## SIEMENS

## Data sheet

## 3RT2017-1FB42



power contactor, AC-3e/AC-3, 12 A, 5.5 kW / 400 V, 3-pole, 24 V DC, with integrated diode, auxiliary contacts: 1 NC, screw terminal, size: S00  $\,$ 

product brand name	SIRIUS
product designation	Power contactor
product type designation	3RT2
General technical data	
size of contactor	S00
product extension	
<ul> <li>function module for communication</li> </ul>	No
auxiliary switch	Yes
power loss [W] for rated value of the current	
<ul> <li>at AC in hot operating state</li> </ul>	1.5 W
<ul> <li>at AC in hot operating state per pole</li> </ul>	0.5 W
<ul> <li>without load current share typical</li> </ul>	4 W
insulation voltage	
<ul> <li>of main circuit with degree of pollution 3 rated value</li> </ul>	690 V
<ul> <li>of auxiliary circuit with degree of pollution 3 rated value</li> </ul>	690 V
surge voltage resistance	
<ul> <li>of main circuit rated value</li> </ul>	6 kV
<ul> <li>of auxiliary circuit rated value</li> </ul>	6 kV
maximum permissible voltage for protective separation between coil and main contacts according to EN 60947-1	400 V
shock resistance at rectangular impulse	
• at DC	7.3g / 5 ms, 4.7g / 10 ms
shock resistance with sine pulse	
• at DC	11,4g / 5 ms, 7,3g / 10 ms
mechanical service life (operating cycles)	
<ul> <li>of contactor typical</li> </ul>	30 000 000
<ul> <li>of the contactor with added electronically optimized auxiliary switch block typical</li> </ul>	5 000 000
<ul> <li>of the contactor with added auxiliary switch block typical</li> </ul>	10 000 000
reference code according to IEC 81346-2	Q
Substance Prohibitance (Date)	10/01/2009
SVHC substance name	Blei - 7439-92-1
Ambient conditions	
installation altitude at height above sea level maximum	2 000 m
ambient temperature	
during operation	-25 +60 °C
during storage	-55 +80 °C
relative humidity minimum	10 %
relative humidity at 55 °C according to IEC 60068-2-30 maximum	95 %
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	690 V
<ul> <li>at AC-3e rated value maximum</li> </ul>	690 V
operational current	
<ul> <li>at AC-1 at 400 V at ambient temperature 40 °C rated</li> </ul>	22 A
value	
• at AC-1	
— up to 690 V at ambient temperature 40 °C rated value	22 A
— up to 690 V at ambient temperature 60 °C rated value	20 A
• at AC-3	
— at 400 V rated value	12 A
— at 500 V rated value	9.2 A
— at 690 V rated value	6.7 A
• at AC-3e	
— at 400 V rated value	12 A
— at 500 V rated value	9.2 A
— at 690 V rated value	6.7 A
• at AC-4 at 400 V rated value	8.5 A
• at AC-5a up to 690 V rated value	19.4 A
• at AC-5b up to 400 V rated value	9.9 A
• at AC-6a	
<ul> <li>— up to 230 V for current peak value n=20 rated value</li> </ul>	7.2 A
<ul> <li>— up to 400 V for current peak value n=20 rated value</li> </ul>	7.2 A
<ul> <li>— up to 500 V for current peak value n=20 rated value</li> </ul>	7.2 A
— up to 690 V for current peak value n=20 rated value	6.7 A
• at AC-6a	
<ul> <li>— up to 230 V for current peak value n=30 rated value</li> </ul>	4.8 A
— up to 400 V for current peak value n=30 rated value	4.8 A
— up to 500 V for current peak value n=30 rated value	4.8 A
— up to 690 V for current peak value n=30 rated value	4.8 A
minimum cross-section in main circuit at maximum AC-1 rated value	4 mm <sup>2</sup>
operational current for approx. 200000 operating cycles at AC-4	
• at 400 V rated value	4.1 A
• at 690 V rated value	3.3 A
operational current	
<ul> <li>at 1 current path at DC-1</li> </ul>	
— at 24 V rated value	20 A
— at 60 V rated value	20 A
— at 110 V rated value	2.1 A
— at 220 V rated value	0.8 A
— at 440 V rated value	0.6 A
— at 600 V rated value	0.6 A
<ul> <li>with 2 current paths in series at DC-1</li> </ul>	
— at 24 V rated value	20 A
— at 60 V rated value	20 A
— at 110 V rated value	12 A
— at 220 V rated value	1.6 A
— at 440 V rated value	0.8 A
— at 600 V rated value	0.7 A
<ul> <li>with 3 current paths in series at DC-1</li> </ul>	
— at 24 V rated value	20 A
— at 60 V rated value	20 A
— at 110 V rated value	20 A
— at 220 V rated value	20 A
— at 440 V rated value	1.3 A
— at 600 V rated value	1 A

	and a surroute with at DC 2 at DC 5	
	• at 1 current path at DC-3 at DC-5	20.4
