# **SIEMENS**

#### Data sheet

### 3RT2037-1CL24-3MA0

Power contactor, AC-3 65 A, 30 kW / 400 V 2 NO + 2 NC, 230 V AC 50/60 Hz, with plugged-in varistor, 3-pole, size S2 screw terminals Perm. mounted auxiliary switch



product brand name	SIRIUS
product designation	Power contactor
product type designation	3RT2
General technical data	
size of contactor	S2
product extension	
<ul> <li>function module for communication</li> </ul>	No
<ul> <li>auxiliary switch</li> </ul>	No
power loss [W] for rated value of the current	
<ul> <li>at AC in hot operating state</li> </ul>	11.4 W
<ul> <li>at AC in hot operating state per pole</li> </ul>	3.8 W
power loss [W] for rated value of the current without load current share typical	17.2 W
surge voltage resistance	
<ul> <li>of main circuit rated value</li> </ul>	6 kV
<ul> <li>of auxiliary circuit rated value</li> </ul>	6 kV
maximum permissible voltage for safe isolation	
<ul> <li>between coil and main contacts acc. to EN 60947-1</li> </ul>	400 V

protection class IP			
• on the front	IP20		
• of the terminal	IP00		
shock resistance at rectangular impulse			
• at AC	9.8g / 5 ms, 6.5g / 10 ms		
shock resistance with sine pulse			
• at AC	15.3g / 5 ms, 10.1g / 10 ms		
mechanical service life (switching cycles)			
<ul> <li>of 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			
• of the contactor with added auxiliary switch	10 000 000		
block typical			
reference code acc. to DIN EN 81346-2	Q		
Ambient conditions			
<ul> <li>installation altitude at height above sea level</li> </ul>	2 000 m		
maximum			
ambient temperature			
<ul> <li>during operation</li> </ul>	-25 +60 °C		
• during storage	-55 +80 °C		
Main circuit			
number of poles for main current circuit	3		
number of NO contacts for main contacts	3		
operating voltage			
<ul> <li>at AC-3 rated value maximum</li> </ul>	690 V		
operating current			
• at AC-1 at 400 V			
— at ambient temperature 40 °C rated value	80 A		
● at AC-1			
— up to 690 V at ambient temperature 40 °C rated value	80 A		
— up to 690 V at ambient temperature 60 °C rated value	70 A		
• at AC-3			
— at 400 V rated value	65 A		
— at 500 V rated value	65 A		
— at 690 V rated value	47 A		
• at AC-4 at 400 V rated value	55 A		
• at AC-5a up to 690 V rated value	70.4 A		
• at AC-5b up to 400 V rated value	53.9 A		
● at AC-6a			

<ul> <li>— up to 230 V for current peak value n=20 rated value</li> </ul>	56.9 A
— up to 400 V for current peak value n=20 rated value	56.9 A
— up to 500 V for current peak value n=20	56.9 A
rated value	
— up to 690 V for current peak value n=20 rated value	47 A
● at AC-6a	
— up to 230 V for current peak value n=30 rated value	38 A
— up to 400 V for current peak value n=30 rated value	38 A
— up to 500 V for current peak value n=30 rated value	38 A
— up to 690 V for current peak value n=30 rated value	38 A
minimum cross-section in main circuit	
<ul> <li>at maximum AC-1 rated value</li> </ul>	25 mm <sup>2</sup>
operating current for approx. 200000 operating cycles at AC-4	
• at 400 V rated value	28 A
• at 690 V rated value	22 A
operating current	
<ul> <li>at 1 current path at DC-1</li> </ul>	
— 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
<ul> <li>with 2 current paths in series at DC-1</li> </ul>	
— at 24 V rated value	55 A
— at 110 V rated value	45 A
— at 110 V rated value — at 220 V rated value	45 A 5 A
— at 220 V rated value	5 A
— at 220 V rated value — at 440 V rated value	5 A 1 A
— at 220 V rated value — at 440 V rated value — at 600 V rated value	5 A 1 A
<ul> <li>at 220 V rated value</li> <li>at 440 V rated value</li> <li>at 600 V rated value</li> <li>with 3 current paths in series at DC-1</li> </ul>	5 A 1 A 0.8 A
<ul> <li>at 220 V rated value</li> <li>at 440 V rated value</li> <li>at 600 V rated value</li> <li>with 3 current paths in series at DC-1</li> <li>at 24 V rated value</li> </ul>	5 A 1 A 0.8 A 55 A
<ul> <li>at 220 V rated value</li> <li>at 440 V rated value</li> <li>at 600 V rated value</li> <li>with 3 current paths in series at DC-1</li> <li>at 24 V rated value</li> <li>at 110 V rated value</li> </ul>	5 A 1 A 0.8 A 55 A 55 A
<ul> <li>at 220 V rated value</li> <li>at 440 V rated value</li> <li>at 600 V rated value</li> <li>with 3 current paths in series at DC-1</li> <li>at 24 V rated value</li> <li>at 110 V rated value</li> <li>at 220 V rated value</li> </ul>	5 A 1 A 0.8 A 55 A 55 A 45 A

