# **SIEMENS**

### Data sheet

## 3RT2047-1NB34-3MA0

Power contactor, AC-3 115 A, 55 kW / 400 V 2 NO + 2 NC, 20-33 V AC/DC 3-pole, 3 NO, Size S3 screw terminals integrated varistor Perm. mounted auxiliary switch



Product brand name	SIRIUS
Product designation	Power contactor
Product type designation	3RT2
General technical data	
Size of contactor	S3
Product extension	
<ul> <li>function module for communication</li> </ul>	No
<ul> <li>Auxiliary switch</li> </ul>	Yes
Surge voltage resistance	
<ul> <li>of main circuit rated value</li> </ul>	8 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</li> </ul>	690 V
60947-1	
Protection class IP	
• on the front	IP20
• of the terminal	IP00
Shock resistance at rectangular impulse	
• at AC	6.7 g / 5 ms, 4.0 g / 10 ms

• at DC	6.7 g / 5 ms, 4.0 g / 10 ms
Shock resistance with sine pulse	
• at AC	10.6 g / 5 ms, 6.3 g / 10 ms
• at DC	10.6 g / 5 ms, 6.3 g / 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	
<ul> <li>of the contactor with added auxiliary switch</li> </ul>	10 000 000
block typical	
Reference code acc. to DIN 40719 extended	К
according to IEC 204-2 acc. to IEC 750 Reference code acc. to DIN EN 81346-2	Q
Reference code acc. to Din En 81340-2	Q
Ambient conditions	
Installation altitude at height above sea level	
• maximum	2 000 m
Ambient temperature	
<ul> <li>during operation</li> </ul>	-25 +60 °C
<ul> <li>during storage</li> </ul>	-55 +80 °C
Main circuit	
Number of poles for main current circuit	3
Number of NO contacts for main contacts	3
Operating voltage	
• at AC-3 rated value maximum	1 000 V
Operating current	
• at AC-1 at 400 V	
— at ambient temperature 40 °C rated value	130 A
• at AC-1	
— up to 690 V at ambient temperature 40 °C rated value	130 A
— up to 690 V at ambient temperature 60 °C rated value	110 A
— up to 1000 V at ambient temperature 40 $^\circ C$ rated value	70 A
— up to 1000 V at ambient temperature 60 °C rated value	60 A
• at AC-2 at 400 V rated value	110 A
• at AC-3	
— at 400 V rated value	110 A
— at 500 V rated value	110 A
— at 690 V rated value	98 A
• at AC-4 at 400 V rated value	97 A

