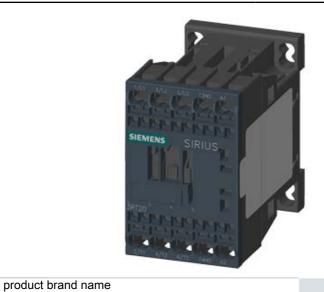
# **SIEMENS**

Data sheet 3RT2016-2AF01



CONTACTOR, AC-3, 4KW/400V, 1NO, AC110V, 50/60 HZ, 3-POLE, SZ S00 SPRING-LOADED TERMINAL

Product designation		3RT2 contactor
General technical data:		
Insulation voltage		
Rated value	V	690
Degree of pollution		3
Surge voltage resistance Rated value	kV	6
Mechanical service life (switching cycles)		
<ul> <li>of the contactor typical</li> </ul>		30 000 000
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
Thermal short-time current restricted to 10 s	A	72
Protection class IP	_	
• on the front		IP20
• of the terminal		IP20
Equipment marking		
• acc. to DIN EN 61346-2		Q
• acc. to DIN EN 81346-2		Q
Main circuit:		
Number of poles for main current circuit		3

**SIRIUS** 

Operating voltage

Number of NC contacts for main contacts

Number of NO contacts for main contacts

0

3

Operating ourrent         • at AC-1         — at 400 V at ambient temperature 40 °C         A         22           Rated value         — up to 690 V at ambient temperature 40 °C         A         22           Rated value         — up to 690 V at ambient temperature 60 °C         A         20           Rated value         — at 400 V Rated value         A         9           • at AC-2         — at 400 V Rated value         A         9           — at 400 V Rated value         A         7.7           — at 600 V Rated value         A         6.7           • at AC-4 at 400 V Rated value         A         8.5           Operating current with 1 current path         • at DC-1         — at 24 V Rated value         A         20           — at 110 V Rated value         A         2.1         — at 220 V Rated value         A         0.8           — at 220 V Rated value         A         0.6         — at 400 V Rated value         A         0.6           • at DC-3 at DC-5         — at 24 V Rated value         A         20         — at 24 V Rated value         A         20           • at DC-1         — at 220 V Rated value         A         1.6         — at 220 V Rated value         A         1.6           • at DC-3 at DC-5 — at 24 V Rated valu	<ul> <li>at AC-3 Rated value maximum</li> </ul>	V	690
— at 400 V at ambient temperature 40 °C Rated value  — up to 690 V at ambient temperature 40 °C Rated value  — up to 690 V at ambient temperature 60 °C Rated value  — up to 690 V at ambient temperature 60 °C Rated value  • at AC-2 at 400 V Rated value  • at AC-3  — at 400 V Rated value  — at 590 V Rated value  — at 590 V Rated value  — at 690 V Rated value  — at 690 V Rated value  — at 24 V Rated value  — at 110 V Rated value  — at 400 V Rated value  — at 400 V Rated value  — at 220 V Rated value  — at 220 V Rated value  — at 24 V Rated value  — at 440 V Rated value  — at 440 V Rated value  — at 110 V Rated value  — at 24 V Rated value  — at 220 V Rated	Operating current		
Rated value — up to 690 V at ambient temperature 40 °C Rated value — up to 690 V at ambient temperature 60 °C Rated value — up to 690 V at ambient temperature 60 °C Rated value • at AC-2 at 400 V Rated value • at AC-3 — at 400 V Rated value — at 590 V Rated value — at 590 V Rated value — at 590 V Rated value — at 690 V Rated value — at 400 V Rated value — at 24 V Rated value — at 110 V Rated value — at 110 V Rated value — at 440 V Rated value — at 220 V Rated value — at 24 V Rated value — at 600 V Rated value — at 600 V Rated value — at 10 V Rated value — at 10 V Rated value — at 10 V Rated value — at 110 V Rated value — at 220 V Rated	• at AC-1		
Rated value  — up to 690 V at ambient temperature 60 °C Rated value  • at AC-2 at 400 V Rated value  • at AC-3  — at 400 V Rated value — at 500 V Rated value  • at AC-4 at 400 V Rated value — at 500 V Rated value  • at AC-4 at 400 V Rated value  • at DC-1  — at 24 V Rated value — at 110 V Rated value — at 220 V Rated value — at 600 V Rated value — at 700 V Rated value — at 700 V Rated value — at 700 V Rated value — at 110 V Rated value — at 220 V Rated value — at 24 V Rated value — at 250 V Rated v		А	22
Rated value       ● at AC-2 at 400 V Rated value       A       9         • at AC-3       — at 400 V Rated value       A       9         — at 500 V Rated value       A       7.7         — at 690 V Rated value       A       6.7         • at AC-4 at 400 V Rated value       A       8.5         Operating current with 1 current path       • at DC-1         — at 24 V Rated value       A       20         — at 110 V Rated value       A       2.1         — at 220 V Rated value       A       0.8         — at 440 V Rated value       A       0.6         • at DC-3 at DC-5       — at 24 V Rated value       A       0.1         • at DC-3 at DC-5       — at 24 V Rated value       A       0.1         — at 110 V Rated value       A       20         — at 110 V Rated value       A       1.6         — at 220 V Rated value       A       1.6         — at 24 V Rated value       A       0.7         • at DC-3 at DC-5       — at 110 V Rated value       A       0.35         — at 110 V Rated value       A       0.35         — at 24 V Rated value       A       20         Operating current with 3 current paths in series       • at DC-1 <td></td> <td>Α</td> <td>22</td>		Α	22