<ul> <li>at 1 current path at DC-3 at DC-5</li> </ul>	
— 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
<ul> <li>with 2 current paths in series at DC-3 at DC-5</li> </ul>	
— at 24 V rated value	55 A
— at 110 V rated value	25 A
— at 220 V rated value	5 A
— at 440 V rated value	0.27 A
— at 600 V rated value	0.16 A
<ul> <li>with 3 current paths in series at DC-3 at DC-5</li> </ul>	
— at 24 V rated value	55 A
— at 110 V rated value	55 A
— at 220 V rated value	25 A
— at 440 V rated value	0.6 A
— at 600 V rated value	0.35 A
operating power	
• at AC-2 at 400 V rated value	30 kW
• at AC-3	
— at 230 V rated value	18.5 kW
— at 400 V rated value	30 kW
— at 500 V rated value	37 kW
— at 690 V rated value	37 kW
operating power for approx. 200000 operating cycles	
at AC-4	
• at 400 V rated value	14.7 kW
• at 690 V rated value	20 kW
operating apparent output at AC-6a	
<ul> <li>up to 230 V for current peak value n=20 rated value</li> </ul>	22.6 kV·A
<ul> <li>up to 400 V for current peak value n=20 rated value</li> </ul>	39.4 kV·A
<ul> <li>up to 500 V for current peak value n=20 rated value</li> </ul>	49.2 kV·A
<ul> <li>up to 690 V for current peak value n=20 rated value</li> </ul>	56.1 kV·A
operating apparent output at AC-6a	
<ul> <li>up to 230 V for current peak value n=30 rated value</li> </ul>	15.1 kV·A
<ul> <li>up to 400 V for current peak value n=30 rated value</li> </ul>	26.2 kV·A

<ul> <li>up to 500 V for current peak value n=30 rated value</li> </ul>	32.8 kV·A
<ul> <li>up to 690 V for current peak value n=30 rated value</li> </ul>	45.3 kV·A
short-time withstand current in cold operating state	
up to 40 °C	
<ul> <li>limited to 1 s switching at zero current maximum</li> </ul>	1 055 A; Use minimum cross-section acc. to AC-1 rated value
<ul> <li>limited to 5 s switching at zero current maximum</li> </ul>	730 A; Use minimum cross-section acc. to AC-1 rated value
<ul> <li>limited to 10 s switching at zero current maximum</li> </ul>	520 A; Use minimum cross-section acc. to AC-1 rated value
<ul> <li>limited to 30 s switching at zero current maximum</li> </ul>	336 A; Use minimum cross-section acc. to AC-1 rated value
<ul> <li>limited to 60 s switching at zero current maximum</li> </ul>	272 A; Use minimum cross-section acc. to AC-1 rated value
no-load switching frequency	
• at AC	5 000 1/h
operating frequency	
• at AC-1 maximum	800 1/h
• at AC-2 maximum	400 1/h
● at AC-3 maximum	700 1/h
• at AC-4 maximum	200 1/h
Control circuit/ Control	
type of voltage of the control supply voltage	AC
control supply voltage at AC	
• at 50 Hz rated value	230 V
• at 60 Hz rated value	230 V
operating range factor control supply voltage rated	
value of magnet coil at AC	
• at 50 Hz	0.8 1.1
• at 60 Hz	0.85 1.1
design of the surge suppressor	with varistor
apparent pick-up power of magnet coil at AC	
● at 50 Hz	210 V·A
● at 60 Hz	188 V·A
inductive power factor with closing power of the coil	
• at 50 Hz	0.69
● at 60 Hz	0.65
apparent holding power of magnet coil at AC	
• at 50 Hz	17.2 V·A
• at 60 Hz	16.5 V·A

0.36
0.39
10 80 ms
10 18 ms
10 20 ms
Standard A1 - A2
2
2
10 A
6 A
3 A
2 A
1 A
10 A
6 A
6 A
3 A
2 A
1 A
0.15 A
6 A
2 A
2 A
1 A
0.9 A
0.3 A
0.1 A
1 faulty switching per 100 million (17 V, 1 mA)

• at 600 V rated value	52 A			
yielded mechanical performance [hp]				
<ul> <li>for single-phase AC motor</li> </ul>				
— at 110/120 V rated value	5 hp			
— at 230 V rated value	10 hp			
<ul> <li>for three-phase AC motor</li> </ul>				
— at 200/208 V rated value	20 hp			
— at 220/230 V rated value	20 hp			
— at 460/480 V rated value	50 hp			
— at 575/600 V rated value	50 hp			
contact rating of auxiliary contacts according to UL	A600 / Q600			
Short-circuit protection				
design of the fuse link				
for short-circuit protection of the main circuit				
— with type of coordination 1 required	gG: 250 A (690 V, 100 kA), aM: 160 A (690 V, 100 kA), BS88: 200 A (415 V, 80 kA)			
— with type of assignment 2 required	gG: 125A (690V,100kA), aM: 63A (690V,100kA), BS88: 100A (415V,80kA)			
<ul> <li>for short-circuit protection of the auxiliary switch required</li> </ul>	gG: 10 A (500 V, 1 kA)			
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 60715			
<ul> <li>side-by-side mounting</li> </ul>	Yes			
height	114 mm			
width	55 mm			
depth	174 mm			
required spacing				
<ul> <li>with side-by-side mounting</li> </ul>				
— forwards	10 mm			
— upwards	10 mm			
— downwards	10 mm			
— at the side	0 mm			
<ul> <li>for grounded parts</li> </ul>				
— forwards	10 mm			
— upwards	10 mm			
— at the side	6 mm			
— downwards	10 mm			
<ul> <li>for live parts</li> </ul>				

