SIEMENS

Data sheet 3RT1024-1AL20



CONTACTOR, AC-3 5,5 KW/400 V, AC 230 V, 50/60 HZ, 3-POLE, SIZE S0, SCREW CONNECTION $\,$

Figure similar

product brand name	SIRIUS
Product designation	power contactor

General technical data:	
Degree of pollution	3
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
Protection class IP	
• on the front	IP20
of the terminal	IP20
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 $^{\circ}\text{C}$ Rated value	40 A

— up to 690 V at ambient temperature 40 °C Rated value	40 A
— up to 690 V at ambient temperature 60 °C Rated value	35 A
• at AC-3	
— at 400 V Rated value	12 A
at AC-4 at 400 V Rated value	12.5 A
Operating current with 1 current path	
• at DC-1	
— at 24 V Rated value	35 A
— at 110 V Rated value	4.5 A
• at DC-3 at DC-5	
— at 24 V Rated value	20 A
— at 110 V Rated value	2.5 A
Operating current with 2 current paths in series	
• at DC-1	
— at 24 V Rated value	35 A
— at 110 V Rated value	35 A
• at DC-3 at DC-5	
— at 110 V Rated value	15 A
— at 24 V Rated value	35 A
Operating current with 3 current paths in series	
• at DC-1	
— at 24 V Rated value	35 A
— at 110 V Rated value	35 A
• at DC-3 at DC-5	
— at 110 V Rated value	35 A
— at 24 V Rated value	35 A
Active power loss at AC-3 at 400 V for rated value of	0.5 W
the operating current per conductor	
Control circuit/ Control:	
Type of voltage of the control supply voltage	AC
Control supply voltage with AC	
• at 50 Hz Rated value	230 V
• at 60 Hz Rated value	230 V
Rated value	50 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	0.85 1.1

Auxiliary circuit:	
Number of NC contacts	
 for auxiliary contacts 	
 instantaneous contact 	0
Number of NO contacts	
for auxiliary contacts	
 instantaneous contact 	0
Operating current at AC-15	
• at 230 V Rated value	6 A
● at 400 V Rated value	3 A
Contact reliability of the auxiliary contacts	1 faulty switching per 100 million (17 V, 1 mA)

Short-circuit:	
	Design of the fuse link

required

• for short-circuit protection of the main circuit

— finely stranded with core end processing

with type of assignment 1 required
 with type of assignment 2 required
 fuse gL/gG: 63 A
 fuse gL/gG: 25 A
 fuse gL/gG: 10 A

Installation/ mounting/ dimensions:

Installation/ mounting/ dimensions:	
Mounting type	screw and snap-on mounting onto 35 mm standard mounting rail according to DIN EN 50022
 Side-by-side mounting 	Yes
Height	85 mm
Width	45 mm
Depth	91 mm
Required spacing	
• for grounded parts	
— at the side	6 mm

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 main contacts	
— solid	2x (1 2.5 mm²), 2x (2.5 6 mm²), max. 2x 10 mm²
— single or multi-stranded	2x (1 2,5 mm²), 2x (2,5 6 mm²), max. 2x 10 mm²
 finely stranded with core end processing 	2x (1 2.5 mm²), 2x (2.5 6 mm²)
 for AWG conductors for main contacts 	2x (16 12), 2x (14 10), 1x 8
 for auxiliary contacts 	
— solid	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)

• for AWG conductors for auxiliary contacts

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

Mechanical data:

Size of contactor S0

Ambient conditions:

Installation altitude at height above sea level 2 000 m maximum

Ambient temperature

• during operation -25 ... +60 °C

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











LRS

Shipping Approval

other





Environmental Confirmations

Confirmation

other

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=3RT10241AL20

Service&Support (Manuals, Certificates, Characteristics, FAQs,...)

https://support.industry.siemens.com/cs/ww/en/ps/3RT10241AL20

Image database (product images, 2D dimension drawings, 3D models, device circuit diagrams, EPLAN macros, ...) http://www.automation.siemens.com/bilddb/cax_de.aspx?mlfb=3RT10241AL20&lang=en







