# **SIEMENS**

Data sheet 3RT2035-1KB40

power contactor, AC-3 40 A, 18.5 kW / 400 V 1 NO + 1 NC, 24 V DC with varistor, 3-pole, Size S2, screw terminal Suitable for 2 A PLC outputs



Product brand name	SIRIUS
Product designation	Coupling relay
Product type designation	3RT2

S2
No
Yes
6 kV
6 kV
400 V
IP20
IP00
7.7g / 5 ms, 4.5g / 10 ms

Shock resistance with sine pulse	
• at DC	12g / 5 ms, 7g / 10 ms
Mechanical service life (switching cycles)	1297 3 1113, 797 13 1113
• of contactor typical	10 000 000
of the contactor with added electronics-	5 000 000
compatible auxiliary switch block typical	
<ul> <li>of the contactor with added auxiliary switch block typical</li> </ul>	10 000 000
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
Ambient conditions	
Installation altitude at height above sea level	
• maximum	2 000 m
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	60 A
• at AC-1	
<ul> <li>up to 690 V at ambient temperature 40 °C rated value</li> </ul>	60 A
<ul> <li>up to 690 V at ambient temperature 60 °C rated value</li> </ul>	55 A
• at AC-2 at 400 V rated value	40 A
• at AC-3	
— at 400 V rated value	40 A
— at 500 V rated value	40 A
— at 690 V rated value	24 A
• at AC-4 at 400 V rated value	35 A
• at AC-5a up to 690 V rated value	52.8 A
• at AC-5b up to 400 V rated value	33.2 A
• at AC-6a	
— up to 230 V for current peak value n=20 rated value	36.5 A
— up to 400 V for current peak value n=20 rated value	36.5 A
— up to 500 V for current peak value n=20 rated value	36.5 A

<ul><li>— up to 690 V for current peak value n=20 rated value</li></ul>	24 A
● at AC-6a	
<ul> <li>up to 230 V for current peak value n=30 rated value</li> </ul>	24.2 A
<ul><li>up to 400 V for current peak value n=30 rated value</li></ul>	24.2 A
<ul><li>— up to 500 V for current peak value n=30 rated value</li></ul>	24.2 A
<ul><li>— up to 690 V for current peak value n=30 rated value</li></ul>	24 A
Minimum cross-section in main circuit	
<ul> <li>at maximum AC-1 rated value</li> </ul>	16 mm²
Operating current for approx. 200000 operating cycles at AC-4	
• at 400 V rated value	22 A
● at 690 V rated value	18.5 A
Operating current	
• at 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
<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 220 V rated value	5 A
— at 440 V rated value	1 A
— at 600 V rated value	0.8 A
<ul> <li>with 3 current paths in series at DC-1</li> </ul>	
— 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
Operating current	
• at 1 current path 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