• at AC-5a up to 690 V rated value	120 A
• at AC-5b up to 400 V rated value	110 A
● at AC-6a	
— up to 230 V at current peak n=20 rated value	98 A
— up to 400 V at current peak n=20 rated value	98 A
— up to 500 V at current peak n=20 rated value	98 A
— up to 690 V at current peak n=20 rated value	98 A
● at AC-6a	
— up to 230 V at current peak n=30 rated value	65.3 A
— up to 400 V at current peak n=30 rated value	65.3 A
— up to 500 V at current peak n=30 rated value	65.3 A
— up to 690 V at current peak n=30 rated value	65.3 A
Connectable conductor cross-section in main circuit	
at AC-1	
<ul> <li>at 60 °C minimum permissible</li> </ul>	35 mm <sup>2</sup>
• at 40 °C minimum permissible	50 mm²
	50 mm²
• at 40 °C minimum permissible Operating current for approx. 200000 operating	50 mm² 46 A
• at 40 °C minimum permissible Operating current for approx. 200000 operating cycles at AC-4	
<ul> <li>at 40 °C minimum permissible</li> <li>Operating current for approx. 200000 operating cycles at AC-4</li> <li>at 400 V rated value</li> </ul>	46 A
<ul> <li>at 40 °C minimum permissible</li> <li>Operating current for approx. 200000 operating cycles at AC-4</li> <li>at 400 V rated value</li> <li>at 690 V rated value</li> </ul>	46 A 36 A
at 40 °C minimum permissible Operating current for approx. 200000 operating cycles at AC-4     at 400 V rated value     at 690 V rated value Operating current	46 A
<ul> <li>at 40 °C minimum permissible</li> <li>Operating current for approx. 200000 operating cycles at AC-4 <ul> <li>at 400 V rated value</li> <li>at 690 V rated value</li> </ul> </li> <li>Operating current <ul> <li>at 1 current path at DC-1</li> </ul> </li> </ul>	46 A 36 A
<ul> <li>at 40 °C minimum permissible</li> <li>Operating current for approx. 200000 operating cycles at AC-4</li> <li>at 400 V rated value</li> <li>at 690 V rated value</li> <li>Operating current</li> <li>at 1 current path at DC-1 <ul> <li>at 24 V rated value</li> </ul> </li> </ul>	46 A 36 A 100 A
<ul> <li>at 40 °C minimum permissible</li> <li>Operating current for approx. 200000 operating cycles at AC-4 <ul> <li>at 400 V rated value</li> <li>at 690 V rated value</li> </ul> </li> <li>Operating current <ul> <li>at 1 current path at DC-1</li> <li>at 24 V rated value</li> <li>at 110 V rated value</li> </ul> </li> </ul>	46 A 36 A 100 A 9 A
<ul> <li>at 40 °C minimum permissible</li> <li>Operating current for approx. 200000 operating cycles at AC-4 <ul> <li>at 400 V rated value</li> <li>at 690 V rated value</li> </ul> </li> <li>Operating current <ul> <li>at 1 current path 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> </li> </ul>	46 A 36 A 100 A 9 A 2 A
<ul> <li>at 40 °C minimum permissible</li> <li>Operating current for approx. 200000 operating cycles at AC-4 <ul> <li>at 400 V rated value</li> <li>at 690 V rated value</li> </ul> </li> <li>Operating current <ul> <li>at 1 current path 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> <li>at 440 V rated value</li> </ul> </li> </ul>	46 A 36 A 100 A 9 A 2 A 0.6 A
<ul> <li>at 40 °C minimum permissible</li> <li>Operating current for approx. 200000 operating cycles at AC-4 <ul> <li>at 400 V rated value</li> <li>at 690 V rated value</li> </ul> </li> <li>Operating current <ul> <li>at 1 current path 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> <li>at 440 V rated value</li> <li>at 440 V rated value</li> <li>at 600 V rated value</li> </ul> </li> </ul>	46 A 36 A 100 A 9 A 2 A 0.6 A
<ul> <li>at 40 °C minimum permissible</li> <li>Operating current for approx. 200000 operating cycles at AC-4 <ul> <li>at 400 V rated value</li> <li>at 690 V rated value</li> </ul> </li> <li>Operating current <ul> <li>at 1 current path 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> <li>at 440 V rated value</li> <li>at 440 V rated value</li> <li>at 600 V rated value</li> <li>with 2 current paths in series at DC-1</li> </ul> </li> </ul>	46 A 36 A 100 A 9 A 2 A 0.6 A 0.4 A
<ul> <li>at 40 °C minimum permissible</li> <li>Operating current for approx. 200000 operating cycles at AC-4 <ul> <li>at 400 V rated value</li> <li>at 690 V rated value</li> </ul> </li> <li>Operating current <ul> <li>at 1 current path 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> <li>at 440 V rated value</li> <li>at 600 V rated value</li> <li>at 600 V rated value</li> <li>at 600 V rated value</li> <li>at 440 V rated value</li> <li>at 440 V rated value</li> <li>at 24 V rated value</li> <li>at 24 V rated value</li> <li>at 24 V rated value</li> </ul> </li> </ul>	46 A 36 A 100 A 9 A 2 A 0.6 A 0.4 A 100 A
<ul> <li>at 40 °C minimum permissible</li> <li>Operating current for approx. 200000 operating cycles at AC-4 <ul> <li>at 400 V rated value</li> <li>at 690 V rated value</li> </ul> </li> <li>Operating current <ul> <li>at 1 current path 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> <li>at 440 V rated value</li> <li>at 600 V rated value</li> <li>at 600 V rated value</li> <li>at 600 V rated value</li> <li>at 440 V rated value</li> <li>at 600 V rated value</li> <li>at 10 V rated value</li> </ul> </li> </ul>	46 A 36 A 100 A 9 A 2 A 0.6 A 0.4 A 100 A
<ul> <li>at 40 °C minimum permissible</li> <li>Operating current for approx. 200000 operating cycles at AC-4 <ul> <li>at 400 V rated value</li> <li>at 690 V rated value</li> </ul> </li> <li>Operating current <ul> <li>at 1 current path 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> <li>at 440 V rated value</li> <li>at 600 V rated value</li> <li>at 600 V rated value</li> <li>at 440 V rated value</li> <li>at 440 V rated value</li> <li>at 440 V rated value</li> <li>at 10 V rated value</li> <li>at 440 V rated value</li> <li>at 440 V rated value</li> <li>at 440 V rated value</li> <li>at 220 V rated value</li> <li>at 24 V rated value</li> <li>at 24 V rated value</li> <li>at 24 V rated value</li> </ul> </li> </ul>	46 A 36 A 100 A 9 A 2 A 0.6 A 0.4 A 100 A 100 A
<ul> <li>at 40 °C minimum permissible</li> <li>Operating current for approx. 200000 operating cycles at AC-4 <ul> <li>at 400 V rated value</li> <li>at 690 V rated value</li> </ul> </li> <li>Operating current <ul> <li>at 1 current path 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> <li>at 600 V rated value</li> <li>at 24 V rated value</li> <li>at 220 V rated value</li> <li>at 24 V rated value</li> <li>at 220 V rated value</li> <li>at 220 V rated value</li> <li>at 24 V rated value</li> <li>at 24 V rated value</li> <li>at 24 V rated value</li> </ul> </li> </ul>	46 A 36 A 100 A 9 A 2 A 0.6 A 0.4 A 100 A 100 A 100 A 100 A

