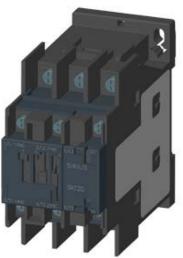
# **SIEMENS**

#### Data sheet

### 3RT2024-4AN60



CONTACTOR, AC-3, 5.5KW/400V, 1NO+1NC, AC 200V 50HZ, 200...220V 60HZ, 3-POLE, SZ S0 RING CABLE LUG CONNECTION

product brand name		SIRIUS
Product designation		3RT2 contactor
General technical data:		
Insulation voltage		
Rated value	V	690
Degree of pollution	_	3
Surge voltage resistance Rated value	kV	6
Mechanical service life (switching cycles)	_	
<ul> <li>of the contactor typical</li> </ul>		10 000 000
<ul> <li>of the contactor with added electronics-</li> </ul>		5 000 000
compatible auxiliary switch block typical		
<ul> <li>of the contactor with added auxiliary switch</li> </ul>		10 000 000
block typical		
Thermal short-time current restricted to 10 s	А	110
Protection class IP		
• on the front		IP20
• of the terminal		IP20
Equipment marking	_	
• acc. to DIN EN 61346-2		Q
• acc. to DIN EN 81346-2		Q
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 ambient temperature 40 $^\circ \mathrm{C}$	А	40
Rated value		
— up to 690 V at ambient temperature 40 °C	А	40
Rated value		25
— up to 690 V at ambient temperature 60 °C Rated value	A	35
• at AC-2 at 400 V Rated value	А	12
● at AC-3		
— at 400 V Rated value	А	12
— at 500 V Rated value	А	12
— at 690 V Rated value	А	9
<ul> <li>at AC-4 at 400 V Rated value</li> </ul>	А	12.5
Operating current with 1 current path		
● at DC-1		
— at 24 V Rated value	А	35
— at 110 V Rated value	А	4.5
— at 220 V Rated value	А	1
— at 440 V Rated value	А	0.4
— at 600 V Rated value	А	0.25
● at DC-3 at DC-5		
— at 24 V Rated value	А	20
— at 110 V Rated value	А	2.5
— at 220 V Rated value	А	1
— at 440 V Rated value	А	0.09
— at 600 V Rated value	А	0.06
Operating current with 2 current paths in series		
● at DC-1		
— at 24 V Rated value	А	35
— at 110 V Rated value	А	35
— at 220 V Rated value	А	5
— at 440 V Rated value	А	1
— at 600 V Rated value	А	0.8
• at DC-3 at DC-5		
— at 110 V Rated value	А	15
— at 220 V Rated value	А	3
— at 24 V Rated value	А	35
— at 440 V Rated value	А	0.27
— at 600 V Rated value	А	0.16
Operating current with 3 current paths in series		

• at DC-1		
— at 24 V Rated value	А	35
— at 110 V Rated value	А	35
— at 220 V Rated value	А	35
— at 440 V Rated value	А	2.9
— at 600 V Rated value	А	1.4
• at DC-3 at DC-5		
— at 110 V Rated value	А	35
— at 220 V Rated value	А	10
— at 24 V Rated value	А	35
— at 440 V Rated value	А	0.6
— at 600 V Rated value	А	0.6
Operating power	-	
• at AC-1 at 400 V Rated value	kW	23
• at AC-2 at 400 V Rated value	kW	5.5
• at AC-4 at 400 V Rated value	kW	5.5
Operating power	-	
● at AC-1		
— at 230 V at 60 °C Rated value	kW	13.3
— at 230 V Rated value	kW	13.3
— at 400 V at 60 °C Rated value	kW	23
— at 690 V at 60 °C Rated value	kW	40
— at 690 V Rated value	kW	40
● at AC-3		
— at 230 V Rated value	kW	3
— at 400 V Rated value	kW	5.5
— at 690 V Rated value	kW	7.5
Operating power for $\geq$ 200000 operating cycles at		
AC-4		
• at 400 V Rated value	kW	2.6
• at 690 V Rated value	kW	4.6
Operating frequency	1 /b	1 000
• at AC-3 maximum	1/h	1 000
Control circuit/ Control:		
Type of voltage of the control supply voltage		AC
Control supply voltage with AC		
• at 50 Hz Rated value	V	200
• at 60 Hz Rated value	V	220
Operating range factor control supply voltage rated value of the magnet coil with AC		
● at 50 Hz		0.8 1.1