<ul> <li>with 2 current paths in series at DC-3 at DC-5</li></ul>		
	— at 600 V rated value	0.06 A
- at 110 V rated value 5 A	• with 2 current paths in series at DC-3 at DC-5	
- at 220 V rated value	— at 24 V rated value	55 A
at 440 V rated value	— at 110 V rated value	25 A
− at 600 V rated value     • with 3 current paths in series at DC-3 at DC-5     − at 24 V rated value     − at 110 V rated value     − at 110 V rated value     − at 220 V rated value     − at 220 V rated value     − at 600 V rated value     − at 600 V rated value     − at 600 V rated value     − at 230 V rated value     − at 400 V rated value     − at 400 V rated value     − at 400 V rated value     − at 690 V rated value     − at 230 V rated value     − at 230 V rated value     − at 400 V rated value     − at 400 V rated value     − at 690 V rated value     − at 600 V rated	— at 220 V rated value	5 A
• with 3 current paths in series at DC-3 at DC-5 — 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 440 V rated value 0.35 A  Operating power  • at AC-1 — at 230 V rated value 23 kW — at 230 V rated value 21 kW — at 400 V rated value 39 kW — at 400 V rated value 36 kW — at 690 V rated value 68 kW — at 690 V rated value 68 kW — at 690 V rated value 18.5 kW • at AC-2 at 400 V rated value 18.5 kW • at AC-3 — at 230 V rated value 11. kW — at 400 V rated value 12. kW • at AC-3 — at 230 V rated value 11. kW — at 400 V rated value 12. kW — at 400 V rated value 13.5 kW • at AC-3 — at 230 V rated value 11. kW — at 400 V rated value 22. kW — at 500 V rated value 22. kW — at 690 V rated value 15.6 kW — at 690 V rated value 16.8 kW  Thermal short-time current limited to 10 s  Power loss [W] at AC-3 at 400 V for rated value of the operating ferquency • at AC-1 maximum 1 200 1/h • at AC-2 maximum 750 1/h	— at 440 V rated value	0.27 A
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 440 V rated value 0.35 A    Operating power   • at AC-1   at 230 V rated value 23 kW   at 230 V rated value 21 kW   at 400 V rated value 39 kW   at 400 V rated value 38 kW   at 400 V rated value 68 kW   at 690 V rated value 68 kW   at 690 V rated value 62 kW   • at AC-2 at 400 V rated value 18.5 kW   • at AC-3 at 400 V rated value 18.5 kW   at 400 V rated value 11 kW   at 400 V rated value 22 kW   at 590 V rated value 22 kW   at 400 V rated value 11.6 kW   at 400 V rated value 12.6 kW   at 400 V rated value 18.5 kW   at 400 V rated value 18.5 kW   at 400 V rated value 22 kW   at 690 V rated value 22 kW   at 690 V rated value 22 kW   at 690 V rated value 11.6 kW	— at 600 V rated value	0.16 A
	• with 3 current paths in series at DC-3 at DC-5	
	— at 24 V rated value	55 A
— at 440 V rated value — at 600 V rated value  Operating power  ■ at AC-1  — at 230 V rated value — at 230 V at 60 °C rated value — at 400 V rated value — at 400 V rated value — at 690 V rated value — at 690 V rated value — at 690 V rated value  ■ at AC-2 at 400 V rated value  ■ at AC-3  — at 230 V rated value  11 kW  ■ at AC-3  — at 230 V rated value  11 kW  — at 400 V rated value  11 kW  — at 400 V rated value  22 kW  Operating power for approx. 200000 operating cycles at AC-4  ■ at 400 V rated value  11 68 kW  Thermal short-time current limited to 10 s  Power loss [W] at AC-3 at 400 V for rated value of the operating current per conductor  No-load switching frequency ■ at AC-1 maximum ■ 1 200 1/h ■ at AC-2 maximum ■ 1 200 1/h ■ at AC-2 maximum ■ 1 000 1/h ■ at AC-3 maximum ■ 1 000 1/h ■ at AC-3 maximum ■ 1 000 1/h	— at 110 V rated value	55 A
Operating power  • at AC-1  — at 230 V rated value — at 230 V at 60 °C rated value — at 400 V rated value — at 690 V rated value  • at AC-2 at 400 V rated value  • at AC-3  — at 230 V rated value  • at AC-3  — at 230 V rated value — 11 kW  — at 400 V rated value — 18.5 kW  — at 500 V rated value — 22 kW  — at 690 V rated value — 22 kW  Operating power for approx. 200000 operating cycles at AC-4  • at 400 V rated value  • at 690 V rated value  11.6 kW  • at 690 V rated value  12.2 W  Thermal short-time current limited to 10 s  Power loss [W] at AC-3 at 400 V for rated value of the operating current per conductor  No-load switching frequency  • at DC  Operating frequency  • at AC-1 maximum  1 200 1/h  • at AC-2 maximum  750 1/h  • at AC-3 maximum	— at 220 V rated value	25 A
Operating power          • at AC-1 <ul></ul>	— at 440 V rated value	0.6 A
