# **SIEMENS**

Product data sheet

CONTACTOR, AC-3, 5.5KW/400V, 1NO+1NC, AC 24V 50HZ, 3-POLE, SZ S0 SPRING-LOADED TERMINAL

General technical data:		
Product brand name		SIRIUS
Product designation		3RT2 contactor
Size of the contactor		S0
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
<ul> <li>during the operating phase</li> </ul>	°C	-25 60
during transport	°C	-55 80
Resistance against shock		12.5g / 5 ms and 7.8g / 10 ms
Impulse voltage resistance / rated value	kV	6
Insulation voltage / rated value	V	690
Resistive loss		
• per conductor / typical	W	0.5
Apparent loss power / of the magnet coil / at AC / typical	V·A	8.5
Item designation		
<ul> <li>according to DIN 40719 extendable after IEC 204-2 / according to IEC 750</li> </ul>		К
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
<ul> <li>of the contactor with added electronics-compatible auxiliary switch block / typical</li> </ul>		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	А	40
• at 60 °C ambient temperature / rated value	А	35
Operating current	_	
• at AC-2 / at 400 V / rated value	А	12
• at AC-3 / at 400 V / rated value	А	12
• at AC-4 / at 400 V / rated value	А	12.5
• with 1 current path / at DC-1		
• at 24 V / rated value	А	35
• at 110 V / rated value	А	4.5
• with 2 current paths in series / at DC-1		
• at 24 V / rated value	А	35
• at 110 V / rated value	А	35
• with 3 current paths in series / at DC-1		
• at 24 V / rated value	А	35
• at 110 V / rated value	А	35
• with 1 current path / at DC-3 / at DC-5		
• at 24 V / rated value	А	20
• at 110 V / rated value	А	2.5
• with 2 current paths in series / at DC-3 / at DC-5		
• at 24 V / rated value	А	35
• at 110 V / rated value	А	15
• with 3 current paths in series / at DC-3 / at DC-5		
• at 24 V / rated value	А	35
• at 110 V / rated value	А	35
Service power	_	
• at AC-2 / at 400 V / rated value	kW	5.5
• at AC-3		
• at 400 V / rated value	kW	5.5
• at 500 V / rated value	kW	7.5
• at 690 V / rated value	kW	7.5
• at AC-4 / at 400 V / rated value	kW	5.5
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	5,000
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	1/h	1,000
• at AC-3 / according to IEC 60947-6-2 / maximum	1/h	1,000
• at AC-4 / according to IEC 60947-6-2 / maximum	1/h	300

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
Control supply voltage / 1		
• at 50 Hz / for AC		
rated value	V	24
Operating range factor control supply voltage rated value / of solenoid		
• at 50 Hz / for AC		0.8 1.1
Apparent pull-in power / of the solenoid / for AC	V-A	65
Apparent holding power / of the solenoid / for AC	V·A	8.5
Power factor inductive		
• at pull-in power of the coil		0.82
• 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		1
leading switching		0
Operating current / of the auxiliary contacts		
• at AC-12 / maximum	А	10
• at AC-15		
• at 230 V	А	10
• at 400 V	А	3
• at DC-12		
• at 48 V	А	6
• at 60 V	А	6
• at 110 V	А	3
• at 220 V	А	1
• at DC-13		

