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

Figure similar		
product brand name		SIRIUS
Product designation		power contactor
General technical data:		
Insulation 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	А	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 AC-1		
Rated valueA- up to 690 V at ambient temperature 60 °CA300Rated valueA300- up to 690 V at ambient temperature 60 °CA300Rated valueA300- at 400 V Rated valueA300- at 400 V Rated valueA280- at 400 V Rated valueA300- at 400 V Rated valueA300- at 24 V Rated valueA300- at 24 V Rated valueA300- at 24 V Rated valueA300- at 110 V Rated valueA300- at 110 V Rated valueA300- at 110 V Rated valueA300- at 24 V Rated valueA300- at 24 V Rated valueA300- at 110 V Rated valueA300- at 24 V Rated valueA300- at 110 V Rated valueA300- at 24 V Rated valueA300- at 24 V Rated valueA300- at 110 V Rated valueA300- at 110 V Rated valueA300- at 110 V Rated valueA300- at 24 V Rated valueA300- at 24 V Rated valueA300 <td< td=""><td>— at 400 V at ambient temperature 40 °C</td><td>А</td><td>330</td></td<>	— at 400 V at ambient temperature 40 °C	А	330
Rated valueA300- up to 690 V at ambient temperature 60 °CA300- at 400 V Rated valueA300- at 400 V Rated valueA280- at 600 V Rated valueA280• at AC-4 at 400 V Rated valueA300- at 24 V Rated valueA300- at 10 V Rated valueA300- at 24 V Rated valueA300- at 24 V Rated valueA300- at 10 V Rated valueA300- at 10 V Rated valueA300- at 24 V Rated valueA300- at 10 V Rated valueA300- at 10 V Rated valueA300- at 110 V Rated valueA300- at 110 V Rated valueA300- at 24 V Rated valueA300- at 110 V Rated valueA300- at 24 V Rated valueA300- at 110 V Rated valueA300- at 20 V Rated valueA300- at 110 V Rated valueA300- at 110 V Rated valueA300- at 110 V Rated valueA300- at 20 V Rated valueA3			
	— up to 690 V at ambient temperature 40 °C	А	330
Rated valueImage: state	Rated value		
• at AC-3 Image: Constraint of the section of the sectio		А	300
	Rated value		
	• at AC-3		
eta CAC-4 at 400 V Rated valueA280Operating current with 1 current path • at DC-1A300- at 24 V Rated valueA33• at DC-3 at DC-5 at 24 V Rated valueA300- at 10 V Rated valueA300- at 110 V Rated valueA300- at 124 V Rated valueA300- at 124 V Rated valueA300- at 124 V Rated valueA300- at 10 V Rated valueA300- at 10 V Rated valueA300- at 110 V Rated valueA300- at 24 V Rated valueA300- at 110 V Rated valueA300- at 110 V Rated valueA300- at 24 V Rated valueA300- at 110 V Rated valueA300- at 110 V Rated valueA300- at 110 V Rated valueA300- at 24 V Rated valueA300- at 110 V Rated valueA300- at 24 V Rated valueA300- at 100 V Rated valueA300- at 24 V Rated valueA300- at 24 V Rated valueA300- at 100 V Rated valueA300- at 24 V Rated valueA300- at 24 V Rated valueA <td< td=""><td>— at 400 V Rated value</td><td>A</td><td>300</td></td<>	— at 400 V Rated value	A	300
Operating current with 1 current path • at DC-1 A 300 - at 24 V Rated value A 33 - at 10 V Rated value A 33 • at DC-3 at DC-5 - - - at 24 V Rated value A 300 - at 10 V Rated value A 300 - at 24 V Rated value A 300 - at 24 V Rated value A 300 - at 24 V Rated value A 300 - at 10 V Rated value A 300 - at 24 V Rated value A 300 - at 24 V Rated value A 300 - at 10 V Rated value A 300 - at 10 V Rated value	— at 690 V Rated value	А	280
• at DC-1 A 300 - at 24 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 24 V Rated value A 300 - at 10 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 - at 110 V Rated value A 300 - at 24 V Rated value A 300 - at 24 V Rated value A 300 - at 110 V Rated value KW 100 at A	• at AC-4 at 400 V Rated value	А	280
