



CONTACTOR,AC3:37KW/400V, 1NO+1NC, 20-33V AC/DC, WITH VARISTOR, 3-POLE, SIZE S2, SCREW TERMINAL

Figure similar

product brand name	SIRIUS
Product designation	3RT2 contactor
General technical data:	
Product expansion function module for communication	No
Insulation voltage	
• Rated value	690 V
maximum permissible voltage for safe isolation between coil and main contacts acc. to EN 60947-1	400 V
Degree of pollution	3
Shock resistance	
• at rectangular impulse	
— with AC	7.7g / 5 ms, 4.5g / 10 ms
— for DC	7.7g / 5 ms, 4.5g / 10 ms
• with sine pulse	
— with AC	12g / 5 ms, 7g / 10 ms
— for DC	12g / 5 ms, 7g / 10 ms
Surge voltage resistance Rated value	6 kV
Mechanical service life (switching cycles)	
• of the contactor typical	10 000 000
• of the contactor with added electronics-compatible auxiliary switch block typical	5 000 000
• of the contactor with added auxiliary switch block typical	10 000 000
Thermal short-time current restricted to 10 s	640 A

Protection class IP	
• on the front	IP00
• of the terminal	IP00
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	690 V
Operating current	
• at AC-1	
— at 400 V at ambient temperature 40 °C Rated value	90 A
— up to 690 V at ambient temperature 40 °C Rated value	90 A
— up to 690 V at ambient temperature 60 °C Rated value	80 A
• at AC-2 at 400 V Rated value	80 A
• at AC-3	
— at 400 V Rated value	80 A
— at 500 V Rated value	80 A
— at 690 V Rated value	58 A
• at AC-4 at 400 V Rated value	55 A
Operating current with 1 current path	
• at DC-1	
— at 24 V Rated value	55 A
— at 110 V Rated value	4.5 A
— at 220 V Rated value	1 A
— at 440 V Rated value	0.4 A
— at 600 V Rated value	0.25 A
• at DC-3 at DC-5	
— at 24 V Rated value	35 A
— at 110 V Rated value	2.5 A
— at 220 V Rated value	1 A
— at 440 V Rated value	0.1 A
— at 600 V Rated value	0.06 A
Operating current with 2 current paths in series	
• at DC-1	
— at 24 V Rated value	55 A

— at 110 V Rated value	45 A
— at 220 V Rated value	5 A
— at 440 V Rated value	1 A
— at 600 V Rated value	0.8 A
• at DC-3 at DC-5	
— at 110 V Rated value	25 A
— at 220 V Rated value	5 A
— at 24 V Rated value	55 A
— at 440 V Rated value	0.27 A
— at 600 V Rated value	0.16 A
Operating current with 3 current paths in series	
• at DC-1	
— at 24 V Rated value	55 A
— at 110 V Rated value	55 A
— at 220 V Rated value	45 A
— at 440 V Rated value	2.9 A
— at 600 V Rated value	1.4 A
• at DC-3 at DC-5	
— at 110 V Rated value	55 A
— at 220 V Rated value	25 A
— at 24 V Rated value	55 A
— at 440 V Rated value	0.6 A
— at 600 V Rated value	0.6 A
Operating power	
• at AC-1	
— at 230 V at 60 °C Rated value	28 kW
— at 400 V at 60 °C Rated value	49 kW
— at 690 V at 60 °C Rated value	85 kW
Operating power for ≥ 200000 operating cycles at AC-4	
• at 400 V Rated value	15.8 kW
• at 690 V Rated value	21.8 kW
Active power loss at AC-3 at 400 V for rated value of the operating current per conductor	
	5.7 W
Operating frequency	
• at AC-1 maximum	700 1/h
• at AC-2 maximum	350 1/h
• at AC-3 maximum	500 1/h
• at AC-4 maximum	150 1/h
No-load switching frequency	
• with AC	1 500 1/h
• for DC	1 500 1/h

Control circuit/ Control:	
Type of voltage of the control supply voltage	AC/DC
Control supply voltage with AC	
• at 50 Hz Rated value	20 ... 33 V
• at 60 Hz Rated value	20 ... 33 V
Control supply voltage for DC	
• Rated value	20 ... 33 V
Operating range factor control supply voltage rated value of the magnet coil with AC	
• at 50 Hz	0.8 ... 1.1
• at 60 Hz	0.8 ... 1.1
Operating range factor control supply voltage rated value of the magnet coil for DC	0.8 ... 1.1
Design of the surge suppressor	with varistor
Apparent pick-up power of the magnet coil with AC	
• at 50 Hz	40 V·A
• at 60 Hz	40 V·A
Apparent holding power of the magnet coil with AC	
• at 50 Hz	2 V·A
• at 60 Hz	2 V·A
Closing power of the magnet coil for DC	23 W
Holding power of the magnet coil for DC	1 W
Closing delay	
• with AC	45 ... 70 ms
• for DC	45 ... 60 ms
Opening delay	
• with AC	35 ... 55 ms
• for DC	35 ... 55 ms
Arcing time	10 ... 20 ms
Residual current of the electronics for control with signal <0>	
• with AC at 230 V maximum permissible	20 mA
• for DC at 24 V maximum permissible	20 mA
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-12 maximum	10 A

