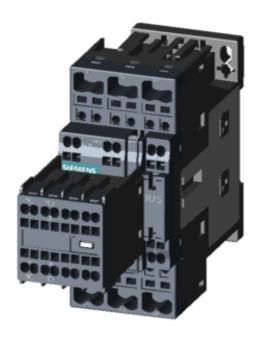
# **SIEMENS**

Product data sheet 3RT2025-2AP04



CONTACTOR, AC-3, 7.5KW/400V, 2NO+2NC, AC 230V 50HZ, 3-POLE, SZ S0 SPRING-LOADED TERMINAL REMOVABLE AUX. SWITCH

General technical data:		
Product brand name		SIRIUS
Size of the contactor		S0
Product extension / auxiliary switch		No
Protection class IP / on the front		IP20
Protection against electrical shock		finger-safe
Degree of pollution		3
Installation altitude / at a height over sea level / maximum	m	2,000
Ambient temperature / during storage	°C	-55 80
Ambient temperature / during operating	°C	-25 60
Shock resistance		
at rectangular impulse		
• at AC		7,5g / 5 ms, 4,7g / 10 ms
• at sine pulse		
• at AC		11,8g / 5 ms, 7,4g / 10 ms
Impulse voltage resistance / rated value	kV	6
Insulation voltage / rated value	V	690
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 NC contacts / for main contacts		0
Number of NO contacts / for main contacts		3
Operating current		
• at AC-1 / at 400 V		
• at 40 °C ambient temperature / rated value	Α	40
• at 60 °C ambient temperature / rated value	Α	35
• at AC-2 / at 400 V / rated value	Α	17
• at AC-3 / at 400 V / rated value	Α	17
• at AC-4 / at 400 V / rated value	Α	15.5
Operating current		
• with 1 current path / at DC-1		
• at 24 V / rated value	Α	35
• at 110 V / rated value	Α	4.5
<ul> <li>with 2 current paths in series / at DC-1</li> </ul>		
• at 24 V / rated value	Α	35
• at 110 V / rated value	Α	35
• with 3 current paths in series / at DC-1		
• at 24 V / rated value	Α	35
• at 110 V / rated value	Α	35
<ul><li>with 1 current path / at DC-3 / at DC-5</li></ul>		
• at 24 V / rated value	Α	20
• at 110 V / rated value	Α	2.5
<ul> <li>with 2 current paths in series / at DC-3 / at DC-5</li> </ul>		
• at 24 V / rated value	Α	35
• at 110 V / rated value	Α	15
• with 3 current paths in series / at DC-3 / at DC-5		
• at 24 V / rated value	Α	35
• at 110 V / rated value	Α	35
Service power		
• at AC-2 / at 400 V / rated value	kW	7.5
• at AC-3 / at 400 V / rated value	kW	7.5
• at AC-4 / at 400 V / rated value	kW	7.5
Active power loss / per conductor / typical	W	0.9
Off-load operating frequency		
• at AC	1/h	5,000
• at DC	1/h	1,500

Frequency of operation		
• 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:		
Type of voltage / of the controlled supply voltage		AC
Control supply voltage / 1		
• at 50 Hz / for AC / rated value	V	230
Working range factor supply voltage rated value / of the magnet coil		
• 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	7.6
Inductive power factor		
• with the pull-in power of the coil		0.82
• with the pull-in power of the coil		0.25
Closing delay		
• at AC	ms	9 38
Opening delay		
• at AC	ms	4 16
Arcing time	ms	10 10

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 switching		2
Number of NO contacts / for auxiliary contacts / instantaneous switching		2
Operating current / of the auxiliary contacts		
• at AC-12 / maximum	Α	10
• at AC-15		
• at 230 V	Α	6
• at 400 V	Α	3
• at DC-12		
• at 48 V	Α	6
• at 60 V	Α	6
• at 110 V	Α	3
• at 220 V	Α	1
• at DC-13		

• at 24 V	Α	6
• at 48 V	Α	2
• at 60 V	Α	2
• at 110 V	Α	1
• at 220 V	Α	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	
with type of assignment 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:

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	102	
Depth	mm	144	
Distance, to be maintained, to the ranks assembly / sidewards	mm	0	
Distance, to be maintained, to earthed part / sidewards	mm	6	

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

- without conductor final cutting
- for AWG conductors / for auxiliary contacts

2 x (0.5 ... 1.5 mm2)

2x (20 ... 14)

# Certificates/approvals:

# **General Product Approval**



**ROSTEST** 



Test Certificates

Manufacturer

# **Shipping Approval**













**Shipping Approval** 





Manufacturer



UL/CSA ratings:		
yielded mechanical performance (hp)		
• for single-phase squirrel cage motors		
• at 110/120 V / rated value	hp	1
• at 230 V / rated value	hp	3
• for three-phase squirrel cage motors		
• at 200/208 V / rated value	hp	3
• at 220/230 V / rated value	hp	5
• at 460/480 V / rated value	hp	10
• at 575/600 V / rated value	hp	15
Operating current (FLA) / for three-phase squirrel cage motors		
• at 480 V / rated value	Α	14
• at 600 V / rated value	Α	17
Contact rating designation / for auxiliary contacts / according to UL		A600 / Q600

Safety:related Parameter:		
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	а	20
Proportion of dangerous failures		
<ul> <li>with low demand rate / according to SN 31920</li> </ul>	%	40
with high demand rate / according to SN 31920	%	73
Failure rate (FIT value) / with low demand rate		

according to SN 31920	FIT	100
Product function		
• mirror contact to IEC 60947-4-1		Yes
<ul> <li>positively driven operation to IEC 60947-5-1</li> </ul>		No

# **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:

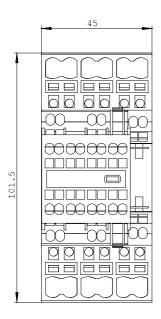
http://www.siemens.com/cax

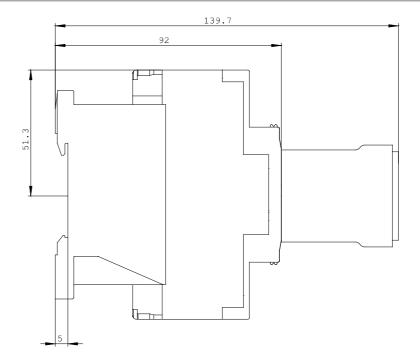
# Service&Support (Manuals, Certificates, Characteristics, FAQs,...)

http://support.automation.siemens.com/WW/view/en/3RT2025-2AP04/all

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

http://www.automation.siemens.com/bilddb/cax\_en.aspx?mlfb=3RT2025-2AP04







last change: Oct 17, 2011