

CONTACTOR, AC-3, 4KW/400V, 1NC,
AC 230V, 50/60 HZ, 3-POLE,
SZ S00 SPRING-LOADED TERMINAL

General technical data:

Product brand name		SIRIUS
Product designation		3RT2 contactor
Size of the contactor		S00
Protection class IP / frontal/front side		IP20
Degree of pollution		3
Altitude of installation site / at a height over sea level / maximum	m	2,000
Ambient temperature		
• during storage	°C	-55 ... 80
• during the 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	0.7
Apparent loss power / of the magnet coil / at AC / typical	V·A	4.2
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		30,000,000
• of the contactor with added auxiliary switch block / typical		10,000,000
• of the contactor with added electronics-compatible auxiliary switch block / typical		10,000,000

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 voltage / at 3 AC / rated value		

• maximum	V	690
Operating current / at AC-1 / at 400 V		
• at 40 °C ambient temperature / rated value	A	22
• at 60 °C ambient temperature / rated value	A	20
Operating current		
• at AC-2 / at 400 V / rated value	A	9
• at AC-3 / at 400 V / rated value	A	9
• 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
Service power		
• 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	kW	4
Operating reactive power / at AC-6b		
• at 230 V / rated value	var	0
• at 400 V / rated value	var	0
• at 690 V / rated value	var	0
Off-load operating frequency	1/h	10,000
Switching frequency		
• at AC-1 / according to IEC 60947-6-2 / maximum	1/h	1,000

- at AC-2 / according to IEC 60947-6-2 / maximum
- at AC-3 / according to IEC 60947-6-2 / maximum
- at AC-4 / according to IEC 60947-6-2 / maximum

1/h	750
1/h	750
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	Hz	50
• 2 / rated value	Hz	60
Control supply voltage / 1		
• at 50 Hz / for AC		
• rated value	V	230
• at 60 Hz / for AC		
• rated value	V	230
Operating range factor control supply voltage rated value / of solenoid		
• at 50 Hz / for AC		0.8 ... 1.1
• at 60 Hz / for AC		0.85 ... 1.1
Apparent pull-in power / of the solenoid / for AC	V·A	27
Apparent holding power / of the solenoid / for AC	V·A	4.2
Power factor inductive		
• at pull-in power of the coil		0.8
• at holding power of the coil		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		1
• lagging switching		0
Number of NO contacts / for auxiliary contacts		
• instantaneous switching		0
• leading switching		0
Operating current / of the auxiliary contacts		
• at AC-12 / maximum	A	10
• at AC-15		
• at 230 V	A	10
• at 400 V	A	3
• at DC-12		
• at 48 V	A	6

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

fuse gL/gG: 10 A

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

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

Installation/mounting/dimensions:

built in orientation

vertical

Type of fixing/fixation

screw and snap-on mounting onto 35 mm standard mounting rail according to DIN EN 50022

Type of fixing/fixation / Series installation

Yes

Width

mm 45

Height

mm 60

Depth

mm 72

distance, to be maintained, to the ranks assembly

- forwards
- backwards
- upwards
- downwards
- sideways

mm 0
mm 0
mm 6
mm 6
mm 0

distance, to be maintained, to earthed part

- forwards
- backwards
- upwards
- downwards
- sideways

mm 6
mm 0
mm 6
mm 6
mm 6

distance, to be maintained, conductive elements

- forwards
- backwards

mm 6
mm 6

- upwards
- downwards
- sideways

mm	6
mm	10
mm	6

Connections:

design of the electrical connection

- for main current circuit
- for auxiliary and control current circuit

spring-loaded terminals
spring-loaded terminals

Type of the connectable conductor cross-section

- for main contacts
 - unifilar
 - stranded wire
 - stranded wire
 - with conductor end processing
 - without conductor final cutting
- at AWG-conductors / for main contacts
- for auxiliary contact
 - solid
 - stranded wire
 - with wire end processing
 - without conductor final cutting
- for AWG conductors / for auxiliary contacts

2x (0.5 ... 4 mm²)
2x (0.5 ... 4 mm²)

2 x (0.5 ... 2.5 mm²)
2x (0.5 ... 2.5 mm²)
1x (20 ... 12)

2x (0.5 ... 4 mm²)

2x (0.5 ... 2.5 mm²)
2x (0.5 ... 2.5 mm²)
2x (20 ... 12)

Certificates/approvals:

verification of suitability

CE / UL / CSA / CCC

Safety:

B10 value / with high demand rate

- according to SN 31920

1,000,000

T1 value / for proof test interval or service life

- according to IEC 61508

a

20

Proportion of dangerous failures

- with low demand rate / according to SN 31920
- with high demand rate / according to SN 31920

%

75

%

75

Failure rate (FIT value) / with low demand rate

- according to SN 31920

FIT

50

Protection against electrical shock

finger-safe

Further information:

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

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

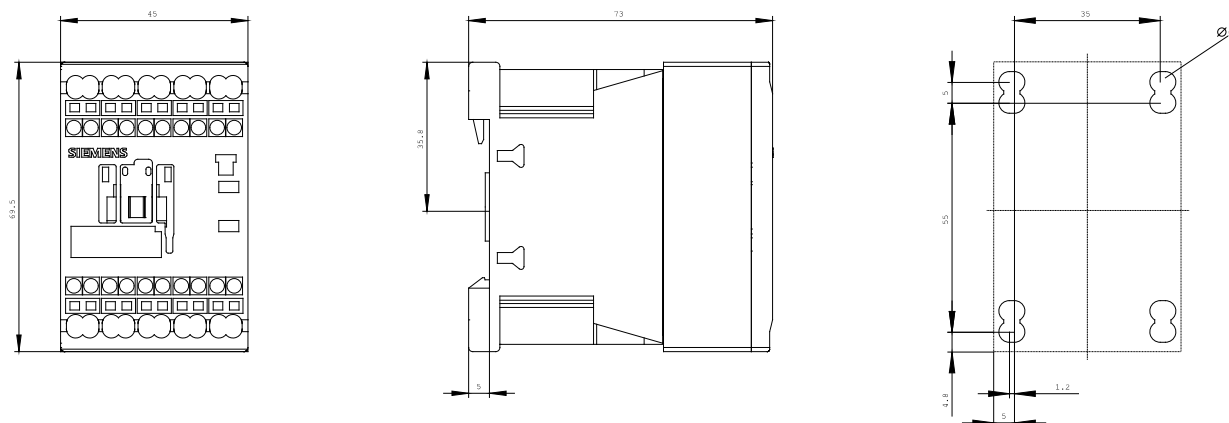
<http://www.siemens.com/industrial-controls/mall>

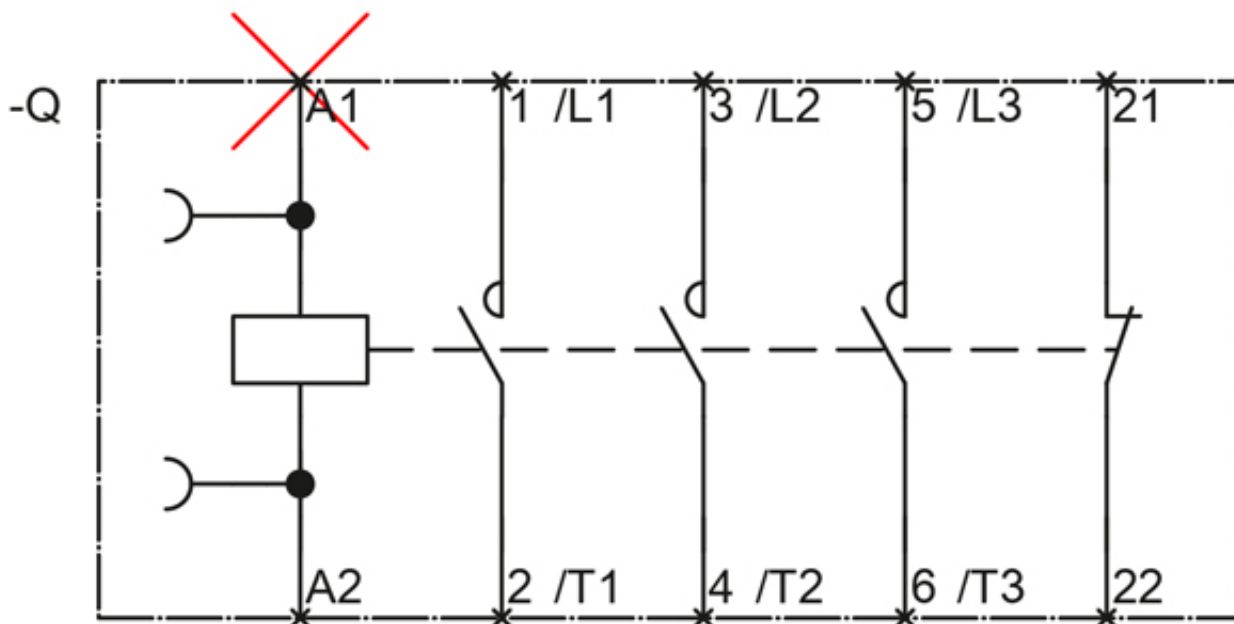
Service & Support (Manuals, Certificates, Characteristics, FAQs,...)

<http://support.automation.siemens.com/WW/view/en/3RT2016-2AP02/all>

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

http://www.automation.siemens.com/bilddb/cax_en.aspx?mlfb=3RT2016-2AP02





last change:

May 8, 2010