• at 24 VA6• at 48 VA2• at 60 VA2• at 60 VA1• at 110 VA1• at 220 VA0.3Short-circuitDesign 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 / requiredfuse gL/gG: 10 AItsel lation/mounting/dimensions:gL/gG LV HRC 3NA, DIAZED 5SB, NEOZED 5SE: 25AItsel lation/mounting/dimensions:verticalType of fixing/fixationImage: Second mathematicationType of fixing/fixation / Series installationImage: Second mathematicationItsiphImage: Second mathematicationItsiph:Image: Second ma			
• at 60 VA2• at 110 VA1• at 220 VA0.3Short-circuitDesign of the tuse linkI use gL/gS: 10 A• for short-circuit protection of the auxiliary switch / requiredI• for short-circuit protection of the main circuitI• at type of coordination 1 / requiredI• at type of coordination 2 / requiredI/// GLV HRC 3NA, DIAZED 5SB, NEOZED 5SE: 25AInstallation/mounting/dimensions:Luit in orientationType of fixing/fixationIQue of fixing/fixationIPethodRomAditation/fixing/fixationIOut in orientationYesCircuitIOut in orientationII use of fixing/fixation / Series installationII use of fixing/fixingII use of fixing/fixingI<	• at 24 V	A	6
at 110 V • at 220 VA1A0.3Short-circui: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 / requiredgL/gG LV HRC 3NA, DIAZED 5SB, NEOZED 5SE: 83 A gL/gG LV HRC 3NA, DIAZED 5SB, NEOZED 5SE: 825AInstallation/mounting/dimensions:UriticalSuit in orientationYerequiredVerticalType of fixing/fixationImage: Strew and snap-on mounting onto 35 mm standard mounting rail according to DIN EN 50022Type of fixing/fixation / Series installationYereVerticalImage: Strew and snap-on mounting onto 35 mm standard mounting rail according to DIN EN 50022Type of fixing/fixation / Series installationYereInformation:VerticalImage: Strew and snap-on mounting onto 35 mm standard mounting rail according to DIN EN 50022Type of fixing/fixation / Series installationImage: Strew and snap-on mounting onto 35 mm standard mounting rail according to DIN EN 50022Image: Strew and snap-on mounting onto 35 mm standard mounting rail according to DIN EN 50022Image: Strew and snap-on mounting onto 35 mm standard mounting rail according to DIN EN 50022Image: Strew and snap-on mounting onto 35 mm standard mounting rail according to DIN EN 50022 <td>• at 48 V</td> <td>А</td> <td>2</td>	• at 48 V	А	2
• at 220 VA0.3Short-circuitDesign 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 1 / required • at type of coordination 2 / requiredJuly GG LV HRC 3NA, DIAZED 5SB, NEOZED 5SE: 63 A Sign CJ V HRC 3NA, DIAZED 5SB, NEOZED 5SE: 25AInstallation/mounting/dimensions:Duit in orientationfype of fixing/fixationImage: 30 (Sign CV HRC 3NA, DIAZED 5SB, NEOZED 5SE: 25AType of fixing/fixationImage: 30 (Sign CV HRC 3NA, DIAZED 5SB, NEOZED 5SE: 25Afype of fixing/fixationImage: 30 (Sign CV HRC 3NA, DIAZED 5SB, NEOZED 5SE: 25AType of fixing/fixationImage: 30 (Sign CV HRC 3NA, DIAZED 5SB, NEOZED 5SE: 25Afype of fixing/fixationImage: 30 (Sign CV HRC 3NA, DIAZED 5SB, NEOZED 5SE: 25AType of fixing/fixationImage: 30 (Sign CV HRC 3NA, DIAZED 5SB, NEOZED 5SE: 25Afype of fixing/fixation / Series installationImage: 30 (Sign CV HRC 3NA, DIAZED 5SB, MEOZED 5SE: 30 (Sign CV HRC 3NA, DIAZED 5SB, MEOZED 5SE: 30 (Sign CV HRC 3NA, DIAZED 5SB, MEOZED 5SE: 30 (Sign CV HRC 3NA, DIAZED 5SB, MEOZED 5SE: 30 (Sign CV HRC 3NA, DIAZED 5SB, MEOZED 5SE: 30 (Sign CV HRC 3NA, DIAZED 5SB, MEOZED 5SE: 30 (Sign CV HRC 3NA, DIAZED 5SB, MEOZED 5SE: 30 (Sign CV HRC 3NA, DIAZED 5SB, MEOZED 5SE: 30 (Sign CV HRC 3NA, DIAZED 5SB, MEOZED 5SE: 30 (Sign CV HRC 3NA, DIAZED 5SB, MEOZED 5SE: 30 (Sign CV HRC 3NA, DIAZED 5SB, MEOZED 5SE: 30 (Sign CV HRC 3NA, DIAZED 5SB, MEOZED 5SE: 30 (Sign CV HRC 3NA, DIAZED 5SB, MEOZED 5SE: 30 (Sign CV HRC 3NA, DIAZED 5SB, MEOZED 5SE: 30 (Sign CV HRC 3NA, DIAZED 5SB, MEOZED 5SE: 30 (Sign CV HRC 3NA, DIAZED 5SB, MEOZED	• at 60 V	А	2
Short-circuit:         Design of the fuse link       fuse gL/gG: 10 A         • for short-circuit protection of the auxiliary switch / required       gL/gG LV HRC 3NA, DIAZED 5SB, NEOZED 5SE: 63 A         • at type of coordination 1 / required       gL/gG LV HRC 3NA, DIAZED 5SB, NEOZED 5SE: 63 A         • at type of coordination 2 / required       gL/gG LV HRC 3NA, DIAZED 5SB, NEOZED 5SE: 63 A         • at type of coordination 2 / required       gL/gG LV HRC 3NA, DIAZED 5SB, NEOZED 5SE: 63 A         • at type of coordination 2 / required       gL/gG LV HRC 3NA, DIAZED 5SB, NEOZED 5SE: 63 A         • at type of coordination 2 / required       gL/gG LV HRC 3NA, DIAZED 5SB, NEOZED 5SE: 63 A         • at type of coordination 2 / required       gL/gG LV HRC 3NA, DIAZED 5SB, NEOZED 5SE: 25A         Installation/mounting/dimensions:       screw and snap-on mounting onto 35 mm standard mounting rail according to DIN EN 50022         Type of fixing/fixation / Series installation       vertical         Yes       mm         Width       mm         Height       mm         • forwards       mm         • backwards       mm         • backwards       mm         • upwards       mm         • idownwards       mm	• at 110 V	А	1