— at 110 V rated value	100 A
— at 220 V rated value	80 A
— at 440 V rated value	4.5 A
— at 600 V rated value	2.6 A
Operating current	
<ul> <li>at 1 current path at DC-3 at DC-5</li> </ul>	
— at 24 V rated value	40 A
— at 110 V rated value	2.5 A
— at 220 V rated value	1 A
— at 440 V rated value	0.15 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	100 A
— at 110 V rated value	100 A
— at 220 V rated value	7 A
— at 440 V rated value	0.42 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	100 A
— at 110 V rated value	100 A
— at 220 V rated value	35 A
— at 440 V rated value	0.8 A
— at 600 V rated value	0.35 A
Operating power	
• at AC-1	
— at 230 V rated value	49 kW
— at 230 V at 60 °C rated value	42 kW
— at 400 V rated value	86 kW
— at 400 V at 60 °C rated value	72 kW
— at 690 V rated value	148 kW
— at 690 V at 60 °C rated value	125 kW
• at AC-2 at 400 V rated value	55 kW
• at AC-3	
— at 230 V rated value	30 kW
— at 400 V rated value	55 kW
— at 500 V rated value	75 kW
— at 690 V rated value	90 kW
Operating power for approx. 200000 operating cycles at AC-4	
• at 400 V rated value	24.3 kW
• at 690 V rated value	32.9 kW

Thermal short-time current limited to 10 s	880 A
Power loss [W] at AC-3 at 400 V for rated value of	7.9 W
the operating current per conductor	
No-load switching frequency	
● at AC	1 000 1/h
• at DC	1 000 1/h
Operating frequency	
• at AC-1 maximum	900 1/h
• at AC-2 maximum	350 1/h
• at AC-3 maximum	850 1/h
● at AC-4 maximum	200 1/h
Control circuit/ Control	
Type of voltage of the control supply voltage	AC/DC
Control supply voltage at AC	
• at 50 Hz rated value	20 33 V
• at 60 Hz rated value	20 33 V
Control supply voltage at DC	
• rated value	20 33 V
Operating range factor control supply voltage rated value of magnet coil at DC	
● initial value	0.8
• Full-scale value	1.1
Operating range factor control supply voltage rated	
value of magnet coil at AC	
● at 50 Hz	0.8 1.1
• at 60 Hz	0.8 1.1
Design of the surge suppressor	with varistor
Inrush current peak	
• at 24 V	4.2 A
Apparent pick-up power of magnet coil at AC	
• at 50 Hz	163 V·A
• at 60 Hz	163 V·A
Apparent holding power of magnet coil at AC	
• at 50 Hz	3.5 V·A
• at 60 Hz	3.5 V·A
Closing power of magnet coil at DC	76 W
Holding power of magnet coil at DC	2.7 W
Closing delay	
• at DC	50 70 ms
Opening delay	
• at DC	38 57 ms
Arcing time	10 20 ms