	Operating current with 1 current path		
InterferenceA33- at 110 V Rated valueA30- at 24 V Rated valueA300- at 110 V Rated valueA3Operating current with 2 current paths in series at 24 V Rated valueA300- at 110 V Rated valueA300- at 24 V Rated valueA300- at 24 V Rated valueA300- at 24 V Rated valueA300- at 110 V Rated valueA300- at 24 V Rated valueA300- at 24 V Rated valueA300- at 110 V Rated valueA300- at 110 V Rated valueA300- at 24 V Rated valueA300- at 110 V Rated valueA300- at 24 V Rated valueA300- at 24 V Rated valueA300- at 400 V Rated valueA300- at 24 V Rated valueA300- at 24 V Rated valueA300- at 20 V at 60 v Rated valueKW197- at 20 V at 60 v C Rated valueW160 000- at 230 V at 60 °C Rated valueKW113- at 690 V Rated valueKW340	● at DC-1		
• at DC-3 at DC-5I- at 24 V Rated valueA300- at 110 V Rated valueA3Operating current with 2 current paths in seriesI- at 24 V Rated valueA300- at 110 V Rated valueA300- at 24 V Rated valueA300- at 110 V Rated valueA300- at 24 V Rated valueA300- at 110 V Rated valueA300- at 110 V Rated valueA300- at 24 V Rated valueA300- at 110 V Rated valueA300- at 24	— at 24 V Rated value	А	300
- at 24 V Rated valueA300- at 110 V Rated valueA3Operating current with 2 current paths in series • at DC-1 at 24 V Rated valueA300- at 110 V Rated valueA300- at 110 V Rated valueA300- at 110 V Rated valueA300- at 24 V Rated valueA300- at 110 V Rated valueA300- at 110 V Rated valueA300- at 24 V Rated valueA300- at 24 V Rated valueA300- at 110 V Rated valueA300- at 110 V Rated valueA300- at 24 V Rated valueKW197- at 24 V Rated valueKW160 000Operating power at 250 V at 60 °C Rated valueKW113- at 690 V Rated valueKW340- at 690 V Rated valueKW340	— at 110 V Rated value	А	33
	• at DC-3 at DC-5		
Operating current with 2 current paths in seriesImage: current with 2 current paths in series• at DC-1 at 24 V Rated valueA- at 110 V Rated valueA• at DC-3 at DC-5 at 110 V Rated valueA- at 110 V Rated valueA- at 24 V Rated valueA- at 110 V Rated valueA- at 24 V Rated valueA- at 24 V Rated valueA- at 100 V Rated valueA- at 24 V Rated valueKW- at 250 V at 60 °C Rated valueKW- at 690 V Rated valueKW </td <td>— at 24 V Rated value</td> <td>А</td> <td>300</td>	— at 24 V Rated value	А	300
• at DC-1 A 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 - at 24 V Rated value A 300 - at 10 V Rated value A 300 - at 10 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 - at	— at 110 V Rated value	А	3
- at 24 V Rated valueA300- at 110 V Rated valueA300at DC-3 at DC-5 at 110 V Rated valueA300- at 24 V Rated valueA300Operating current with 3 current paths in series at 24 V Rated valueA300- at 110 V Rated valueA300- at 110 V Rated valueA300- at 24 V Rated valueA300- at 24 V Rated valueA300- at 110 V Rated valueA300- at 24 V Rated valueKW197- at 400 V Rated valueKW113- at 400 V Rated valueKW113- at 400 V Rated valueKW340- at 690 V Rated valueKW340	Operating current with 2 current paths in series		
A the formed of the original original of the original	● at DC-1		
A the trace of the traceA300- at 110 V Rated valueA300- at 24 V Rated valueA300Operating current with 3 current paths in series • at DC-1 at 24 V Rated valueA300- at 24 V Rated valueA300- at 110 V Rated valueA300- at 24 V Rated valueKW197- at AC-1 at 400 V Rated valueKW171- at AC-4 at 400 V Rated valueKW160 000Operating power at 230 V at 60 °C Rated valueKW113- at 690 V at 60 °C Rated valueKW340- at 690 V Rated valueKW340	— at 24 V Rated value	А	300
