## **SIEMENS**

Data sheet 3RT1054-1NF36



CONTACTOR, 55KW/400V/AC-3 AC(40...60HZ)/DC OPERATION UC 96...127V AUXIL. CONTACTS 2NO+2NC 3-POLE, SIZE S6 WITH BOX TERMINALS ELECTRONIC OPERATING MECHANISM WITH PLC INTERFACE 24V DC 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)			
<ul> <li>of the contactor typical</li> </ul>		10 000 000	
<ul> <li>of the contactor with added electronics- compatible auxiliary switch block typical</li> </ul>		5 000 000	
<ul> <li>of the contactor with added auxiliary switch block typical</li> </ul>		10 000 000	
Thermal short-time current restricted to 10 s	Α	1 100	
Protection class IP			
• on the front		IP20	
• 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		
— at 400 V at ambient temperature 40 °C	Α	160
Rated value		
— up to 690 V at ambient temperature 40 °C	Α	160
Rated value		
— up to 690 V at ambient temperature 60 $^{\circ}\text{C}$	Α	140
Rated value		
• at AC-3		
— at 400 V Rated value	Α	115
— at 690 V Rated value	Α	115
● at AC-4 at 400 V Rated value	Α	97
Operating current with 1 current path		
● at DC-1		
— at 24 V Rated value	Α	160
— at 110 V Rated value	Α	18
• at DC-3 at DC-5		
— at 24 V Rated value	Α	160
— at 110 V Rated value	Α	2.5
Operating current with 2 current paths in series		
• at DC-1		
— at 24 V Rated value	Α	160
— at 110 V Rated value	Α	160
• at DC-3 at DC-5		
— at 110 V Rated value	Α	160
— at 24 V Rated value	Α	160
Operating current with 3 current paths in series		
• at DC-1		
— at 24 V Rated value	Α	160
— at 110 V Rated value	Α	160
• at DC-3 at DC-5		
— at 110 V Rated value	Α	160
— at 24 V Rated value	Α	160
Operating power		
• at AC-1 at 400 V Rated value	kW	92
• at AC-2 at 400 V Rated value	kW	64
• at AC-4 at 400 V Rated value	W	55 000
Operating power		
• at AC-1		
— at 230 V at 60 °C Rated value	kW	53
— at 690 V at 60 °C Rated value	kW	159
— at 690 V Rated value	kW	159
• at AC-3		

— at 230 V Rated value	kW	37
— at 400 V Rated value	kW	64
— at 500 V Rated value	kW	81
— at 690 V Rated value	kW	113
Operating power for ≥ 200000 operating cycles at		
AC-4		
● at 400 V Rated value	kW	29
● at 690 V Rated value	kW	48
Operating frequency		
• at AC-3 maximum	1/h	1 000

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	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		
<ul><li>with closing power of the coil</li></ul>		0.8
<ul><li>with the holding power of the coil</li></ul>		0.4

Auxiliary circuit:		
Number of NC contacts		
<ul> <li>for auxiliary contacts</li> </ul>		
— instantaneous contact		2
Number of NO contacts		
<ul> <li>for auxiliary contacts</li> </ul>		
— instantaneous contact		2
Operating current at AC-15		
• at 230 V Rated value	Α	6