Number of NC contacts for auxiliary contacts       2         Number of NO contacts for auxiliary contacts       2         instantaneous contact       2         Operating current at AC-12 maximum       10 A         Operating current at AC-15	Control version of the switch operating mechanism	Standard A1 - A2
<ul> <li>et AC at 230 V maximum permissible</li> <li>20 mA</li> <li>20 mA</li> <li>20 mA</li> <li>20 mA</li> <li>20 mA</li> <li>Auxiliary circuit</li> <li>Instantaneous contact</li> <li>2</li> <li>Number of NC contacts for auxiliary contacts</li> <li>instantaneous contact</li> <li>2</li> <li>Operating current at AC-12 maximum</li> <li>10 A</li> <li>Operating current at AC-15</li> <li>et 230 V rated value</li> <li>6 A</li> <li>et 300 V rated value</li> <li>10 A</li> <li>Operating current at AC-15</li> <li>et 300 V rated value</li> <li>10 A</li> <li>Operating current at AC-15</li> <li>et 300 V rated value</li> <li>10 A</li> <li>Operating current at AC-15</li> <li>et 300 V rated value</li> <li>10 A</li> <li>Operating current at AC-15</li> <li>et 300 V rated value</li> <li>10 A</li> <li>Operating current at AC-15</li> <li>et 300 V rated value</li> <li>10 A</li> <li>Operating current at AC-12</li> <li>et 300 V rated value</li> <li>10 A</li> <li>Operating current at AC-12</li> <li>et 300 V rated value</li> <li>10 A</li> <li>Operating current at AC-12</li> <li>et 300 V rated value</li> <li>10 A</li> <li>10 maximum at 20 V rated value</li> <li>10 maxim</li></ul>	Residual current of the electronics for control with	
<ul> <li>a) B C at 24 V maximum permissible</li> <li>b) B C at 24 V maximum permissible</li> <li>c) C at 24 V maximum</li> <lic) 24="" at="" c="" li="" maximum<="" v=""> <li>c) C at 24 V maximum</li></lic)></ul>	signal <0>	
Auxiliary circuit         Auxiliary circuit <ul> <li>instantaneous contact</li> <li>instantaneous contact</li> <li>instantaneous contact</li> <li>2</li> <li>Number of NC contacts for auxiliary contacts</li> <li>instantaneous contact</li> <li>2</li> <li>Operating current at AC-12 maximum</li> <li>DA</li> <li>Operating current at AC-15</li> <li>at 230 V rated value</li> <li>6 A</li> <li>at 400 V rated value</li> <li>2 A</li> <li>at 600 V rated value</li> <li>A</li> <li>Operating current at DC-12</li> <li>at 24 V rated value</li> <li>6 A</li> <li>at 600 V rated value</li> <li>A</li> <li>Operating current at DC-12</li> <li>at 220 V rated value</li> <li>A</li> <li>at 600 V rated value</li> <li>A</li> <li>at 800 V rated value</li> <li>A</li> <li>at 220 V rated value</li> <li>A</li> <li>A</li></ul>	• at AC at 230 V maximum permissible	20 mA
Number of NC contacts for auxiliary contacts     2       Number of NO contacts for auxiliary contacts     2       instantaneous contact     2       Operating current at AC-12 maximum     10 A       Operating current at AC-15     4       • at 230 V rated value     6 A       • at 400 V rated value     3A       • at 600 V rated value     1A       Operating current at DC-12	• at DC at 24 V maximum permissible	20 mA
• instantaneous contact2Number of NO contacts for auxiliary contacts2• instantaneous contact2Operating current at AC-12 maximum10 AOperating current at AC-156 A• at 230 V rated value3 A• at 300 V rated value2 A• at 600 V rated value10 A• at 600 V rated value6 A• at 600 V rated value10 A• at 48 V rated value6 A• at 48 V rated value6 A• at 48 V rated value6 A• at 200 V rated value6 A• at 210 V rated value6 A• at 220 V rated value10 A• at 220 V rated value0 A• at 220 V rated value2 A• at 220 V rated value10 A• at 220 V rated value0.15 AOperating current at DC-13-• at 24 V rated value2 A• at 60 V rated value2 A• at 60 V rated value2 A• at 24 V rated value0.15 AOperating current at DC-13-• at 24 V rated value0.3 A• at 60 V rated value0.3 A• at 60 V rated value0.3 A• at 60 V rated value0.14 A• at 600 V rated value0.14 A• at 600 V rated value0.14 A• at 600 V rated value0.9 A• at 600 V rated value0.9 A• at 600 V rated value0.9 A• at 600 V rated value99 A• at 600 V rated value99 A• at 600 V rated value99 A	Auxiliary circuit	
Number of NO contacts for auxiliary contacts         2           Operating current at AC-12 maximum         10 A           Operating current at AC-12 maximum         6 A           • at 230 V rated value         6 A           • at 230 V rated value         3 A           • at 500 V rated value         2 A           • at 600 V rated value         10 A           Operating current at DC-12         -           • at 24 V rated value         6 A           • at 48 V rated value         6 A           • at 48 V rated value         6 A           • at 48 V rated value         6 A           • at 600 V rated value         6 A           • at 600 V rated value         6 A           • at 600 V rated value         6 A           • at 20 V rated value         0.15 A           Operating current at DC-13         -           • at 24 V rated value         6 A           • at 24 V rated value         2 A           • at 24 V rated value         0.3 A           • at 24 V rated value         0.3 A           • at 250 V rated value         0.3 A <td>Number of NC contacts for auxiliary contacts</td> <td></td>	Number of NC contacts for auxiliary contacts	
• instantaneous contact       2         Operating current at AC-15       0A         • at 230 V rated value       6 A         • at 400 V rated value       3 A         • at 500 V rated value       2 A         • at 600 V rated value       10 A         Operating current at DC-12	<ul> <li>instantaneous contact</li> </ul>	2
Operating current at AC-12 maximum         10 A           Operating current at AC-15         -           • at 230 V rated value         6 A           • at 400 V rated value         3 A           • at 500 V rated value         2 A           • at 690 V rated value         1 A           Operating current at DC-12         -           • at 690 V rated value         6 A           • at 48 V rated value         6 A           • at 24 V rated value         6 A           • at 25 V rated value         6 A           • at 25 V rated value         1 A           • at 200 V rated value         0.15 A           Operating current at DC-13         -           • at 20 V rated value         6 A           • at 60 V rated value         2 A           • at 60 V rated value         0.9 A           • at 24 V rated value         0.9 A           • at 22 V rated value         0.3 A           • at 600 V rated value         0.3 A           • at 600 V rated value         0.9 A           • at 600 V rated value         99 A           •	Number of NO contacts for auxiliary contacts	