• at AC-3  — at 400 V Rated value — at 500 V Rated value — at 690 V Rated value A 7.7  — at 690 V Rated value A 6.7  • at AC-4 at 400 V Rated value A 8.5  Operating current with 1 current path • at DC-1 — at 24 V Rated value — at 110 V Rated value A 0.8 — at 440 V Rated value A 0.6 — at 440 V Rated value A 0.6 — at 600 V Rated value A 0.6 • at DC-3 — at 24 V Rated value A 0.6  • at DC-3 v Rated value A 0.6  • at DC-3 v Rated value A 0.1  Operating current with 2 current paths in series • at DC-1 — at 24 V Rated value A 1.6 — at 440 V Rated value A 1.6 — at 440 V Rated value A 0.8 — at 600 V Rated value A 1.6 — at 440 V Rated value A 1.6 — at 24 V Rated value A 0.7  • at DC-3 at DC-5 — at 110 V Rated value A 0.7  • at DC-3 at DC-5 — at 110 V Rated value A 0.7  • at DC-3 at DC-5 — at 110 V Rated value A 0.7  • at DC-1 — at 24 V Rated value A 0.7  • at DC-3 at DC-5 — at 110 V Rated value A 0.7  • at DC-1 — at 24 V Rated value A 0.7  • at DC-1 — at 24 V Rated value A 0.7  • at DC-1 — at 24 V Rated value A 0.7  • at DC-1 — at 24 V Rated value A 0.7  • at DC-1 — at 24 V Rated value A 0.7  • at DC-1 — at 24 V Rated value A 0.7  • at DC-1 — at 24 V Rated value A 0.7  • at DC-1 — at 24 V Rated value A 0.7  • at DC-1 — at 24 V Rated value A 0.7  A 0.8  A 0.9		Α	20
- at 400 ∨ Rated value	• at AC-2 at 400 V Rated value	Α	9
— at 500 ∨ Rated value	• at AC-3		
— at 690 ∨ Rated value A 8.5  Operating current with 1 current path  ■ at DC-1  — at 24 ∨ Rated value A 2.1  — at 110 ∨ Rated value A 0.6  — at 440 ∨ Rated value A 0.6  — at 440 ∨ Rated value A 0.6  — at 600 ∨ Rated value A 0.6  — at 110 ∨ Rated value A 0.6  — at 110 ∨ Rated value A 0.6  — at 22 ∨ Rated value A 0.6  — at 110 ∨ Rated value A 0.1  Operating current with 2 current paths in series  ■ at DC-1  — at 24 ∨ Rated value A 1.6  — at 110 ∨ Rated value A 1.6  — at 110 ∨ Rated value A 1.6  — at 220 ∨ Rated value A 0.8  — at 110 ∨ Rated value A 1.6  — at 440 ∨ Rated value A 0.8  — at 210 ∨ Rated value A 0.7  ■ at DC-3 at DC-5  — at 110 ∨ Rated value A 0.8  — at 24 ∨ Rated value A 0.8  — at 24 ∨ Rated value A 0.7  ■ at DC-3 at DC-5  — at 110 ∨ Rated value A 0.7  ■ at DC-3 at DC-5  — at 110 ∨ Rated value A 0.35  — at 24 ∨ Rated value A 0.35  — at 24 ∨ Rated value A 20  Operating current with 3 current paths in series  ■ at DC-1  — at 24 ∨ Rated value A 20  — at 220 ∨ Rated value A 20  — at 240 ∨ Rated value A 20	— at 400 V Rated value	Α	9
■ at AC-4 at 400 V Rated value     Operating current with 1 current path     ■ at DC-1     — at 24 V Rated value     — at 110 V Rated value     — at 440 V Rated value     — at 440 V Rated value     — at 600 V Rated value     — at 600 V Rated value     — at 100 V Rated value     — at 100 V Rated value     — at 24 V Rated value     — at 110 V Rated value     — at 220 V Rated value     — at 110 V Rated value     — at 20 V Rated value     — at 20 V Rated value     — at 440 V Rated value     — at 440 V Rated value     — at 40 V Rated value     — at 40 V Rated value     — at 220 V Rated value     — at 24 V Rated value     — at 220 V Rated value     — at 440 V Rated value     — at 220 V Rated value     — at 440 V Rated value	— at 500 V Rated value	Α	7.7
Operating current with 1 current path              ■ at DC-1          A 20          2.1          A 2.1          A 2.1          A 0.8          A 0.8          A 0.8          A 0.6          A 0.7          A 0.1         Operating current with 2 current paths in series          A 0.1         Operating current with 2 current paths in series          A 12          A 1.6          A 1.6          A 0.8          A 1.6          A 0.7          A 1.6          A 0.7          A 1.1          A 0.7          A 1.1	— at 690 V Rated value	Α	6.7
• at DC-1  — at 24 V Rated value — at 110 V Rated value A 2.1  — at 220 V Rated value A 0.8  — at 440 V Rated value A 0.6  — at 600 V Rated value A 0.6  • at DC-3 at DC-5  — at 24 V Rated value A 0.1  Operating current with 2 current paths in series  • at DC-1  — at 220 V Rated value A 1.6  — at 440 V Rated value A 0.8  — at 400 V Rated value A 0.8  — at 20 V Rated value A 1.6  — at 440 V Rated value A 0.7  • at DC-3 at DC-5  — at 110 V Rated value A 0.8  — at 320 V Rated value A 0.7  • at DC-3 at DC-5  — at 110 V Rated value A 0.7  • at DC-3 at DC-5  — at 110 V Rated value A 0.35  — at 24 V Rated value A 0.35  — at 24 V Rated value A 20  Operating current with 3 current paths in series  • at DC-1  — at 24 V Rated value A 20  Operating current with 3 current paths in series  • at DC-1  — at 24 V Rated value A 20  Operating current with 3 current paths in series  • at DC-1  — at 24 V Rated value A 20  Operating current with 3 current paths in series  • at DC-1  — at 24 V Rated value A 20  Operating current with 3 current paths in series  • at DC-1  — at 24 V Rated value A 20  — at 20 V Rated value A 20  — at 440 V Rated value A 20	• at AC-4 at 400 V Rated value	Α	8.5