• with 2 current paths in series at DC-3 at DC-5>- at 24 Vinder valueD3A- at 110 Vinder valueD3A- at 110 Vinder valueD3A- at 24 Vinder valueDA- at 240 Vinder valueDA- at 240 Vinder valueDA- at 240 Vinder valueDA- at 240 Vinder valueSA With- at 230 Vinder valueSA With <tr< td=""><td></td><td></td></tr<>		
		0.15 A
	-	
• with 3 current paths in series at DC-3 at DC-59- at 24 V raide value20 A- at 10 V raide value20 A- at 10 V raide value20 A- at 240 V raide value0.2 A- at 240 V raide value5.5 kW- at 200 V raide value2.8 kW- at 800 V fraide value2.8 kW- at 800 V fraide value3.8 kW- pi to 200 V for current pack value m20 raide value8.2 kW- pi to 500 V for current pack value m20 raide value3.8 kW- pi to 500 V for current pack value m20 raide value1.8 kW- pi to 500 V for current pack value m20 raide value3.8 kW- pi to 500 V for current pack value m20 raide value1.8 kW- pi to 500 V for current pack value m20 raide value1.8 kW- pi to 500 V for current pack value m20 raide value1.8 kW <tr< td=""><td></td><td>5 A</td></tr<>		5 A
	— at 110 V rated value	0.35 A
	<ul> <li>with 3 current paths in series at DC-3 at DC-5</li> </ul>	
	— at 24 V rated value	20 A
		20 A
- al 400 V rated value operating power • al AC-3 - al 230 V rated value • al 400 V rated value • al 400 V rated value • al 600 V for current pack value n=20 rated value • al 600 V for current pack value n=20 rated value • al 600 V for current pack value n=20 rated value • al 600 V for current pack value n=20 rated value • al 600 V for current pack value n=20 rated value • al 600 V for current pack value n=20 rated value • al 600 V for current pack value n=20 rated value • al 600 V for current pack value n=30 rated value • al 600 V for current pack value n=30 rated value • al 600 V for current pack value n=30 rated value • al 600 V for current pack value n=30 rated value • al 600 V for current pack value n=30 rated value • al 600 V for current pack value n=30 rated value • al 600 V for current pack value n=30 rated value • al 600 V for current pack value n=30 rated value • al 600 V for current pack value n=30 rated value • al 600 V for current pack value n=30 rated value • al 600 V for current pack value n=30 rated value • al 600 V for current pack value n=30 rated value • al 600 V for current pack value n=30 rated value • al 600 V for current pack value n=30 rated value • al 600 V for current pack value n=30 rated value • al 600 V	— at 110 V rated value	20 A
	— at 220 V rated value	1.5 A
operating power <ul> <li>at AC-3</li> <li>at AC-3</li> <li>at AC-3</li> <li>bt AC-3</li> <li>ct AC-3</li> <li>bt AC-3</li> <li>ct AC-4</li> <lict ac-4<="" li=""></lict></ul>	— at 440 V rated value	0.2 A
	— at 600 V rated value	0.2 A
	operating power	
	• at AC-3	
	— at 230 V rated value	3 kW
	— at 400 V rated value	5.5 kW
• at AC-3e     3 KW       - at 230 V rated value     3 KW       - at 400 V rated value     5.5 kW       - at 600 V rated value     2.5 kW       - at 600 V for current peak value n=20 rated value     2.8 kVA       - up to 500 V for current peak value n=20 rated value     6.2 kVA       - up to 500 V for current peak value n=20 rated value     6.2 kVA       - up to 500 V for current peak value n=20 rated value     8.8 kVA       operating apparent power at AC-6a     1.9 kVA       - up to 500 V for current peak value n=30 rated value     3.8 kVA       - up to 500 V for current peak value n=30 rated value     3.8 kVA       - up to 500 V for current peak value n=30 rated value     3.8 kVA       - up to 500 V for current maximum     120 A: Use minimum cross-section acc. to AC-1 rated value       - linited to 1 s switching at zero current maximum     120 A: Use minimum cross-section acc. to AC-1 rated value       - linited to 1 0 s switching at zero current maximum     1000 1/h       - at AC-1 maximum     1000 1/h       - at AC-1 maximum     1000 1/h       - at AC-2 ma	— at 500 V rated value	5.5 kW
	— at 690 V rated value	5.5 kW
	• at AC-3e	
	— at 230 V rated value	3 kW
	— at 400 V rated value	5.5 kW