Operating current at AC-15       6 A         • at 230 V rated value       6 A         • at 400 V rated value       3 A         • at 500 V rated value       2 A         • at 690 V rated value       1 A         Operating current at DC-12	<ul> <li>instantaneous contact</li> </ul>	2
• at 230 V rated value6 A• at 400 V rated value3 A• at 500 V rated value2 A• at 690 V rated value1 A <b>Operating current at DC-12</b> -• at 24 V rated value10 A• at 48 V rated value6 A• at 48 V rated value6 A• at 60 V rated value3 A• at 10 V rated value2 A• at 25 V rated value3 A• at 25 V rated value2 A• at 260 V rated value2 A• at 250 V rated value2 A• at 260 V rated value2 A• at 270 V rated value2 A• at 600 V rated value2 A• at 600 V rated value2 A• at 24 V rated value0.15 A <b>Operating current at DC-13</b> -• at 24 V rated value2 A• at 25 V rated value0.14• at 20 V rated value0.3 A• at 20 V rated value0.3 A• at 220 V rated value0.14 AContact reliability of value0.14 AUUCSA ratingsFull-lead Current (FLA) for three-phase AC motor• at 480 V rated value98 A• at 600 V rated value99 A• fielded mechanical performance [hg]• for single-phase AC motor• at 110/120 V rated value10 hp	Operating current at AC-12 maximum	10 A
• at 400 V rated value3 A• at 500 V rated value2 A• at 690 V rated value1 AOperating current at DC-12• at 24 V rated value10 A• at 48 V rated value6 A• at 600 V rated value6 A• at 100 V rated value3 A• at 22 V rated value2 A• at 22 V rated value1 A• at 22 V rated value2 A• at 22 V rated value0.15 AOperating current at DC-13• at 24 V rated value6 A• at 24 V rated value0.15 AOperating current at DC-13• at 24 V rated value6 A• at 24 V rated value0.15 AOperating current at DC-13• at 24 V rated value0.3 A• at 25 V rated value0.9 A• at 20 V rated value0.9 A• at 20 V rated value0.1 AOperating current at DC-13• at 20 V rated value0.1 A• at 40 V rated value0.9 A• at 20 V rated value0.9 A• at 600 V rated value0.1 AOutcest reliability of auxiliary contacts1 faulty switching per 100 million (17 V, 1 mA)UUCSA ratingsFull-load current (FLA) for three-phase AC motor• at 400 V rated value96 A• at 400 V rated value99 AYielded mechanical performance [hp]• for single-phase AC motor- at 110/120 V rated value10 hp	Operating current at AC-15	
at soo V rated value2 A• at 600 V rated value1 AOperating current at DC-1210 A• at 24 V rated value6 A• at 48 V rated value6 A• at 60 V rated value6 A• at 10 V rated value3 A• at 110 V rated value1 A• at 220 V rated value1 A• at 600 V rated value1 A• at 220 V rated value1 A• at 240 V rated value0.15 AOperating current at DC-136 A• at 24 V rated value2 A• at 24 V rated value6 A• at 24 V rated value2 A• at 24 V rated value0.15 AOperating current at DC-136 A• at 24 V rated value0.15 A• at 25 V rated value0.9 A• at 26 V rated value0.9 A• at 27 V rated value0.1 A• at 600 V rated value98 A• at 600 V rated value99 A• at 600 V rated value99 A• at 600 V rated value10 hp	• at 230 V rated value	6 A
at 680 V rated value       1 A         Operating current at DC-12	• at 400 V rated value	3 A
Operating current at DC-12         • at 24 V rated value       10 A         • at 48 V rated value       6 A         • at 60 V rated value       6 A         • at 10 V rated value       3 A         • at 125 V rated value       2 A         • at 20 V rated value       0.15 A         Operating current at DC-13	• at 500 V rated value	2 A
• at 24 V rated value10 A• at 48 V rated value6 A• at 60 V rated value6 A• at 10 V rated value3 A• at 110 V rated value2 A• at 125 V rated value1 A• at 220 V rated value0.15 AOperating current at DC-13• at 24 V rated value6 A• at 48 V rated value2 A• at 48 V rated value2 A• at 600 V rated value6 A• at 48 V rated value2 A• at 24 V rated value0.9 A• at 110 V rated value0.9 A• at 125 V rated value0.1 A• at 600 V rated value0.1 A• at 600 V rated value9 A• at 600 V rated value99 A• at 600 V rated value99 A• at 600 V rated value99 A• at 600 V rated value16 D hp	• at 690 V rated value	1 A
att 48 V rated value6 A• at 48 V rated value6 A• at 60 V rated value3 A• at 110 V rated value3 A• at 125 V rated value2 A• at 220 V rated value1 A• at 600 V rated value0.15 AOperating current at DC-13•• at 24 V rated value2 A• at 48 V rated value2 A• at 60 V rated value2 A• at 10 V rated value1 A• at 25 V rated value0.9 A• at 25 V rated value0.3 A• at 600 V rated value0.1 AContact reliability of auxiliary contacts1 faulty switching per 100 million (17 V, 1 mA)U/CSA ratingsFull-locad current (FLA) for three-phase AC motor• at 600 V rated value96 A• at 600 V rated value99 AYielded mechanical performance [hp]• for single-phase AC motor- at 110/120 V rated value10 hp	Operating current at DC-12	
at it of V rated value6 A• at 60 V rated value6 A• at 110 V rated value3 A• at 125 V rated value2 A• at 220 V rated value1 A• at 600 V rated value0.15 AOperating current at DC-136 A• at 48 V rated value2 A• at 60 V rated value2 A• at 60 V rated value6 A• at 48 V rated value2 A• at 60 V rated value2 A• at 60 V rated value1 A• at 10 V rated value0.9 A• at 125 V rated value0.3 A• at 60 V rated value0.14 AContact reliability of auxiliary contacts1 faulty switching per 100 million (17 V, 1 mA)U/CSA ratingsFull-load current (FLA) for three-phase AC motor• at 480 V rated value96 A• at 600 V rated value99 AYielded mechanical performance [hp]10 hp	• at 24 V rated value	10 A
a at 110 V rated value3 A• at 125 V rated value2 A• at 220 V rated value1 A• at 600 V rated value0.15 AOperating current at DC-13• at 24 V rated value6 A• at 48 V rated value2 A• at 60 V rated value2 A• at 60 V rated value9 A• at 10 V rated value0.9 A• at 220 V rated value0.3 A• at 220 V rated value0.1 A• at 600 V rated value1 faulty switching per 100 million (17 V, 1 mA)UL/CSA ratingsFull-load current (FLA) for three-phase AC motor• at 600 V rated value96 A• at 600 V rated value99 AYielded mechanical performance [hp]• for single-phase AC motor10 hp	• at 48 V rated value	6 A
at 125 V rated value2 Aat 125 V rated value1 Aat 220 V rated value0.15 AOperating current at DC-13	• at 60 V rated value	6 A
a t 220 V rated value1 A• at 220 V rated value0.15 AOperating current at DC-136 A• at 24 V rated value6 A• at 24 V rated value2 A• at 60 V rated value2 A• at 60 V rated value1 A• at 10 V rated value0.9 A• at 220 V rated value0.3 A• at 600 V rated value0.1 AContact reliability of auxiliary contactsFull-load current (FLA) for three-phase AC motor • at 480 V rated value96 A• for single-phase AC motor • at 110/120 V rated value90 h	• at 110 V rated value	3 A