• at DC-1  — at 24 V Rated value — at 110 V Rated value A 2.1  — at 220 V Rated value A 0.8  — at 440 V Rated value A 0.6  — at 600 V Rated value A 0.6  • at DC-3 at DC-5  — at 24 V Rated value A 0.1  Operating current with 2 current paths in series  • at DC-1  — at 220 V Rated value A 1.6  — at 440 V Rated value A 0.8  — at 400 V Rated value A 0.8  — at 20 V Rated value A 1.6  — at 440 V Rated value A 0.7  • at DC-3 at DC-5  — at 110 V Rated value A 0.8  — at 320 V Rated value A 0.7  • at DC-3 at DC-5  — at 110 V Rated value A 0.7  • at DC-3 at DC-5  — at 110 V Rated value A 0.35  — at 24 V Rated value A 0.35  — at 24 V Rated value A 20  Operating current with 3 current paths in series  • at DC-1  — at 24 V Rated value A 20  Operating current with 3 current paths in series  • at DC-1  — at 24 V Rated value A 20  Operating current with 3 current paths in series  • at DC-1  — at 24 V Rated value A 20  Operating current with 3 current paths in series  • at DC-1  — at 24 V Rated value A 20  Operating current with 3 current paths in series  • at DC-1  — at 24 V Rated value A 20  — at 20 V Rated value A 20  — at 440 V Rated value A 20	Operating current with 1 current path		
— at 220 V Rated value — at 440 V Rated value A 0.6 — at 600 V Rated value A 0.6  • at DC-3 at DC-5 — at 24 V Rated value A 0.1  Operating current with 2 current paths in series • at DC-1 — at 24 V Rated value A 1.6 — at 110 V Rated value A 1.6 — at 440 V Rated value A 0.7  • at DC-3 at DC-5 — at 110 V Rated value A 1.6 — at 440 V Rated value A 0.8 — at 600 V Rated value A 0.7  • at DC-3 at DC-5 — at 110 V Rated value A 0.7  • at DC-3 at DC-5 — at 110 V Rated value A 0.35 — at 24 V Rated value A 20  Operating current with 3 current paths in series • at DC-1 — at 24 V Rated value A 20  Operating current with 3 current paths in series • at DC-1 — at 24 V Rated value A 20 — at 110 V Rated value A 20 — at 20 V Rated value A 20 — at 20 V Rated value A 20 — at 20 V Rated value A 20 — at 440 V Rated value A 20	— at 24 V Rated value	Α	20
— at 440 V Rated value — at 600 V Rated value  • at DC-3 at DC-5 — at 24 V Rated value A 0.1  Operating current with 2 current paths in series  • at DC-1 — at 24 V Rated value A 12 — at 110 V Rated value A 12 — at 110 V Rated value A 12 — at 220 V Rated value A 1.6 — at 440 V Rated value A 0.8 — at 600 V Rated value A 0.7  • at DC-3 at DC-5 — at 110 V Rated value A 0.7  • at DC-3 at DC-5 — at 110 V Rated value A 0.35 — at 24 V Rated value A 0.35 — at 24 V Rated value A 20  Operating current with 3 current paths in series  • at DC-1 — at 24 V Rated value A 20 — at 20 V Rated value A 20 — at 440 V Rated value A 1.3	— at 110 V Rated value	Α	2.1
- at 600 V Rated value  • at DC-3 at DC-5  — at 24 V Rated value A  — at 110 V Rated value A  Operating current with 2 current paths in series  • at DC-1  — at 24 V Rated value A  — at 110 V Rated value A  — at 110 V Rated value A  — at 220 V Rated value A  — at 440 V Rated value A  — at 600 V Rated value A  • at DC-3  • at DC-5  — at 110 V Rated value A  — at 24 V Rated value A  • at DC-3 at DC-5  — at 110 V Rated value A  — at 24 V Rated value A  Operating current with 3 current paths in series  • at DC-1  — at 24 V Rated value A  — at 20  Operating current with 3 current paths in series  • at DC-1  — at 24 V Rated value A  — at 20  — at 20 V Rated value A  — at 110 V Rated value A  — at 20  — at 20 V Rated value A  — at 110 V Rated value A  — at 20 V Rated value A  — at 20 V Rated value A  — at 20 V Rated value A  — at 440 V Rated value A  — at 20 V Rated value A  — at 440 V Rated value A  — at 1.3	— at 220 V Rated value	Α	0.8
at DC-3 at DC-5     — at 24 V Rated value     — at 110 V Rated value     A     Derating current with 2 current paths in series     at DC-1     — at 24 V Rated value     — at 110 V Rated value     — at 220 V Rated value     — at 440 V Rated value     — at 600 V Rated value     — at 110 V Rated value     A     A     A     D.7      at DC-3 at DC-5     — at 110 V Rated value     A     A     O.7      at DC-3 at DC-5     — at 24 V Rated value     A     A     D.35     — at 24 V Rated value     A     A     Doperating current with 3 current paths in series      at DC-1     — at 24 V Rated value     A     A     D.35     A     A     Derating current with 3 current paths in series      at DC-1     — at 24 V Rated value     A     A     D.35     D.35     A     D.35     D.35     A     D.35     D.35     A     D.35     D.3	— at 440 V Rated value	Α	0.6
at 24 V Rated value at 110 V Rated value A 0.1  Operating current with 2 current paths in series  ■ at DC-1  at 24 V Rated value A 12  at 110 V Rated value A 1.6  at 440 V Rated value A 0.8  at 600 V Rated value A 0.7  ■ at DC-3 at DC-5  at 110 V Rated value A 0.35  at 24 V Rated value A 0.0  Operating current with 3 current paths in series ■ at DC-1  at 24 V Rated value A 20  Operating current with 3 current paths in series ■ at DC-1  at 24 V Rated value A 20  at 110 V Rated value A 20  at 110 V Rated value A 20  at 220 V Rated value A 20  at 440 V Rated value A 3 3	— at 600 V Rated value	Α	0.6
— at 110 V Rated value A 0.1  Operating current with 2 current paths in series  ● at DC-1  — at 24 V Rated value A 12 — at 220 V Rated value A 1.6 — at 440 V Rated value A 0.8 — at 600 V Rated value A 0.7  ● at DC-3 at DC-5 — at 110 V Rated value A 0.35 — at 24 V Rated value A 20  Operating current with 3 current paths in series  ● at DC-1 — at 24 V Rated value A 20  — at 110 V Rated value A 20 — at 110 V Rated value A 20 — at 110 V Rated value A 20 — at 220 V Rated value A 20 — at 440 V Rated value A 1.3	• at DC-3 at DC-5		
