



CONTACTOR, AC-3, 4KW/400V, 2NO+2NC,
DC 24V, W. INTEGRATED DIODE 3-POLE,
SZ S00 SCREW TERMINAL PERMANENT AUX. SWITCH

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	2,000
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	0.7
• of the magnet coil / for DC / typical	W	4
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		10,000,000
• of the contactor with added auxiliary switch block / typical		10,000,000
• of the contactor with added electronics-compatible auxiliary switch block / typical		5,000,000
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 AC-3 / 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

<ul style="list-style-type: none"> • at AC-3 <ul style="list-style-type: none"> • at 400 V / rated value • at 500 V / rated value • at 690 V / rated value • at AC-4 / at 400 V / rated value 	kW	4
	kW	4.5
	kW	5.5
	kW	4
Off-load operating frequency	1/h	10,000
Frequency of operation		
<ul style="list-style-type: none"> • at AC-1 / according to IEC 60947-6-2 / maximum 	1/h	1,000
<ul style="list-style-type: none"> • at AC-2 / according to IEC 60947-6-2 / maximum 	1/h	750
<ul style="list-style-type: none"> • at AC-3 / according to IEC 60947-6-2 / maximum 	1/h	750
<ul style="list-style-type: none"> • at AC-4 / according to IEC 60947-6-2 / maximum 	1/h	250

Control circuit:

Design of activation		conventional
Design of the surge suppressor		with diode
Type of voltage / of the controlled supply voltage		DC
Control supply voltage / 1		
<ul style="list-style-type: none"> • for DC <ul style="list-style-type: none"> • rated value 	V	24
Operating range factor control supply voltage rated value / of the solenoid		
<ul style="list-style-type: none"> • for DC 		0.8 ... 1.1
Pull-in power / of the solenoid / for DC	W	4
Holding power / of the solenoid / for DC	W	4

Auxiliary circuit:

Product extension / auxiliary switch		No
Contact reliability / of the auxiliary contacts		1 faulty switching per 100 million (17 V, 1 mA)
Number of NC contacts / for auxiliary contacts		
<ul style="list-style-type: none"> • instantaneous switching 		2
<ul style="list-style-type: none"> • lagging switching 		0
Number of NO contacts / for auxiliary contacts		
<ul style="list-style-type: none"> • instantaneous switching 		2
<ul style="list-style-type: none"> • leading switching 		0
Operating current / of the auxiliary contacts		
<ul style="list-style-type: none"> • at AC-12 / maximum 	A	10
<ul style="list-style-type: none"> • at AC-15 <ul style="list-style-type: none"> • at 230 V • at 400 V 	A	10
	A	3
<ul style="list-style-type: none"> • at DC-12 <ul style="list-style-type: none"> • 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
 - with type of assignment 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 mounting

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 57.5

Depth

mm 121

Distance, to be maintained, to the ranks assembly

• forwards	mm	0
• backwards	mm	0
• upwards	mm	0
• downwards	mm	0
• sideways	mm	0

Distance, to be maintained, to earthed part

• forwards	mm	0
• backwards	mm	0
• upwards	mm	0
• downwards	mm	0
• sideways	mm	6

Distance, to be maintained, conductive elements

• forwards	mm	0
• backwards	mm	0

- upwards
- downwards
- sideways

mm	0
mm	0
mm	6

Connections:

Design of the electrical connection

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

screw-type terminals
screw-type terminals

Type of the connectable conductor cross-section

- for main contacts
 - solid
 - stranded
 - finely stranded
 - with conductor end processing
- for AWG conductors / for main contacts
- for auxiliary contacts
 - solid
 - finely stranded
 - with conductor end processing
- for AWG conductors / for auxiliary contacts

2x (0.5 ... 1.5 mm²), 2x (0.75 ... 2.5 mm²), 2x 4 mm²
2x (0.5 ... 1.5 mm²), 2x (0.75 ... 2.5 mm²), 2x 4 mm²

2x (0.5 ... 1.5 mm²), 2x (0.75 ... 2.5 mm²)
2x (20 ... 16), 2x (18 ... 14), 2x 12

2x (0.5 ... 1.5 mm²), 2x (0.75 ... 2.5 mm²), 2x 4 mm²

2x (0.5 ... 1.5 mm²), 2x (0.75 ... 2.5 mm²)
2x (20 ... 16), 2x (18 ... 14), 2x 12

Certificates/approvals:

Verification of suitability

CE / UL / CSA / CCC

General Product Approval

[CQC](#)



[ROSTEST](#)