• at 400 V Rated value     Operating current     • at DC-12 at 220 V Rated value     • at DC-12     — at 60 V Rated value     — at 110 V Rated value     — at 110 V Rated value     — at 110 V Rated value     — at 24 V Rated value     — at 60 V Rated value     — at 110 V Rated value     — at 1	Operating current  • at DC-12 at 220 V Rated value • at DC-13 at 220 V Rated value  Operating current  • at DC-12  — at 60 V Rated value  — at 110 V Rated value	A A A	1 0.3
at DC-12 at 220 V Rated value  at DC-13 at 220 V Rated value  A 0.3  Operating current  at DC-12  — at 60 V Rated value — at 110 V Rated value — at 110 V Rated value — at 60 V Rated value — at 110 V Rated value — A 10  — at 110 V Rated value — A 1  UL/CSA ratings:  Contact rating of the auxiliary contacts acc. to UL  Short-circuit: — with type of assignment 1 required — with type of assignment 2 required — with type of assignment 2 required — for short-circuit protection of the auxiliary switch required — for short-circuit protection of the auxiliary switch required — Side-by-side mounting/ dimensions:  Mounting type — Side-by-side mounting  Height — mm — 172  Width — 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	<ul> <li>at DC-12 at 220 V Rated value</li> <li>at DC-13 at 220 V Rated value</li> </ul> Operating current <ul> <li>at DC-12</li> <li>at 60 V Rated value</li> <li>at 110 V Rated value</li> </ul>	A A A	6
at DC-13 at 220 V Rated value  Operating current  at DC-12  — at 60 V Rated value  — at 110 V Rated value  — at 24 V Rated value  — at 60 V Rated value  — at 60 V Rated value  — at 10 V Rated value  — at 60 V Rated value  — at 110 V Rated value  — at 110 V Rated value  — at 110 V Rated value  — A  1  ILICSA ratings:  Contact rating of the auxiliary contacts acc. to UL  Short-circuit:  Design of the fuse link  • for short-circuit protection of the main circuit  — with type of assignment 1 required  — with type of assignment 2 required  • for short-circuit protection of the auxiliary switch required  Installation/ mounting/ dimensions:  Mounting type  • Side-by-side mounting  Height  Width  mm  170  Required spacing  • for grounded parts  — at the side  Type of electrical connection  • for main current circuit  First DC-13  A 6  A 6  A 10  A 10  A 2  A 11  UL/CSA ratings:  Contact rating of the auxiliary switch required  fuse gL/gG: 355 A  fuse gL/gG: 315 A  fuse gL/gG: 10 A  required  Pyes  Installation/ mounting/ dimensions:  mm  172  Width  mm  170  Connections/ Terminals:  Type of electrical connection  • for main current circuit  Screw-type terminals	<ul> <li>at DC-13 at 220 V Rated value</li> <li>Operating current</li> <li>at DC-12</li> <li>at 60 V Rated value</li> <li>at 110 V Rated value</li> </ul>	A A A	6
Operating current  • at DC-12  — at 60 V Rated value — at 110 V Rated value A 3  • at DC-13 — at 24 V Rated value A 10 — at 60 V Rated value A 2 — at 110 V Rated value A 1  UL/CSA ratings:  Contact rating of the auxiliary contacts acc. to UL  Short-circuit:  Design of the fuse link • for short-circuit protection of the main circuit — with type of assignment 1 required — with type of assignment 2 required — with type of assignment 2 required fuse gL/gG: 355 A  • for short-circuit protection of the auxiliary switch required  Installation/ mounting/ dimensions:  Wounting type  • Side-by-side mounting  Height  mm 172  Width 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	Operating current  ■ at DC-12  — at 60 V Rated value  — at 110 V Rated value	A A	6
at DC-12 — at 60 V Rated value — at 110 V Rated value A at DC-13 — at 24 V Rated value A at 60 V Rated value A A at 10 — at 60 V Rated value A A at 10 — at 60 V Rated value A A at 110 V Rated value A A at 10  A600 / Q600   Short-circuit:  Design of the fuse link  • for short-circuit protection of the main circuit — with type of assignment 1 required — with type of assignment 2 required • fuse gL/gG: 355 A fuse gL/gG: 315 A fuse gL/gG: 10 A  Installation/ mounting/ dimensions:  Mounting type  • Side-by-side mounting Height mm 172  Width mm 170  Required spacing • for grounded parts — at the side mm 10  Connections/ Terminals:  Type of electrical connection • for main current circuit  A  B  B  Connections/ Terminals:  Type of electrical connection • for main current circuit  A  B  Contact rating of the auxiliary A  B  Contact rating of the auxiliary A  B  Connections/ Terminals:  Type of electrical connection • for main current circuit	<ul><li>at DC-12</li><li>— at 60 V Rated value</li><li>— at 110 V Rated value</li></ul>	A	
- at 60 V Rated value	<ul><li>— at 60 V Rated value</li><li>— at 110 V Rated value</li></ul>	A	