• at AC-1  — at 230 V rated value — at 230 V rated value — at 400 V rated value — at 400 V rated value — at 400 V rated value — at 690 V rated value  • at AC-2 at 400 V rated value • at AC-3  — at 230 V rated value  — at 400 V rated value — at 400 V rated value — at 400 V rated value — at 500 V rated value — at 500 V rated value — at 690 V rated value — at 690 V rated value 22 kW  Operating power for approx. 200000 operating cycles at AC-4  • at 400 V rated value  11.6 kW • at 690 V rated value  16.8 kW  Thermal short-time current limited to 10 s  Power loss [W] at AC-3 at 400 V for rated value of the operating current per conductor  No-load switching frequency • at DC  1 500 1/h  Operating frequency • at AC-1 maximum  1 200 1/h • at AC-2 maximum  750 1/h • at AC-3 maximum  1 000 1/h	— at 600 V rated value	0.35 A
at 230 V rated value 23 kW at 230 V at 60 °C rated value 21 kW at 400 V rated value 39 kW at 400 V at 60 °C rated value 68 kW at 690 V rated value 62 kW  at 690 V at 60 °C rated value 62 kW  at 690 V at 60 °C rated value 62 kW  at AC-2 at 400 V rated value 18.5 kW  at 230 V rated value 11 kW at 400 V rated value 18.5 kW  at 500 V rated value 22 kW at 690 V rated value 22 kW  at 690 V rated value 11.6 kW  at 690 V rated value 22 kW  at 690 V rated value 22 kW  at 690 V rated value 11.6 kW  at 400 V rated value 15.8 kW  Thermal short-time current limited to 10 s 400 A  Power loss [W] at AC-3 at 400 V for rated value of the operating current per conductor  No-load switching frequency  at AC-1 maximum 1 200 1/h  at AC-2 maximum 750 1/h  at AC-3 maximum 1 000 1/h	Operating power	
	● at AC-1	
	— at 230 V rated value	23 kW
	— at 230 V at 60 °C rated value	21 kW
- at 690 V rated value 62 kW  • at AC-2 at 400 V rated value 18.5 kW  • at AC-3  - at 230 V rated value 11 kW  - at 400 V rated value 18.5 kW  • at 500 V rated value 22 kW  - at 500 V rated value 22 kW  Operating power for approx. 200000 operating cycles at AC-4  • at 400 V rated value 11.6 kW  • at 690 V rated value 16.8 kW  Thermal short-time current limited to 10 s 400 A  Power loss [W] at AC-3 at 400 V for rated value of the operating current per conductor  No-load switching frequency  • at AC-1 maximum 1 200 1/h  • at AC-2 maximum 750 1/h  • at AC-3 maximum 1 000 1/h	— at 400 V rated value	39 kW
- at 690 V at 60 °C rated value 62 kW  • at AC-2 at 400 V rated value 18.5 kW  • at AC-3  — at 230 V rated value 11 kW  — at 400 V rated value 22 kW  — at 690 V rated value 22 kW  Operating power for approx. 200000 operating cycles at AC-4  • at 400 V rated value 11.6 kW  • at 690 V rated value 16.8 kW  Thermal short-time current limited to 10 s 400 A  Power loss [W] at AC-3 at 400 V for rated value of the operating current per conductor  No-load switching frequency  • at DC 1 500 1/h  Operating frequency  • at AC-1 maximum 1 200 1/h  • at AC-2 maximum 750 1/h  • at AC-3 maximum 1 000 1/h	— at 400 V at 60 °C rated value	36 kW
<ul> <li>at AC-2 at 400 V rated value</li> <li>at AC-3</li> <li>at 230 V rated value</li> <li>at 400 V rated value</li> <li>at 500 V rated value</li> <li>at 690 V rated value</li> <li>at 400 V rated value</li> <li>22 kW</li> <li>Operating power for approx. 200000 operating cycles at AC-4</li> <li>at 400 V rated value</li> <li>at 690 V rated value</li> <li>11.6 kW</li> <li>at 690 V rated value</li> <li>16.8 kW</li> <li>Thermal short-time current limited to 10 s</li> <li>Power loss [W] at AC-3 at 400 V for rated value of the operating current per conductor</li> <li>No-load switching frequency</li> <li>at DC</li> <li>1 500 1/h</li> <li>Operating frequency</li> <li>at AC-1 maximum</li> <li>at AC-2 maximum</li> <li>at AC-3 maximum</li> <li>1 000 1/h</li> </ul>	— at 690 V rated value	68 kW
■ at AC-3     — at 230 V rated value     — at 400 V rated value     — at 500 V rated value     — at 690 V rated value     — at 690 V rated value     — at 690 V rated value  Operating power for approx. 200000 operating cycles at AC-4      ■ at 400 V rated value     ■ at 690 V rated value  Thermal short-time current limited to 10 s  Power loss [W] at AC-3 at 400 V for rated value of the operating current per conductor  No-load switching frequency     ■ at DC  Operating frequency     ■ at AC-1 maximum     ■ at AC-2 maximum     ■ at AC-3 maximum	— at 690 V at 60 °C rated value	62 kW
- at 230 V rated value - at 400 V rated value 18.5 kW - at 500 V rated value 22 kW - at 690 V rated value 22 kW  Operating power for approx. 200000 operating cycles at AC-4  • at 400 V rated value 11.6 kW • at 690 V rated value 16.8 kW  Thermal short-time current limited to 10 s  Power loss [W] at AC-3 at 400 V for rated value of the operating current per conductor  No-load switching frequency • at DC  1 500 1/h  Operating frequency • at AC-1 maximum 1 200 1/h • at AC-3 maximum 1 000 1/h  • at AC-3 maximum 1 000 1/h	● at AC-2 at 400 V rated value	18.5 kW
