# **SIEMENS**

Product data sheet 3RT1016-1AK61



CONTACTOR, AC-3 4 KW/400 V, 1 NO, AC 110V 50HZ/ 120V 60HZ, 3-POLE, SIZE S00, SCREW CONNECTION

General technical data:			
product brand name		SIRIUS	
Size of contactor		S00	
Protection class IP / on the front		IP20	
Degree of pollution		3	
Installation altitude / at height above sea level / maximum	m	2,000	
Ambient temperature			
during operation	°C	-25 +60	
Mechanical service life (switching cycles)			
of the contactor / typical		30,000,000	
of the contactor with added auxiliary switch block / typical		10,000,000	
<ul> <li>of the contactor with added electronics-compatible auxiliary switch block / typical</li> </ul>		5,000,000	

Main circuit:		
Number of NC contacts / for main contacts		0
Number of NO contacts / for main contacts		3
Operating current		
• at AC-1 / up to 690 V		
• at ambient temperature 40 °C / Rated value	Α	22
• at ambient temperature 60 °C / Rated value	Α	20

• at AC-3 / at 400 V / Rated value	Α	9
• at AC-4 / at 400 V / Rated value	Α	8.5
Operating current		
• with 1 current path / at DC-1		
• at 24 V / Rated value	Α	20
• at 110 V / Rated value	Α	2.1
• with 2 current paths in series / at DC-1		
• at 24 V / Rated value	Α	20
• at 110 V / Rated value	Α	12
• with 3 current paths in series / at DC-1		
• at 24 V / Rated value	Α	20
• at 110 V / Rated value	Α	20
Operating current		
• with 1 current path / at DC-3 / at DC-5		
• at 24 V / Rated value	Α	20
• at 110 V / Rated value	Α	0.15
• with 2 current paths in series / at DC-3 / at DC-5		
• at 24 V / Rated value	Α	20
• at 110 V / Rated value	Α	0.35
• with 3 current paths in series / at DC-3 / at DC-5		
• at 24 V / Rated value	Α	20
• at 110 V / Rated value	Α	20
Operating power		
• at AC-1		
• at 400 V / Rated value	kW	13
• at AC-2		
• at 400 V / Rated value	kW	4
• at AC-3		
• at 400 V / Rated value	kW	4
• at 500 V / Rated value	kW	4.5
• at 690 V / Rated value	kW	5.5
• at AC-4		
• at 400 V / Rated value	W	4,000
Active power loss / at AC-3 / at 400 V / for rated value of the operating current / per conductor	W	0.7
Control circuit/ Control:		
Type of voltage / of the control supply voltage		AC
Control supply voltage		
• with AC / at 50 Hz / Rated value	V	110

with AC / at 60 Hz / Rated value	V	120
Operating range factor control supply voltage rated value / of the magnet coil		
• with AC / at 50 Hz		0.85 1.1
• with AC / at 60 Hz		0.8 1.1
Apparent pick-up power / of the magnet coil / with AC	V-A	31.7
Apparent holding power / of the magnet coil / with AC	V-A	5.1
Inductive power factor		
with closing power of the coil		0.77
with the holding power of the coil		0.27

Auxiliary circuit:				
Contact reliability / of the auxiliary contacts		1 faulty switching per 100 million (17 V, 1 mA)		
Number of NC contacts / for auxiliary contacts / instantaneous contact		0		
Number of NO contacts / for auxiliary contacts / instantaneous contact		1		
Operating current				
• at AC-12 / maximum	Α	10		
• at AC-15				
at 230 V / Rated value	Α	6		
at 400 V / Rated value	Α	3		
Operating current / at DC-12				
• at 60 V / Rated value	Α	6		
• at 110 V / Rated value	Α	3		
• at 220 V / Rated value	Α	1		
Operating current / at DC-13				
• at 24 V / Rated value	Α	10		
• at 60 V / Rated value	А	2		
• at 110 V / Rated value	А	1		
• at 220 V / Rated value	А	0.3		

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

Installation/ mounting/ dimensions:	
Mounting type	screw and snap-on mounting onto 35 mm standard mounting rail according to DIN EN 50022

Mounting type / Side-by-side mounting		Yes
Width	mm	45
Height	mm	57.5
Depth	mm	72
Spacing required / for grounded parts	mm	6

Commentional (committee)	
Connections/ terminals:	
Design of the 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 (0.5 1.5 mm²), 2x (0.75 2.5 mm²), max. 2x (0.75 4 mm²)
• finely stranded	
<ul> <li>with core end processing</li> </ul>	2x (0.5 1.5 mm²), 2x (0.75 2.5 mm²)
• for AWG conductors / for main contacts	2x (20 16), 2x (18 14), 1x 12
• 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

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**General Product Approval** 

Functional Safety / Safety of Machinery

Declaration of Conformity



EHC





Type Examination



# **Test Certificates**

Special Test Certificate

# **Shipping Approval**













# **Shipping Approval**

other



Confirmation

other

Environmental Confirmations

# 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

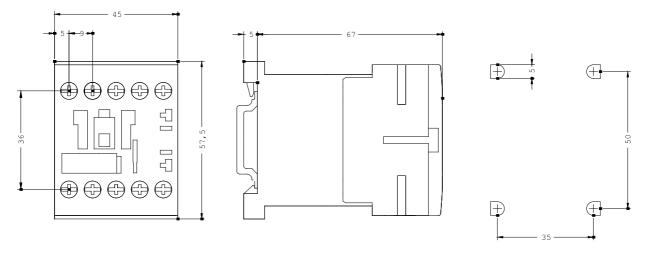
http://www.siemens.com/cax

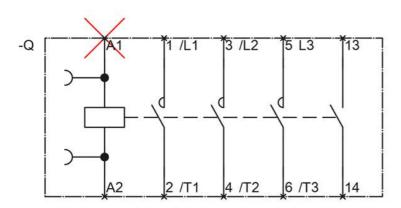
#### Service&Support (Manuals, Certificates, Characteristics, FAQs,...)

http://support.automation.siemens.com/WW/view/en/3RT1016-1AK61/all

 $Image\ database\ (product\ images,\ 2D\ dimension\ drawings,\ 3D\ models,\ device\ circuit\ diagrams,\ ...)$ 

http://www.automation.siemens.com/bilddb/cax\_en.aspx?mlfb=3RT1016-1AK61





last change: Dec 6, 2014