- at 110 V Rated value  • at DC-13  - at 24 V Rated value  - at 60 V Rated value  - at 110 V Rated value  A 1  UL/CSA ratings:  Contact rating of the auxiliary contacts acc. to UL  Short-circuit:  Design of the fuse link  • for short-circuit protection of the main circuit  - with type of assignment 1 required  - with type of assignment 2 required  • for short-circuit protection of the auxiliary switch required  • for short-circuit protection of the auxiliary switch required  • for short-circuit protection of the auxiliary switch required  • for short-circuit protection of the auxiliary switch required  • for short-circuit protection of the auxiliary switch required  • for short-circuit protection of the auxiliary switch required  • for short-circuit protection of the auxiliary switch required  • for griden munting dimensions:  Mounting type  • Side-by-side mounting  • Side-by-side mounting  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	— at 110 V Rated value	A	
at DC-13  — at 24 V Rated value  — at 60 V Rated value  — at 110 V Rated value  A 1  UL/CSA ratings:  Contact rating of the auxiliary contacts acc. to UL  Short-circuit:  Design of the fuse link  • for short-circuit protection of the main circuit  — with type of assignment 1 required — with type of assignment 2 required • for short-circuit protection of the auxiliary switch required  • for short-circuit protection of the auxiliary switch required  • for short-circuit protection of the auxiliary switch required  • for short-circuit protection of the auxiliary switch required  Installation/ mounting/ dimensions:  Mounting type • Side-by-side mounting  Height  mm 172  Width  pepth  mm 170  Required spacing • for grounded parts — at the side  Connections/ Terminals:  Type of electrical connection • for main current circuit  screw-type terminals			3
- at 24 V Rated value	• at DC-13	A	
— at 60 V Rated value — at 110 V Rated value A 1  UL/CSA ratings:  Contact rating of the auxiliary contacts acc. to UL  Short-circuit:  Design of the fuse link  • for short-circuit protection of the main circuit — with type of assignment 1 required — with type of assignment 2 required • fuse gL/gG: 315 A • for short-circuit protection of the auxiliary switch required  Installation/ mounting/ dimensions:  Mounting type • Side-by-side mounting  Height mm 172  Width mm 170  Required spacing • for grounded parts — at the side  Connections/ Terminals:  Type of electrical connection • for main current circuit  A600 / Q600  A600  A600 / Q600  A600 / Q600		Α	
— at 110 V Rated value  DUL/CSA ratings:  Contact rating of the auxiliary contacts acc. to UL  Short-circuit:  Design of the fuse link  • for short-circuit protection of the main circuit  — with type of assignment 1 required — with type of assignment 2 required  • for short-circuit protection of the auxiliary switch required  • for short-circuit protection of the auxiliary switch required  Installation/ mounting/ dimensions:  Mounting type  • Side-by-side mounting  Height  mm  172  Width  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	— at 24 V Rated value		10
UL/CSA ratings:  Contact rating of the auxiliary contacts acc. to UL  Short-circuit:  Design of the fuse link  • for short-circuit protection of the main circuit  — with type of assignment 1 required  — with type of assignment 2 required  • for short-circuit protection of the auxiliary switch required  Installation/ mounting/ dimensions:  Mounting type  • Side-by-side mounting  Height  mm  172  Width  Depth  Required spacing  • for grounded parts — at the side  Connections/ Terminals:  Type of electrical connection • for main current circuit  screw-type terminals  A600 / Q600  A600  A600 / Q600	— at 60 V Rated value	Α	2
Contact rating of the auxiliary contacts acc. to UL  Short-circuit:  Design of the fuse link  • for short-circuit protection of the main circuit  — with type of assignment 1 required — with type of assignment 2 required  • for short-circuit protection of the auxiliary switch required  • for short-circuit protection of the auxiliary switch required  Installation/ mounting/ dimensions:  Mounting type  • Side-by-side mounting  Height  mm  172  Width  mm  120  Depth  Required spacing  • for grounded parts — at the side  Connections/ Terminals:  Type of electrical connection • for main current circuit  A600 / Q600  A600  A600 / Q600  A600 / Q600  A600 / Q600  A600 / Q600  Fuse gL/gG: 355 A  fuse gL/gG: 315 A  fuse gL/gG: 10 A  fuse gL/gG: 355 A  fuse gL/gG: 10 A  fuse	— at 110 V Rated value	Α	1
Contact rating of the auxiliary contacts acc. to UL  Short-circuit:  Design of the fuse link  • for short-circuit protection of the main circuit  — with type of assignment 1 required — with type of assignment 2 required  • for short-circuit protection of the auxiliary switch required  • for short-circuit protection of the auxiliary switch required  Installation/ mounting/ dimensions:  Mounting type  • Side-by-side mounting  Height  mm  172  Width  mm  120  Depth  Required spacing  • for grounded parts — at the side  Connections/ Terminals:  Type of electrical connection • for main current circuit  A600 / Q600  A600  A600 / Q600  A600 / Q600  A600 / Q600  A600 / Q600  Fuse gL/gG: 355 A  fuse gL/gG: 315 A  fuse gL/gG: 10 A  fuse gL/gG: 355 A  fuse gL/gG: 10 A  fuse	UL/CSA ratings:		
