# **Control Parts**

# **SIEMENS**

Call to Order 717-209-7100

Data sheet 3RT1016-1AB02

CONTACTOR, AC-3 4 KW/400 V, 1 NC, AC 24 V, 50/60 HZ, 3-POLE, SIZE S00, SCREW CONNECTION



Figure similar

Product brand name	SIRIUS	
Product designation	power contactor	
General technical data		
Size of contactor	S00	
Degree of pollution	3	
Protection class IP		
• on the front	IP20	
• of the terminal	IP20	
Mechanical service life (switching cycles)		
<ul> <li>of contactor typical</li> </ul>	30 000 000	
<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	
Ambient conditions		
Ambient temperature		
<ul><li>during operation</li></ul>	-25 +60 °C	

Main circuit		
Number of poles for main current circuit	3	
Number of NO contacts for main contacts	3	
Number of NC contacts for main contacts	0	
Operating current		
● at AC-1 at 400 V		
— at ambient temperature 40 °C rated value	22 A	
• at AC-1		
<ul> <li>— up to 690 V at ambient temperature 40 °C rated value</li> </ul>	22 A	
<ul> <li>up to 690 V at ambient temperature 60 °C rated value</li> </ul>	20 A	
• at AC-3		
— at 400 V rated value	9 A	
• at AC-4 at 400 V rated value	8.5 A	
Operating current		
• at 1 current path at DC-1		
— at 24 V rated value	20 A	
— at 110 V rated value	2.1 A	
• with 2 current paths in series at DC-1		
— at 24 V rated value	20 A	
— at 110 V rated value	12 A	
• with 3 current paths in series at DC-1		
— at 24 V rated value	20 A	
— at 110 V rated value	20 A	
Operating current		
• at 1 current path at DC-3 at DC-5		
— at 24 V rated value	20 A	
— at 110 V rated value	0.15 A	
• with 2 current paths in series at DC-3 at DC-5		
— at 24 V rated value	20 A	
— at 110 V rated value	0.35 A	
• with 3 current paths in series at DC-3 at DC-5		
— at 24 V rated value	20 A	
— at 110 V rated value	20 A	
Operating power		
● at AC-1		
— at 400 V rated value	13 kW	
• at AC-2 at 400 V rated value	4 kW	
● at AC-3		
— at 400 V rated value	4 kW	
— at 500 V rated value	4.5 kW	

— at 690 V rated value	5.5 kW
Power loss [W] at AC-3 at 400 V for rated value of	0.7 W
the operating current per conductor	
Control circuit/ Control	
Type of voltage of the control supply voltage	AC
Control supply voltage at AC	
● at 50 Hz rated value	24 V
● at 60 Hz rated value	24 V
Operating range factor control supply voltage rated	
value of magnet coil at AC	
● at 50 Hz	0.8 1.1
● at 60 Hz	0.85 1.1
Apparent pick-up power of magnet coil at AC	27 V·A
Inductive power factor with closing power of the coil	0.8
Apparent holding power of magnet coil at AC	4.4 V·A
Inductive power factor with the holding power of the	0.27
coil	
Auxiliary circuit	
Number of NC contacts	
<ul> <li>for auxiliary contacts</li> </ul>	
— instantaneous contact	1
Number of NO contacts	
<ul> <li>for auxiliary contacts</li> </ul>	
— instantaneous contact	0
Operating current at AC-12 maximum	10 A
Operating current at AC-15	
• at 230 V rated value	6 A
• at 400 V rated value	3 A
Operating current at DC-12	
● at 60 V rated value	6 A
● at 110 V rated value	3 A
• at 220 V rated value	1 A
Operating current at DC-13	
● at 24 V rated value	10 A
• at 60 V rated value	2 A
• at 110 V rated value	1 A
at 220 V rated value	0.3 A
Contact reliability of auxiliary contacts	1 faulty switching per 100 million (17 V, 1 mA)
•	

### Short-circuit protection

#### Design of the fuse link

• for short-circuit protection of the main circuit

<ul> <li>— with type of coordination 1 required</li> </ul>	fuse gL/gG: 35 A	
<ul> <li>— with type of assignment 2 required</li> </ul>	fuse gL/gG: 20 A	
• for short-circuit protection of the auxiliary switch	fuse gL/gG: 10 A	
required		

