SIEMENS

Data sheet

3RT2036-1AP00



CONTACTOR,AC3:22KW/400V, 1NO+1NC, 230V AC 50HZ, 3-POLE, SIZE S2, SCREW TERMINAL

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)		
 of the contactor typical 		10 000 000
 of the contactor with added electronics- 		5 000 000
compatible auxiliary switch block typical		
 of the contactor with added auxiliary switch 		10 000 000
block typical		
Thermal short-time current restricted to 10 s	A	420
Protection class IP		
• on the front		IP20
• of the terminal		IP00
Equipment marking		
• acc. to DIN EN 61346-2		Q
• acc. to DIN EN 81346-2		Q
/ain 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 °C	А	70
Rated value		
— up to 690 V at ambient temperature 40 °C	А	70
Rated value		
— up to 690 V at ambient temperature 60 °C Rated value	A	60
• at AC-2 at 400 V Rated value	А	51
● at AC-3		
— at 400 V Rated value	А	51
— at 500 V Rated value	А	50
— at 690 V Rated value	А	24
• at AC-4 at 400 V Rated value	А	41
Operating current with 1 current path		
● at DC-1		
— at 24 V Rated value	А	60
— at 110 V Rated value	А	4.5
— at 220 V Rated value	А	2
— 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	35
— at 110 V Rated value	А	2.5
— at 220 V Rated value	А	2
— at 440 V Rated value	А	0.1
— 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	60
— at 110 V Rated value	А	45
— 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	25
— at 220 V Rated value	А	5
— at 24 V Rated value	А	55
— 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	55
— at 110 V Rated value	А	45
— at 220 V Rated value	А	45
— 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	45
— at 220 V Rated value	А	25
— at 24 V Rated value	А	55
— 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	46
• at AC-2 at 400 V Rated value	kW	22
• at AC-4 at 400 V Rated value	kW	22
Operating power		
● at AC-1		
— at 230 V at 60 °C Rated value	kW	23
— at 230 V Rated value	kW	26
— at 400 V at 60 °C Rated value	kW	39
— at 690 V at 60 °C Rated value	kW	68
— at 690 V Rated value	kW	79
• at AC-3		
— at 230 V Rated value	kW	15
— at 400 V Rated value	kW	22
— at 500 V Rated value	kW	30
— at 690 V Rated value	kW	22
Operating power for ≥ 200000 operating cycles at AC-4		
• at 400 V Rated value	kW	12.6
• at 690 V Rated value	kW	18.2
Operating frequency		
• 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	230
Operating range factor control supply voltage rated value of the magnet coil with AC		
• at 50 Hz		0.8 1.1

Auxiliary circuit:		
Number of NC contacts		
 for auxiliary contacts 		
— instantaneous contact		1
Number of NO contacts	_	
 for auxiliary contacts 		
— 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)
JL/CSA ratings:		
Full-load current (FLA) for three-phase AC motor		
• at 480 V Rated value	А	52
• at 600 V Rated value	А	52
yielded mechanical performance [hp]		
 for single-phase AC motor at 110/120 V Rated value 	metric hp	3
 for single-phase AC motor at 230 V Rated value 	metric hp	10
 for three-phase AC motor at 200/208 V Rated value 	metric hp	15