- at 110 V Rated valueA300- at 24 V Rated valueA300Operating current with 3 current paths in series • at DC-1 at 24 V Rated valueA300- at 24 V Rated valueA300- at 110 V Rated valueA300- at 24 V Rated valueKW197- at AC-1 at 400 V Rated valueKW171- at AC-2 at 400 V Rated valueW160 000Operating power • at AC-1 at 230 V at 60 °C Rated valueKW113- at 690 V at 60 °C Rated valueKW340	— at 110 V Rated value	А	300
Initial factorA300Operating current with 3 current paths in series • at DC-1 at 24 V Rated valueA300- at 110 V Rated valueA300- at 24 V Rated valueA300- at 24 V Rated valueA300- at 24 V Rated valueA100- at 24 V Rated valueA100- at 24 V Rated valueKW197• at AC-1 at 400 V Rated valueKW171• at AC-2 at 400 V Rated valueW160 000Operating power • at AC-1 at 230 V at 60 °C Rated valueKW113- at 690 V Rated valueKW340	• at DC-3 at DC-5		
Operating current with 3 current paths in seriesA300• at DC-1- at 24 V Rated valueA300- at 110 V Rated valueA300• at DC-3 at DC-5 at 110 V Rated valueA300- at 24 V Rated valueA100Operating power• at AC-1 at 400 V Rated valueKW197• at AC-2 at 400 V Rated valueW160 000Operating power• at AC-4 at 400 V Rated valueW113• at AC-1 at 230 V at 60 °C Rated valueKW340- at 690 V Rated valueKW340	— at 110 V Rated value	А	300
• at DC-1 A 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 - at 110 V Rated value A 300 - at 24 V Rated value KW 197 • at AC-1 at 400 V Rated value KW 171 • at AC-2 at 400 V Rated value KW 160 000 • at AC-4 - at 600 V Rated value KW 160 000 • at AC-1 - at 600 °C Rated value KW 113 - at 690 V at 60 °C Rated value KW 340 - at 690 V Rated value KW 340	— at 24 V Rated value	А	300
- at 24 V Rated valueA300- at 110 V Rated valueA300• at DC-3 at DC-5 at 110 V Rated valueA300- at 24 V Rated valueA300- at 24 V Rated valueA300• at AC-1 at 400 V Rated valueKW197• at AC-2 at 400 V Rated valueKW171• at AC-2 at 400 V Rated valueW160 000• at AC-1W160 000• at AC-1KW113- at 230 V at 60 °C Rated valueKW340- at 690 V Rated valueKW340	Operating current with 3 current paths in series		
- at 110 V Rated valueA300• at DC-3 at DC-5 at 110 V Rated valueA- at 24 V Rated valueA- at 24 V Rated valueA0 perating power-• at AC-1 at 400 V Rated valueKW• at AC-2 at 400 V Rated valueKW• at AC-2 at 400 V Rated valueW• at AC-4 at 400 V Rated valueW• at AC-4 at 400 V Rated valueW• at AC-1 at 230 V at 60 °C Rated valueKW- at 690 V at 60 °C Rated valueKW- at 690 V Rated valueKW at 690 V Rated valueKW at 690 V Rated valueKW	• at DC-1		
• at DC-3 at DC-5I300- at 110 V Rated valueA300- at 24 V Rated valueA300Operating power• at AC-1 at 400 V Rated valuekW197• at AC-2 at 400 V Rated valuekW171• at AC-2 at 400 V Rated valueW160 000• at AC-4 at 400 V Rated valueW160 000• at AC-1• at AC-1 at 230 V at 60 °C Rated valueKW113- at 690 V Rated valuekW340	— at 24 V Rated value	А	300
- at 110 V Rated valueA300- at 24 V Rated valueA300Operating power• at AC-1 at 400 V Rated valueKW197• at AC-2 at 400 V Rated valueKW171• at AC-4 at 400 V Rated valueW160 000Operating power• at AC-1 at 230 V at 60 °C Rated valueKW113- at 690 V Rated valueKW340- at 690 V Rated valueKW340	— at 110 V Rated value	А	300
at 24 V Rated valueA300Operating power• at AC-1 at 400 V Rated valuekW197• at AC-2 at 400 V Rated valuekW171• at AC-2 at 400 V Rated valueW160 000• at AC-4 at 400 V Rated valueW160 000• at AC-1• at AC-1 at 230 V at 60 °C Rated valuekW113- at 690 V at 60 °C Rated valuekW340- at 690 V Rated valuekW340	• at DC-3 at DC-5		
