SIEMENS

Data sheet

3RT1056-6NP36



CONTACTOR, 90KW/400V/AC-3, AC(40...60HZ)/DC OPERATION UC 200...277V AUXIL. CONTACTS 2NO+2NC 3-POLE, SIZE S6 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	1 480
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
Aain 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 °CA185Rated valueA185- up to 690 V at ambient temperature 60 °CA185Rated valueA170- at 400 V Rated valueA160- at 400 V Rated valueA160- at 400 V Rated valueA160- at 42 V Rated valueA185- at 24 V Rated valueA180- at 24 V Rated valueA180- at 24 V Rated valueA180- at 10 V Rated valueA25Operating current with 2 current pathA160- at 10 V Rated valueA160- at 10 V Rated valueA160- at 24 V Rated valueA160- at 10 V Rated valueA160- at 24 V Rated valueA160- at 10 V Rated valueA160- at 20 V Rated valueA160 <td< td=""><td>— at 400 V at ambient temperature 40 °C</td><td>А</td><td>215</td></td<>	— at 400 V at ambient temperature 40 °C	А	215
Rated valueNumber of the product of the p			
up to 690 V at ambient temperature 60 °C Rated valueA185- at 400 V Rated valueA185- at 400 V Rated valueA170- at 400 V Rated valueA160- at 600 V Rated valueA160- at 24 V Rated valueA180- at 24 V Rated valueA160- at 110 V Rated valueA160- at 124 V Rated valueA160- at 110 V Rated valueA160- at 24 V Rated valueA160- at 24 V Rated valueA160- at 100 V Rated valueA160- at 100 V Rated valueA160- at 110 V Rated valueA160- at 24 V Rated valueA	— up to 690 V at ambient temperature 40 °C	А	215
Rated valueImage: state value• at AC-3A- at 400 V Rated valueA170• at 650 V Rated valueA160Operating current with 1 current path• at DC-1 at 24 V Rated valueA100 V Rated valueA- at 10 V Rated valueA- at 24 V Rated value <td< td=""><td>Rated value</td><td></td><td></td></td<>	Rated value		
• at AC-3 Image: Constraint of the second of t		А	185
- at 400 V Rated value A 185 - at 690 V Rated value A 170 • at AC-4 at 400 V Rated value A 160 Operating current with 1 current path - - • at DC-1 A 160 - at 110 V Rated value A 18 • at DC-3 at DC-5 - - - at 24 V Rated value A 160 - at 110 V Rated value A 160 - at 124 V Rated value A 160 - at 10 V Rated value A 160 - at 10 V Rated value A 160 - at 10 V Rated value A 160 - at 24 V Rated value A 160 - at 10 V Rated value A 160 - at 10 V Rated value A 160 - at 24 V Rated value A	Rated value		
	• at AC-3		
at AC-4 at 400 V Rated valueA160Operating current with 1 current path • at DC-1A160- at 24 V Rated valueA18• at DC-3 at DC-5A160- at 24 V Rated valueA2.5- at 24 V Rated valueA160- at 110 V Rated valueA160- at 110 V Rated valueA160- at 24 V Rated valueA160- at 110 V Rated valueA160- at 110 V Rated valueA160- at 24 V Rated valueA160- at 24 V Rated valueA160- at 110 V Rated valueA160- at 110 V Rated valueA160- at 24 V Rated valueA160- at 110 V Rated valueA160- at 24 V Rated valueA160- at 110 V Rated valueA160- at 110 V Rated valueA160- at 24 V Rated valueA<	— at 400 V Rated value	А	185
Operating current with 1 current path • at DC-1 Image: Constant of the second seco	— at 690 V Rated value	А	170
• at DC-1 A 160 - at 24 V Rated value A 18 • at DC-3 at DC-5 - - - at 24 V Rated value A 160 - at 110 V Rated value A 2.5 Operating current with 2 current paths in series - - • at DC-1 - - - - at 24 V Rated value A 160 - - at 24 V Rated value A 160 - - at 24 V Rated value A 160 - - at 10 V Rated value A 160 - - at 110 V Rated value A 160 - - at 24 V Rated value A 160 - - at 24 V Rated value A 160 - - at 24 V Rated value A 160 - - - at 110 V Rated value A 160 -	• at AC-4 at 400 V Rated value	А	160
- at 24 V Rated valueA160- at 110 V Rated valueA18• at DC-3 at DC-5 at 24 V Rated valueA160- at 110 V Rated valueA2.5Operating current with 2 current paths in series • at DC-1 at 24 V Rated valueA160- at 110 V Rated valueA160- at 110 V Rated valueA160- at 110 V Rated valueA160- at 24 V Rated valueA160- at 110 V Rated valueA160- at 110 V Rated valueA160- at 110 V Rated valueA160- at 24 V Rated valueA160- at 110 V Rated valueA160- at 24 V Rated valueA160- at 24 V Rated valueKW121- at 24 V Rated valueKW124- at 24 V Rated valueKW104- at 24 V Rated value <td< td=""><td>Operating current with 1 current path</td><td></td><td></td></td<>	Operating current with 1 current path		
