

**3RT2017-1AP02** CONTACTOR,AC3:5,5KW 1NC AC230V 50/60HZ

Technical / CAx data

☒ Technical Data ☐ CAx data

As of 2011-11-18



General technical data:		
Product brand name	SIRIUS	
Product designation	3RT2 contactor	
Size of the contactor	S00	
Protection class IP / on the front	IP20	
Degree of pollution	3	
Installation altitude / at a height over sea level / maximum	m	2000
Ambient temperature		
• during storage	°C	-55...80
• during operating phase	°C	-25...60
• during transport	°C	-55...80
Resistance against shock	9.8g / 5 ms and 5.9g / 10 ms	
Impulse voltage resistance / rated value	kV	6
Insulation voltage / rated value	V	690
Resistive loss		
• per conductor / typical	W	1.2
Apparent power loss / of the magnet coil / for AC / typical	V·A	5.7
Item designation		
• according to DIN 40719 extendable after IEC 204-2 / according to IEC 750	K	
• according to DIN EN 61346-2	Q	
Mechanical operating cycles as operating time		
• of the contactor / typical	30000000	
• of the contactor with added auxiliary switch block / typical	10000000	

- of the contactor with added electronics-compatible auxiliary switch block / typical

10000000

**Main circuit:**

<b>Number of poles / for main current circuit</b>		3
<b>Number of NC contacts / for main contacts</b>		0
<b>Number of NO contacts / for main contacts</b>		3
<b>Operating voltage / at AC-3 / rated value</b>		
• maximum	V	690
<b>Operating current / at AC-1 / at 400 V</b>		
• at 40 °C ambient temperature / rated value	A	22
• at 60 °C ambient temperature / rated value	A	20
<b>Operating current</b>		
• at AC-2 / at 400 V / rated value	A	12
• at AC-3 / at 400 V / rated value	A	12
• at AC-4 / at 400 V / rated value	A	8.5
• with 1 current path / at DC-1		
• at 24 V / rated value	A	20
• at 110 V / rated value	A	2.1
• with 2 current paths in series / at DC-1		
• at 24 V / rated value	A	20
• at 110 V / rated value	A	12
• with 3 current paths in series / at DC-1		
• at 24 V / rated value	A	20
• at 110 V / rated value	A	20
• with 1 current path / at DC-3 / at DC-5		
• at 24 V / rated value	A	20
• at 110 V / rated value	A	0.1
• with 2 current paths in series / at DC-3 / at DC-5		
• at 24 V / rated value	A	20
• at 110 V / rated value	A	0.35
• with 3 current paths in series / at DC-3 / at DC-5		
• at 24 V / rated value	A	20
• at 110 V / rated value	A	20
<b>Service power</b>		
• at AC-2 / at 400 V / rated value	W	5500
• at AC-3		
• at 400 V / rated value	W	5500
• at 500 V / rated value	W	5500
• at 690 V / rated value	W	5500
• at AC-4 / at 400 V / rated value	W	4000
<b>Operating reactive power / at AC-6b</b>		
• at 230 V / rated value	var	0
• at 400 V / rated value	var	0
• at 690 V / rated value	var	0
<b>Off-load operating frequency</b>	1/h	10000
<b>Frequency of operation</b>		
• at AC-1 / according to IEC 60947-6-2 / maximum	1/h	1000
• at AC-2 / according to IEC 60947-6-2 / maximum	1/h	750
• at AC-3 / according to IEC 60947-6-2 / maximum	1/h	750