• at 60 V rated value       0.15 A         Operating current at DC-13       6 A         • at 24 V rated value       6 A         • at 48 V rated value       2 A         • at 60 V rated value       2 A         • at 60 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 auxiliary contacts       1 faulty switching per 100 million (17 V, 1 mA)         UL/CSA ratings         Full-load current (FLA) for three-phase AC motor       96 A         • at 600 V rated value       99 A         Yielded mechanical performance [hp]       • for single-phase AC motor         • at 110/120 V rated value       10 hp	• at 125 V rated value	2 A
Operating current at DC-13     6 A       • at 24 V rated value     6 A       • at 48 V rated value     2 A       • at 60 V rated value     2 A       • at 60 V rated value     1 A       • at 10 V rated value     0.9 A       • at 125 V rated value     0.3 A       • at 600 V rated value     0.1 A       Contact reliability of 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 600 V rated value     96 A       • at 600 V rated value     10 hp	• at 220 V rated value	1 A
• at 24 V rated value6 A• at 48 V rated value2 A• at 60 V rated value2 A• at 10 V rated value1 A• at 125 V rated value0.9 A• at 220 V rated value0.3 A• at 600 V rated value0.1 AContact reliability of auxiliary contacts1 faulty switching per 100 million (17 V, 1 mA)UL/CSA ratingsFull-load current (FLA) for three-phase AC motor• at 600 V rated value96 A• at 600 V rated value99 AYielded mechanical performance [hp]• for single-phase AC motor10 hp	• at 600 V rated value	0.15 A
• at 48 V rated value2 A• at 60 V rated value2 A• at 60 V rated value2 A• at 110 V rated value1 A• at 125 V rated value0.9 A• at 220 V rated value0.3 A• at 600 V rated value0.1 AUL/CSA ratings <b>UL/CSA ratings</b> Full-load current (FLA) for three-phase AC motor• at 480 V rated value96 A• at 600 V rated value99 AYielded mechanical performance [hp]• for single-phase AC motor1 b hp	Operating current at DC-13	
<ul> <li>at 60 V rated value</li> <li>at 60 V rated value</li> <li>at 110 V rated value</li> <li>1 A</li> <li>at 125 V rated value</li> <li>0.9 A</li> <li>at 220 V rated value</li> <li>0.3 A</li> <li>at 600 V rated value</li> <li>0.1 A</li> <li>Contact reliability of auxiliary contacts</li> <li>1 faulty switching per 100 million (17 V, 1 mA)</li> <li>UL/CSA ratings</li> <li>Full-load current (FLA) for three-phase AC motor         <ul> <li>at 480 V rated value</li> <li>96 A</li> <li>at 600 V rated value</li> <li>99 A</li> </ul> </li> <li>Yielded mechanical performance [hp]         <ul> <li>for single-phase AC motor</li> <li>- at 110/120 V rated value</li> <li>10 hp</li> </ul> </li> </ul>	• at 24 V rated value	6 A
<ul> <li>at 110 V rated value</li> <li>at 110 V rated value</li> <li>at 125 V rated value</li> <li>at 220 V rated value</li> <li>at 220 V rated value</li> <li>0.3 A</li> <li>at 600 V rated value</li> <li>0.1 A</li> <li>Contact reliability of auxiliary contacts</li> <li>1 faulty switching per 100 million (17 V, 1 mA)</li> <li>UL/CSA ratings</li> <li>Full-load current (FLA) for three-phase AC motor         <ul> <li>at 480 V rated value</li> <li>96 A</li> <li>99 A</li> </ul> </li> <li>Yielded mechanical performance [hp]         <ul> <li>for single-phase AC motor</li> <li>at 110/120 V rated value</li> <li>10 hp</li> </ul> </li> </ul>	• at 48 V rated value	2 A
• at 125 V rated value0.9 A• at 220 V rated value0.3 A• at 600 V rated value0.1 AContact reliability of auxiliary contacts1 faulty switching per 100 million (17 V, 1 mA)UL/CSA ratingsFull-load current (FLA) for three-phase AC motor• at 480 V rated value96 A• at 600 V rated value99 A• for single-phase AC motor99 A• for single-phase AC motor10 hp	• at 60 V rated value	2 A
<ul> <li>at 220 V rated value</li> <li>at 600 V rated value</li> <li>Contact reliability of auxiliary contacts</li> <li>I faulty switching per 100 million (17 V, 1 mA)</li> <li>UL/CSA ratings</li> <li>Full-load current (FLA) for three-phase AC motor         <ul> <li>at 480 V rated value</li> <li>96 A</li> <li>at 600 V rated value</li> <li>99 A</li> </ul> </li> <li>Yielded mechanical performance [hp]         <ul> <li>for single-phase AC motor                 <ul> <li>at 110/120 V rated value</li> <li>10 hp</li> <li>at 10 hp</li> </ul> </li> </ul> </li> </ul>	• at 110 V rated value	1 A
• at 600 V rated value0.1 AContact reliability of auxiliary contacts1 faulty switching per 100 million (17 V, 1 mA)UL/CSA ratings96 AFull-load current (FLA) for three-phase AC motor • at 480 V rated value96 A• at 600 V rated value99 AYielded mechanical performance [hp] • for single-phase AC motor — at 110/120 V rated value10 hp	• at 125 V rated value	0.9 A
Contact reliability of 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       96 A         • at 600 V rated value       99 A         Yielded mechanical performance [hp]         • for single-phase AC motor       10 hp	• at 220 V rated value	0.3 A
UL/CSA ratings         Full-load current (FLA) for three-phase AC motor         • at 480 V rated value       96 A         • at 600 V rated value       99 A         Yielded mechanical performance [hp]       99 A         • for single-phase AC motor       10 hp	● at 600 V rated value	0.1 A
Full-load current (FLA) for three-phase AC motor       96 A         • at 480 V rated value       96 A         • at 600 V rated value       99 A         Yielded mechanical performance [hp]       •         • for single-phase AC motor       -         — at 110/120 V rated value       10 hp	Contact reliability of auxiliary contacts	1 faulty switching per 100 million (17 V, 1 mA)
• at 480 V rated value96 A• at 600 V rated value99 AYielded mechanical performance [hp]99 A• for single-phase AC motor10 hp	UL/CSA ratings	
• at 600 V rated value     99 A      Yielded mechanical performance [hp]     • for single-phase AC motor     — at 110/120 V rated value     10 hp	Full-load current (FLA) for three-phase AC motor	
Yielded mechanical performance [hp]         • for single-phase AC motor         — at 110/120 V rated value         10 hp	• at 480 V rated value	96 A
for single-phase AC motor     — at 110/120 V rated value     10 hp	• at 600 V rated value	99 A
— at 110/120 V rated value 10 hp	Yielded mechanical performance [hp]	
	<ul> <li>for single-phase AC motor</li> </ul>	
- at 230 V rated value 20 hp	— at 110/120 V rated value	10 hp
	— at 230 V rated value	20 hp