Design of the fuse linkIsse gL/GC: 10 A• for short-circuit protection of the auxiliary switch / requiredfuse gL/GC: 10 A• for short-circuit protection of the main circuitgL/GC LV HRC 3NA, DIAZED 5SB, NEOZED 5SE: 63 A• at type of coordination 1 / requiredgL/GC LV HRC 3NA, DIAZED 5SB, NEOZED 5SE: 25AInstallation/mounting/dimensions:gL/GC LV HRC 3NA, DIAZED 5SB, NEOZED 5SE: 63 Abuilt in orientationverticalType of fixing/fixationverticalType of fixing/fixation / Series installationverticalWidthMmHeightMmOptimum92of forwardsmm• forwardsmm• forwardsmm• upwardsmm• downwardsmm• sidewardsmm• sidewards <td>• at 220 V</td> <td>А</td> <td>0.3</td>	• at 220 V	А	0.3
• for short-circuit protection of the main circuit • for short-circuit protection of the main circuit • at type of coordination 1 / requireduse gL/gG: 10 A• at type of coordination 1 / requiredgL/gG LV HRC 3NA, DIAZED 5SB, NEOZED 5SE: 03 A• at type of coordination 2 / requiredgL/gG LV HRC 3NA, DIAZED 5SB, NEOZED 5SE: 025A <b>Installation/mounting/dimensions:</b> gL/gG LV HRC 3NA, DIAZED 5SB, NEOZED 5SE: 025A <b>Installation/mounting/dimensions:</b> screw and snap-on mounting onto 35 mm standard mounting rail according to DIN EN 50022 <b>Type of fixing/fixation</b> res <b>Type of fixing/fixation / Series installation</b> Yes <b>Nithh</b> mmHeightmm <b>Depth</b> omm•forwardsmm•backwardsmm </td <td>Short-circuit:</td> <td></td> <td></td>	Short-circuit:		
• for short-circuit protection of the main circuit • at type of coordination 1 / requiredImage: Second sec	Design of the fuse link		
• at type of coordination 1 / requiredgl/gG LV HRC 3NA, DIAZED 5SB, NEOZED 5SE: 63 gl/gG LV HRC 3NA, DIAZED 5SB, NEOZED 5SE: 25AInternationInternationInternationverticalType of fixing/fixationInternationType of fixing/fixation / Series installationInternationVidthInternationHeightInternationDepthInternationInternationInternationInternation / Series installationInternationInternation / Series installation	for short-circuit protection of the auxiliary switch / required		fuse gL/gG: 10 A
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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       Vers         Width       Mmm       45         Height       Mmm       102         Opeph       Mmm       92         •forwards       Mmm       0         •backwards       Mmm       6         •upwards       Mmm       6         •downwards       Mmm       6         •sidewards       Mmm       6			
built in orientationIverticalType of fixing/fixationscrew and snap-on mounting onto 35 mm standard mounting rail according to DIN EN 50022Type of fixing/fixation / Series installationYesWidthMm45HeightMm102DepthMm92of orwardsMm0· backwardsMm0· upwardsMm6· downwardsMm6· sidewardsMm6	• at type of coordination 2 / required		
Type of fixing/fixationcrew and snap-on mounting onto 35 mm standard mounting rail according to DIN EN 50022Type of fixing/fixation / Series installationYesWidthAfHeightImmDepthommdistance, to be maintained, to the ranks assemblyr· forwardsMmm· backwardsMmm· upwardsMmm· downwardsMmm· sidewardsMmm· sidewardsMmm<	Installation/mounting/dimensions:		
Type of fixing/fixation / Series installationrounting rail according to DIN EN 50022WidthYesWidth45Height0Depthommdistance, to be maintained, to the ranks assemblyrow• forwardsomm• backwardsomm• backwardsomm• downwardsomm• sidewardsomm• sidewardsom	built in orientation		vertical
Width1mm45Height1mm102Depthmm92distance, to be maintained, to the ranks assemblymm0• forwardsmm0• backwardsmm0• upwardsmm6• downwardsmm6• sidewardsmm0	Type of fixing/fixation		
Heightnmm102Depthnmm92distance, to be maintained, to the ranks assemblyr7• forwardsnmm0• backwardsnmm0• upwardsnmm6• downwardsnmm6• sidewardsnmm6	Type of fixing/fixation / Series installation		Yes
Depthmm92distance, to be maintained, to the ranks assemblymm0• forwardsmm0• backwardsmm0• upwardsmm6• downwardsmm6• sidewardsmm0	Width	mm	45
distance, to be maintained, to the ranks assemblymm0• forwardsmm0• backwardsmm0• upwardsmm6• downwardsmm6• sidewardsmm0	Height	mm	102
• forwardsmm0• backwardsmm0• upwardsmm6• downwardsmm6• sidewardsmm0	Depth	mm	92
• backwardsmm0• upwardsmm6• downwardsmm6• sidewardsmm0	distance, to be maintained, to the ranks assembly		
• upwardsmm6• downwardsmm6• sidewardsmm0	• forwards	mm	0
• downwards     mm     6       • sidewards     mm     0	backwards	mm	0
• sidewards mm 0	• upwards	mm	6
	downwards	mm	6
distance, to be maintained, to earthed part	• sidewards	mm	0
	distance, to be maintained, to earthed part		
• forwards mm 6	• forwards	mm	6
• backwards mm 0	backwards	mm	0
• upwards mm 6	• upwards	mm	6
• downwards mm 6	downwards	mm	6
• sidewards mm 6	• sidewards	mm	6
distance, to be maintained, conductive elements	distance, to be maintained, conductive elements		
• forwards mm 6	• forwards	mm	6
• backwards mm 6	backwards	mm	6
• upwards mm 6	• upwards	mm	6
• downwards mm 10	downwards	mm	10
• sidewards mm 6	• sidewards	mm	6

