# **SIEMENS**

## Data sheet

## 3RT2027-4AP60



CONTACTOR, AC-3, 15KW/400V, 1NO+1NC, AC 220V 50HZ, 240V 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	260
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		

<ul> <li>at AC-3 Rated value maximum</li> </ul>	V	690
Operating current		
• at AC-1		
— at 400 V at ambient temperature 40 °C	А	50
Rated value		
— up to 690 V at ambient temperature 40 $^\circ C$	А	50
Rated value		
— up to 690 V at ambient temperature 60 °C Rated value	A	42
• at AC-2 at 400 V Rated value	А	32
● at AC-3		
— at 400 V Rated value	А	32
— at 500 V Rated value	А	32
— at 690 V Rated value	А	21
• at AC-4 at 400 V Rated value	А	22
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	28
• at AC-2 at 400 V Rated value	kW	15
• at AC-4 at 400 V Rated value	kW	11
Operating power	_	
● at AC-1		
— at 230 V at 60 °C Rated value	kW	15.5
— at 230 V Rated value	kW	16
— at 400 V at 60 °C Rated value	kW	27.5
— at 690 V at 60 °C Rated value	kW	47.5
— at 690 V Rated value	kW	48
• at AC-3		
— at 230 V Rated value	kW	7.5
— at 400 V Rated value	kW	15
— at 690 V Rated value	kW	18.5
Operating power for $\geq$ 200000 operating cycles at	_	
AC-4		
• at 400 V Rated value	kW	6
• at 690 V Rated value	kW	10.3
Operating frequency	4.11-	750
• at AC-3 maximum	1/h	750
Control circuit/ Control:		
Type of voltage of the control supply voltage		AC
Control supply voltage with AC		
• at 50 Hz Rated value	V	220
• at 60 Hz Rated value	V	240
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	27

· · ·		
• at 480 V Rated value	А	27
• at 600 V Rated value	А	27
yielded mechanical performance [hp]		
<ul> <li>for single-phase AC motor at 110/120 V Rated value</li> </ul>	metric hp	2
<ul> <li>for single-phase AC motor at 230 V Rated value</li> </ul>	metric hp	5
<ul> <li>for three-phase AC motor at 200/208 V Rated value</li> </ul>	metric hp	10
<ul> <li>for three-phase AC motor at 220/230 V Rated value</li> </ul>	metric hp	10