- torwards10 mm- upwards10 mm- downwards10 mm- at the side6 mmConnections/ TerminalsScrew-type terminals• for main current circuitscrew-type terminals• for main current circuitscrew-type terminals• of main current circuitscrew-type terminals• of main contactsScrew-type terminals• finely stranded with core end processing1 35 mm²• finely stranded with core end processing0.5 2.5 mm²• single or multi-strandedSc (0.5 1.5 mm²), 2x (0.75 2.5 mm²)• type of connectable conductor cross-sections for auxiliary contactsScrew-type terminals• finely stranded with core end processingSc (0.5 1.5 mm²), 2x (0.75 2.5 mm²)• type of connectable conductor cross-sections for auxiliary contactsSc (0.5 1.5 mm²), 2x (0.75 2.5 mm²) <tr< th=""><th></th><th>10</th></tr<>		10
	— forwards	10 mm
Jost the side         B mm           Connections/ Terminals         screw-type terminals           i for main current circuit         screw-type terminals           i of rauxillary and control current circuit         screw-type terminals           i of rauxillary contacts         Screw-type terminals           i of rauxillary contacts         Screw-type terminals           i of main contacts         Screw-type terminals           i of main contacts         2x (1 35 mm²), 1x (1 50 mm²)           i finally stranded with core end processing         2x (1 25 mm²), 1x (1 50 mm²)           i finally stranded with core end processing         1 35 mm²           i finally stranded with core end processing         1 35 mm²           i finally stranded with core end processing         1 35 mm²           i finally stranded with core end processing         1 35 mm²           i finally stranded with core end processing         2x (0,5 1,5 mm², 2x (0,75 2,5 mm²)           i finally stranded with core end processing         2x (0,5 1,5 mm², 2x (0,75 2,5 mm²)           i finally stranded with core end processing         2x (0,5 1,5 mm², 2x (0,75 2,5 mm²)           i finally stranded with core end processing         2x (0,5 1,5 mm², 2x (0,75 2,5 mm²)           i for auxiliary contacts         2x (0,5 1,5 mm², 2x (0,75 2,5 mm²)	•	
Connectable conductor ross-sections       screw-type terminals         • for main current circuit       screw-type terminals         • for auxiliary contacts       Screw-type terminals         • of magnet coll       Screw-type terminals         • for main contracts       Screw-type terminals         • of magnet coll       Screw-type terminals         • for main contacts       Screw-type terminals         • for main contacts       2x (1 35 mm <sup>2</sup> ), 1x (1 50 mm <sup>2</sup> )         • finely stranded with core end processing       2x (1 25 mm <sup>2</sup> ), 1x (1 50 mm <sup>2</sup> )         • finely stranded with core end processing       1 35 mm <sup>2</sup> • finely stranded with core end processing       1 35 mm <sup>2</sup> • finely stranded with core end processing       0.5 2.5 mm <sup>2</sup> • finely stranded with core end processing       0.5 2.5 mm <sup>2</sup> • finely stranded with core end processing       2x (0.5 1.5 mm <sup>2</sup> ), 2x (0.75 2.5 mm <sup>2</sup> )         • finely stranded with core end processing       2x (0.5 1.5 mm <sup>2</sup> ), 2x (0.75 2.5 mm <sup>2</sup> )         • finely stranded with core end processing       2x (0.5 1.5 mm <sup>2</sup> ), 2x (0.75 2.5 mm <sup>2</sup> )         • finely stranded with core end processing       2x (0.5 1.5 mm <sup>2</sup> ), 2x (0.75 2.5 mm <sup>2</sup> )         • for main contacts       18 1         • for auxiliary contacts       28 (0.5		
type of electrical connectionscrew-type terminals• for main current circuitscrew-type terminals• for auxiliary and control current circuitscrew-type terminals• at contactor for auxiliary contactsScrew-type terminals• of magnet coilScrew-type terminals• for main contactsScrew-type terminals• for main contacts2x (1 35 mm²), 1x (1 50 mm²)- finely stranded with core end processing2x (1 35 mm²), 1x (1 50 mm²)• at AWG conductor for main contacts2x (1 25 mm²), 1x (1 50 mm²)connectable conductor cross-section for main contacts2x (1 25 mm²)• inely stranded with core end processing1 35 mm²• inely stranded with core end processing0.5 2.5 mm²• single or multi-stranded0.5 2.5 mm²• inely stranded with core end processing0.5 2.5 mm²• inely stranded with core end processing0.5 2.5 mm²• ype of connectable conductor cross-sections for auxiliary contacts2x (0,5 1,5 mm²), 2x (0,75 2,5 mm²)• ype of connectable conductor cross-sections at AWG conductors for auxiliary contacts2x (0,5 1,5 mm²), 2x (0,75 2,5 mm²)• ype of connectable conductor cross-sections for auxiliary contacts18 1• for main contacts18 1• for main contacts18 1• for auxiliary contacts1000 000proportion of dangerous failures40 %• with high demand rate acc. to SN 3192073 %• with high demand rate acc. to SN 3192073 %• with high demand rate acc.	— at the side	6 mm