Operating current with 2 current paths in series         ● at DC-1         — at 24 V Rated value       A       20         — at 110 V Rated value       A       12         — at 220 V Rated value       A       1.6         — at 440 V Rated value       A       0.8         — at 600 V Rated value       A       0.7         ● at DC-3 at DC-5       — at 110 V Rated value       A       20         Operating current with 3 current paths in series       ● at DC-1       — at 24 V Rated value       A       20         — at 110 V Rated value       A       20         — at 220 V Rated value       A       20         — at 440 V Rated value       A       20	— at 24 V Rated value	Α	20
■ at DC-1     — at 24 V Rated value     — at 110 V Rated value     — at 220 V Rated value     — at 440 V Rated value     — at 600 V Rated value     — at 600 V Rated value     — at 110 V Rated value     — at 110 V Rated value     — at 24 V Rated value     — at 440 V Rated value	— at 110 V Rated value	Α	0.1
- at 24 V Rated value     - at 110 V Rated value     - at 220 V Rated value     - at 440 V Rated value     - at 600 V Rated value     - at 100 V Rated value     - at 100 V Rated value     - at 110 V Rated value     - at 24 V Rated value     - at 250 V Rated value     - at 350 V Rated value     - at 360 V Rated value     - at 370 V Rated value	Operating current with 2 current paths in series		
- at 110 V Rated value     - at 220 V Rated value     - at 440 V Rated value     - at 600 V Rated value     - at 110 V Rated value     - at 600 V Rated value     - at 110 V Rated value     - at 110 V Rated value     - at 24 V Rated value     - at 320 V Rated value     - at 440 V Rated value	• at DC-1		
- at 220 V Rated value A A D.8 A 0.8 A 0.7  ■ at DC-3 at DC-5 A at 110 V Rated value A A D.7  ■ at 24 V Rated value A A DOperating current with 3 current paths in series  ■ at DC-1 A A DC-1 A DC-1 A A DC-1 A A DC-1 A A DC-1 A DC-1 A A DC-1	— at 24 V Rated value	Α	20
<ul> <li>— at 440 V Rated value</li> <li>— at 600 V Rated value</li> <li>A 0.7</li> <li>● at DC-3 at DC-5</li> <li>— at 110 V Rated value</li> <li>— at 24 V Rated value</li> <li>A 20</li> <li>Operating current with 3 current paths in series</li> <li>● at DC-1</li> <li>— at 24 V Rated value</li> <li>— at 110 V Rated value</li> <li>— at 110 V Rated value</li> <li>— at 220 V Rated value</li> <li>— at 220 V Rated value</li> <li>— at 440 V Rated value</li> <li>A 20</li> <li>— at 440 V Rated value</li> <li>A 1.3</li> </ul>	— at 110 V Rated value	Α	12
<ul> <li>— at 600 V Rated value</li> <li>● at DC-3 at DC-5</li> <li>— at 110 V Rated value</li> <li>— at 24 V Rated value</li> <li>A 20</li> <li>Operating current with 3 current paths in series</li> <li>● at DC-1</li> <li>— at 24 V Rated value</li> <li>— at 110 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>A 20</li> <li>— at 440 V Rated value</li> <li>A 1.3</li> </ul>	— at 220 V Rated value	Α	1.6
■ at DC-3 at DC-5     — at 110 V Rated value     A 0.35     — at 24 V Rated value     A 20  Operating current with 3 current paths in series     ■ at DC-1     — at 24 V Rated value     A 20     — at 110 V Rated value     A 20     — at 110 V Rated value     A 20     — at 440 V Rated value     A 1.3	— at 440 V Rated value	Α	0.8
— at 110 V Rated value       A       0.35         — at 24 V Rated value       A       20         Operating current with 3 current paths in series         • at DC-1       —         — at 24 V Rated value       A       20         — at 110 V Rated value       A       20         — at 220 V Rated value       A       20         — at 440 V Rated value       A       1.3	— at 600 V Rated value	Α	0.7
<ul> <li>— at 24 V Rated value</li> <li>A 20</li> <li>Operating current with 3 current paths in series</li> <li>• 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 220 V Rated value</li> <li>— at 440 V Rated value</li> <li>A 1.3</li> </ul>	• at DC-3 at DC-5		
Operating current with 3 current paths in series   • at DC-1  — at 24 V Rated value  — at 110 V Rated value  A 20  — at 220 V Rated value  A 20  — at 440 V Rated value  A 1.3	— at 110 V Rated value	Α	0.35
<ul> <li>at DC-1         <ul> <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> <li>A 20         <ul> <li>A 20</li> <li>A 20</li> </ul> </li> <li>A 1.3</li> </ul>	— at 24 V Rated value	Α	20
— at 24 V Rated value       A       20         — at 110 V Rated value       A       20         — at 220 V Rated value       A       20         — at 440 V Rated value       A       1.3	Operating current with 3 current paths in series		
— at 110 V Rated value       A       20         — at 220 V Rated value       A       20         — at 440 V Rated value       A       1.3	• at DC-1		
<ul> <li>— at 220 V Rated value</li> <li>— at 440 V Rated value</li> <li>A 1.3</li> </ul>	— at 24 V Rated value	Α	20
— at 440 V Rated value A 1.3	— at 110 V Rated value	Α	20
	— at 220 V Rated value	Α	20
— at 600 V Rated value A 1	— at 440 V Rated value	Α	1.3
	— at 600 V Rated value	Α	1