Connections:	
design of the electrical connection	
for main current circuit	spring-loaded terminals
<ul> <li>for auxiliary and control current circuit</li> </ul>	spring-loaded terminals
Type of the connectable conductor cross-section	
for main contacts	
• unifilar	2x (1 10 mm2)
stranded wire	2x (1 10 mm2)
stranded wire	
<ul> <li>with conductor end processing</li> </ul>	2x (1 6 mm2)
<ul> <li>without conductor final cutting</li> </ul>	2x (1 6 mm2)
• at AWG-conductors / for main contacts	1x (18 8)
for auxiliary contact	
• solid	2x (0.5 2.5 mm2)
stranded wire	
with wire end processing	2x (0.5 1.5 mm2)
<ul> <li>without conductor final cutting</li> </ul>	2 x (0.5 1.5 mm2)
<ul> <li>for AWG conductors / for auxiliary contacts</li> </ul>	2x (20 14)

### Certificates/approvals:

#### verification of suitability

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 20 а Proportion of dangerous failures • with low demand rate / according to SN 31920 % 75 • with high demand rate / according to SN 31920 % 75 Failure rate (FIT value) / with low demand rate • according to SN 31920 FIT 50 Protection against electrical shock finger-safe

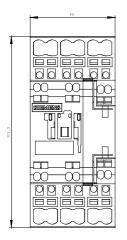
CE / UL / CSA / CCC

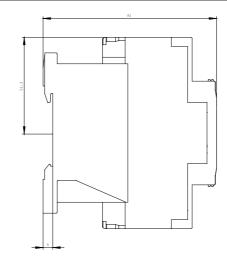
#### **Further information:**

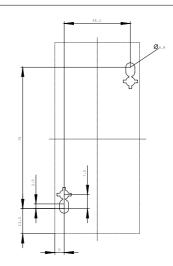
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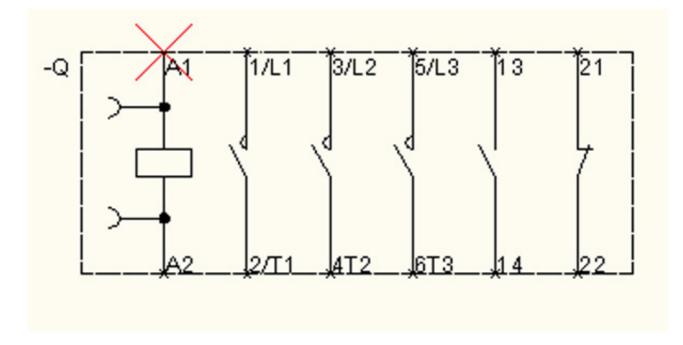
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last change:

May 8, 2010