operating power for approx. 200000 operating cycles at AC-4         • at 400 V rated value       2 kW         • at 680 V rated value       2.5 kW         operating apparent power at AC-6a       2.8 kVA         • up to 520 V for current peak value n=20 rated value       2.8 kVA         • up to 500 V for current peak value n=20 rated value       5.2 kVA         • up to 500 V for current peak value n=20 rated value       8 kVA         operating apparent power at AC-6a       8 kVA         • up to 500 V for current peak value n=30 rated value       1.9 kVA         • up to 500 V for current peak value n=30 rated value       1.9 kVA         • up to 500 V for current peak value n=30 rated value       1.9 kVA         • up to 500 V for current peak value n=30 rated value       1.9 kVA         • up to 500 V for current peak value n=30 rated value       1.9 kVA         • up to 500 V for current peak value n=30 rated value       5.7 kVA         short-time withstand current in cold operating state up to 400 VC       200 A; Use minimum cross-section acc. to AC-1 rated value         • limited to 1 s switching at zero current maximum       102 A; Use minimum cross-section acc. to AC-1 rated value         • limited to 10 s switching at zero current maximum       1A; Use minimum cross-section acc. to AC-1 rated value         • limited to 3 s switching at zero current maximum       1A; Use minimum cross-section acc.	— at 500 V rated value	5.5 kW
A to Wrated value     at 400 V rated value     at 630 V rated value     at 630 V rated value     2 kW     25 kW     operating apparent power at AC-6a     up to 230 V for current peak value n=20 rated value     2.8 kVA     up to 500 V for current peak value n=20 rated value     4.8 kVA     up to 500 V for current peak value n=20 rated value     4.8 kVA     0perating apparent power at AC-6a     up to 230 V for current peak value n=20 rated value     4.8 kVA     0perating apparent power at AC-6a     up to 230 V for current peak value n=30 rated value     4.1 kVA     vup to 500 V for current peak value n=30 rated value     4.1 kVA     vup to 500 V for current peak value n=30 rated value     4.1 kVA     vup to 500 V for current peak value n=30 rated value     4.1 kVA     vup to 500 V for current peak value n=30 rated value     4.1 kVA     vup to 500 V for current peak value n=30 rated value     4.1 kVA     short-fime withstand current in cold operating state up to     40 °C     ilmited to 1s switching at zero current maximum     ilmited to 1s switching at zero current maximum     ilmited to 50 s switching at zero current maximum     ilmited to 50 s switching at zero current maximum     ilmited to 50 s switching at zero current maximum     ilmited to 50 s switching at zero current maximum     ilmited to 50 s switching at zero current maximum     ilmited to 50 s switching at zero current maximum     ilmited to 50 s switching at zero current maximum     ilmited to 10 s switching at zero current maximum     ilmited to 50 s switching at zero current maximum     ilmited to 10 s switching at zero current maximum     ilmited to 10 s switching at zero current maximum     ilmited to 10 s switching at zero current maximum     ilmited to 10 s switching at zero current maximum     ilmited to 10 s switching at zero current maximum     ilmited to 10 s switching at zero current maximum     ilmited to 10 s switching at zero current maximum     ilmited to 10 s switching at zero current maximum     ilmited to 10 s switching at ze	— at 690 V rated value	5.5 kW
• at 400 V rated value       2 kW         • at 680 V rated value       2.5 kW         operating apparent power at AC-6a       2.5 kW         • up to 230 V for current peak value n=20 rated value       2.8 kVA         • up to 500 V for current peak value n=20 rated value       8.2 kVA         • up to 500 V for current peak value n=20 rated value       8.2 kVA         • up to 500 V for current peak value n=20 rated value       8.2 kVA         • up to 500 V for current peak value n=30 rated value       3.2 kVA         • up to 500 V for current peak value n=30 rated value       3.3 kVA         • up to 600 V for current peak value n=30 rated value       3.3 kVA         • up to 600 V for current peak value n=30 rated value       5.7 kVA         short-time withstand current in cold operating state up to 40°C       200 A; Use minimum cross-section acc. to AC-1 rated value         • limited to 1 s switching at zero current maximum       123 A; Use minimum cross-section acc. to AC-1 rated value         • limited to 10 s switching at zero current maximum       6A; Use minimum cross-section acc. to AC-1 rated value         • limited to 10 s switching at zero current maximum       10 400 Vfn         • limited to 5 s switching at zero current maximum       6A; Use minimum cross-section acc. to AC-1 rated value         • limited to 10 s switching at zero current maximum       10 000 1/h         • at AC-1 maximum		