• for main current circuitscrew-type terminals• for auxiliary and control current circuitscrew-type terminals• of magnet coilScrew-type terminals• of magnet coilScrew-type terminals• for main contactsScrew-type terminals• of main contacts2x (1 35 mm²), 1x (1 50 mm²)• finely stranded with core end processing2x (1 25 mm²), 1x (1 50 mm²)• finely stranded with core end processing2x (1 25 mm²), 1x (1 50 mm²)• finely stranded with core end processing1 35 mm²• finely stranded with core end processing1 35 mm²• finely stranded with core end processing0.5 25 mm²• finely stranded with core end processing2x (0.5 1.5 mm²), 2x (0.75 2.5 mm²)• type of connectable conductor cross-sections2x (0.5 1.5 mm²), 2x (0.75 2.5 mm²)• finely stranded with core end processing2x (0.5 1.5 mm²), 2x (0.75 2.5 mm²)• type of connectable conductor cross-sections2x (0.5 1.5 mm²), 2x (0.75 2.5 mm²)• finely stranded with core end processing2x (0.5 1.5 mm²), 2x (0.75 2.5 mm²)• for main contacts2x (0.5 1.5 mm²), 2x (0.75 2.5 mm²)• for main contacts18 1• for main contacts20 14Sterey related data20 14Sterey related data40 %• with high demand		
• for auxiliary and control current circuitscrew-type terminals• of magnet coilScrew-type terminalstype of connectable conductor cross-sectionsScrew-type terminals• of main contacts2x (135 mm²), 1x (150 mm²)- inley standed with core end processing2x (182), 1x (181)contacts2x (182), 1x (181)contacts135 mm²• inley standed with core end processing135 mm²• inley standed with core end processing135 mm²• inley standed with core end processing0.525 mm²• inley standed with core end processing0.525 mm²• inley standed with core end processing0.525 mm²• inley standed with core end processing2x (0.51,5 mm²), 2x (0.752,5 mm²)• inley standed with core end processing2x (0.51,5 mm²), 2x (0.752,5 mm²)• type of connectable conductor cross-sections2x (0.51,5 mm²), 2x (0.752,5 mm²)• type of connectable conductor cross-sections2x (0.51,5 mm²), 2x (0.752,5 mm²)• type of connectable conductor cross-sections2x (0.51,5 mm²), 2x (0.752,5 mm²)• type of connectable conductor cross-sections2x (0.51,5 mm²), 2x (0.752,5 mm²)• type of connectable conductor cross-sections2x (0.51,5 mm²), 2x (0.752,5 mm²)• type of connectable conductor cross-sections2x (0.51,5 mm²), 2x (0.752,5 mm²)• type of connectable conductor cross-sections2x (0.51,5 mm²), 2x (0.752,5 mm²)• type of connectable conductor cross-sections2x (0.51,5 mm²), 2x (0.752,5 mm²)• type of conne	type of electrical connection	
• at contactor for auxiliary contacts       Screw-type terminals         • of magnet coil       Screw-type terminals         • 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)         • at AWG conductor for save section for main contacts       2x (1 25 mm²), 1x (1 35 mm²)         • finely stranded with core end processing       1 35 mm²         • finely stranded with core end processing       1 35 mm²         • finely stranded with core end processing       0.5 2.5 mm²         • single or multi-stranded       0.5 2.5 mm²         • single or multi-stranded       0.5 2.5 mm²         • finely stranded with core end processing       2x (0.5 1.5 mm²), 2x (0.75 2.5 mm²)         • type of connectable conductor cross-sections for auxiliary contacts       2x (20 1.5 mm²), 2x (0.75 2.5 mm²)         • type of connectable conductor cross-sections at AWG conductors for auxiliary contacts       2x (20 1.5 mm²), 2x (0.75 2.5 mm²)         • for auxiliary contacts       2x (20 1.5 mm²), 2x (0.75 2.5 mm²)         • for auxiliary contacts       2x (20 1.6 m²), 2x (0.75 2.5 mm²)         • for auxiliary contacts       20 14         • for auxiliary contacts       20 14         • for main contacts<	<ul> <li>for main current circuit</li> </ul>	screw-type terminals
• of magnet coil       Screw-lype terminals         type of connectable conductor cross-sections       • (in main contacts         • - single or multi-stranded       2x (1 35 mm <sup>2</sup> ), 1x (1 50 mm <sup>3</sup> )         • at AWG conductors for main contacts       2x (1 25 mm <sup>2</sup> ), 1x (1 35 mm <sup>3</sup> )         • finely stranded with core end processing       1 35 mm <sup>3</sup> • finely stranded with core end processing       1 35 mm <sup>3</sup> • finely stranded with core end processing       0.5 2.5 mm <sup>4</sup> • finely stranded with core end processing       0.5 2.5 mm <sup>4</sup> • single or multi-stranded       0.5 2.5 mm <sup>4</sup> • finely stranded with core end processing       0.5 2.5 mm <sup>4</sup> • type of connectable conductor cross-sections for auxiliary contacts       2x (0.5 1.5 mm <sup>3</sup> ), 2x (0.75 2.5 mm <sup>4</sup> )         • type of connectable conductor cross-sections for auxiliary contacts       2x (20.5 1.5 mm <sup>3</sup> ), 2x (0.75 2.5 mm <sup>4</sup> )         • finely stranded with core end processing       2x (20.5 1.5 mm <sup>3</sup> ), 2x (0.75 2.5 mm <sup>4</sup> )         • for auxiliary contacts       18 1         • for auxiliary contacts       18 1         • for auxiliary contacts       18 1         • for auxiliary contacts       1000 000         • for auxiliary contacts       1000 000         • for auxiliary contacts <t< td=""><td><ul> <li>for auxiliary and control current circuit</li> </ul></td><td>screw-type terminals</td></t<>	<ul> <li>for auxiliary and control current circuit</li> </ul>	screw-type terminals