• at 60 Hz		0.85 1.1
Auxiliary circuit:		
Number of NC contacts		
<ul> <li>for auxiliary contacts</li> </ul>		
— instantaneous contact		1
Number of NO contacts		
<ul> <li>for auxiliary contacts</li> </ul>		
— instantaneous contact		1
Product expansion Auxiliary switch		Yes
Operating current at AC-15	_	
• at 230 V Rated value	А	10
• at 400 V Rated value	А	3
• at 690 V Rated value	А	1
Operating current	-	
• at DC-12 at 125 V Rated value	А	2
• at DC-12 at 220 V Rated value	А	1
• at DC-12 at 600 V Rated value	А	0.15
• at DC-13 at 125 V Rated value	А	0.9
• at DC-13 at 220 V Rated value	А	0.3
• at DC-13 at 600 V Rated value	А	0.1
Operating current	-	
• at DC-12		
— at 60 V Rated value	А	6
— at 110 V Rated value	А	3
• at DC-13		
— at 24 V Rated value	А	10
— at 60 V Rated value	А	2
— at 110 V Rated value	А	1
Contact reliability of the auxiliary contacts		1 faulty switching per 100 million (17 V, 1 mA)
UL/CSA ratings:		
Full-load current (FLA) for three-phase AC motor		
<ul> <li>at 480 V Rated value</li> </ul>	А	11

<ul> <li>at 480 V Rated value</li> </ul>	A	11
• at 600 V Rated value	А	11
yielded mechanical performance [hp]		
<ul> <li>for single-phase AC motor at 110/120 V Rated value</li> </ul>	metric hp	1
<ul> <li>for single-phase AC motor at 230 V Rated value</li> </ul>	metric hp	2
<ul> <li>for three-phase AC motor at 200/208 V Rated value</li> </ul>	metric hp	3
<ul> <li>for three-phase AC motor at 220/230 V Rated value</li> </ul>	metric hp	3