Installation/ mounting/ dimensions			
Mounting type	screw and snap-on mounting onto 35 mm standard mounting rail		
	according to DIN EN 50022		
<ul> <li>Side-by-side mounting</li> </ul>	Yes		
Height	57.5 mm		
Width	45 mm		
Depth	72 mm		
Required spacing			
<ul> <li>for grounded parts</li> </ul>			
— at the side	6 mm		

Connections/Terminals	
Type of electrical connection	
• for main current circuit	screw-type terminals
<ul> <li>for auxiliary and control current circuit</li> </ul>	screw-type terminals
Type of connectable conductor cross-sections	
• for main contacts	
— solid	2x (0.5 1.5 mm²), 2x (0.75 2.5 mm²), max. 2x (0.75 4 mm²)
— single or multi-stranded	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)
<ul> <li>at AWG conductors for main contacts</li> </ul>	2x (20 16), 2x (18 14), 1x 12
Type of connectable conductor cross-sections	
<ul> <li>for auxiliary contacts</li> </ul>	
— solid	2x (0.5 1.5 mm²), 2x (0.75 2.5 mm²), max. 2x (0.75 4 mm²)
<ul> <li>finely stranded with core end processing</li> </ul>	2x (0.5 1.5 mm²), 2x (0.75 2.5 mm²)
<ul> <li>at AWG conductors for auxiliary contacts</li> </ul>	2x (20 16), 2x (18 14), 1x 12

## Certificates/approvals

#### **General Product Approval**

Functional Safety/Safety of Machinery Declaration of Conformity









Type Examination
Certificate



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Marine / Shipping

Special Test Certificate











Marine / Shipping

other





Environmental Confirmations

Confirmation

Miscellaneous

#### Further information

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

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

Industry Mall (Online ordering system)

https://mall.industry.siemens.com/mall/en/en/Catalog/product?mlfb=3RT1016-1AB02

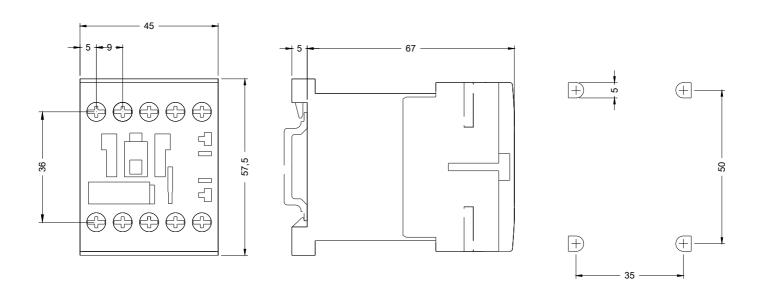
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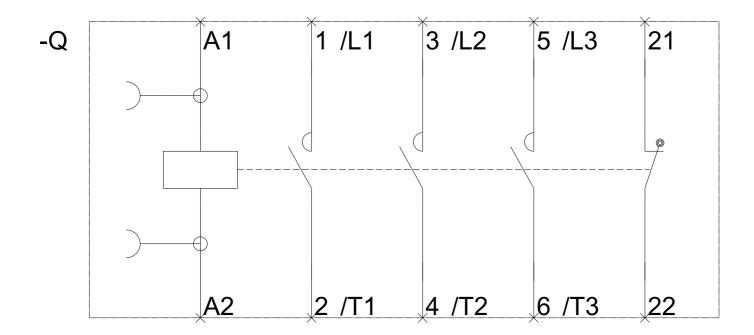
 $\underline{\text{http://support.automation.siemens.com/WW/CAXorder/default.aspx?lang=en\&mlfb=3RT1016-1AB02}$ 

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

https://support.industry.siemens.com/cs/ww/en/ps/3RT1016-1AB02

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=3RT1016-1AB02&lang=en">http://www.automation.siemens.com/bilddb/cax\_de.aspx?mlfb=3RT1016-1AB02&lang=en</a>





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