	● at DC-1		
• at DC-3 at DC-5I- at 24 V Rated valueA160- at 110 V Rated valueA2.5Operating current with 2 current paths in seriesI• at DC-1 at 24 V Rated valueA160- at 110 V Rated valueA160- at 24 V Rated valueA160- at 110 V Rated valueA160- at 100 V Rated valueA160- at 24 V Rated valueA160- at 400 V Rated valueW121• at AC-1 at 400 V Rated valueW90 000Operating power• at AC-1• at AC-1 at 230 V at 60 °C Rated valueKW70- at 690 V at 60 °C Rated valueKW210- at 690 V Rated valueKW210	— at 24 V Rated value	А	160
- at 24 V Rated valueA160- at 110 V Rated valueA2.5Operating current with 2 current paths in series • at DC-1 at 24 V Rated valueA160- at 24 V Rated valueA160- at 110 V Rated valueA160- at 110 V Rated valueA160- at 24 V Rated valueA160- at 110 V Rated valueA160- at 24 V Rated valueA160- at 100 V Rated valueA160- at 24 V Rated valueKW121- at 24 V Rated valueKW104- at 24 V Rated valueKW90 000Operating power at 250 V at 60 °C Rated valueKW70- at 690 V at 60 °C Rated valueKW210- at 690 V Rated valueKW210	— at 110 V Rated value	А	18
	● at DC-3 at DC-5		
Operating current with 2 current paths in series Image: current with 2 current paths in series • at DC-1 - - at 24 V Rated value A - at 10 V Rated value A - at 24 V Rated value A - at 10 V Rated value A - at 24 V Rated value A - at 24 V Rated value A - at 10 V Rated value A - at 24 V Rated value A - at 24 V Rated value A - at AC-1 at 400 V Rated value	— at 24 V Rated value	А	160
• at DC-1 A 160 - at 24 V Rated value A 160 - at 110 V Rated value A 160 • at DC-3 at DC-5 - - - at 110 V Rated value A 160 - at 24 V Rated value A 160 - at 10 V Rated value A 160 - at 10 V Rated value A 160 - at 10 V Rated value A 160 - at 24 V Rated value A 160 - at 24 V Rated value A 160 - at 24 V Rated value KW 121 - at 24 V Rated value KW 104 - at Ac-1 at 400 V Rated value KW 104 - at Ac-2 at 400 V Rated value KW 104 - at Ac-1 - - - at Ac-1 - - - at 400 V Ra	— at 110 V Rated value	А	2.5
- at 24 V Rated value A 160 - at 110 V Rated value A 160 - at 10 V Rated value A 160 - at 110 V Rated value A 160 - at 24 V Rated value A 160 - at 110 V Rated value A 160 - at 10 V Rated value A 160 - at 110 V Rated value A 160 - at 110 V Rated value A 160 - at 110 V Rated value A 160 - at 24 V Rated value A 160 - at 24 V Rated value KW 121 - at 400 V Rated value KW 104 - at Act 1 4400 V Rated value KW 104 - at Act 1 4400 V Rated value KW 104 - at Act 1 W 90 000 Operating power - -	Operating current with 2 current paths in series		
A the function functionA160- at 110 V Rated valueA160- at 110 V Rated valueA160- at 24 V Rated valueA160- at 24 V Rated valueA160Operating current with 3 current paths in series at 24 V Rated valueA160- at 24 V Rated valueA160- at 10 V Rated valueA160- at 110 V Rated valueA160- at 24 V Rated valueKW121- at AC-1 at 400 V Rated valueKW104- at 230 V at 60 °C Rated valueKW70- at 230 V at 60 °C Rated valueKW210- at 690 V Rated valueKW210	● at DC-1		
at DC-3 at DC-5A160- at 110 V Rated valueA160- at 24 V Rated valueA160Operating current with 3 current paths in series at 24 V Rated valueA160- at 24 V Rated valueA160- at 110 V Rated valueA160- at 24 V Rated valueKW121- at AC-1 at 400 V Rated valueKW104- at AC-4 at 400 V Rated valueKW90 000Operating power at 230 V at 60 °C Rated valueKW70- at 690 V rated valueKW210- at 690 V Rated valueKW210	— at 24 V Rated value	А	160
- at 110 V Rated valueA160- at 24 V Rated valueA160Operating current with 3 current paths in series • at DC-1 at 24 V Rated valueA160- at 24 V Rated valueA160- at 110 V Rated valueA160- at 24 V Rated valueA160- at 24 V Rated valueKW121- at 24 V Rated valueKW104- at AC-1 at 400 V Rated valueKW104- at AC-2 at 400 V Rated valueW90 000Operating power • at AC-1 at 230 V at 60 °C Rated valueKW70- at 690 V at 60 °C Rated valueKW210- at 690 V Rated valueKW210	— at 110 V Rated value	А	160
at 24 V Rated valueA160Operating current with 3 current paths in series • at DC-1 - at 24 V Rated valueA160 at 24 V Rated valueA160 at 110 V Rated valueA160 at 24 V Rated valueA160 at 24 V Rated valueA160 at 24 V Rated valueA160Operating power• at AC-1 at 400 V Rated valueKW121• at AC-2 at 400 V Rated valueKW104• at AC-4 at 400 V Rated valueW90 000Operating power• at AC-1 at 230 V at 60 °C Rated valueKW70- at 690 V Rated valueKW210- at 690 V Rated valueKW210	• at DC-3 at DC-5		