<ul> <li>for three-phase AC motor</li> </ul>	
— at 200/208 V rated value	30 hp
— at 220/230 V rated value	40 hp
— at 460/480 V rated value	75 hp
— at 575/600 V rated value	100 hp
Contact rating of auxiliary contacts according to UL	A600 / P600
Chart size it protostice	
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: 200A (690V,100kA), aM: 100A (690V,100kA), BS88: 160A (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
Side-by-side mounting	Yes
Height	140 mm
Width	70 mm
Depth	195 mm
Required spacing	
<ul> <li>with side-by-side mounting</li> </ul>	
— forwards	20 mm
— upwards	10 mm
— downwards	10 mm
— at the side	0 mm
<ul> <li>for grounded parts</li> </ul>	
— forwards	20 mm
— upwards	10 mm
— at the side	10 mm
— downwards	10 mm
• for live parts	
— forwards	20 mm
— upwards	10 mm
— downwards	10 mm
— at the side	10 mm
Connections/Terminals	

Type of electrical connection		
<ul> <li>for main current circuit</li> </ul>	screw-type terminals	
<ul> <li>for auxiliary and control current circuit</li> </ul>	screw-type terminals	
Type of connectable conductor cross-sections		
<ul> <li>for main contacts</li> </ul>		
— finely stranded with core end processing	2x (2.5 35 mm²), 1x (2.5 50 mm²)	
<ul> <li>at AWG conductors for main contacts</li> </ul>	2x (10 1/0), 1x (10 2)	
Connectable conductor cross-section for main		
contacts		
• solid	2.5 16 mm²	
• stranded	6 70 mm²	
<ul> <li>finely stranded with core end processing</li> </ul>	2.5 50 mm <sup>2</sup>	
Connectable conductor cross-section for auxiliary contacts		
single or multi-stranded	0.5 2.5 mm²	
<ul> <li>finely stranded with core end processing</li> </ul>	0.5 2.5 mm²	
Type of connectable conductor cross-sections		
for auxiliary contacts		
— single or multi-stranded	2x (0,5 1,5 mm²), 2x (0,75 2,5 mm²)	
<ul> <li>— finely stranded with core end processing</li> </ul>	2x (0,5 1,5 mm <sup>2</sup> ), 2x (0,75 2,5 mm <sup>2</sup> )	
<ul> <li>at AWG conductors for auxiliary contacts</li> </ul>	2x (0.5 1.5 min ), 2x (0.75 2.5 min ) 2x (20 16), 2x (18 14)	
AWG number as coded connectable conductor cross		
section		
• for main contacts	10 2	
<ul> <li>for auxiliary contacts</li> </ul>	20 14	
Safety related data B10 value		
<ul> <li>with high demand rate acc. to SN 31920</li> </ul>	1 000 000	
Proportion of dangerous failures		
with low demand rate acc. to SN 31920	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	100 FIT	
Product function		
Mirror contact acc. to IEC 60947-4-1	Yes	
	No	
<ul> <li>positively driven operation acc. to IEC 60947-5-</li> <li>1</li> </ul>		
T1 value for proof test interval or service life acc. to IEC 61508	20 у	
Protection against electrical shock	finger-safe when touched vertically from front acc. to IEC 60529	
Certificates/approvals		