• at 680 V rated value       2.5 kW         operating apparent power at AC-6a       2.8 kVA         • up to 230 V for current peak value n=20 rated value       4.9 kVA         • up to 500 V for current peak value n=20 rated value       6.2 kVA         • up to 500 V for current peak value n=20 rated value       8 kVA         operating apparent power at AC-6a       8 kVA         • up to 500 V for current peak value n=30 rated value       8 kVA         operating apparent power at AC-6a       1.9 kVA         • up to 500 V for current peak value n=30 rated value       3.8 kVA         • up to 500 V for current peak value n=30 rated value       3.8 kVA         • up to 500 V for current peak value n=30 rated value       5.7 kVA         short-time withstand current in cold operating state up to 40 °C       200 A; Use minimum cross-section acc. to AC-1 rated value         • limited to 1s switching at zero current maximum       200 A; Use minimum cross-section acc. to AC-1 rated value         • limited to 10 S switching at zero current maximum       96 A; Use minimum cross-section acc. to AC-1 rated value         • limited to 10 S switching at zero current maximum       123 A; Use minimum cross-section acc. to AC-1 rated value         • limited to 10 S switching at zero current maximum       124 A; Use minimum cross-section acc. to AC-1 rated value         • at DC       10 000 1/h         • at DC		
operating apparent power at AC-6a       2.8 kVA         • up to 230 V for current peak value n=20 rated value       2.8 kVA         • up to 500 V for current peak value n=20 rated value       4.9 kVA         • up to 690 V for current peak value n=20 rated value       6.2 kVA         • up to 690 V for current peak value n=20 rated value       8 kVA         operating apparent power at AC-6a       1.9 kVA         • up to 200 V for current peak value n=30 rated value       3.3 kVA         • up to 600 V for current peak value n=30 rated value       3.3 kVA         • up to 600 V for current peak value n=30 rated value       5.7 kVA         short-time withstand current in cold operating state up to 40 °C       200 A; Use minimum cross-section acc. to AC-1 rated value         • limited to 1 s witching at zero current maximum       123 A; Use minimum cross-section acc. to AC-1 rated value         • limited to 10 s witching at zero current maximum       64 A; Use minimum cross-section acc. to AC-1 rated value         • limited to 10 s witching at zero current maximum       61 A; Use minimum cross-section acc. to AC-1 rated value         • limited to 10 s witching at zero current maximum       61 A; Use minimum cross-section acc. to AC-1 rated value         • limited to 10 s witching at zero current maximum       61 A; Use minimum cross-section acc. to AC-1 rated value         • at DC       10 000 1/h         • at AC-2 maximum		
• up to 230 V for current peak value n=20 rated value     • up to 400 V for current peak value n=20 rated value     • up to 500 V for current peak value n=20 rated value     • up to 500 V for current peak value n=20 rated value     • up to 500 V for current peak value n=20 rated value     • up to 500 V for current peak value n=30 rated value     • up to 500 V for current peak value n=30 rated value     • up to 500 V for current peak value n=30 rated value     • up to 500 V for current peak value n=30 rated value     • up to 500 V for current peak value n=30 rated value     • up to 690 V for current peak value n=30 rated value     • up to 690 V for current peak value n=30 rated value     • up to 690 V for current peak value n=30 rated value     • up to 690 V for current peak value n=30 rated