• at DC-3 at DC-5			
— at 110 V Rated value	Α	20	
— at 220 V Rated value	Α	1.5	
— at 24 V Rated value	Α	20	
— at 440 V Rated value	Α	0.2	
— at 600 V Rated value	Α	0.2	
Operating power			
• at AC-1 at 400 V Rated value	kW	13	
• at AC-2 at 400 V Rated value	kW	4	
• at AC-4 at 400 V Rated value	kW	4	
Operating power			
• at AC-1			
— at 230 V at 60 °C Rated value	kW	7.5	
— at 230 V Rated value	kW	7.5	
— at 400 V at 60 °C Rated value	kW	13	
— at 690 V at 60 °C Rated value	kW	22	
— at 690 V Rated value	kW	22	
• at AC-3			
— at 230 V Rated value	kW	2.2	
— at 400 V Rated value	kW	4	
— at 690 V Rated value	kW	5.5	
Operating power for ≥ 200000 operating cycles at AC-4			
• at 400 V Rated value	kW	2	
• at 690 V Rated value	kW	2.5	
Operating frequency			
• at AC-3 maximum	1/h	750	
Control circuit/ Control:			
Type of voltage of the control supply voltage		AC	
Control supply voltage with AC			
• at 50 Hz Rated value	V	110	
• at 60 Hz Rated value	V	110	
Operating range factor control supply voltage rated			
value of the magnet coil with AC		0.0 4.4	
• at 50 Hz		0.8 1.1	
● at 60 Hz		0.85 1.1	
Auxiliary circuit:			
Number of NC contacts			
• for auxiliary contacts			
— instantaneous contact		0	
Number of NO contacts			