type of connectable conductor cross-sectionsinformain contacts $2x (1 35 mm^3), 1x (1 50 mm^3)$ - single or multi-stranded $2x (1 35 mm^3), 1x (1 50 mm^3)$ $2x (1 25 mm^3), 1x (1 50 mm^3)$ - finely stranded with core end processing $2x (1 25 mm^3), 1x (1 35 mm^3)$ $2x (1 25 mm^3), 1x (1 35 mm^3)$ - finely stranded with core end processing $2x (1 25 mm^3), 1x (1 35 mm^3)$ $2x (1 25 mm^3), 1x (1 35 mm^3)$ - finely stranded with core end processing $1 35 mm^3$ - finely stranded with core end processing $0.5 2.5 mm^3$ - single or multi-stranded $2x (0.5 1.5 mm^3), 2x (0.75 2.5 mm^3)$ - finely stranded with core end processing $2x (0.5 1.5 mm^3), 2x (0.75 2.5 mm^3)$ - finely stranded with core end processing $2x (0.5 1.5 mm^3), 2x (0.75 2.5 mm^3)$ - finely stranded with core end processing $2x (0.5 1.5 mm^3), 2x (0.75 2.5 mm^3)$ - for auxiliary contacts $18 1$ - for auxiliary contacts $18 1$ - for auxiliary contacts $1000 000$ - for auxiliary contacts $1000 000$ - with high demand rate acc. to SN 31920 $1000 000$ - with high demand rate acc. to SN 31920 $1000 000$ - with high demand rate acc. to SN 31920 $73 \%$ - with high demand rate acc. to SN 31920 $100 FIT$ </td <td><ul> <li>at contactor for auxiliary contacts</li> </ul></td> <td>Screw-type terminals</td>	<ul> <li>at contactor for auxiliary contacts</li> </ul>	Screw-type terminals
<ul> <li>for main contacts         <ul> <li>single or multi-stranded</li> <li>finely stranded with core end processing</li> <li>t AWG conductors for main contacts</li> </ul> </li> <li>connectable conductor cross-section for main contacts</li> <li>finely stranded with core end processing</li> <li>type of connectable conductor cross-sections for auxiliary contacts</li> <li>of one conductor cross-sections for auxiliary contacts</li> <li>finely stranded with core end processing</li> <li>type of connectable conductor cross-sections for auxiliary contacts</li> <li>single or multi-stranded</li> <li>finely stranded with core end processing</li> <li>type of connectable conductor cross-sections for auxiliary contacts</li> <li>a single or multi-stranded</li> <li>finely stranded with core end processing</li> <li>type of connectable conductor cross-sections at AWG comber as coded connectable conductor cross-sections at AWG conductors for auxiliary contacts</li> <li>for auxiliary contacts</li> <li>for auxiliary contacts</li> <li>a site acc. to SN 31920</li> <li>with high demand rate acc. to SN 31920</li> <li>with high demand rate acc. to SN 31920</li> <li>with high demand rate acc. to SN 31920</li> <li>with low demand rate acc.</li></ul>	<ul> <li>of magnet coil</li> </ul>	Screw-type terminals
	type of connectable conductor cross-sections	
	<ul> <li>for main contacts</li> </ul>	
• at AWG conductors for main contacts         2x (18 2), 1x (18 1)           connectable conductor cross-section for main contacts         1 35 mm <sup>2</sup> • finely stranded with core end processing         1 35 mm <sup>2</sup> connectable conductor cross-section for auxiliary contacts         0.5 2.5 mm <sup>2</sup> • single or multi-stranded         0.5 2.5 mm <sup>2</sup> • type of connectable conductor cross-sections for auxiliary contacts         2x (0,5 1,5 mm <sup>3</sup> ), 2x (0,75 2,5 mm <sup>2</sup> )           • type of connectable conductor cross-sections at AWG conductors for auxiliary contacts         2x (0,5 1,5 mm <sup>3</sup> ), 2x (0,75 2,5 mm <sup>2</sup> )           • type of connectable conductor cross-sections at AWG conductors for auxiliary contacts         2x (0,5 1,5 mm <sup>3</sup> ), 2x (0,75 2,5 mm <sup>2</sup> )           • type of connectable conductor cross-sections at AWG conductors for auxiliary contacts         18 1           • for main contacts         18 1           • for auxiliary contacts         20 14           Safety related data         20 14           section         1000 000           • with high demand rate acc. to SN 31920         73 %           • with low demand rate acc. to SN 31920         73 %           failure rate [FIT]         100 FIT           • with low demand rate acc. to SN 31920         100 FIT	— single or multi-stranded	2x (1 35 mm²), 1x (1 50 mm²)
connectable conductor cross-section for main contacts1 35 mm²• finely stranded with core end processing1 35 mm²connectable conductor cross-section for auxiliary contacts0.5 2.5 mm²• single or multi-stranded0.5 2.5 mm²• type of connectable conductor cross-sections for auxiliary contacts2x (0,5 1,5 mm²), 2x (0,75 2,5 mm²)- single or multi-stranded2x (0,5 1,5 mm²), 2x (0,75 2,5 mm²)- finely stranded with core end processing 0 - finely stranded with core end processing 1 - finely stranded with core end processing 2 x (0,5 1,5 mm²), 2x (0,75 2,5 mm²)• type of connectable conductor cross-sections at AWG conductors for auxiliary contacts2x (0,5 1,5 mm²), 2x (0,75 2,5 mm²)• type of connectable conductor cross-sections at AWG conductors for auxiliary contacts18 1• for main contacts • for main contacts18 1• for auxiliary contacts20 14Safety related data20 14Proportion of dangerous failures • with high demand rate acc. to SN 319201000 000proportion of dangerous failures • with high demand rate acc. to SN 3192040 %• with high demand rate acc. to SN 3192073 %failure rate [FIT] • with low demand rate acc. to SN 319201000 FITproduct function100 FIT	— finely stranded with core end processing	2x (1 25 mm²), 1x (1 35 mm²)