<ul> <li>for three-phase AC motor at 573/600 V Rated value</li> <li>for three-phase AC motor at 573/600 V Rated hp</li> <li>for three-phase AC motor at 573/600 V Rated hp</li> <li>for short-circuit protection of the main circuit         <ul> <li>for short-circuit protection of the main circuit</li> <li>with type of assignment 1 required</li> <li>for short-circuit protection of the main circuit</li> <li>with type of assignment 2 required</li> <li>for short-circuit protection of the auxiliary switch required</li> <li>for short-circuit mounting surface</li> </ul> </li> <li>for short-circuit protection of the auxiliary switch required mounting surface can be tilted forward and backwards the vi-22.5 on vertical mounting surface</li> </ul> <li>for the fuse physice mounting</li> <li>for wards</li> <li>mm</li> <li>for wards</li> <li>for wards</li> <li>mm</li> <li>for wards</li> <li>for wards</li>	<ul> <li>for three-phase AC motor at 460/480 V Rated value</li> </ul>	metric hp	7.5
Contact rating of the auxiliary contacts acc. to UL       A600 / Q600         Short-circuit       Design of the fuse link <ul> <li>for short-circuit protection of the main circuit</li> <li>with type of assignment 1 required</li> <li>a with type of assignment 2 required</li> <li>for short-circuit protection of the auxiliary switch required</li> <li>for wards</li> <li>for short-circuit pr</li></ul>	• for three-phase AC motor at 575/600 V Rated	metric	10
Short-circuit:         Design of the fuse link         - with type of assignment 1 required         - with type of assignment 2 required         - for short-circuit protection of the auxiliary switch required         • for short-circuit protection of the auxiliary switch required         Installation/ mounting/ dimensions:         mounting position         +/-180* rotation possible on vertical mounting surface: can be titled forward and backward by +/- 22.5* on vertical mounting surface; can be titled forward and backward by +/- 22.5* on vertical mounting surface         Mounting type       screw and snap-on mounting onto 35 mm standard mounting rain according to DIN EN 50022         • Side-by-side mounting       Yes         Height       mm       45         Depth       mm       97         Required spacing       • with side-by-side mounting         • for grounded parts       mm       0         - downwards       mm       0         - at the side       mm       0         - at the side       mm       6         - downwards       mm       0         - at the side       mm       0 <td></td> <td>np</td> <td>4000 / 0000</td>		np	4000 / 0000
Design of the fuse link <ul> <li>for short-circuit protection of the main circuit</li> <li>with type of assignment 1 required</li> <li>for short-circuit protection of the auxiliary switch required</li> </ul> gL/gG LV HRC 3NA, DIAZED 5SB, NEOZED 5SE: 63 A         gL/gG LV HRC 3NA, DIAZED 5SB, NEOZED 5SE: 25 A         fuse gL/gG: 10 A             for short-circuit protection of the auxiliary switch required           fuse gL/gG: 10 A <b>Installation/ mounting/ dimensions:</b> <ul> <li>mounting position</li> <li>+/-180° rotation possible on vertical mounting surface; can be tilted forward and backward by +/-22.5° on vertical mounting on the sold backward by +/-22.5° on vertical mounting on the sold backward by +/-22.5° on vertical mounting on the sold backward by +/-22.5° on vertical mounting on the sold backward by +/-22.5° on vertical mounting on the sold backward by +/-22.5° on vertical mounting on the sold backward by +/-22.5° on vertical mounting on the sold backward by +/-22.5° on vertical mounting on the sold backward by +/-22.5° on vertical mounting on the sold backward by +/-22.5° on vertical mounting on the sold backward by +/-22.5° on vertical mounting on the sold backward by +/-22.5° on vertical mounting on the sold backward by +/-22.5° on vertical mounting on the sold backward by +/-22.5° on vertical mounting surface; can be tilted forward and backward by +/-22.5° on vertical mounting on the sold backward by +/-22.5° on vertical mounting mounting on the sold backward by +/-22.5° on vertical mounting mounting on the sold backward by +/-22.5° on vertical mounting mounting on the sold backward by +/-22.5° on vertical mounting mounting mounting mounting mounting mounting mounting mounting mounting</li></ul>	Contact rating of the auxiliary contacts acc. to OL		A6007 Q600
• for short-circuit protection of the main circuit         gL/gG LV HRC 3NA, DIAZED 5SB, NEOZED 5SE: 83 A           - with type of assignment 2 required         gL/gG LV HRC 3NA, DIAZED 5SB, NEOZED 5SE: 25 A           • for short-circuit protection of the auxiliary switch required         fuse gL/gG IV HRC 3NA, DIAZED 5SB, NEOZED 5SE: 25 A           Installation/ mounting/ dimensions:         fuse gL/gG IV HRC 3NA, DIAZED 5SB, NEOZED 5SE: 25 A           Mounting position         +/180° rotation possible on vertical mounting surface; can be tilted forward and backward by +/- 22.5° on vertical mounting offse           Mounting type			
	-		
Amount of the second	<ul> <li>for short-circuit protection of the main circuit</li> </ul>		