- at 400 V rated value - at 500 V rated value 22 kW  - at 690 V rated value 22 kW  Operating power for approx. 200000 operating cycles at AC-4  • at 400 V rated value 11.6 kW • at 690 V rated value 16.8 kW  Thermal short-time current limited to 10 s  Power loss [W] at AC-3 at 400 V for rated value of the operating current per conductor  No-load switching frequency • at DC  1 500 1/h  Operating frequency • at AC-1 maximum 1 200 1/h • at AC-2 maximum 750 1/h • at AC-3 maximum 1 000 1/h	• at AC-3	
- at 500 V rated value - at 690 V rated value 22 kW  Operating power for approx. 200000 operating cycles at AC-4  • at 400 V rated value 11.6 kW • at 690 V rated value 16.8 kW  Thermal short-time current limited to 10 s Power loss [W] at AC-3 at 400 V for rated value of the operating current per conductor  No-load switching frequency • at DC 1 500 1/h  Operating frequency • at AC-1 maximum 1 200 1/h • at AC-2 maximum 750 1/h • at AC-3 maximum 1 000 1/h	— at 230 V rated value	11 kW
— at 690 V rated value  Operating power for approx. 200000 operating cycles at AC-4  • at 400 V rated value • at 690 V rated value  11.6 kW  • at 690 V rated value  16.8 kW  Thermal short-time current limited to 10 s  Power loss [W] at AC-3 at 400 V for rated value of the operating current per conductor  No-load switching frequency • at DC  1 500 1/h  Operating frequency • at AC-1 maximum 1 200 1/h • at AC-2 maximum 750 1/h • at AC-3 maximum 1 000 1/h	— at 400 V rated value	18.5 kW
Operating power for approx. 200000 operating cycles at AC-4  • at 400 V rated value  • at 690 V rated value  Thermal short-time current limited to 10 s  Power loss [W] at AC-3 at 400 V for rated value of the operating current per conductor  No-load switching frequency  • at DC  Operating frequency  • at AC-1 maximum  • at AC-2 maximum  • at AC-3 maximum  1 000 1/h  1 000 1/h	— at 500 V rated value	22 kW
at AC-4  • at 400 V rated value  • at 690 V rated value  16.8 kW  Thermal short-time current limited to 10 s  400 A  Power loss [W] at AC-3 at 400 V for rated value of the operating current per conductor  No-load switching frequency  • at DC  1 500 1/h  Operating frequency  • at AC-1 maximum  • at AC-2 maximum  750 1/h  • at AC-3 maximum  1 000 1/h	— at 690 V rated value	22 kW
<ul> <li>at 690 V rated value</li> <li>Thermal short-time current limited to 10 s</li> <li>400 A</li> <li>Power loss [W] at AC-3 at 400 V for rated value of the operating current per conductor</li> <li>No-load switching frequency</li> <li>at DC</li> <li>1 500 1/h</li> <li>Operating frequency</li> <li>at AC-1 maximum</li> <li>at AC-2 maximum</li> <li>at AC-3 maximum</li> <li>1 000 1/h</li> </ul>		
Thermal short-time current limited to 10 s  Power loss [W] at AC-3 at 400 V for rated value of the operating current per conductor  No-load switching frequency  • at DC  1 500 1/h  Operating frequency  • at AC-1 maximum  • at AC-2 maximum  • at AC-3 maximum  1 000 1/h	• at 400 V rated value	11.6 kW
Power loss [W] at AC-3 at 400 V for rated value of the operating current per conductor  No-load switching frequency  • at DC  Operating frequency  • at AC-1 maximum  • at AC-2 maximum  • at AC-3 maximum  1 000 1/h  1 000 1/h	• at 690 V rated value	16.8 kW
the operating current per conductor  No-load switching frequency  • at DC  1 500 1/h  Operating frequency  • at AC-1 maximum  • at AC-2 maximum  • at AC-3 maximum  1 000 1/h  1 000 1/h	Thermal short-time current limited to 10 s	400 A
No-load switching frequency  • at DC  1 500 1/h  Operating frequency  • at AC-1 maximum  1 200 1/h  • at AC-2 maximum  750 1/h  • at AC-3 maximum  1 000 1/h		2.2 W
● at DC  Operating frequency  ● at AC-1 maximum  1 200 1/h  ● at AC-2 maximum  750 1/h  ● at AC-3 maximum  1 000 1/h		
Operating frequency         1 200 1/h           ● at AC-1 maximum         1 200 1/h           ● at AC-2 maximum         750 1/h           ● at AC-3 maximum         1 000 1/h		
<ul> <li>at AC-1 maximum</li> <li>at AC-2 maximum</li> <li>at AC-3 maximum</li> <li>1 200 1/h</li> <li>750 1/h</li> <li>1 000 1/h</li> </ul>		1 500 1/h
• at AC-2 maximum  • at AC-3 maximum  1 000 1/h		4 200 4/h
• at AC-3 maximum 1 000 1/h		
• at AC-4 maximum 300 1/h		
	● at AC-4 maximum	300 I/N