contacts	<ul> <li>at AWG conductors for main contacts</li> </ul>	2x (18 2), 1x (18 1)
• finely stranded with core end processing1 35 mm²connectable conductor cross-section for auxiliary contacts0.5 2.5 mm²• single or multi-stranded0.5 2.5 mm²• finely stranded with core end processing0.5 2.5 mm²• type of connectable conductor cross-sections for auxiliary contacts2x (0,5 1,5 mm²), 2x (0,75 2,5 mm²)- single or multi-stranded2x (0,5 1,5 mm²), 2x (0,75 2,5 mm²)- finely stranded with core end processing2x (0,5 1,5 mm²), 2x (0,75 2,5 mm²)- finely stranded with core end processing2x (20 16), 2x (18 14)AWG conductors for auxiliary contacts2x (20 16), 2x (18 14)AWG conductors for auxiliary contacts18 1• for main contacts18 1• for auxiliary contacts20 14Safety related data1000 000Proportion of dangerous failures40 %• with high demand rate acc. to SN 3192073 %• with high demand rate acc. to SN 31920100 FIT• with high demand rate acc. to SN 31920100 FIT		
contactsContacts• single or multi-stranded0.5 2.5 mm²• finely stranded with core end processing0.5 2.5 mm²• type of connectable conductor cross-sections for auxiliary contacts2x (0.5 1,5 mm²), 2x (0.75 2,5 mm²)- single or multi-stranded2x (0.5 1,5 mm²), 2x (0.75 2,5 mm²)- finely stranded with core end processing2x (0.5 1,5 mm²), 2x (0.75 2,5 mm²)• type of connectable conductor cross-sections at AWG conductors for auxiliary contacts2x (0.5 1,6 mm²), 2x (0.75 2,5 mm²)• type of connectable conductor cross-sections at AWG conductors for auxiliary contacts18 14)• for main contacts18 1• for main contacts18 1• for auxiliary contacts100 000Stelety related data1000 000proportion of dangerous failures • with high demand rate acc. to SN 3192040 %• with high demand rate acc. to SN 3192073 %• with high demand rate acc. to SN 31920100 FIT• with high demand rate acc. to SN 31920100 FIT		1 35 mm²
• single or multi-stranded0.5 2.5 mm²• finely stranded with core end processing0.5 2.5 mm²• type of connectable conductor cross-sections for auxiliary contacts2x (0,5 1,5 mm²), 2x (0,75 2,5 mm²)- finely stranded with core end processing • finely stranded with core end processing • type of connectable conductor cross-sections at AWG conductors for auxiliary contacts2x (0,5 1,5 mm²), 2x (0,75 2,5 mm²)AWG conductors for auxiliary contacts2x (20 16), 2x (18 14)AWG conductors for auxiliary contacts18 1• for main contacts18 1• for auxiliary contacts100 000Stety related data1000 000Proportion of dangerous failures • with high demand rate acc. to SN 319201000 000proportion of dangerous failures • with high demand rate acc. to SN 3192073 %failure rate [FIT] • with low demand rate acc. to SN 31920100 FITproduct function100 FIT	connectable conductor cross-section for auxiliary	
• finely stranded with core end processing0.5 2.5 mm²• type of connectable conductor cross-sections for auxiliary contacts2x (0,5 1,5 mm²), 2x (0,75 2,5 mm²)- finely stranded with core end processing2x (0.5 1,5 mm²), 2x (0,75 2,5 mm²)• finely stranded with core end processing2x (0.5 1,5 mm²), 2x (0,75 2,5 mm²)• type of connectable conductor cross-sections at AWG conductors for auxiliary contacts2x (20 16), 2x (18 14)AWG number as coded connectable conductor cross section18 1• for main contacts18 1• for auxiliary contacts20 14Safety related data1000 000proportion of dangerous failures1 000 000• with high demand rate acc. to SN 3192040 %• with high demand rate acc. to SN 3192073 %failure rate [FIT] • with low demand rate acc. to SN 31920100 FIT• with how demand rate acc. to SN 31920100 FIT	contacts	
Interpretention of the protocolog• type of connectable conductor cross-sections for auxiliary contacts2x (0,5 1,5 mm²), 2x (0,75 2,5 mm²)- single or multi-stranded2x (0,5 1,5 mm²), 2x (0,75 2,5 mm²)- finely stranded with core end processing type of connectable conductor cross-sections at AWG conductors for auxiliary contacts2x (20 16), 2x (18 14)AWG number as coded connectable conductor cross section18 1• for main contacts18 1• for auxiliary contacts20 14Safety related data1000 000proportion of dangerous failures40 %• with high demand rate acc. to SN 3192040 %• with high demand rate acc. to SN 3192073 %failure rate [FIT] • with low demand rate acc. to SN 319201000 FITproduct function1000 FIT	<ul> <li>single or multi-stranded</li> </ul>	0.5 2.5 mm <sup>2</sup>
for auxiliary contacts2x (0,5 1,5 mm²), 2x (0,75 2,5 mm²)- single or multi-stranded2x (0,5 1,5 mm²), 2x (0,75 2,5 mm²)- finely stranded with core end processing2x (0,5 1,5 mm²), 2x (0,75 2,5 mm²)+ type of connectable conductor cross-sections at2x (20 16), 2x (18 14)AWG conductors for auxiliary contacts2x (20 16), 2x (18 14)AWG number as coded connectable conductor cross2x (20 16), 2x (18 14)section18 1• for main contacts18 1• for auxiliary contacts20 14Safety related data1000 000proportion of dangerous failures40 %• with high demand rate acc. to SN 3192040 %• with high demand rate acc. to SN 3192073 %failure rate [FIT]100 FIT• with low demand rate acc. to SN 31920100 FIT	<ul> <li>finely stranded with core end processing</li> </ul>	0.5 2.5 mm <sup>2</sup>