for auxiliary contacts		
— instantaneous contact		1
Product expansion Auxiliary switch		Yes
Operating current at AC-15		
• at 230 V Rated value	Α	10
• at 400 V Rated value	Α	3
• at 690 V Rated value	Α	1
Operating current		
• at DC-12 at 125 V Rated value	Α	2
• at DC-12 at 220 V Rated value	Α	1
• at DC-12 at 600 V Rated value	Α	0.15
• at DC-13 at 125 V Rated value	Α	0.9
• at DC-13 at 220 V Rated value	Α	0.3
• at DC-13 at 600 V Rated value	Α	0.1
Operating current		
• at DC-12		
— at 60 V Rated value	Α	6
— at 110 V Rated value	Α	3
• at DC-13		
— at 24 V Rated value	Α	10
— at 60 V Rated value	Α	2
— at 110 V Rated value	Α	1
Contact reliability of the auxiliary contacts		1 faulty switching per 100 million (17 V, 1 mA)
JL/CSA ratings:		
Full-load current (FLA) for three-phase AC motor		
• at 480 V Rated value	Α	7.6
• at 600 V Rated value	Α	9
yielded mechanical performance [hp]		
• for single-phase AC motor at 110/120 V Rated value	metric hp	0.33
<ul> <li>for single-phase AC motor at 230 V Rated value</li> </ul>	metric hp	1
• for three-phase AC motor at 200/208 V Rated	metric	2