Design of the fuse link  • for short-circuit protection of the main circuit  — with type of assignment 1 required  — with type of assignment 2 required  • for short-circuit protection of the auxiliary switch required  Installation/ mounting/ dimensions:  Mounting type  • Side-by-side mounting  Height  mm  172  Width  mm  170  Required spacing  • for grounded parts  — at the side  Type of electrical connection  • for main current circuit  • fuse gL/gG: 355 A  fuse gL/gG: 315 A  fuse gL/gG: 315 A  fuse gL/gG: 310 A  required grides glassed for screw fixing  per screw fixing  Yes  Hight  mm  172  Width  mm  170  Required spacing  • for grounded parts  — at the side  mm  10			A600 / Q600
Design of the fuse link  • for short-circuit protection of the main circuit  — with type of assignment 1 required  — with type of assignment 2 required  • for short-circuit protection of the auxiliary switch required  Installation/ mounting/ dimensions:  Mounting type  • Side-by-side mounting  Height  mm  172  Width  mm  170  Required spacing  • for grounded parts  — at the side  Type of electrical connection  • for main current circuit  • fuse gL/gG: 355 A  fuse gL/gG: 315 A  fuse gL/gG: 315 A  fuse gL/gG: 310 A  required grides glassed for screw fixing  per screw fixing  Yes  Hight  mm  172  Width  mm  170  Required spacing  • for grounded parts  — at the side  mm  10	Charat airea it.		
• for short-circuit protection of the main circuit     — with type of assignment 1 required     — with type of assignment 2 required     • for short-circuit protection of the auxiliary switch required  Installation/ mounting/ dimensions:  Mounting type     • Side-by-side mounting  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      screwifty and a series of the sequence of			
<ul> <li>— with type of assignment 1 required</li> <li>— with type of assignment 2 required</li> <li>● for short-circuit protection of the auxiliary switch required</li> <li>Installation/ mounting/ dimensions:</li> <li>Mounting type</li> <li>● Side-by-side mounting</li> <li>Height</li> <li>Midth</li> <li>Depth</li> <li>Required spacing</li> <li>● for grounded parts</li> <li>— at the side</li> <li>Type of electrical connection</li> <li>● for main current circuit</li> <li>fuse gL/gG: 315 A</li> <li>fuse gL/gG: 10 A</li> </ul>	•		
— with type of assignment 2 required  • for short-circuit protection of the auxiliary switch required  Installation/ mounting/ dimensions:  Mounting type  • Side-by-side mounting  Height  Width  mm  172  Width  Depth  Required spacing  • for grounded parts  — at the side  Type of electrical connection  • for main current circuit  fuse gL/gG: 315 A  fuse gL/gG: 10 A  fuse gL/gG: 315 A  fuse gL/gG: 10 A  fu	·		fuse at /aG: 355 A
for short-circuit protection of the auxiliary switch required  Installation/ mounting/ dimensions:  Mounting type			
Installation/ mounting/ dimensions:  Mounting type  Side-by-side mounting  Height  Midth  Mm  Midth  Mi			
Installation/ mounting/ dimensions:  Mounting type  Side-by-side mounting  Height  Midth  Mm  Mm  Mm  Mm  Mm  Mm  Mm  Mm  Mm  M			iuse gl/gG. 10 A
Mounting type       screw fixing         ◆ Side-by-side mounting       Yes         Height       mm       172         Width       mm       120         Depth       mm       170         Required spacing       For grounded parts       mm       10         Connections/ Terminals:       Type of electrical connection       screw-type terminals	·		
● Side-by-side mounting  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			annu fising
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			
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			
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			
Required spacing  • for grounded parts — at the side mm 10  Connections/ Terminals:  Type of electrical connection  • for main current circuit screw-type terminals			
for grounded parts     — at the side     mm 10  Connections/ Terminals:  Type of electrical connection     • for main current circuit  screw-type terminals		111111	170
— at the side mm 10  Connections/ Terminals:  Type of electrical connection  • for main current circuit screw-type terminals			
Connections/ Terminals:  Type of electrical connection  • for main current circuit screw-type terminals		mm	10
Type of electrical connection  • for main current circuit screw-type terminals	— at the side	111111	10
• for main current circuit screw-type terminals	Connections/ Terminals:		
	Type of electrical connection		
• for auxiliary and control current circuit screw-type terminals	for main current circuit		screw-type terminals
- 101 dualitary and control current circuit	<ul> <li>for auxiliary and control current circuit</li> </ul>		screw-type terminals
Type of connectable conductor cross-section	Type of connectable conductor cross-section		
• for main contacts	• for main contacts		
— stranded max. 2x 70 mm²	— stranded		max. 2x 70 mm²
— finely stranded with core end processing max. 1x 50, 1x 70 mm²	— finely stranded with core end processing		max. 1x 50, 1x 70 mm²
— finely stranded without core end max. 1x 50, 1x 70 mm²	— finely stranded without core end		max. 1x 50, 1x 70 mm²
	processing		
processing	<ul> <li>for AWG conductors for main contacts</li> </ul>		2x 1/0