single or multi-stranded2x (0,5 1,5 mm²), 2x (0,75 2,5 mm²) finely stranded with core end processing2x (0.5 1,5 mm²), 2x (0.75 2,5 mm²)+ type of connectable conductor cross-sections at AWG conductors for auxiliary contacts2x (20 16), 2x (18 14)AWG number as coded connectable conductor cross- section18 1+ for main contacts18 1+ for auxiliary contacts20 14Safety related data20 14B10 value1 000 000+ with high demand rate acc. to SN 319201 000 000proportion of dangerous failures40 %+ with low demand rate acc. to SN 3192073 %i with high demand rate acc. to SN 31920100 FIT+ with low demand rate acc. to SN 31920100 FIT		
finely stranded with core end processing • type of connectable conductor cross-sections at AWG conductors for auxiliary contacts2x (0.5 1.5 mm²), 2x (0.75 2.5 mm²) 2x (20 16), 2x (18 14)AWG number as coded connectable conductor cross section2x (20 16), 2x (18 14)• for main contacts18 1 20 14• for auxiliary contacts18 1 20 14Safety related data20 14B10 value • with high demand rate acc. to SN 319201 000 000proportion of dangerous failures • with high demand rate acc. to SN 319201 000 000failure rate [FIT] • with low demand rate acc. to SN 31920100 FITproduct function100 FIT		$2x (0.5 \pm 1.5 \text{ mm}^2) 2x (0.75 \pm 2.5 \text{ mm}^2)$
• type of connectable conductor cross-sections at AWG conductors for auxiliary contacts2x (20 16), 2x (18 14)AWG number as coded connectable conductor cross section18 1• for main contacts18 1• for auxiliary contacts20 14Safety related data1000 000Proportion of dangerous failures1 000 000• with high demand rate acc. to SN 319201 000 000• with high demand rate acc. to SN 3192073 %• with high demand rate acc. to SN 3192073 %• with low demand rate acc. to SN 31920100 FIT• with low demand rate acc. to SN 31920100 FIT	-	
AWG conductors for auxiliary contactsAWG number as coded connectable conductor cross section• for main contacts18 1• for auxiliary contacts20 14Safety related dataB10 value• with high demand rate acc. to SN 319201 000 000proportion of dangerous failures• with low demand rate acc. to SN 3192040 %• with high demand rate acc. to SN 31920100 FIT• with low demand rate acc. to SN 31920100 FIT		
section18 1• for main contacts18 1• for auxiliary contacts20 14Safety related dataB10 value• with high demand rate acc. to SN 31920• with high demand rate acc. to SN 319201 000 000proportion of dangerous failures• with low demand rate acc. to SN 3192040 %• with high demand rate acc. to SN 3192073 %failure rate [FIT]100 FIT• with low demand rate acc. to SN 31920100 FIT		
• for main contacts18 1 20 14Safety related dataB10 value • with high demand rate acc. to SN 319201 000 000proportion of dangerous failures • with low demand rate acc. to SN 3192040 %failure rate [FIT] • with how demand rate acc. to SN 31920100 FITproduct function100 FIT		
• for auxiliary contacts20 14Safety related dataB10 value • with high demand rate acc. to SN 319201 000 000proportion of dangerous failures • with low demand rate acc. to SN 3192040 %• with high demand rate acc. to SN 3192040 %• with high demand rate acc. to SN 31920100 FITproduct function100 FIT		
Safety related data         B10 value       1 000 000         owith high demand rate acc. to SN 31920       1 000 000         proportion of dangerous failures       40 %         owith high demand rate acc. to SN 31920       40 %         failure rate [FIT]       73 %         owith how demand rate acc. to SN 31920       100 FIT         product function       100 FIT	<ul> <li>for main contacts</li> </ul>	
B10 value       1 000 000         • with high demand rate acc. to SN 31920       1 000 000         proportion of dangerous failures       40 %         • with low demand rate acc. to SN 31920       40 %         • with high demand rate acc. to SN 31920       73 %         failure rate [FIT]       100 FIT         • with low demand rate acc. to SN 31920       100 FIT	<ul> <li>for auxiliary contacts</li> </ul>	20 14
• with high demand rate acc. to SN 319201 000 000proportion of dangerous failures40 %• with low demand rate acc. to SN 3192040 %• with high demand rate acc. to SN 3192073 %failure rate [FIT]100 FIT• with low demand rate acc. to SN 31920100 FIT	Safety related data	
proportion of dangerous failures       40 %         • with low demand rate acc. to SN 31920       40 %         • with high demand rate acc. to SN 31920       73 %         failure rate [FIT]       100 FIT         • with low demand rate acc. to SN 31920       100 FIT	B10 value	
<ul> <li>with low demand rate acc. to SN 31920</li> <li>with high demand rate acc. to SN 31920</li> <li>failure rate [FIT]</li> <li>with low demand rate acc. to SN 31920</li> <li>forduct function</li> <li>40 %</li> <li>73 %</li> <li>100 FIT</li> </ul>	• with high demand rate acc. to SN 31920	1 000 000
with high demand rate acc. to SN 31920     73 %     failure rate [FIT]     with low demand rate acc. to SN 31920     100 FIT     product function	proportion of dangerous failures	
failure rate [FIT]     • with low demand rate acc. to SN 31920     100 FIT       product function     • • • • • • • • • • • • • • • • • • •	• with low demand rate acc. to SN 31920	40 %
• with low demand rate acc. to SN 31920 100 FIT product function	-	73 %
product function	failure rate [FIT]	
	• with low demand rate acc. to SN 31920	100 FIT
mirror contact acc. to IEC 60947-4-1     Yes	product function	
	• mirror contact acc. to IEC 60947-4-1	Yes