Operating current at AC-15	
• at 230 V Rated value	10 A
• at 400 V Rated value	3 A
• at 690 V Rated value	1 A
Operating current at DC-12	
• at 60 V Rated value	6 A
• at 110 V Rated value	3 A
• at 125 V Rated value	2 A
• at 220 V Rated value	1 A
• at 600 V Rated value	0.15 A
Operating current at DC-13	
• at 24 V Rated value	10 A
• at 60 V Rated value	2 A
• at 110 V Rated value	1 A
• at 125 V Rated value	0.9 A
• at 220 V Rated value	0.3 A
• at 600 V Rated value	0.1 A
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	
• at 480 V Rated value	65 A
• at 600 V Rated value	62 A
yielded mechanical performance [hp]	
• for single-phase AC motor	
— at 110/120 V Rated value	5 hp
— at 230 V Rated value	15 hp
• for three-phase AC motor	
— at 200/208 V Rated value	20 hp
— at 220/230 V Rated value	25 hp
— at 460/480 V Rated value	50 hp
— at 575/600 V Rated value	60 hp
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	
— with type of assignment 1 required	gL/gG NH 3NA, DIAZED 5SB, NEOZED 5SE: 250 A
— with type of assignment 2 required	gL/gG NH 3NA, DIAZED 5SB, NEOZED 5SE: 160 A
• 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
Mounting type	screw and snap-on mounting onto 35 mm standard mounting rail according to DIN EN 50022
<ul style="list-style-type: none"> • Side-by-side mounting 	Yes
Height	113.4 mm
Width	55 mm
Depth	130 mm
Required spacing	
<ul style="list-style-type: none"> • with side-by-side mounting <ul style="list-style-type: none"> — forwards — Backwards — upwards — downwards — at the side • for grounded parts <ul style="list-style-type: none"> — forwards — Backwards — upwards — at the side — downwards • for live parts <ul style="list-style-type: none"> — forwards — Backwards — upwards — downwards — at the side 	0 mm 0 mm 0 mm 0 mm 0 mm 0 mm 0 mm 50 mm 6 mm 50 mm 0 mm 0 mm 50 mm 50 mm 6 mm

Connections/ Terminals:

Type of electrical connection	
<ul style="list-style-type: none"> • for main current circuit • for auxiliary and control current circuit 	screw-type terminals screw-type terminals
Type of connectable conductor cross-section	
<ul style="list-style-type: none"> • for main contacts <ul style="list-style-type: none"> — single or multi-stranded — finely stranded with core end processing • for AWG conductors for main contacts • for auxiliary contacts <ul style="list-style-type: none"> — single or multi-stranded — finely stranded with core end processing • for AWG conductors for auxiliary contacts 	2x (1 ... 35 mm ²), 1x (1 ... 50 mm ²) 2x (1 ... 25 mm ²), 1x (1 ... 35 mm ²) 2x (18 ... 2), 1x (18 ... 1) 2x (0,5 ... 1,5 mm ²), 2x (0,75 ... 2,5 mm ²) 2x (0.5 ... 1.5 mm ²), 2x (0.75 ... 2.5 mm ²) 2x (20 ... 16), 2x (18 ... 14)

Safety related data:

Proportion of dangerous failures <ul style="list-style-type: none">• with low demand rate acc. to SN 31920• with high demand rate acc. to SN 31920	40 % 73 %
Product function <ul style="list-style-type: none">• Mirror contact acc. to IEC 60947-4-1• positively driven operation acc. to IEC 60947-5-1	Yes No
Protection against electrical shock	finger-safe when touched vertically from front acc. to IEC 60529




Mechanical data:

Size of contactor	S2
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Ambient conditions:

Installation altitude at height above sea level maximum	2 000 m
Ambient temperature <ul style="list-style-type: none">• during operation• during storage	-25 ... +60 °C -55 ... +80 °C

Certificates/ approvals:

General Product Approval	other
 CSA	
 UL	Confirmation Environmental Confirmations

Further information

Information- and Downloadcenter (Catalogs, Brochures,...)

<http://www.siemens.com/industrial-controls/catalogs>

Industry Mall (Online ordering system)

<http://www.siemens.com/industrymall>

Cax online generator

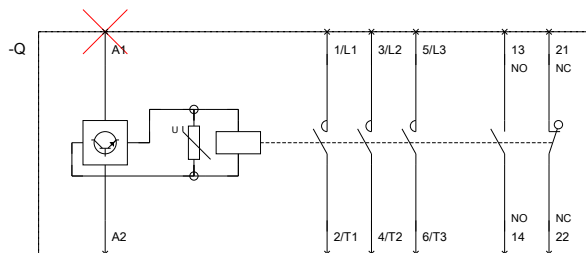
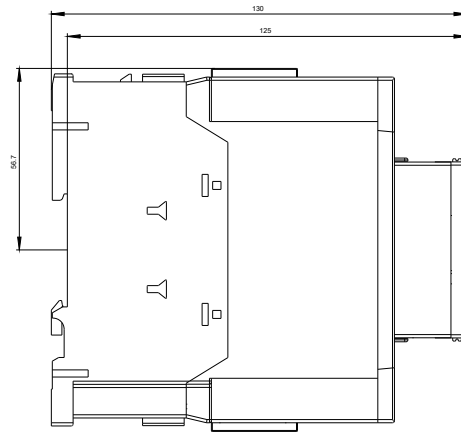
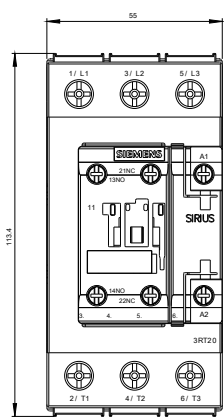
<http://support.automation.siemens.com/WW/CAXorder/default.aspx?lang=en&mfb=3RT20381NB30>

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

<https://support.industry.siemens.com/cs/ww/en/ps/3RT20381NB30>

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

http://www.automation.siemens.com/bilddb/cax_de.aspx?mfb=3RT20381NB30&lang=en



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