Operating current with 3 current paths in seriesA160- at 24 V Rated valueA160- at 110 V Rated valueA160- at 24 V Rated valueA160- at 24 V Rated valueA160- at 24 V Rated valueKW121- at 400 V Rated valuekW104• at AC-1 at 400 V Rated valueW90 000Operating powerV90 000• at AC-1• at AC-1• at AC-1• at AC-1• at AC-1 at 230 V at 60 °C Rated valueKW70- at 690 V at 60 °C Rated valueKW210- at 690 V Rated valueKW210	— at 110 V Rated value	А	160
• at DC-1 A 160 - at 24 V Rated value A 160 - at 110 V Rated value A 160 • at DC-3 at DC-5 - - - at 110 V Rated value A 160 - at 24 V Rated value KW 121 • at AC-1 at 400 V Rated value KW 104 • at AC-4 at 400 V Rated value W 90 000 Operating power - - • at AC-1 - - • at 690 V at 60 °C Rated value KW 70 - at 690 V Rated value KW 210 - at 690 V Rated value <t< td=""><td>— at 24 V Rated value</td><td>А</td><td>160</td></t<>	— at 24 V Rated value	А	160
at 24 V Rated valueA160 at 110 V Rated valueA160• at DC-3 at DC-5 at 110 V Rated valueA160 at 24 V Rated valueA160 at 24 V Rated valueKW121• at AC-1 at 400 V Rated valueKW104• at AC-2 at 400 V Rated valueW90 000• at AC-4 at 400 V Rated valueKW104• at AC-1• at AC-1• at AC-1• at AC-1• at AC-1• at AC-1 at 230 V at 60 °C Rated valueKW70- at 690 V at 60 °C Rated valueKW210- at 690 V Rated valueKW210	Operating current with 3 current paths in series		
- at 110 V Rated valueA160• at DC-3 at DC-5A160- at 110 V Rated valueA160- at 24 V Rated valueA160• at 24 V Rated valueKW121• at AC-1 at 400 V Rated valueKW104• at AC-2 at 400 V Rated valueW90 000• at AC-4 at 400 V Rated valueW90 000• at AC-1	• at DC-1		
• at DC-3 at DC-5 - A 160 - at 110 V Rated value A 160 - at 24 V Rated value A 160 - at 24 V Rated value KW 121 • at AC-1 at 400 V Rated value KW 104 • at AC-2 at 400 V Rated value W 90 000 • at AC-4 at 400 V Rated value W 90 000 • at AC-4 at 400 V Rated value W 90 000 • at AC-1 - - - at 230 V at 60 °C Rated value KW 70 - at 690 V Rated value KW 210	— at 24 V Rated value	А	160
- at 110 V Rated valueA160- at 24 V Rated valueA160Operating power at AC-1 at 400 V Rated valueKW121- at AC-2 at 400 V Rated valueKW104- at AC-4 at 400 V Rated valueW90 000Operating power at AC-1 at 230 V at 60 °C Rated valueKW70- at 690 V Rated valueKW210- at 690 V Rated valueKW210	— at 110 V Rated value	А	160
at 24 V Rated valueA160Operating power• at AC-1 at 400 V Rated valuekW121• at AC-2 at 400 V Rated valuekW104• at AC-2 at 400 V Rated valueW90 000• at AC-4 at 400 V Rated valueW90 000Operating power• at AC-1 at 230 V at 60 °C Rated valuekW70- at 690 V at 60 °C Rated valuekW210- at 690 V Rated valuekW210	• at DC-3 at DC-5		
Operating power-• at AC-1 at 400 V Rated valuekW121• at AC-2 at 400 V Rated valuekW104• at AC-4 at 400 V Rated valueW90 000• at AC-4 at 400 V Rated valueW90 000• at AC-1• at AC-1 at 230 V at 60 °C Rated valuekW70- at 690 V at 60 °C Rated valuekW210- at 690 V Rated valuekW210	— at 110 V Rated value	А	160
 at AC-1 at 400 V Rated value at AC-2 at 400 V Rated value bat AC-2 at 400 V Rated value W 90 000 Operating power at AC-1 - at 230 V at 60 °C Rated value KW XW 210 At AC-1 KW 210 	— at 24 V Rated value	А	160
 at AC-2 at 400 V Rated value at AC-4 at 400 V Rated value W 90 000 Operating power at AC-1 - at 230 V at 60 °C Rated value KW 70 - at 690 V at 60 °C Rated value KW 210 210 	Operating power		
• at AC-4 at 400 V Rated valueW90 000Operating power• at AC-1 at 230 V at 60 °C Rated valueKW70- at 690 V at 60 °C Rated valuekW210- at 690 V Rated valuekW210	• at AC-1 at 400 V Rated value	kW	121
Operating powerImage: Constraint of the c	• at AC-2 at 400 V Rated value	kW	104
• at AC-1 — at 230 V at 60 °C Rated value	• at AC-4 at 400 V Rated value	W	90 000
- at 230 V at 60 °C Rated value kW 70 - at 690 V at 60 °C Rated value kW 210 - at 690 V Rated value kW 210	Operating power		
at 690 V at 60 °C Rated valuekW210 at 690 V Rated valuekW210	• at AC-1		
- at 690 V Rated value kW 210	— at 230 V at 60 °C Rated value	kW	70
	— at 690 V at 60 °C Rated value	kW	210
• at AC-3	— at 690 V Rated value	kW	210
	• at AC-3		