• for short-circuit protection of the auxiliary switch required     25 Å       Installation/ mounting/ dimensions:     fuse gL/gG: 10 Å       mounting position     +/-180° rotation possible on vertical mounting surface; contain possible on vertical mounting surface;	<ul> <li>— with type of assignment 1 required</li> </ul>		
required       Installation/ mounting/ dimensions:         mounting position       +/-180° rotation possible on vertical mounting surface; can be tilted forward and backward by +/-22.5° on vertical mounting onto 35 mm standard mounting rail according to DIN EN 50022         Mounting type       screw and snap-on mounting onto 35 mm standard mounting rail according to DIN EN 50022         • Side-by-side mounting       Yes         Height       mm       85         Width       mm       45         Depth       mm       97         Required spacing       -       -         • with side-by-side mounting       mm       0         - forwards       mm       0         - grounds       mm       0         - downwards       mm       0         - at the side       mm       6         - downwards       mm       0         - at the side       mm       0         - at the side       mm       0         - at the side       mm       0         - downwards       mm       0	— with type of assignment 2 required		
Installation/ mounting/ dimensions:         mounting position       +/-180° rotation possible on vertical mounting surface; can be tilted forward and backward by +/-22.5° on vertical mounting surface         Mounting type       screw and snap-on mounting onto 35 mm standard mounting rail according to DIN EN 50022         • Side-by-side mounting       mm         Height       mm         Width       mm         0       - forwards         - forwards       mm         - downwards       mm         - at the side       mm         - backwards       mm         - forwards       mm         - at the side       mm         - backwards       mm         - forwards       mm         - downwards       mm         - forwards       mm         - forwards       mm         - forwards       mm         - at the side       mm         - downwards       mm         - forwards       mm         - fo	<ul> <li>for short-circuit protection of the auxiliary switch</li> </ul>		fuse gL/gG: 10 A
mounting position       +/-180° rotation possible on vertical mounting surface; can be tilted forward and backward by +/- 22.5° on vertical mounting surface         Mounting type       screw and snap-on mounting onto 35 mm standard mounting rail according to DIN EN 50022         • Side-by-side mounting       Yes         Height       mm       85         Width       mm       45         Depth       mm       97         Required spacing           • with side-by-side mounting       mm       0         — forwards       mm       0         — ackwards       mm       0         — at the side       mm       0         — forwards       mm       0         — at the side       mm       0         — upwards       mm       0         — forwards       mm       0         — at the side       mm       0         — downwards       mm       0         — at the side       mm       6         — downwards       mm       0         — at the side       mm       6         — at the side       mm       6         — at the side       mm       0         — at the side       mm			
mounting position       +/-180° rotation possible on vertical mounting surface; can be tilted forward and backward by +/- 22.5° on vertical mounting surface         Mounting type       screw and snap-on mounting onto 35 mm standard mounting rail according to DIN EN 50022         • Side-by-side mounting       Yes         Height       mm       85         Width       mm       45         Depth       mm       97         Required spacing           • with side-by-side mounting       mm       0         — forwards       mm       0         — ackwards       mm       0         — at the side       mm       0         — forwards       mm       0         — at the side       mm       0         — upwards       mm       0         — forwards       mm       0         — at the side       mm       0         — downwards       mm       0         — at the side       mm       6         — downwards       mm       0         — at the side       mm       6         — at the side       mm       6         — at the side       mm       0         — at the side       mm	Installation/ mounting/ dimensions:		
Mounting type       surface: can be tilted forward and backward by +/- 22.5° on vertical mounting surface         Mounting type       screw and snap-on mounting onto 35 mm standard mounting rail according to DIN EN 50022         • Side-by-side mounting       mm         Height       mm         Midth       mm         Depth       mm         • with side-by-side mounting       mm         - forwards       mm         - forwards       mm         - forwards       mm         - downwards       mm         - downwards       mm         - forwards       mm         - forwards       mm         - downwards       mm         - forwards       mm         - at the side       mm         - forwards       mm         - at the side       mm         - forwards       mm         - at the side       mm         - at the side       mm         - downwards       mm         - at the side       mm         - forwards       mm         - at the side       mm         - at the side       mm         - boritive parts       -         - forwards       <		_	+/-180° rotation possible on vertical mounting