Shipping Approval

[ABS](#)

[PRS](#)

other

[Manufacturer](#)

UL/CSA ratings

yielded mechanical performance (hp)

- for single-phase squirrel cage motors
 - at 110/120 V / rated value
 - at 230 V / rated value
- for three-phase squirrel cage motors
 - at 200/208 V / rated value
 - at 220/230 V / rated value
 - at 460/480 V / rated value
 - at 575/600 V / rated value

hp	0.33
hp	1
hp	2
hp	3
hp	5
hp	7.5

Operating current (FLA) / for three-phase squirrel cage motors

- at 480 V / rated value

A	7.6
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• at 600 V / rated value	A	9
Contact rating designation / for auxiliary contacts / according to UL		A600 / Q600

Safety:

B10 value / with high demand rate		1,000,000
• according to SN 31920		
T1 value / for proof test interval or service life	a	20
• according to IEC 61508		
Proportion of dangerous failures		
• with low demand rate / according to SN 31920	%	40
• with high demand rate / according to SN 31920	%	73
Failure rate (FIT value) / with low demand rate		
• according to SN 31920	FIT	100
Protection against electrical shock		finger-safe

Further information:

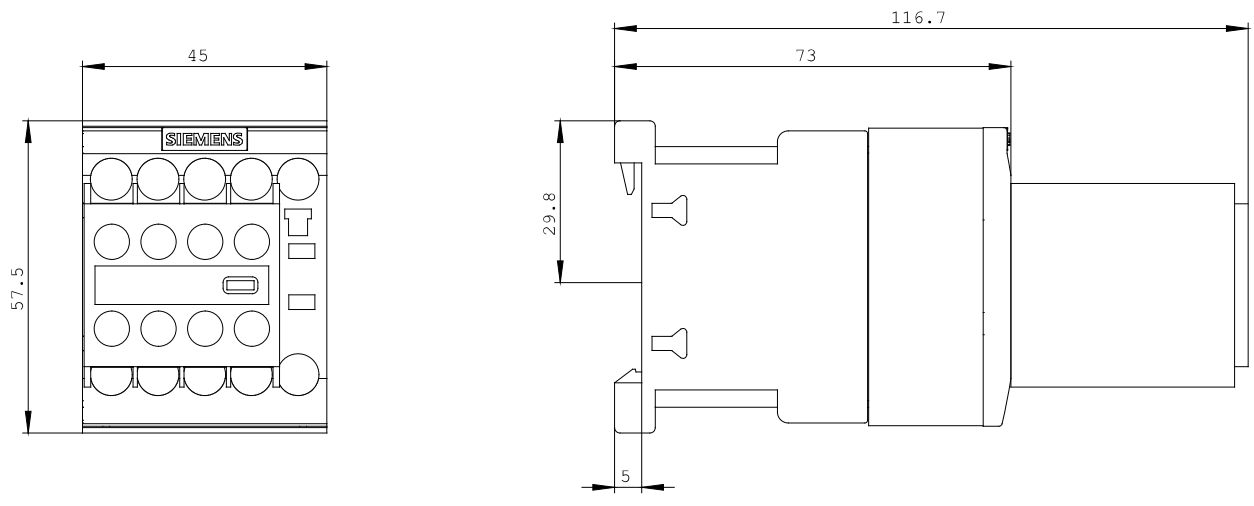
Information- and Downloadcenter (Catalogs, Brochures,...)
<http://www.siemens.com/industrial-controls/catalogs>

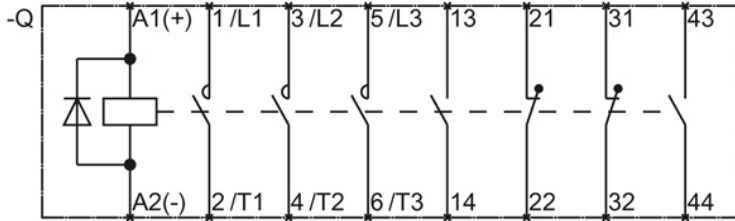
Industry Mall (Online ordering system)
<http://www.siemens.com/industrial-controls/mall>

CAX-Online-Generator
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Service&Support (Manuals, Certificates, Characteristics, FAQs,...)
<http://support.automation.siemens.com/WW/view/en/3RT2016-1FB44-3MA0/all>

Image database (product images, 2D dimension drawings, 3D models, device circuit diagrams, ...)
http://www.automation.siemens.com/bilddb/cax_en.aspx?mlfb=3RT2016-1FB44-3MA0





last change:

Jun 21, 2011