Type of voltage of the control supply voltage	Control circuit/ Control	
• rated value 24 V  Operating range factor control supply voltage rated value of magnet coil at DC  • initial value 0.8  • Full-scale value 1.2  Design of the surge suppressor with varistor  Inrush current peak  • at 24 V 2A  Duration of innush current peak  • at 24 V 15 μs  Closing power of magnet coil at DC 21.5 W  Holding power of magnet coil at DC 1 W  Closing delay  • at DC 45 80 ms  Opening delay  • at DC 35 55 ms  Arcing fime 10 20 ms  Auxiliary circuit  Number of NC contacts for auxiliary contacts  • instantaneous contact 1  Number of NC contacts for auxiliary contacts  • instantaneous contact 1  Operating current at AC-12 maximum 10 A  Operating current at AC-15  • at 230 V rated value 3.A • at 680 V rated value 1A Operating current at DC-12  • at 24 V rated value 6.A • at 680 V rated value 6.A • at 48 V rated value 6.A • at 110 V rated value 6.A • at 110 V rated value 6.A • at 125 V rated value 2.A • at 125 V rated value 6.A • at 125 V rated value 6.A • at 125 V rated value 2.A • at 125 V rated value 3.A • at 125 V rated value 2.A • at 125 V rated value 1.A • at 125 V rated value 2.A • at 125 V rated value 2.A • at 125 V rated value 2.A • at 125 V rated value 3.A • at 125 V rated value 4.A • at 125 V rated value 4.A • at 125 V rated value 5.A • at 125 V rated value 6.A • at 125 V rated value 7.A • at 220 V rated value 7.A • at 220 V rated value 7.A	Type of voltage of the control supply voltage	DC
Operating range factor control supply voltage rated value of magnet coll at DC         0.8           • Full-scale value         1.2           Design of the surge suppressor         with varistor           Inrush current peak         2.A           • at 2.4 V         2.A           Duration of inrush current peak         15 μs           • at 2.4 V         15 μs           Closing power of magnet coil at DC         1.W           Holding power of magnet coil at DC         1.W           Closing delay         4 ms           • at DC         45 60 ms           Opening delay         35 55 ms           • at DC         35 55 ms           Avxiliary circuit           Number of NC contacts for auxiliary contacts         10 20 ms           • instantaneous contact         1           Number of NC contacts for auxiliary contacts         1           • instantaneous contact         1           Operating current at AC-12 maximum         10 A           Operating current at AC-13 maximum         10 A           Operating current at AC-14 maximum         10 A           • at 230 V rated value         2 A           • at 690 V rated value         1 A           • at 690 V rated value         6 A	Control supply voltage at DC	
value of magnet coil at DC         0.8           • Full-scale value         1.2           Design of the surge suppressor         with varistor           Inrush current peak         2 A           • at 24 V         2 A           Duration of inrush current peak         15 µS           • at 24 V         15 µS           Closing power of magnet coil at DC         1 W           Holding power of magnet coil at DC         1 W           Closing delay         4 to C           • at DC         45 60 ms           Opening delay         35 55 ms           • at DC         35 55 ms           Arcing time         10 20 ms           Availiary circuit         1           Number of NC contacts for auxiliary contacts         1           • instantaneous contact         1           Number of NC contacts for auxiliary contacts         1           • instantaneous contact         1           Operating current at AC-12 maximum         10 A           • at 230 V rated value         3A           • at 500 V rated value         1A           • at 500 V rated value         1A           • at 48 V rated value         6A           • at 48 V rated value         6A	• rated value	24 V
• Full-scale value     1.2 Design of the surge suppressor     inrush current peak     • at 24 ∨ 2A  Duration of inrush current peak     • at 24 ∨ 15 µs  Closing power of magnet coil at DC 21.5 W  Holding power of magnet coil at DC 1 W  Closing delay     • at DC 45 60 ms  Opening delay     • at DC 35 55 ms  Arcing time 10 20 ms  Auxiliary circuit  Number of NC contacts for auxiliary contacts     • instantaneous contact 1  Operating current at AC-12 maximum 10 A  Operating current at AC-15     • at 230 ∨ rated value 1 AC 10		
Design of the surge suppressor         with varistor           Inrush current peak	• initial value	0.8
Inrush current peak   • at 24 V	• Full-scale value	1.2
● at 24 V 15 µS 1	Design of the surge suppressor	with varistor
Duration of inrush current peak  • at 24 V  Closing power of magnet coil at DC  21.5 W  Holding power of magnet coil at DC  1 W  Closing delay • at DC  45 60 ms  Opening delay • at DC  Arcing time  10 20 ms  Auxiliarry circuit  Number of NC contacts for auxiliary contacts • instantaneous contact  1 Number of NO contacts for auxiliary contacts • instantaneous contact  1 Operating current at AC-12 maximum  10 A  Operating current at AC-15 • at 230 V rated value • at 690 V rated value • at 690 V rated value • at 690 V rated value • at 40 V rated value • at 60 V rated value • at 110 V rated value • at 60 V rated value • at 125 V rated value • at 125 V rated value • at 220 V rated value	Inrush current peak	
