parts		
	mm	10
• for grounded parts	mm	10
for grounded parts— at the side	mm	10
• for grounded parts — at the side Connections/ Terminals:	mm	screw-type terminals
• for grounded parts — at the side Connections/ Terminals: Type of electrical connection	mm	
• for grounded parts — at the side Connections/ Terminals: Type of electrical connection • for main current circuit	mm	screw-type terminals
 for grounded parts at the side Connections/ Terminals: Type of electrical connection for main current circuit for auxiliary and control current circuit 	mm	screw-type terminals
 for grounded parts at the side Connections/ Terminals: Type of electrical connection for main current circuit for auxiliary and control current circuit Type of connectable conductor cross-section 	mm	screw-type terminals screw-type terminals
 for grounded parts at the side Connections/ Terminals: Type of electrical connection for main current circuit for auxiliary and control current circuit Type of connectable conductor cross-section for AWG conductors for main contacts 	mm	screw-type terminals screw-type terminals 2/0 500 kcmil 2x (0.5 1.5 mm²), 2x (0.75 2.5 mm²), max. 2x
 for grounded parts at the side Connections/ Terminals: Type of electrical connection for main current circuit for auxiliary and control current circuit Type of connectable conductor cross-section for AWG conductors for main contacts for auxiliary contacts solid 	mm	screw-type terminals screw-type terminals 2/0 500 kcmil 2x (0.5 1.5 mm²), 2x (0.75 2.5 mm²), max. 2x (0.75 4 mm²)
for grounded parts — at the side Connections/ Terminals: Type of electrical connection for main current circuit for auxiliary and control current circuit Type of connectable conductor cross-section for AWG conductors for main contacts for auxiliary contacts	mm	screw-type terminals screw-type terminals 2/0 500 kcmil 2x (0.5 1.5 mm²), 2x (0.75 2.5 mm²), max. 2x

Mechanical data:			
Size of contactor		S10	
Ambient conditions:			
Installation altitude at height above sea level	m	2 000	
maximum			
Ambient temperature			
during operation	°C	-25 + 60	
during storage	°C	-55 +80	

Certificates/ approvals:

General Product Approval
Functional
Safety/Safety
of Machinery

Declaration of
Conformity









Type Examination



Test Certificates

Shipping Approval

Special Test Certificate Type Test
Certificates/Test
Report











other

<u>Confirmation</u> <u>Environmental</u> <u>other</u> <u>Confirmations</u>

Further information

Information- and Downloadcenter (Catalogs, Brochures,...)

http://www.siemens.com/industrial-controls/catalogs

Industry Mall (Online ordering system)

http://www.siemens.com/industrymall

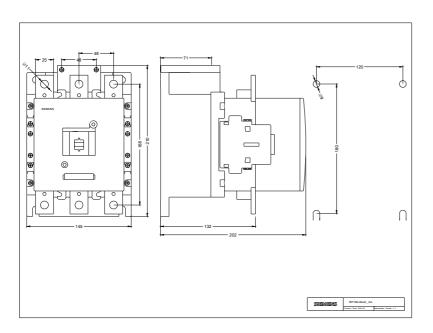
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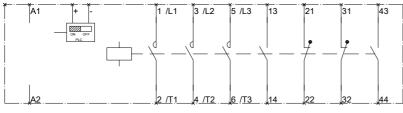
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http://support.automation.siemens.com/WW/view/en/3RT10666NF36/all

Image database (product images, 2D dimension drawings, 3D models, device circuit diagrams, EPLAN macros, ...) http://www.automation.siemens.com/bilddb/cax_de.aspx?mlfb=3RT10666NF36&lang=en





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