value     • up to 690 V for current peak value n=30 rated value     • up to 690 V for current peak value n=30 rated value     • up to 690 V for current peak value n=30 rated value     • up to 690 V for current peak value n=30 rated value     • up to 690 V for current peak value n=30 rated value     • Use minimum cross-section acc. to AC-1 rated value     • limited to 1 s switching at zero current maximum     • limited to 10 s switching at zero current maximum     • limited to 60 s switching at zero current maximum     • limited to 60 s switching at zero current maximum     • limited to 60 s switching at zero current maximum     • limited to 60 s switching at zero current maximum     • limited to 60 s switching at zero current maximum     • linited to 10 s switching at zero current maximum     • loc     • 10 000 1/h     • at AC-1 maximum     • at AC-2 maximum     • at AC-3 maximum     • at AC-4 maximum     • at AC-4 maximum     • at AC-4 maximum     • at AC-4 maximum     • at AC-3 maximum     • at AC-4 maximum     • at AC-3 maximum     • at AC-4 maximum     • at AC-4 ma		2.5 kW
• up to 400 V for current peak value n=20 rated value     • up to 500 V for current peak value n=20 rated value     • up to 500 V for current peak value n=20 rated value     • up to 690 V for current peak value n=20 rated value     • up to 230 V for current peak value n=30 rated value     • up to 500 V for current peak value n=30 rated value     • up to 500 V for current peak value n=30 rated value     • up to 500 V for current peak value n=30 rated value     • up to 500 V for current peak value n=30 rated value     • up to 500 V for current peak value n=30 rated value     • up to 500 V for current peak value n=30 rated value     • up to 500 V for current peak value n=30 rated value     • up to 500 V for current peak value n=30 rated value     • up to 690 V for current peak value n=30 rated value     • up to 690 V for current peak value n=30 rated value     • up to 690 V for current peak value n=30 rated value     • up to 690 V for current peak value n=30 rated value     • up to 690 V for current peak value n=30 rated value     • Up to 690 V for current peak value n=30 rated value     • Up to 690 V for current peak value n=30 rated value     • T V A     • up to 690 V for current peak value n=30 rated value     • Up to 690 V for current in cold operating state up to     40 °C     • Ilmited to 1 s switching at zero current maximum     • Ilmited to 10 s switching at zero current maximum     • Ilmited to 60 s switching at zero current maximum     • Ilmited to 60 s switching at zero current maximum     • Ilmited to 60 s switching at zero current maximum     • Ilmited to 60 s switching at zero current maximum     • Ilmited to 60 s switching at zero current maximum     • Ilmited to 60 s switching at zero current maximum     • Ilmited to 60 s switching at zero current maximum     • Ilmited to 60 s switching at zero current maximum     • Ilmited to 60 s switching at zero current maximum     • Ilmited to 60 s switching at zero current maximum     • Ilmited to 60 s switching at zero current maximum     • Ilmited to 6		
• up to 500 V for current peak value n=20 rated value     • up to 690 V for current peak value n=20 rated value     • kVA     • up to 690 V for current peak value n=30 rated value     • up to 200 V for current peak value n=30 rated value     • up to 500 V for current peak value n=30 rated value     • up to 500 V for current peak value n=30 rated value     • up to 690 V for current peak value n=30 rated value     • up to 690 V for current peak value n=30 rated value     • up to 690 V for current peak value n=30 rated value     • up to 690 V for current peak value n=30 rated value     • up to 690 V for current peak value n=30 rated value     • up to 690 V for current nocld operating state up to     40 °C     • limited to 1 s switching at zero current maximum     • limited to 1 s switching at zero current maximum     • limited to 5 s switching at zero current maximum     • limited to 5 s switching at zero current maximum     • limited to 5 s switching at zero current maximum     • limited to 5 s switching at zero current maximum     • limited