• for three-phase AC motor at 220/230 V Rated value

15

metric

hp

• for three-phase AC motor at 575/600 V Rated value metric hp \$0 • Contact rating of the auxiliary contacts acc. to UL A600 / P600 Short-circuit Design of the fuse link • • for short-circuit protection of the main circuit	• for three-phase AC motor at 460/480 V Rated	metric	40
Notice hp Account of the fuse link • for short-circuit Design of the fuse link gL/gG NH 3NA, DIAZED 5SB, NEOZED 5SE: 200 A • with type of assignment 1 required gL/gG NH 3NA, DIAZED 5SB, NEOZED 5SE: 80 A • for short-circuit protection of the main circuit gL/gG NH 3NA, DIAZED 5SB, NEOZED 5SE: 80 A • for short-circuit protection of the auxiliary switch required gL/gG NH 3NA, DIAZED 5SB, NEOZED 5SE: 80 A • for short-circuit protection of the auxiliary switch required suface; 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 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 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 with side-by-side mounting mm • forwards mm • upwards mm • downwards mm • downwards mm • for grounded parts mm • for grounded parts mm • for grounded parts mm • f	value	hp metric	50
Short-circuit: Design of the fuse link • for short-circuit protection of the main circuit - with type of assignment 1 required - with type of assignment 2 required • for short-circuit protection of the auxiliary switch 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 Side-by-side mounting Yes Height mm Width mm 0 forwards - upwards mm 0 - downwards - at the side mm 0 - at the side	-		
Design of the fuse link for short-circuit protection of the main circuit with type of assignment 1 required with type of assignment 2 required for short-circuit protection of the auxiliary switch required gL/gG NH 3NA, DIAZED 5SB, NEOZED 5SE: 200 A Installation/ mounting/ dimensions: 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; 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 Yes Yes Height mm with side-by-side mounting mm - forwards mm - quwards mm - at the side mm - forwards mm - at the side mm	Contact rating of the auxiliary contacts acc. to UL		A600 / P600
 for short-circuit protection of the main circuit with type of assignment 1 required with type of assignment 2 required for short-circuit protection of the auxiliary switch required Installation/ mounting/ dimensions: mounting position t/-180° rotation possible on vertical mounting surface; can be tilted forward and backward by t/-22.5° on vertical mounting onto 35 mm standard mounting type side-by-side mounting Yes Height mm 113.4 Width mm s5 Depth mm adacwards mm adacwards of orwards at he side mm at he side mm Forwards mm at he side mm	Short-circuit:		
with type of assignment 1 required with type of assignment 2 requiredgL/gG NH 3NA, DIAZED 5SB, NEOZED 5SE: 200 A gL/gG NH 3NA, DIAZED 5SB, NEOZED 5SE: 80 A fuse gL/gG: 10 AInstallation/ mounting/ dimensions:	Design of the fuse link		
- with type of assignment 2 required gL/gG NH 3NA, DIAZED 5SB, NEOZED 5SE: 80 A • for short-circuit protection of the auxiliary switch required fuse gL/gG: 10 A Installation/ mounting/ dimensions: 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 onto 35 nm standard mounting rail according to DIN EN 50022 Mounting type screw and snap-on mounting onto 35 nm standard mounting rail according to DIN EN 50022 • Side-by-side mounting Yes Height mm 113.4 Width mm 55 Depth mm 130 Required spacing - - • with side-by-side mounting mm 0 - forwards mm 0 - gackwards mm 0 - downwards mm 0 - at the side mm 0 - forwards mm 0 - gackwards mm 0 - at the side mm 0 - upwards mm 0 - at the side mm 0 - upwards mm 50 -	 for short-circuit protection of the main circuit 		
• for short-circuit protection of the auxiliary switch required fuse gL/gG: 10 A 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 Side-by-side mounting Yes Height mm 113.4 Width mm 55 Depth mm 130 Required spacing forwards - at the side - forwards - at the side - forwards - forwards - at the side - forwards - forwards - at the side - at the	- with type of assignment 1 required		gL/gG NH 3NA, DIAZED 5SB, NEOZED 5SE: 200 A