<ul> <li>positively drive</li> <li>1</li> </ul>	n operation acc. to	DIEC 60947-5-	No		
T1 value for proof test interval or service life acc. to EC 61508		ce life acc. to	20 у		
protection against ele	ectrical shock		finger-safe when touche	d vertically from front	acc. to IEC 60529
suitability for use safe	ety-related switchi	ing OFF	Yes		
ertificates/ approva					
General Product	Approval				EMC
	CSA		<u>KC</u>	EHC	RCM
Functional Safety/Safety of Machinery	Declaration of	f Conformity	Test Certificates	5	Marine / Ship- ping
Type Examination Certificate	EG-Konf.	Miscellaneous	<u>Special Test Certi-</u> <u>ficate</u>	Type Test Certific- ates/Test Report	ABS
Marine / Shippin	9				
B U R E A U V E R I TAS	Lloyd's Register LRS	PRS	RINA	RMRS	DNVGLCOM/AF
other					
<u>Confirmation</u>					
urther information					
nformation- and Dow ttps://www.siemens.co	wnloadcenter (Cat	alogs, Brochures,	.)		

Industry Mall (Online ordering system) https://mall.industry.siemens.com/mall/en/en/Catalog/product?mlfb=3RT2037-1CL24-3MA0

#### Cax online generator

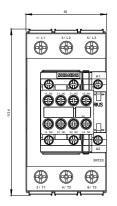
http://support.automation.siemens.com/WW/CAXorder/default.aspx?lang=en&mlfb=3RT2037-1CL24-3MA0

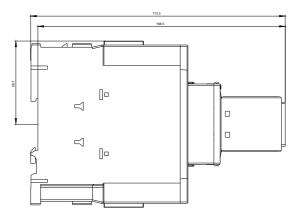
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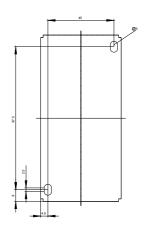
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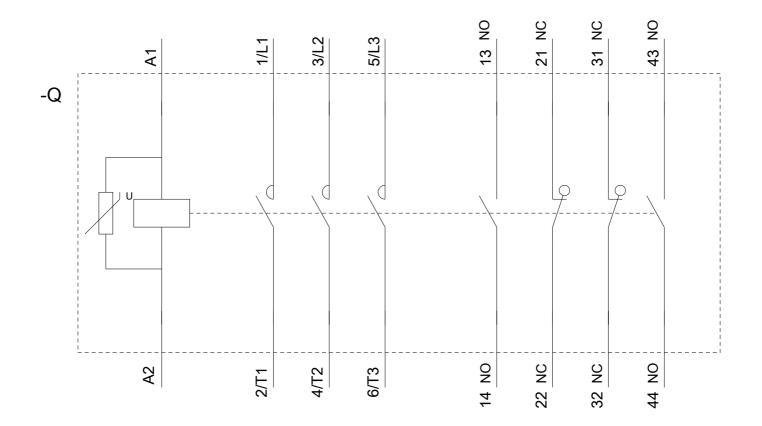
## Characteristic: Tripping characteristics, I<sup>2</sup>t, Let-through current https://support.industry.siemens.com/cs/ww/en/ps/3RT2037-1CL24-3MA0/char

Further characteristics (e.g. electrical endurance, switching frequency) http://www.automation.siemens.com/bilddb/index.aspx?view=Search&mlfb=3RT2037-1CL24-3MA0&objecttype=14&gridview=view1









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09/24/2020