to 60 s switching at zero current maximum     • limited to 60 s switching at zero current maximum     • limited to 60 s switching at zero current maximum     • limited to 60 s switching at zero current maximum     • limited to 60 s switching at zero current maximum     • limited to 60 s switching at zero current maximum     • limited to 60 s switching at zero current maximum     • limited to 60 s switching at zero current maximum     • limited to 60 s switching at zero current maximum     • limited to 60 s switching at zero current maximum     • limited to 60 s switching at zero current maximum     • limited to 60 s switching at zero current maximum     • limited to 60 s switching at zero current maximum     • limited to 60 s switching at zero current maximum     • limited to 60 s switching at zero current maximum     • at AC-1 maximum     • at AC-2 maximum     • at AC-3 maximum     • at AC-3 maximum     • at AC-3 maximum     • at AC-4 maximum     • at AC-4 maximum     •		
• up to 690 V for current peak value n=20 rated value     8 kVA       operating apparent power at AC-6a     1.9 kVA       • up to 230 V for current peak value n=30 rated value     3.3 kVA       • up to 500 V for current peak value n=30 rated value     3.1 kVA       • up to 690 V for current peak value n=30 rated value     4.1 kVA       • up to 690 V for current peak value n=30 rated value     5.7 kVA       short-time withstand current in cold operating state up to 40 °C     200 A; Use minimum cross-section acc. to AC-1 rated value       • limited to 1 s switching at zero current maximum     200 A; Use minimum cross-section acc. to AC-1 rated value       • limited to 5 s switching at zero current maximum     96 A; Use minimum cross-section acc. to AC-1 rated value       • limited to 5 s switching at zero current maximum     96 A; Use minimum cross-section acc. to AC-1 rated value       • limited to 60 s switching at zero current maximum     14 A; Use minimum cross-section acc. to AC-1 rated value       • limited to 60 s switching at zero current maximum     10 00 1/h       • at DC     10 000 1/h       operating frequency     10 000 1/h       • at AC-1 maximum     750 1/h       • at AC-3 maximum     750 1/h       • at AC-3 maximum     750 1/h       • at AC-3 maximum     250 1/h       • at AC-3 maximum     250 1/h       • at AC-4 maximum     250 1/h       • at AC-3 maximum     24		
operating apparent power at AC-6a       1.9 kVA         • up to 230 V for current peak value n=30 rated value       1.9 kVA         • up to 400 V for current peak value n=30 rated value       3.3 kVA         • up to 690 V for current peak value n=30 rated value       4.1 kVA         • up to 690 V for current peak value n=30 rated value       5.7 kVA         short-time withstand current in cold operating state up to 40 °C       5.7 kVA         short-time withstand current maximum       200 A; Use minimum cross-section acc. to AC-1 rated value         • limited to 1 s switching at zero current maximum       96 A; Use minimum cross-section acc. to AC-1 rated value         • limited to 10 s switching at zero current maximum       96 A; Use minimum cross-section acc. to AC-1 rated value         • limited to 10 s switching at zero current maximum       74 A; Use minimum cross-section acc. to AC-1 rated value         • limited to 60 s switching at zero current maximum       61 A; Use minimum cross-section acc. to AC-1 rated value         • limited to 60 s switching at zero current maximum       74 A; Use minimum cross-section acc. to AC-1 rated value         • at DC       10 000 1/h         operating frequency       10 000 1/h         • at AC-3 maximum       1 000 1/h         • at AC-3 maximum       250 1/h         Control circuit/ Control       Up         type of voltage of the control supply voltage <td></td> <td></td>		