Note         Number of three-phase AC motor at 575/600 V Rated         Method         25           Context rating of the auxiliary contacts acc. to UL         A800 / 0600         A800 / 0600           Short-circuit         Design of the fuse link.         Image: Contact acc.         Image: Contact acc.           - with type of assignment 1 required	<ul> <li>for three-phase AC motor at 460/480 V Rated value</li> </ul>	metric hp	20
value         hp           Contact rating of the auxiliary contacts acc. to UL         A600 / C600           Short-circuit         Event of a short-circuit protection of the main circuit         gLigG LV HRC 3NA, DIAZED 5SB, NEOZED 5SE: 100 A           - with type of assignment 2 required         gLigG LV HRC 3NA, DIAZED 5SB, NEOZED 5SE: 35 A         tor short-circuit protection of the auxiliary switch required         gLigG LV HRC 3NA, DIAZED 5SB, NEOZED 5SE: 35 A           • for short-circuit protection of the auxiliary switch required         fuse gL/gG: 10 A         thus gL/gG: 10 A           Installator/ mounting / dimensions:         #/180° rotation possible on vertical mounting surface: can be tilted forward and backward by +/-22.5° on vertical mounting surface         screw and snap-on mounting onto 35 mm standard mounting rail according to DIN EN 50022           • Side-by-side mounting         mm         45           Optifit         mm         45           Pepth         mm         97           Required spacing         mm         0           • with side-by-side mounting         mm         0           - at the side         mm         0           - gackwards         mm         0           - at the side         mm         0           - forwards         mm         0           - forwards         mm         0 <t< td=""><td></td><td></td><td>25</td></t<>			25
Short-circuit:         Design of the fuse link         - with type of assignment 1 required         - with type of assignment 2 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         • for short-circuit protection of the auxiliary switch required         Installation/ mounting/ dimensions:         mounting position         Vistallation mounting         Mounting type         • Side-by-side mounting         + fully the distribution of the auxiliary switch required         Nouting type         • Side-by-side mounting         +/180* rotation possible on vertical mounting surface: can be titled forward and backward by +/- 22.5* on vertical mounting surface         • Side-by-side mounting         • forwards         mm         Peipth         mm         • onwards         - downwards         mm         - forwards         mm         - forwards         mm         - downwards         mm         - forwards         mm         - forwards         mm	-		20
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>with type of assignment 2 required</li> <li>for short-circuit protection of the auxiliary switch required</li> </ul> gL/gG LV HRC 3NA, DIAZED 5SB, NEOZED 5SE: 100 A           • for short-circuit protection of the auxiliary switch required         gL/gG LV HRC 3NA, DIAZED 5SB, NEOZED 5SE: 35 A           • for short-circuit protection of the auxiliary switch required         fuse gL/gG: 10 A           Installation/ mounting/ dimensions: <ul> <li>fuse gL/gG: 10 A</li> <li>guirace; 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; 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; 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; 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; 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; 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; 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; can be titled forward and backward by +/-22.5° on vertical mounting sur</li></ul>	Contact rating of the auxiliary contacts acc. to UL	-	A600 / Q600