— at 230 V Rated value	kW	61
— at 400 V Rated value	kW	104
— at 500 V Rated value	kW	132
— at 690 V Rated value	kW	167
Operating power for ≥ 200000 operating cycles at		
AC-4		
• at 400 V Rated value	kW	45
• at 690 V Rated value	kW	65
Operating frequency	-	
• at AC-3 maximum	1/h	750
Control circuit/ Control:		
Type of voltage of the control supply voltage		AC/DC
Control supply voltage with AC		
• at 50 Hz Rated value	V	200 277
• at 60 Hz Rated value	V	200 277
Control supply voltage for DC	-	
Rated value	V	200 277
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	280
Apparent holding power of the magnet coil with AC	V·A	4.4
Closing power of the magnet coil for DC	W	320
Holding power of the magnet coil for DC	W	2.8
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

	٨	0
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	A	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: 355 A
— with type of assignment 2 required		fuse gL/gG: 315 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	172
Width	mm	120
Depth	mm	170
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 		4 250 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 (20 16), 2x (18 14), 1x 12
		(· · · · , · · · · , · · · ·

ize of contactor				S6		
bient conditions:						
stallation altitude at h	eight above sea l	evel	m	2 000		
naximum	•					
mbient temperature						
 during operation 			°C	-25 +60		
 during storage 			°C	-55 +80		
rtificates/ approvals	5:					
General Product A	pproval				Functional	Declaration of
					Safety/Safety	Conformity
					of Machinery	
			6	2	Type Examination	
(\mathbf{m})	(SP	FAL	()	JL)		
	CSA	LIIL		UL		EG-Konf.
Test Ostficestes		Olulia a la a				
Test Certificates	0	Shipping A	pproval			
Type Test	Special Test	Shipping A	_	Å		
	Special Test Certificate	Shipping A	د ب		GL	
Type Test Certificates/Test		Shipping A	2 4 1	ĴÅ ₩¥ NV	GL	RMRS
Type Test Certificates/Test		AN BORRES	2 4 1	NV		RMRS
Type Test Certificates/Test		AN BORRES	2 4 1	NV		RMRS
<u>Type Test</u> <u>Certificates/Test</u> <u>Report</u>		AN BORRES	2 4 1	NV		RMRS
Certificates/Test Report	Certificate	ABS	2 4 1	NV		RMRS
Certificates/Test Report	<u>Certificate</u>	ABS	2 4 1	NV		RMRS
Certificates/Test Report	<u>Certificate</u>	ABS	2 4 1	NV		RMRS
Certificates/Test Report	<u>Certificate</u>	ABS	2 4 1	NV		RMRS

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