Side-by-side mountingmounting rail according to DIN EN 50022Heightmm85Widthmm45Depthmm97Required spacing			surface; can be tilted forward and backward by +/-
Heightmm85Widthmm45Depthmm97Required spacingmm0- forwardsmm0- forwardsmm0- Backwardsmm0- upwardsmm0- downwardsmm0- at the sidemm0- forwardsmm0- at the sidemm0- forwardsmm0- forwardsmm0- at the sidemm0- forwardsmm0- forwardsmm0- forwardsmm0- forwardsmm0- forwardsmm0- forwardsmm0- at the sidemm0- odownwardsmm0- forwardsmm0- forwardsmm0- forwardsmm0- forwardsmm0- marksmm0- marks	Mounting type		
Widthmm45Depthmm97Required spacingmm97• with side-by-side mountingmm0- forwardsmm0- Backwardsmm0- upwardsmm0- downwardsmm0- downwardsmm0- at the sidemm0- for grounded parts forwardsmm0- at the sidemm0- at the sidemm0- forwardsmm0- at the sidemm0- backwardsmm0- at the sidemm0- backwardsmm0- forwardsmm0- forwardsmm0- forwardsmm0- backwardsmm0- b	<ul> <li>Side-by-side mounting</li> </ul>		Yes
Depthmm97Required spacing• with side-by-side mountingmm- forwardsmm- forwardsmm- Backwardsmm- upwardsmm- downwardsmm- downwardsmm- at the sidemm- for grounded parts forwardsmm- forwardsmm- forwardsmm- forwardsmm- forwardsmm- honwardsmm- norwardsmm- norwardsmm- norwardsmm- norwardsmm- norwardsmm- norwardsmm- norwardsmm- norwardsmm- norwardsmm- forwardsmm- forwardsmm- forwardsmm- norwardsmm- norwardsmm <td< td=""><td>Height</td><td>mm</td><td>85</td></td<>	Height	mm	85
Required spacingImage: Spacing (Second Second S	Width	mm	45
with side-by-side mountingImm0- forwardsmm0- Backwardsmm0- upwardsmm0- downwardsmm0- at the sidemm0- for grounded partsImm0- forwardsmm0- Backwardsmm0- forwardsmm0- forwardsmm0- at the sidemm0- upwardsmm0- upwardsmm0- at the sidemm0- at the sidemm0- for live partsImm0- forwardsmm0- forwardsmm0- Backwardsmm0- forwardsmm0- forwardsmm0- marksmm0- marksmm0 </td <td>Depth</td> <td>mm</td> <td>97</td>	Depth	mm	97
- forwardsmm0- Backwardsmm0- upwardsmm0- downwardsmm0- at the sidemm0- for grounded parts forwardsmm0- Backwardsmm0- Backwardsmm0- at the sidemm0- backwardsmm0- at the sidemm0- at the sidemm6- downwardsmm0- for live parts forwardsmm0- Backwardsmm0- marksmm0- forwardsmm0- marksmm0- marksmm <td>Required spacing</td> <td></td> <td></td>	Required spacing		
Backwardsmm0- upwardsmm0- downwardsmm0- at the sidemm0- for grounded parts forwardsmm0- Backwardsmm0- upwardsmm0- at the sidemm0- odownwardsmm0- backwardsmm0- odownwardsmm0- forwardsmm0- forwardsmm0- forwardsmm0- forwardsmm0- forwardsmm0- forwardsmm0- forwardsmm0- markedmm0- marked<	<ul> <li>with side-by-side mounting</li> </ul>		
- upwardsmm0- downwardsmm0- at the sidemm0- at the sidemm0- for grounded parts forwardsmm0- Backwardsmm0- upwardsmm0- at the sidemm0- at the sidemm6- downwardsmm0- for live parts forwardsmm0- forwardsmm0- forwardsmm0- forwardsmm0- hackwardsmm0- hackwardsmm0- upwardsmm0- upwardsmm0	— forwards	mm	0
- downwardsmm0- at the sidemm0• for grounded partsmm0- forwardsmm0- Backwardsmm0- upwardsmm0- at the sidemm6- downwardsmm0- for live partsmm0- forwardsmm0- forwardsmm0- forwardsmm0- forwardsmm0- nupwardsmm0- nupwardsmm0- nupwardsmm0- nupwardsmm0- nupwardsmm0	— Backwards	mm	0
- at the sidemm0• for grounded partsmm0- forwardsmm0- Backwardsmm0- upwardsmm0- at the sidemm6- downwardsmm0- for live partsmm0- forwardsmm0- forwardsmm0- forwardsmm0- hackwardsmm0- hackwardsmm0- hackwardsmm0- upwardsmm0	— upwards	mm	0
• for grounded partsmm0- forwardsmm0- Backwardsmm0- upwardsmm0- at the sidemm6- downwardsmm0• for live parts forwardsmm0- backwardsmm0- forwardsmm0- horwardsmm0- horwardsmm0- horwardsmm0- horwardsmm0- horwardsmm0- horwardsmm0- horwardsmm0- horwardsmm0	— downwards	mm	0
forwardsmm0 Backwardsmm0 upwardsmm0 at the sidemm6 downwardsmm0 for live parts forwardsmm0 Backwardsmm0 Backwardsmm0 mu mu mu mu mu <t< td=""><td>— at the side</td><td>mm</td><td>0</td></t<>	— at the side	mm	0
Backwardsmm0- upwardsmm0- at the sidemm6- downwardsmm0• for live parts forwardsmm0- Backwardsmm0- upwardsmm0	<ul> <li>for grounded parts</li> </ul>		
upwardsmm0 at the sidemm6 downwardsmm0 for live parts forwardsmm0 Backwardsmm0 upwardsmm0	— forwards	mm	0
- at the sidemm6- downwardsmm0• for live parts forwardsmm0- Backwardsmm0- upwardsmm0	— Backwards	mm	0
- downwardsmm0• for live partsmm0- forwardsmm0- Backwardsmm0- upwardsmm0	— upwards	mm	0
<ul> <li>for live parts</li> <li>forwards</li> <li>mm</li> <li>Backwards</li> <li>mm</li> <li>mm</li> <li>0</li> <li>mm</li> <li>0</li> <li>0</li> </ul>	— at the side	mm	6
- forwardsmm0- Backwardsmm0- upwardsmm0	— downwards	mm	0
— Backwards     mm     0       — upwards     mm     0	• for live parts		
— upwards mm 0	— forwards	mm	0
	— Backwards	mm	0
— downwards mm 0	— upwards	mm	0
	— downwards	mm	0