required +/- required Installation/ mounting/ dimensions: +/- 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 113.4 Width mm 55 Depth mm 130 Required spacing - • with side-by-side mounting - - forwards mm 0 - gackwards mm 0 - gackwards mm 0 - at the side mm 0 - forwards mm 0 - gackwards mm 0 - at the side mm 0 - forwards mm 0 - gackwards mm 0 - gackwards mm 0 - at the side mm 0 - gackwards mm 0 - at the side mm 6	— with type of assignment 2 required		gL/gG NH 3NA, DIAZED 5SB, NEOZED 5SE: 80 A
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 Yes Height mm 113.4 Width mm 55 Depth mm 130 Required spacing - • with side-by-side mounting - - forwards mm 0 - gurvards mm 0 - at the side mm 0 - forwards mm 0 - at the side mm 0 - gurvards mm 0 - at the side mm 0 - movards mm 0 - at the side mm 0 - at the side mm 0 - at the side mm 6	 for short-circuit protection of the auxiliary switch 		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 113.4 Width mm 55 Depth mm 130 Required spacing • with side-by-side mounting - forwards mm 0 - upwards mm 0 - at the side mm 0 - forwards mm 0 - at the side mm 6	required		
Mounting typesurface; can be tilted forward and backward by +/- 22.5° on vertical mounting surfaceMounting typescrew and snap-on mounting onto 35 mm standard mounting rail according to DIN EN 50022• Side-by-side mountingrmm113.4Heightmm113.4Widthmm55Depthmm130Required spacingrmm0- forwardsmm0- upwardsmm0- at the sidemm0- forwardsmm0- forwardsmm0- at the sidemm0- forwardsmm0- forwardsmm0- forwardsmm0- at the sidemm0- horwardsmm0- forwardsmm0- forwardsmm0- forwardsmm0- forwardsmm0- forwardsmm0- forwardsmm0- forwardsmm0- forwardsmm0- forwardsmm0- horwardsmm0- horwardsmm0- horwardsmm0- horwardsmm0- horwardsmm0- horwardsmm0- horwardsmm0- horwardsmm6	Installation/ mounting/ dimensions:		
Numbermounting rail according to DIN EN 50022• Side-by-side mountingYesHeightmm113.4Widthmm55Depthmm130Required spacing-• with side-by-side mounting forwardsmm0- forwardsmm0- Backwardsmm0- downwardsmm0- at the sidemm0- forwardsmm0- at the sidemm0- Backwardsmm0- forwardsmm0- at the sidemm0- howardsmm0- forwardsmm0- at the sidemm0- howardsmm0- forwardsmm0- forwardsmm0- howardsmm0- howardsmm0- howardsmm6	mounting position		surface; can be tilted forward and backward by +/-
Heightmm113.4Widthmm55Depthmm130Required spacing-• with side-by-side mounting forwardsmm0- forwardsmm0- Backwardsmm0- upwardsmm0- at the sidemm0• for grounded parts forwardsmm0- forwardsmm0- at the sidemm0- forwardsmm0- forwardsmm0- forwardsmm0- forwardsmm0- forwardsmm0- hackwardsmm0- hackwardsmm0- hackwardsmm6	Mounting type		
Vidthmm55Depthmm130Required spacing	 Side-by-side mounting 		Yes
Depthmm130Required spacingImm130• with side-by-side mountingImmImm- forwardsmm0- Backwardsmm0- upwardsmm0- downwardsmm0- at the sidemm0• for grounded partsImm0- forwardsmm0- forwardsmm0- forwardsmm0- forwardsmm0- forwardsmm0- forwardsmm0- hackwardsmm0- upwardsmm50- at the sidemm6	Height	mm	113.4
Required spacingImage: Second sec	Width	mm	55
• with side-by-side mountingImmImm- forwardsmm0- Backwardsmm0- upwardsmm0- downwardsmm0- at the sidemm0• for grounded partsImm0- forwardsmm0- forwardsmm0- forwardsmm0- forwardsmm0- forwardsmm0- forwardsmm0- hackwardsmm0- upwardsmm50- at the sidemm6	Depth	mm	130
forwardsmm0 Backwardsmm0 upwardsmm0 downwardsmm0 at the sidemm0 for grounded parts forwardsmm0 Backwardsmm0 upwardsmm50 at the sidemm6	Required spacing		
- Backwardsmm0- upwardsmm0- downwardsmm0- at the sidemm0• for grounded parts forwardsmm0- Backwardsmm0- upwardsmm50- at the sidemm6	 with side-by-side mounting 		
upwardsmm0 downwardsmm0 at the sidemm0• for grounded parts forwardsmm0 Backwardsmm0 upwardsmm50 at the sidemm6	— forwards	mm	0
- downwardsmm0- downwardsmm0- at the sidemm0• for grounded parts forwardsmm0- Backwardsmm0- upwardsmm50- at the sidemm6	— Backwards	mm	0
- at the sidemm0• for grounded partsmm0- forwardsmm0- Backwardsmm0- upwardsmm50- at the sidemm6	— upwards	mm	0
• for grounded partsmm0— forwardsmm0— Backwardsmm0— upwardsmm50— at the sidemm6	— downwards	mm	0
— forwardsmm0— Backwardsmm0— upwardsmm50— at the sidemm6	— at the side	mm	0
— Backwardsmm0— upwardsmm50— at the sidemm6	 for grounded parts 		
upwardsmm50 at the sidemm6	— forwards	mm	0
— at the side mm 6	— Backwards	mm	0
	— upwards	mm	50
— downwards mm 50	— at the side	mm	6
	— downwards	mm	50
• for live parts	● for live parts		
— forwards mm 0	— forwards	mm	0
— Backwards mm 0	— Backwards	mm	0
— upwards mm 50	— upwards	mm	50
— downwards mm 50		mm	50
— at the side mm 6	— at the side	mm	6