• for auxiliary contacts

- solid

- finely stranded with core end processing

• for AWG conductors for auxiliary contacts

2x (0.5 ... 1.5 mm²), 2x (0.75 ... 2.5 mm²), max. 2x (0.75 ... 4 mm²)

2x (0.5 ... 1.5 mm²), 2x (0.75 ... 2.5 mm²)

2x (20 ... 16), 2x (18 ... 14), 1x 12

Mechanical data:

Size of contactor S6

Ambient conditions:

Installation altitude at height above sea level m 2 000

Ambient temperature

maximum

• during operation °C

• during storage °C -55 ... +80

Certificates/ approvals:

General Product Approval Functional Declaration of Test
Safety/Safety Conformity Certificates







of Machinery

Type Examination

-25 ... +60



Special Test Certificate

Test Certificates **Shipping Approval** 

other

Type Test
Certificates/Test
Report







GL



other

other

Environmental Confirmations

Confirmation

## Further information

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

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

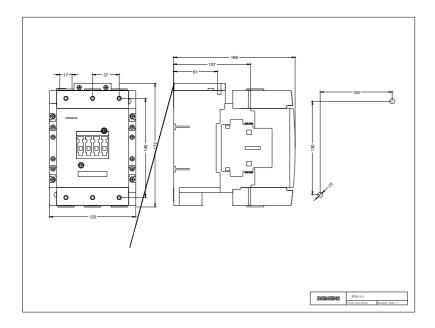
Industry Mall (Online ordering system)

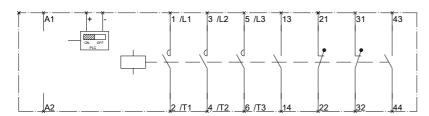
http://www.siemens.com/industrymall

Cax online generator

http://support.automation.siemens.com/WW/CAXorder/default.aspx?lang=en&mlfb=3RT10541NF36

Image database (product images, 2D dimension drawings, 3D models, device circuit diagrams, EPLAN macros, ...) <a href="http://www.automation.siemens.com/bilddb/cax\_de.aspx?mlfb=3RT10541NF36&lang=en">http://www.automation.siemens.com/bilddb/cax\_de.aspx?mlfb=3RT10541NF36&lang=en</a>





last modified: 11.03.2015