• at 24 V  Closing power of magnet coll at DC  Holding power of magnet coll at DC  1 W  Closing delay • at DC  45 60 ms  Opening delay • at DC  Arcing time  10 20 ms  Auxiliary circuit  Number of NC contacts for auxiliary contacts • instantaneous contact 1  Number of NO contacts for auxiliary contacts • instantaneous contact 1  Operating current at AC-15 • at 230 V rated value • at 400 V rated value • at 400 V rated value • at 43 V rated value • at 44 V rated value • at 48 V rated value • at 48 V rated value • at 40 V rated value • at 48 V rated value • at 40 V rated value • at 41 V rated value • at 40 V rated value • at	● at 24 V	2 A
Closing power of magnet coil at DC Holding power of magnet coil at DC Closing delay	Duration of inrush current peak	
Holding power of magnet coil at DC  Closing delay	● at 24 V	15 µs
Closing delay	Closing power of magnet coil at DC	21.5 W
● at DC Opening delay ● at DC 35 55 ms Arcing time 10 20 ms  Auxiliary circuit  Number of NC contacts for auxiliary contacts ● instantaneous contact 1 Number of NO contacts for auxiliary contacts ● instantaneous contact 1 Operating current at AC-12 maximum 10 A Operating current at AC-15 ● at 230 V rated value ● at 400 V rated value ● at 690 V rated value ● at 690 V rated value ● at 48 V rated value ● at 41 10 V rated value ● at 11 0 V rated value ● at 125 V rated value ● at 220 V rated value ● at 600 V rated value ● at 600 V rated value ● at 220 V rated value ● at 220 V rated value ● at 600 V rated value		1 W
Opening delay         at DC         35 55 ms           Arcing time         10 20 ms           Auxiliary circuit           Number of NC contacts for auxiliary contacts           • instantaneous contact         1           Number of NO contacts for auxiliary contacts         1           • instantaneous contact         1           Operating current at AC-12 maximum         10 A           Operating current at AC-15         10 A           • at 230 V rated value         3 A           • at 500 V rated value         2 A           • at 690 V rated value         1 A           Operating current at DC-12         10 A           • at 24 V rated value         6 A           • at 48 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 220 V rated value         1 A           • at 220 V rated value         1 A           • at 600 V rated value         1 A	Closing delay	
● at DC         35 55 ms           Arcing time         10 20 ms           Auxiliary circuit           Number of NC contacts for auxiliary contacts         1           ● instantaneous contact         1           Number of NO contacts for auxiliary contacts         1           ● instantaneous contact         1           Operating current at AC-12 maximum         10 A           Operating current at AC-15         10 A           ● at 230 V rated value         3 A           ● at 500 V rated value         2 A           ● at 690 V rated value         1 A           Operating current at DC-12         10 A           ● at 24 V rated value         6 A           ● at 48 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 220 V rated value         1 A           ● at 600 V rated value         1 A		45 60 ms
Arcing time 10 20 ms  Auxiliary circuit  Number of NC contacts for auxiliary contacts  ● instantaneous contact 1  Number of NO contacts for auxiliary contacts  ● instantaneous contact 1  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 2 A  ● at 690 V rated value 1 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 110 V rated value 3 A  ● at 22 V rated value 5 A  ● at 24 V rated value 6 A  ● at 48 V rated value 7 A  ● at 48 V rated value 8 A  ● at 22 V rated value 9 A  ● at 125 V rated value 1 A  ● at 220 V rated value 1 A  ● at 600 V rated value 1 A		
Auxiliary circuit  Number of NC contacts for auxiliary contacts  • instantaneous contact  1  Number of NO contacts for auxiliary contacts  • instantaneous contact  1  Operating current at AC-12 maximum  10 A  Operating current at AC-15  • at 230 V rated value  • at 400 V rated value  • at 500 V rated value  • at 690 V rated value  1 A  Operating current at DC-12  • at 24 V rated value  • at 48 V rated value  • at 60 V rated value  • at 60 V rated value  • at 110 V rated value  • at 125 V rated value  • at 220 V rated value  • at 220 V rated value  • at 600 V rated value  • at 600 V rated value  • at 220 V rated value  • at 600 V rated value  • at 600 V rated value  • at 200 V rated value  • at 200 V rated value  • at 200 V rated value  • at 600 V rated value		
Number of NC contacts for auxiliary contacts  • instantaneous contact  1  Number of NO contacts for auxiliary contacts  • instantaneous contact  1  Operating current at AC-12 maximum  10 A  Operating current at AC-15  • at 230 V rated value  • at 400 V rated value  • at 690 V rated value  • at 690 V rated value  • at 24 V rated value  • at 48 V rated value  • at 48 V rated value  • at 60 V rated value  • at 60 V rated value  • at 110 V rated value  • at 125 V rated value  • at 220 V rated value  • at 220 V rated value  • at 600 V rated value  • at 600 V rated value  • at 125 V rated value	Arcing time	10 20 ms