• for short-circuit protection of the main circuit         JL/G LV HRC 3NA, DIAZED 5SB, NEOZED 5SE: 100 A           • with type of assignment 2 required         JL/G LV HRC 3NA, DIAZED 5SB, NEOZED 5SE: 35 A           • for short-circuit protection of the auxiliary switch required         fuse gL/gG: 10 A           Installator/ mounting/ dimensions:         */180" rotation possible on vertical mounting surface; can be tilted forward and backward by +/-22.5" on vertical mounting surface; can be tilted forward and backward by +/-22.5" on vertical mounting stratedee           Mounting type         */180" rotation possible on vertical mounting surface; can be tilted forward and backward by +/-22.5" on vertical mounting stratedee           Mounting type         screw and snap-on mounting onto 35 mm standard mounting ratia according to DIN EN 50022           • Side-by-side mounting         Yes           Height         mm         85           Width         mm         97           Required spacing         mm         0           • with side-by-side mounting         mm         0           - forwards         mm         0           - gravinds graving         mm         0           - forwards         mm         0           - downwards         mm         0           - downwards         mm         0           - forwards         mm         0	Short-circuit:		
- with type of assignment 1 requiredgL/gG LV HRC 3NA, DIAZED 5SB, NEOZED 5SE: 100 A- with type of assignment 2 requiredgL/gG LV HRC 3NA, DIAZED 5SB, NEOZED 5SE: 3S A• for short-circuit protection of the auxiliary switch requiredfuse gL/gG: 10 AInstallation/ mounting/ dimensions:+/-180° rotation possible on vertical mounting 	Design of the fuse link		
Amount of the sector of the auxiliary switch required100 A gL/gG LV HRC 3NA, DIAZED 5SB, NEOZED 5SE: 35 A• for short-circuit protection of the auxiliary switch requiredfuse gL/gG: 10 AInstallation/ mounting/ dimensions:100 k gurface; can be titted forward and backward by +/- 22.5° on vertical mounting surfaceMounting typescrew and snap-on mounting outfaceMounting typescrew and snap-on mounting out as 5 mm standard mounting rail according to DIN EN 50022• Side-by-side mountingmm85Widthmm45Depthmm97Required spacingImage: Standard mounting surface• with side-by-side mountingmm0- forwardsmm0- at the sidemm0- at the sidemm0- forwardsmm0- at the sidemm0- forwardsmm0- at the sidemm0- at the sidemm <th< td=""><td><ul> <li>for short-circuit protection of the main circuit</li> </ul></td><td></td><td></td></th<>	<ul> <li>for short-circuit protection of the main circuit</li> </ul>		
• for short-circuit protection of the auxiliary switch required       35 Å         • for short-circuit protection of the auxiliary switch required       fuse gL/gG: 10 Å         Installation/ mounting / dimensions:       +/-180° rotation possible on vertical mounting surface; can be not entited 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         - forwards       mm         - forwards       mm         - forwards       mm         - at the side       mm         - obwnwards       mm         - downwards       mm         - at the side       mm	— with type of assignment 1 required		
required     Image: constraint of the state	— 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 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         — upwards       mm       0         — of owards       mm       0         — at the side       mm       0 <t< td=""><td></td><td></td><td>fuse gL/gG: 10 A</td></t<>			fuse gL/gG: 10 A
mounting position       +/-180° rotation possible on vertical mounting surface; can be tilled 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         — dawmads       mm       0         — dawmads       mm       0         — at the side       mm       0         — forwards       mm       0         — at the side       mm       6         — downwards       mm       0         — at the side       mm       6         — at the side       mm       6         — downwards       mm       0         — at the side       mm <td></td> <td></td> <td></td>			
Mounting type       surface; can be tilled 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         - gackwards       mm       0         - upwards       mm       0         - at the side       mm       0         - forwards       mm       0         - at the side       mm       0         - at the side       mm       0         - upwards       mm       0         - at the side       mm       0         - upwards       mm       0         - at the side       mm       0         -			
Side-by-side mountingmounting rail according to DIN EN 50022Heightmm85Widthmm45Depthmm97Required spacing-• with side-by-side mounting forwardsmm0- gackwardsmm0- gackwardsmm0- downwardsmm0- at the sidemm0- forwardsmm0- forwardsmm0- at the sidemm0- forwardsmm0- forwardsmm0- at the sidemm0- forwardsmm0- forwardsmm0- forwardsmm0- forwardsmm0- forwardsmm0- at the sidemm0- at the sidemm0- downwardsmm0- at the sidemm6- downwardsmm0- at the sidemm0- at the sidemm0- forwardsmm0- forwardsmm0- forwardsmm0- forwardsmm0- forwardsmm0- forwardsmm0- forwardsmm0- gackwardsmm0- gackwardsmm0- gackwardsmm0- gackwardsmm0- gackwa	mounting position		surface; can be tilted forward and backward by +/-