General Prod	uct Approval		EMC	Declaration of Conformity
	(SA)	EHC	C-Tick	EG-Konf.

Declaration of	other
Conformity	
Miscellaneous	Confirmation

#### Further information

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

Industry Mall (Online ordering system)

https://mall.industry.siemens.com/mall/en/en/Catalog/product?mlfb=3RT2047-1NB34-3MA0

#### Cax online generator

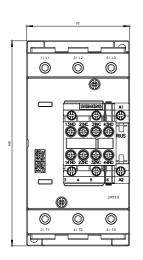
http://support.automation.siemens.com/WW/CAXorder/default.aspx?lang=en&mlfb=3RT2047-1NB34-3MA0

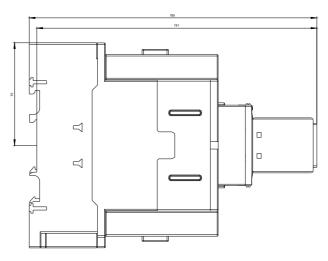
Service&Support (Manuals, Certificates, Characteristics, FAQs,...) https://support.industry.siemens.com/cs/ww/en/ps/3RT2047-1NB34-3MA0

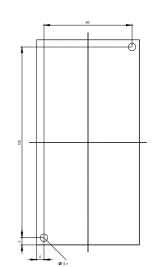
Image database (product images, 2D dimension drawings, 3D models, device circuit diagrams, EPLAN macros, ...) http://www.automation.siemens.com/bilddb/cax\_de.aspx?mlfb=3RT2047-1NB34-3MA0&lang=en

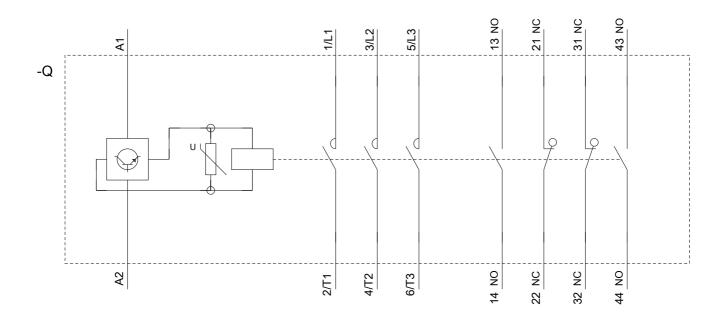
Characteristic: Tripping characteristics, I<sup>2</sup>t, Let-through current https://support.industry.siemens.com/cs/ww/en/ps/3RT2047-1NB34-3MA0/char

Further characteristics (e.g. electrical endurance, switching frequency) http://www.automation.siemens.com/bilddb/index.aspx?view=Search&mlfb=3RT2047-1NB34-3MA0&objecttype=14&gridview=view1









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02/27/2019