• at 600 V Rated value	Α	9
yielded mechanical performance [hp]		
<ul> <li>• for single-phase AC motor at 110/120 V Rated value</li> </ul>	metric hp	0.33
<ul> <li>for single-phase AC motor at 230 V Rated value</li> </ul>	metric hp	1
<ul> <li>for three-phase AC motor at 200/208 V Rated value</li> </ul>	metric hp	2
<ul> <li>for three-phase AC motor at 220/230 V Rated value</li> </ul>	metric hp	3
<ul> <li>for three-phase AC motor at 460/480 V Rated value</li> </ul>	metric hp	5
• for three-phase AC motor at 575/600 V Rated value	metric hp	7.5
Contact rating of the auxiliary contacts acc. to UL		A600 / Q600

### Design of the fuse link

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

gL/gG LV HRC 3NA, DIAZED 5SB, NEOZED 5SE: 35 A

gL/gG LV HRC 3NA, DIAZED 5SB, NEOZED 5SE: 20 A

fuse gL/gG: 10 A

Mounting type  • Side-by-side mounting  Height mm  Width mm  Depth mm  Required spacing  • with side-by-side mounting  — forwards mm  — Backwards mm  — upwards mm  — at the side mm  • for grounded parts  — forwards mm  — at the side mm  • for grounded parts  — at the side mm  — at the side mm  • for wards mm  — at the side mm  — backwards mm  — at the side mm  — at the side mm  — odownwards mm  — at the side mm  — at the side mm  — oforwards mm  — at the side mm  — oforwards mm  • for live parts — forwards	surface; can be tilted forward and backward by +/- 22.5° on vertical mounting surface screw and snap-on mounting onto 35 mm standard mounting rail according to DIN EN 50022 Yes 69.5 45 73
Side-by-side mounting  Height mm  Width mm  Pepth mm  Required spacing  With side-by-side mounting  — forwards mm  — Backwards mm  — upwards mm  — at the side mm  For grounded parts  — forwards mm  — at the side mm	screw and snap-on mounting onto 35 mm standard mounting rail according to DIN EN 50022 Yes 69.5 45 73
Side-by-side mounting  Height mm  Width mm  Pepth mm  Required spacing  • with side-by-side mounting  — forwards mm  — Backwards mm  — upwards mm  — at the side mm  • for grounded parts  — forwards mm  — at the side mm	mounting rail according to DIN EN 50022 Yes 69.5 45 73
Height mm  Width mm  Depth mm  Required spacing  • with side-by-side mounting  — forwards mm  — Backwards mm  — upwards mm  — downwards mm  • for grounded parts  — forwards mm  — backwards mm  • for grounded parts  — at the side mm  — of the side mm  — at the side mm  — of the side mm  — at the side mm	Yes 69.5 45 73
Height mm  Width mm  Depth mm  Required spacing  • with side-by-side mounting  — forwards mm  — Backwards mm  — upwards mm  — downwards mm  • for grounded parts  — forwards mm  • for grounded parts  — at the side mm  — at the side mm  — at the side mm  — of owards mm  — height mm  mm  mm  mm  for live parts	69.5 45 73
Width mm  Depth mm  Required spacing  • with side-by-side mounting — forwards mm — Backwards mm — upwards mm — downwards mm  • for grounded parts — forwards mm  • for grounded parts — backwards mm — at the side mm — of the side mm — at the side mm — at the side mm — of the side mm — at the side mm — of the side	45 73
Depth  Required spacing  • with side-by-side mounting  — forwards  — Backwards  — upwards  — downwards  — at the side  • for grounded parts  — forwards  — Backwards  — mm  • for grounded parts  — at the side  — downwards  — at the side  — mm  — at the side  — mm  — of the side  — o	73
Required spacing  • with side-by-side mounting  — forwards	
<ul> <li>with side-by-side mounting</li> <li>— forwards</li> <li>— Backwards</li> <li>— upwards</li> <li>— downwards</li> <li>— at the side</li> <li>— for grounded parts</li> <li>— forwards</li> <li>— Backwards</li> <li>— upwards</li> <li>— upwards</li> <li>— at the side</li> <li>— at the side</li> <li>— downwards</li> <li>— for live parts</li> </ul>	0
<ul> <li>— forwards</li> <li>— Backwards</li> <li>— upwards</li> <li>— downwards</li> <li>— at the side</li> <li>• for grounded parts</li> <li>— forwards</li> <li>— Backwards</li> <li>— upwards</li> <li>— at the side</li> <li>— at the side</li> <li>— odwnwards</li> <li>• for live parts</li> </ul>	0
<ul> <li>— Backwards</li> <li>— upwards</li> <li>— downwards</li> <li>— at the side</li> <li>• for grounded parts</li> <li>— forwards</li> <li>— Backwards</li> <li>— upwards</li> <li>— at the side</li> <li>— at the side</li> <li>— downwards</li> <li>• for live parts</li> </ul>	0
<ul> <li>— upwards</li> <li>— downwards</li> <li>— at the side</li> <li>• for grounded parts</li> <li>— forwards</li> <li>— Backwards</li> <li>— upwards</li> <li>— at the side</li> <li>— downwards</li> <li>• for live parts</li> </ul>	
<ul> <li>— downwards</li> <li>— at the side</li> <li>● for grounded parts</li> <li>— forwards</li> <li>— Backwards</li> <li>— upwards</li> <li>— at the side</li> <li>— downwards</li> <li>● for live parts</li> </ul>	0
<ul> <li>— at the side</li> <li>● for grounded parts</li> <li>— forwards</li> <li>— Backwards</li> <li>— upwards</li> <li>— at the side</li> <li>— downwards</li> <li>● for live parts</li> </ul>	0
<ul> <li>for grounded parts</li> <li>— forwards</li> <li>— Backwards</li> <li>— upwards</li> <li>— at the side</li> <li>— downwards</li> <li>— for live parts</li> </ul>	0
<ul> <li>— forwards</li> <li>— Backwards</li> <li>— upwards</li> <li>— at the side</li> <li>— downwards</li> <li>● for live parts</li> </ul>	0
<ul> <li>— Backwards</li> <li>— upwards</li> <li>— at the side</li> <li>— downwards</li> <li>● for live parts</li> </ul>	
<ul> <li>— upwards</li> <li>— at the side</li> <li>— downwards</li> <li>• for live parts</li> </ul>	0
<ul> <li>— at the side</li> <li>— downwards</li> <li>• for live parts</li> </ul>	0
— downwards mm  • for live parts	0
• for live parts	6
·	0
·	
	0
— Backwards mm	0
— upwards mm	
— downwards mm	0
— at the side mm	0