Operating power• at AC-1 at 400 V Rated valuekW197• at AC-2 at 400 V Rated valuekW171• at AC-4 at 400 V Rated valueW160 000• at AC-4 at 400 V Rated valueV160 000• at AC-1• at AC-1 at 230 V at 60 °C Rated valuekW113- at 690 V at 60 °C Rated valuekW340- at 690 V Rated valuekW340	— at 110 V Rated value	А	300
• at AC-1 at 400 V Rated valuekW197• at AC-2 at 400 V Rated valuekW171• at AC-4 at 400 V Rated valueW160 000Operating power• at AC-1 at 230 V at 60 °C Rated valuekW113- at 690 V at 60 °C Rated valuekW340- at 690 V Rated valuekW340	— at 24 V Rated value	А	300
 at AC-2 at 400 V Rated value 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 690 V at 60 °C Rated value KW 340 - at 690 V Rated value KW 340 	Operating power		
• at AC-4 at 400 V Rated valueW160 000Operating powerKW160 000• at AC-1- at 230 V at 60 °C Rated valueKW- at 690 V at 60 °C Rated valueKW113- at 690 V at 60 °C Rated valueKW340- at 690 V Rated valueKW340	• at AC-1 at 400 V Rated value	kW	197
Operating power • at AC-1kW113- at 230 V at 60 °C Rated valuekW340- at 690 V at 60 °C Rated valuekW340- at 690 V Rated valuekW340	• at AC-2 at 400 V Rated value	kW	171
• at AC-1 — at 230 V at 60 °C Rated value kW 113 — at 690 V at 60 °C Rated value kW 340 — at 690 V Rated value kW 340	• at AC-4 at 400 V Rated value	W	160 000
- at 230 V at 60 °C Rated value kW 113 - at 690 V at 60 °C Rated value kW 340 - at 690 V Rated value kW 340	Operating power		
at 690 V at 60 °C Rated valuekW340 at 690 V Rated valuekW340	• at AC-1		
- at 690 V Rated value kW 340	— at 230 V at 60 °C Rated value	kW	113
	— at 690 V at 60 °C Rated value	kW	340
● at AC-3	— at 690 V Rated value	kW	340
	• 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 \geq 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	21 27.3
• at 60 Hz Rated value	V	21 27.3
Control supply voltage for DC	-	
Rated value	V	21 27.3
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	А	6

• at 400 V Rated value	A	3		
Operating current				
• at DC-12 at 220 V Rated value	A	1		
• at DC-13 at 220 V Rated value	A	0.3		
Operating current				
• at DC-12				
— at 60 V Rated value	А	6		
— at 110 V Rated value	А	3		
• at DC-13				
— at 24 V Rated value	А	10		
— at 60 V Rated value	А	2		
— at 110 V Rated value	А	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	gnment 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		
Required spacing				
 for grounded parts 				
— at the side	mm	10		
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 AWG conductors for main contacts 		2/0 500 kcmil		
 for auxiliary contacts 				
— solid		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 conductors for auxiliary contacts 		2x (0.5 1.5 mm), 2x (0.75 2.5 mm) 2x (20 16), 2x (18 14), 1x 12		

ize of contactor				S10		
nbient conditions:						
Installation altitude at height above sea level maximum		m	2 000			
mbient temperature						
 during operation 	I		°C	-25 +60		
 during storage 			°C	-55 +80		
ertificates/ approval	S:					
General Product /	Approval				Functional Safety/Safety of Machinery	Declaration of Conformity
	CSA	EHC	(Type Examination	EG-Konf.
Test Certificates		Shipping A	pproval			
<u>Type Test</u> Certificates/Test <u>Report</u>	Special Test Certificate	ABS	Ţ	DNV DNV	GL	RMRS
other						
Confirmation	Environmental Confirmations	other				
rther information						
formation- and Dow	nloadcenter (Catal	ogs, Brochures, atalogs	,)			

Cax online generator

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

Service&Support (Manuals, Certificates, Characteristics, FAQs,...) http://support.automation.siemens.com/WW/view/en/3RT10666NB36/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=3RT10666NB36&lang=en