<ul> <li>Instantaneous contact</li> <li>Number of NO contacts for auxiliary contacts</li> <li>instantaneous contact</li> <li>Operating current at AC-12 maximum</li> <li>Operating current at AC-15</li> <li>at 230 V rated value</li> <li>at 400 V rated value</li> <li>at 500 V rated value</li> <li>at 690 V rated value</li> <li>10 A</li> <li>at 690 V rated value</li> <li>1 A</li> <li>Operating current at DC-12</li> <li>at 24 V rated value</li> <li>at 48 V rated value</li> <li>at 48 V rated value</li> <li>at 60 V rated value</li> <li>at 110 V rated value</li> <li>at 110 V rated value</li> <li>at 125 V rated value</li> <li>at 125 V rated value</li> <li>at 220 V rated value</li> <li>at 600 V rated value</li> <li>at 600 V rated value</li> <li>at 7 A</li> <li>at 125 V rated value</li> <li>at 125 V rated value</li></ul>	Auxiliary circuit	
Number of NO contacts for auxiliary contacts  • instantaneous contact  1 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  2 A  • at 500 V rated value  1 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  3 A  • at 10 V rated value  10 A  • at 24 V rated value  10 A  • at 24 V rated value  10 A  • at 24 V rated value  10 A  • at 25 V rated value  10 A  • at 10 V rated value  10 A  • at 10 V rated value  10 A  • at 10 V rated value  10 A	Number of NC contacts for auxiliary contacts	
<ul> <li>instantaneous contact</li> <li>Operating current at AC-12 maximum</li> <li>Operating current at AC-15</li> <li>at 230 V rated value</li> <li>at 400 V rated value</li> <li>at 500 V rated value</li> <li>at 690 V rated value</li> <li>at 24 V rated value</li> <li>at 48 V rated value</li> <li>at 60 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 600 V rated value</li> <li>at 600 V rated value</li> <li>at 600 V rated value</li> <li>at 24 V rated value</li> <li>at 125 V rated value</li> <li>at 125 V rated value</li> <li>at 24 V rated value</li> <li>at 125 V rated value</li> <li>at 125 V rated value</li> <li>at 24 V rated value</li> <li>at 25 V rated value</li> </ul>	• instantaneous contact	1
Operating current at AC-12 maximum       10 A         Operating current at AC-15       10 A         • at 230 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 24 V rated value       10 A         • at 48 V rated value       6 A         • 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	Number of NO contacts for auxiliary contacts	
Operating current at AC-15	• instantaneous contact	1
<ul> <li>at 230 V rated value</li> <li>at 400 V rated value</li> <li>at 500 V rated value</li> <li>at 690 V rated value</li> <li>1 A</li> <li>Operating current at DC-12</li> <li>at 24 V rated value</li> <li>at 48 V rated value</li> <li>at 60 V rated value</li> <li>at 60 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 600 V rated value</li> <li>at 600 V rated value</li> </ul>		10 A
<ul> <li>at 400 V rated value</li> <li>at 500 V rated value</li> <li>at 690 V rated value</li> <li>1 A</li> <li>Operating current at DC-12</li> <li>at 24 V rated value</li> <li>at 48 V rated value</li> <li>at 60 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 600 V rated value</li> <li>at 600 V rated value</li> </ul>		
<ul> <li>at 500 V rated value</li> <li>at 690 V rated value</li> <li>1 A</li> <li>Operating current at DC-12</li> <li>at 24 V rated value</li> <li>at 48 V rated value</li> <li>at 60 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 600 V rated value</li> <li>at 600 V rated value</li> </ul>	at 230 V rated value	
<ul> <li>at 690 V rated value</li> <li>Operating current at DC-12</li> <li>at 24 V rated value</li> <li>at 48 V rated value</li> <li>at 60 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 600 V rated value</li> <li>at 600 V rated value</li> <li>at 600 V rated value</li> </ul>	at 400 V rated value	
Operating current at DC-12  • at 24 V rated value		
<ul> <li>at 24 V rated value</li> <li>at 48 V rated value</li> <li>at 60 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 600 V rated value</li> <li>0.15 A</li> </ul>		1 A
<ul> <li>at 48 V rated value</li> <li>at 60 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 600 V rated value</li> <li>0.15 A</li> </ul>		
<ul> <li>at 60 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 600 V rated value</li> <li>0.15 A</li> </ul>		
<ul> <li>at 110 V rated value</li> <li>at 125 V rated value</li> <li>at 220 V rated value</li> <li>at 600 V rated value</li> <li>0.15 A</li> </ul>		
<ul> <li>at 125 V rated value</li> <li>at 220 V rated value</li> <li>at 600 V rated value</li> <li>0.15 A</li> </ul>		
<ul> <li>at 220 V rated value</li> <li>at 600 V rated value</li> <li>0.15 A</li> </ul>		
• at 600 V rated value 0.15 A		
Operating current at DC-13		0.15 A
• at 24 V rated value 10 A		
at 48 V rated value     2 A	• at 48 V rated value	2 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 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	40 A
• at 600 V rated value	41 A
Yielded mechanical performance [hp]	
<ul><li>for single-phase AC motor</li></ul>	
— at 110/120 V rated value	3 hp
— at 230 V rated value	7.5 hp
• for three-phase AC motor	
— at 200/208 V rated value	10 hp
— at 220/230 V rated value	15 hp
— at 460/480 V rated value	30 hp
— at 575/600 V rated value	40 hp
Contact rating of auxiliary contacts according to UL	A600 / P600