Connections/ Terminals:		
Type of electrical connection		
 for main current circuit 		screw-type terminals
 for auxiliary and control current circuit 		screw-type terminals
Type of connectable conductor cross-section		
 for main contacts 		
— single or multi-stranded		2x (1 35 mm²), 1x (1 50 mm²)
— finely stranded with core end processing		2x (1 25 mm²), 1x (1 35 mm²)
 for AWG conductors for main contacts 		2x (18 2), 1x (18 1)
 for auxiliary contacts 		
— single or multi-stranded		2x (0,5 1,5 mm²), 2x (0,75 2,5 mm²)
— finely stranded with core end processing		2x (0.5 1.5 mm²), 2x (0.75 2.5 mm²)
 for AWG conductors for auxiliary contacts 		2x (20 16), 2x (18 14)
Apparent pick-up power of the magnet coil with AC	_	
• at 50 Hz	V·A	190
Safety related data:		
Proportion of dangerous failures		
 with low demand rate acc. to SN 31920 	%	40
 with high demand rate acc. to SN 31920 	%	73
Product function Mirror contact acc. to IEC 60947-4-1	_	Yes
Protection against electrical shock	_	finger-safe when touched vertically from front acc. to IEC 60529
Mechanical data:		
Size of contactor		S2
Ambient conditions:		
Installation altitude at height above sea level maximum	m	2 000
Ambient temperature		
 during operation 	°C	-25 +60
• during storage	°C	-55 +80
Certificates/ approvals:		
General Product Approval	oth	ner
	<u></u>	Confirmation Environmental
		Confirmations

Further information

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

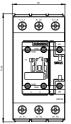
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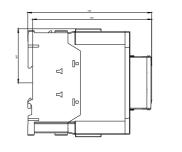
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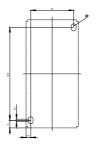
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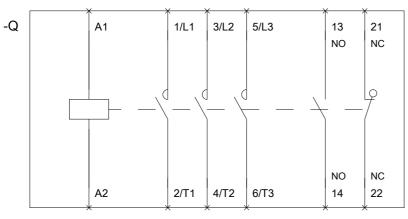
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Image database (product images, 2D dimension drawings, 3D models, device circuit diagrams, EPLAN macros, ...) http://www.automation.siemens.com/bilddb/cax_de.aspx?mlfb=3RT20361AP00&lang=en









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