— at the side	mm	6
Connections/ Terminals:		
Type of electrical connection		
<ul> <li>for main current circuit</li> </ul>		ring cable connection
• for auxiliary and control current circuit		ring cable connection
Apparent pick-up power of the magnet coil with AC		
• at 50 Hz	V·A	68
• at 60 Hz	V·A	67
Safety related data:		
B10 value with high demand rate acc. to SN 31920		1 000 000
Proportion of dangerous failures		
<ul> <li>with low demand rate acc. to SN 31920</li> </ul>	%	40
<ul> <li>with high demand rate acc. to SN 31920</li> </ul>	%	73
Failure rate [FIT] with low demand rate acc. to SN 31920	FIT	100
Product function Mirror contact acc. to IEC 60947-4-1		Yes
T1 value for proof test interval or service life acc. to IEC 61508	У	20
Protection against electrical shock		finger-safe
Mechanical data:		
Size of contactor		S0
Ambient conditions:		
Installation altitude at height above sea level maximum	m	2 000
Ambient temperature		
<ul> <li>during operation</li> </ul>	°C	-25 +60
• during storage	°C	-55 +80
Certificates/ approvals:		

General Product	t Approval			EMC	Functional Safety/Safety of Machinery
	CSA		EHC	С-ТІСК	Type Examinatio
Declaration of Conformity	Test Certificates	3	Shipping App	roval	
EG-Konf.	<u>Type Test</u> <u>Certificates/Test</u> <u>Report</u>	Special Test Certificate	ABS	B U R E A U VERITAS	C C C C C C C C C C C C C C C C C C C
Shipping Approv	al				other
GL®	Lloyd's Register				Environmental Confirmations
GL	LRS	PRS	RINA	RMRS	
GL	LRS	PRS	RINA	RMRS	
		PRS	RÌNA	RMRS	

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