Heightmm85Widthmm45Depthmm97Required spacing-• with side-by-side mounting forwardsmm0- forwardsmm0- Backwardsmm0- upwardsmm0- downwardsmm0- at the sidemm0- forwardsmm0- forwardsmm0- at the sidemm0- forwardsmm0- at the sidemm0- at the sidemm0- forwardsmm0- at the sidemm0- at the sidemm0- forwardsmm0- at the sidemm0- a	Mounting type	-	
Widthmm45Depthmm97Required spacingmm97• with side-by-side mountingmm0- forwardsmm0- forwardsmm0- Backwardsmm0- upwardsmm0- downwardsmm0- at the sidemm0- for grounded partsmm0- forwardsmm0- forwardsmm0- at the sidemm0- forwardsmm0- at the sidemm0- borwardsmm0- at the sidemm0- borwardsmm0- forwardsmm0- forwardsmm0- forwardsmm0- borwardsmm0- borward	<ul> <li>Side-by-side mounting</li> </ul>		Yes
Depthmm97Required spacing• with side-by-side mounting- forwardsmm0- forwardsmm0- Backwardsmm0- upwardsmm0- downwardsmm0- downwardsmm0- at the sidemm0- for grounded parts forwardsmm0- gackwardsmm0- at the sidemm0- forwardsmm0- at the sidemm0- forwardsmm0- forwardsmm0- forwardsmm0- forwardsmm0- forwardsmm0- marksmm0- marksmm0 <t< td=""><td>Height</td><td>mm</td><td>85</td></t<>	Height	mm	85
Required spacingImage: Second sec	Width	mm	45
with side-by-side mountingImm0- forwardsmm0- Backwardsmm0- upwardsmm0- downwardsmm0- at the sidemm0- for grounded parts forwardsmm0- Backwardsmm0- Backwardsmm0- forwardsmm0- at the sidemm0- backwardsmm0- upwardsmm6- at the sidemm0- at the sidemm0- for live partsmm0- forwardsmm0- forwardsmm0- forwardsmm0- forwardsmm0- forwardsmm0- forwardsmm0- marksmm0- marksmm0<	Depth	mm	97
forwardsmm0 Backwardsmm0 upwardsmm0 downwardsmm0 at the sidemm0• for grounded parts forwardsmm0 Backwardsmm0 at the sidemm0 backwardsmm0 at the sidemm0 at the sidemm6 downwardsmm0 for live parts	Required spacing		
- Backwardsmm0- upwardsmm0- downwardsmm0- at the sidemm0- at the sidemm0- forwardsmm0- Backwardsmm0- upwardsmm0- at the sidemm0- odownwardsmm0- backwardsmm0- odownwardsmm6- downwardsmm0- forwardsmm0- forwardsmm0- forwardsmm0- forwardsmm0- backwardsmm0- marketmm0- m	<ul> <li>with side-by-side mounting</li> </ul>		
Sedematesmm0- upwardsmm0- downwardsmm0- at the sidemm0• for grounded parts forwardsmm0- Backwardsmm0- upwardsmm0- at the sidemm0- at the sidemm6- downwardsmm0- for live parts forwardsmm0- forwardsmm0- forwardsmm0- forwardsmm0- forwardsmm0- gackwardsmm0- marksmm0- marksmm0- marksmm0- upwardsmm0	— forwards	mm	0
downwardsmm0 at the sidemm0 for grounded partsmm0 forwardsmm0 Backwardsmm0 upwardsmm6 at the sidemm6 downwardsmm0 forwardsmm0 forwardsmm0 forwardsmm0 forwardsmm0 forwardsmm0 Backwardsmm0 muyardsmm0 muyardsmm0 muyardsmm0 muyardsmm0	— Backwards	mm	0
- at the sidenm0• for grounded partsmm0- forwardsmm0- Backwardsmm0- upwardsmm0- at the sidemm6- downwardsmm0- for live partsmm0- forwardsmm0- forwardsmm0- forwardsmm0- forwardsmm0- hackwardsmm0- hackwardsmm0- upwardsmm0	— upwards	mm	0
• for grounded partsmm0- forwardsmm0- Backwardsmm0- upwardsmm0- at the sidemm6- downwardsmm0- for live partsmm0- forwardsmm0- forwardsmm0- hackwardsmm0- forwardsmm0- hackwardsmm0- hackwardsmm0- upwardsmm0- upwardsmm0	— downwards	mm	0
forwardsmm0 Backwardsmm0 upwardsmm0 at the sidemm6 downwardsmm0 forwardsmm0 forwardsmm0 Backwardsmm0 Backwardsmm0 upwardsmm0	— 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> </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
	— upwards	mm	0
		mm	0

— at the side	mm	6
Connections/ Terminals:		
Type of electrical connection		
• for main current circuit		ring cable connection
<ul> <li>for auxiliary and control current circuit</li> </ul>		ring cable connection
Apparent pick-up power of the magnet coil with AC		
• at 50 Hz	V·A	81
• at 60 Hz	V·A	79
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	: Approval			EMC	Functional Safety/Safety of Machinery
	CSA	EHC		С-тіск	Type Examination
Declaration of Conformity	Test Certificate	S	Shipping App	proval	
EG-Konf.	Special Test Certificate	<u>Type Test</u> <u>Certificates/Test</u> <u>Report</u>	ABS	BUREAU VERITAS	<b>ŮŇ</b> DNV
Shipping Approv	/al				other
GL	Lloyd's Register Lrs	PRS	RINA	RMRS	Confirmation
GL GL Other Environmental		PRS	RINA	RMRS	Confirmation

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