## Short-circuit protection

## Design of the fuse link

- for short-circuit protection of the main circuit
  - with type of coordination 1 required
  - with type of assignment 2 required
- for short-circuit protection of the auxiliary switch required

gG: 160 A (690 V, 100 kA), aM: 80 A (690 V, 100 kA), BS88: 125

A (415 V, 80 kA)

gG: 80A (690V,100kA), aM: 50A (690V,100kA), BS88: 63A

(415V,80kA)

gG: 10 A (500 V, 1 kA)

nstallation/ 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	114 mm
Width	55 mm
Depth	130 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
for grounded parts	
— forwards	10 mm
— upwards	10 mm
— at the side	6 mm
— downwards	10 mm
• for live parts	
— forwards	10 mm
— upwards	10 mm
— downwards	10 mm
— at the side	6 mm

Connections/Terminals	
Type of electrical connection	
• for main current circuit	screw-type terminals
<ul> <li>for auxiliary and control current circuit</li> </ul>	screw-type terminals
<ul> <li>at contactor for auxiliary contacts</li> </ul>	Screw-type terminals
• of magnet coil	Screw-type terminals
Type of connectable conductor cross-sections	
• for main contacts	
<ul><li>— single or multi-stranded</li></ul>	2x (1 35 mm²), 1x (1 50 mm²)
<ul> <li>finely stranded with core end processing</li> </ul>	2x (1 25 mm²), 1x (1 35 mm²)
<ul> <li>at AWG conductors for main contacts</li> </ul>	2x (18 2), 1x (18 1)
Connectable conductor cross-section for main contacts	
finely stranded with core end processing	1 35 mm²
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	
<ul> <li>for auxiliary contacts</li> </ul>	
<ul> <li>single or multi-stranded</li> </ul>	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 mm²), 2x (0.75 2.5 mm²)
<ul> <li>at AWG conductors for auxiliary contacts</li> </ul>	2x (20 16), 2x (18 14)
AWG number as coded connectable conductor cross section	
• for main contacts	18 1
• for auxiliary contacts	20 14

# Safety related data

B10 value	
	4.000.000
<ul> <li>with high demand rate acc. to SN 31920</li> </ul>	1 000 000
Proportion of dangerous failures	
<ul> <li>with low demand rate acc. to SN 31920</li> </ul>	40 %
<ul> <li>with high demand rate acc. to SN 31920</li> </ul>	73 %
Failure rate [FIT]	
• with low demand rate acc. to SN 31920	100 FIT
Product function	
<ul> <li>Mirror contact acc. to IEC 60947-4-1</li> </ul>	Yes
<ul> <li>positively driven operation acc. to IEC 60947-5-</li> </ul>	No
1	
T1 value for proof test interval or service life acc. to	20 y
IEC 61508	
Protection against electrical shock	finger-safe when touched vertically from front acc. to IEC 60529

O 11.01	
Certificates	/annrovals
	appiovais

General Product Approval	Functional	Declaration of
	Safety/Safety	Conformity
	of Machinery	









Type Examination Certificate



Declaration of Conformity	Test Certificates		Marine / Shipping		
Miscellaneous	Special Test Certi- ficate	Type Test Certificates/Test Report	ABS	BUREAU VERITAS	Lloyd's Register

# Marine / Shipping

other









Confirmation

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

Industry Mall (Online ordering system)

 $\underline{\text{https://mall.industry.siemens.com/mall/en/en/Catalog/product?mlfb=3RT2035-1KB40}$ 

Cax online generator

http://support.automation.siemens.com/WW/CAXorder/default.aspx?lang=en&mlfb=3RT2035-1KB40

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

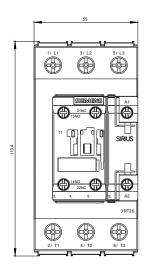
https://support.industry.siemens.com/cs/ww/en/ps/3RT2035-1KB40

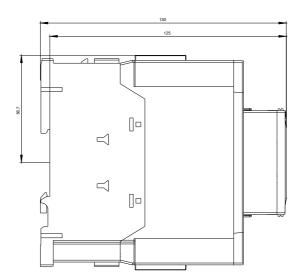
Image database (product images, 2D dimension drawings, 3D models, device circuit diagrams, EPLAN macros, ...) <a href="http://www.automation.siemens.com/bilddb/cax\_de.aspx?mlfb=3RT2035-1KB40&lang=en">http://www.automation.siemens.com/bilddb/cax\_de.aspx?mlfb=3RT2035-1KB40&lang=en</a>

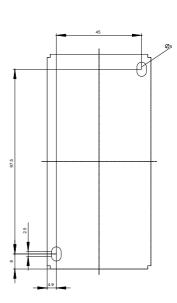
Characteristic: Tripping characteristics, I2t, Let-through current

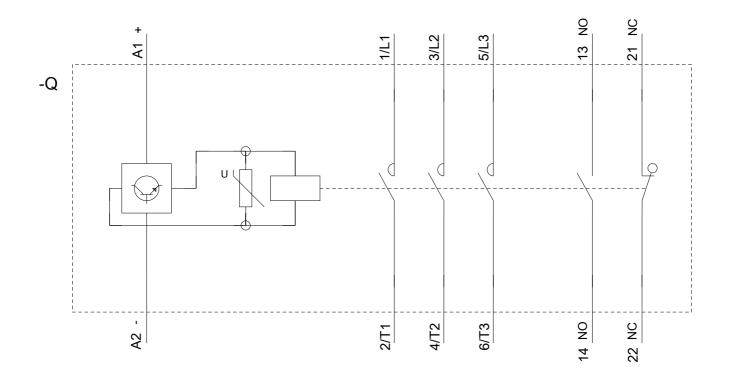
https://support.industry.siemens.com/cs/ww/en/ps/3RT2035-1KB40/char

Further characteristics (e.g. electrical endurance, switching frequency)
http://www.automation.siemens.com/bilddb/index.aspx?view=Search&mlfb=3RT2035-1KB40&objecttype=14&gridview=view1









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