Connections/	i erminais:	
Type of electric	cal connection	

• for main current circuit	spring-loaded terminals	
<ul> <li>for auxiliary and control current circuit</li> </ul>	spring-loaded terminals	
Type of connectable conductor cross-section		

• for main contacts		
		2x (0,5 4 mm²)
<ul><li>— single or multi-stranded</li><li>— finely stranded with core end processing</li></ul>		2x (0.5 4 mm²) 2x (0.5 2.5 mm²)
— finely stranded without core end		2x (0.5 2.5 mm²)
processing		ZX (0.5 2.5 mm )
<ul> <li>for AWG conductors for main contacts</li> </ul>		2x (20 12)
<ul><li>for auxiliary contacts</li></ul>		
<ul><li>— single or multi-stranded</li></ul>		2x (0,5 4 mm²)
<ul> <li>finely stranded with core end processing</li> </ul>		2x (0.5 2.5 mm²)
<ul> <li>finely stranded without core end processing</li> </ul>		2x (0.5 2.5 mm²)
<ul> <li>for AWG conductors for auxiliary contacts</li> </ul>		2x (20 12)
Apparent pick-up power of the magnet coil with AC		
● at 50 Hz	V·A	27
● at 60 Hz	V·A	31.7
Safety related data:		
B10 value with high demand rate acc. to SN 31920		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	FIT	100
Product function Mirror contact acc. to IEC 60947-4-1		Yes
• Note		with 3RH29
T1 value for proof test interval or service life acc. to IEC 61508	у	20
Protection against electrical shock		finger-safe
Mechanical data:		
Size of contactor		S00
Ambient conditions:		
Installation altitude at height above sea level	m	2 000
maximum		
Ambient temperature		
<ul><li>during operation</li></ul>	°C	-25 +60
<ul><li>during storage</li></ul>	°C	-55 <b>+</b> 80
Certificates/ approvals:		

#### **General Product Approval**

Functional Safety/Safety of Machinery Declaration of Conformity









Type Examination



rest	
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**Shipping Approval** 

## Certificates

Special Test Certificate









GL



### **Shipping Approval**

other







Environmental Confirmations

Confirmation



LRS

### Further information

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

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

Industry Mall (Online ordering system)

http://www.siemens.com/industrymall

### Cax online generator

 $\underline{\text{http://support.automation.siemens.com/WW/CAXorder/default.aspx?lang=en\&mlfb=3RT20162AF01}$ 

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

http://support.automation.siemens.com/WW/view/en/3RT20162AF01/all

Image database (product images, 2D dimension drawings, 3D models, device circuit diagrams, EPLAN macros, ...) http://www.automation.siemens.com/bilddb/cax\_de.aspx?mlfb=3RT20162AF01&lang=en