- at AC-4 / according to IEC 60947-6-2 / maximum

1/h 250

#### Control circuit:

**Design of activation of the operating mechanism**

conventional

**Type of voltage / of the controlled supply voltage**

AC

**Control supply voltage frequency**

- 1 / rated value
- 2 / rated value

Hz 50  
Hz 60

**Control supply voltage / 1**

- at 50 Hz / for AC
  - rated value
- at 60 Hz / for AC
  - rated value

V 230  
V 230

**Working range factor supply voltage rated value / of the magnet coil**

- at 50 Hz / for AC
- at 60 Hz / for AC

0.8...1.1  
0.85...1.1

**Apparent pull-in power / of the solenoid / for AC**

V·A 37

**Apparent holding power / of the solenoid / for AC**

V·A 5.7

**Inductive power factor**

- with the pull-in power of the coil
- with the pull-in power of the coil

0.8  
0.25

#### Auxiliary circuit:

**Product extension / auxiliary switch**

Yes

**Contact reliability / of the auxiliary contacts**

1 faulty switching per 100 million (17 V, 1 mA)

**Number of NC contacts / for auxiliary contacts**

- instantaneous switching
- lagging switching

1  
0

**Number of NO contacts / for auxiliary contacts**

- instantaneous switching
- leading switching

0  
0

**Operating current / of the auxiliary contacts**

- at AC-12 / maximum
- at AC-15
  - at 230 V
  - at 400 V
- at DC-12
  - at 48 V
  - at 60 V
  - at 110 V
  - at 220 V
- at DC-13
  - at 24 V
  - at 48 V
  - at 60 V
  - at 110 V
  - at 220 V

A 10  
A 10  
A 3  
A 6  
A 6  
A 3  
A 1  
A 6  
A 2  
A 2  
A 1  
A 0.3

#### Short-circuit:

**Design of the fuse link**

- for short-circuit protection of the auxiliary switch / required
- for short-circuit protection of the main circuit

fuse gL/gG: 10 A

- with type of assignment 1 / required
- at type of coordination 2 / required

gL/gG LV HRC 3NA, DIAZED 5SB, NEOZED 5SE: 35 A  
gL/gG LV HRC 3NA, DIAZED 5SB, NEOZED 5SE: 20A

#### Installation/mounting/dimensions:

<b>Built in orientation</b>		vertical
<b>Type of mounting</b>		screw and snap-on mounting onto 35 mm standard mounting rail according to DIN EN 50022
<b>Type of fixing/fixation / series installation</b>		Yes
<b>Width</b>	mm	45
<b>Height</b>	mm	57.5
<b>Depth</b>	mm	72
<b>Distance, to be maintained, to the ranks assembly</b>		
• forwards	mm	0
• backwards	mm	0
• upwards	mm	6
• downwards	mm	6
• sideways	mm	0
<b>Distance, to be maintained, to earthed part</b>		
• forwards	mm	6
• backwards	mm	0
• upwards	mm	6
• downwards	mm	6
• sideways	mm	6
<b>Distance, to be maintained, conductive elements</b>		
• forwards	mm	6
• backwards	mm	6
• upwards	mm	6
• downwards	mm	10
• sideways	mm	6

#### Connections:

<b>Design of the electrical connection</b>		
• for main current circuit		screw-type terminals
• for auxiliary and control current circuit		screw-type terminals
<b>Type of the connectable conductor cross-section</b>		
• for main contacts		
• solid		2x (0.5 ... 1.5 mm <sup>2</sup> ), 2x (0.75 ... 2.5 mm <sup>2</sup> ), 2x 4 mm <sup>2</sup>
• stranded		2x (0.5 ... 1.5 mm <sup>2</sup> ), 2x (0.75 ... 2.5 mm <sup>2</sup> ), 2x 4 mm <sup>2</sup>
• finely stranded		
• with conductor end processing		2x (0.5 ... 1.5 mm <sup>2</sup> ), 2x (0.75 ... 2.5 mm <sup>2</sup> )
• for AWG conductors / for main contacts		2x (20 ... 16), 2x (18 ... 14), 2x 12
• for auxiliary contacts		
• solid		2x (0.5 ... 1.5 mm <sup>2</sup> ), 2x (0.75 ... 2.5 mm <sup>2</sup> ), 2x 4 mm <sup>2</sup>
• finely stranded		
• with conductor end processing		2x (0.5 ... 1.5 mm <sup>2</sup> ), 2x (0.75 ... 2.5 mm <sup>2</sup> )
• for AWG conductors / for auxiliary contacts		2x (20 ... 16), 2x (18 ... 14), 2x 12

#### Certificates/approvals:

<b>Verification of suitability</b>	CE / UL / CSA / CCC
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#### Safety:

<b>B10 value / with high demand rate</b>	
• according to SN 31920	1000000

<b>T1 value / for proof test interval or service life</b> • according to IEC 61508	a	20
<b>Proportion of dangerous failures</b> • with low demand rate / according to SN 31920	%	40
• with high demand rate / according to SN 31920	%	75
<b>Failure rate (FIT value) / with low demand rate</b> • according to SN 31920	FIT	100
<b>Protection against electrical shock</b>		finger-safe

#### Further information:

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

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

##### Industry Mall (Online ordering system)

<http://www.siemens.com/industrial-controls/mall>

##### CAX-Online-Generator

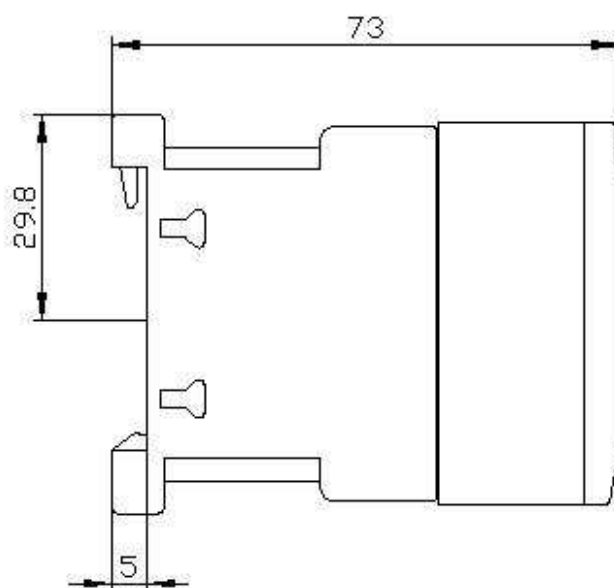
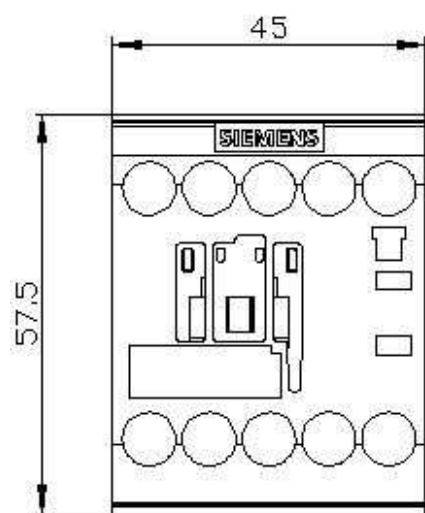
<http://www.siemens.com/cax>

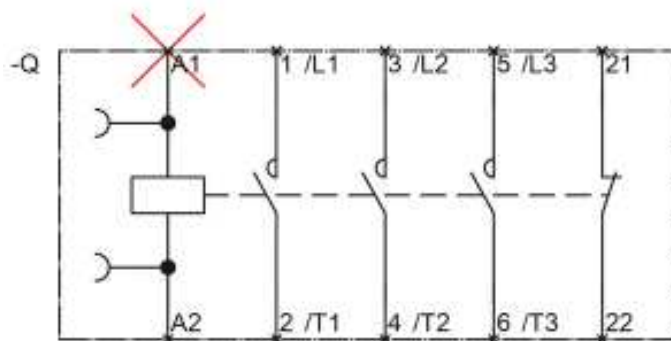
##### Service&Support (Manuals, Certificates, Characteristics, FAQs,...)

<http://support.automation.siemens.com/WW/view/en/3RT2017-1AP02/all>

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

[http://www.automation.siemens.com/bilddb/cax\\_en.aspx?mlfb=3RT2017-1AP02](http://www.automation.siemens.com/bilddb/cax_en.aspx?mlfb=3RT2017-1AP02)





**last change:**

Nov 21, 2010