• up to 230 V for current peak value n=30 rated value     1.9 kVA     • up to 400 V for current peak value n=30 rated value     3.3 kVA     • up to 500 V for current peak value n=30 rated value     4.1 kVA     • up to 690 V for current peak value n=30 rated value     5.7 kVA     short-time withstand current in cold operating state up to     40 °C     • limited to 1 s switching at zero current maximum     120 A; Use minimum cross-section acc. to AC-1 rated value     • limited to 1 s switching at zero current maximum     123 A; Use minimum cross-section acc. to AC-1 rated value     • limited to 10 s switching at zero current maximum     16 A; Use minimum cross-section acc. to AC-1 rated value     • limited to 10 s switching at zero current maximum     174 A; Use minimum cross-section acc. to AC-1 rated value     • limited to 60 s switching at zero current maximum     16 A; Use minimum cross-section acc. to AC-1 rated value     • limited to 60 s switching at zero current maximum     174 A; Use minimum cross-section acc. to AC-1 rated value     • limited to 60 s switching at zero current maximum     174 A; Use minimum cross-section acc. to AC-1 rated value     • limited to 60 s switching at zero current maximum     1750 1/h     • at AC-1 maximum     1000 1/h     • at AC-3 maximum     1000 1/h     • at AC-3 maximum     250 1/h     • at AC-3 maximum     250 1/h     • at AC-3 maximum     250 1/h     • at AC-4 maximum     250 1/h     • control supply voltage     DC     control supply voltage at DC     • rated value     24 V     • operating range factor control supply voltage rated value of     magnet coil at DC		8 KVA
• up to 400 V for current peak value n=30 rated value       3.3 kVA         • up to 500 V for current peak value n=30 rated value       4.1 kVA         • up to 690 V for current peak value n=30 rated value       5.7 kVA         short-time withstand current in cold operating state up to 40 °C       -         • limited to 1 s switching at zero current maximum       200 A; Use minimum cross-section acc. to AC-1 rated value         • limited to 10 s switching at zero current maximum       96 A; Use minimum cross-section acc. to AC-1 rated value         • limited to 10 s switching at zero current maximum       96 A; Use minimum cross-section acc. to AC-1 rated value         • limited to 10 s switching at zero current maximum       96 A; Use minimum cross-section acc. to AC-1 rated value         • limited to 60 s switching at zero current maximum       74 A; Use minimum cross-section acc. to AC-1 rated value         • limited to 60 s switching at zero current maximum       74 A; Use minimum cross-section acc. to AC-1 rated value         • at DC       10 000 1/h         operating frequency       10000 1/h         • at AC-2 maximum       750 1/h         • at AC-3 maximum       250 1/h         • at AC-3 maximum       250 1/h         • control circuit/ Control       E         type of voltage of the control supply voltage       DC         • rated value       24 V		
• up to 500 V for current peak value n=30 rated value4.1 kVA• up to 690 V for current peak value n=30 rated value5.7 kVAshort-time withstand current in cold operating state up to 40 °C200 A; Use minimum cross-section acc. to AC-1 rated value• limited to 1 s switching at zero current maximum123 A; Use minimum cross-section acc. to AC-1 rated value• limited to 10 s switching at zero current maximum96 A; Use minimum cross-section acc. to AC-1 rated value• limited to 10 s switching at zero current maximum96 A; Use minimum cross-section acc. to AC-1 rated value• limited to 30 s switching at zero current maximum61 A; Use minimum cross-section acc. to AC-1 rated value• limited to 60 s switching at zero current maximum61 A; Use minimum cross-section acc. to AC-1 rated value• limited to 60 s switching at zero current maximum61 A; Use minimum cross-section acc. to AC-1 rated value• limited to 60 s switching frequency • at AC-1 maximum10000 1/h• at AC-2 maximum10000 1/h• at AC-3 maximum1000 1/h• at AC-3 maximum750 1/h• at AC-3 maximum750 1/h• at AC-4 maximum250 1/h• control circuit/ ControlControl circuit/ Controltype of voltage of the control supply voltageDC• crated value24 V• operating range factor control supply voltage rated value of magnet coll at DC24 V		
• up to 690 V for current peak value n=30 rated value5.7 kVAshort-time withstand current in cold operating state up to 40 °C200 A; Use minimum cross-section acc. to AC-1 rated value• limited to 1 s switching at zero current maximum200 A; Use minimum cross-section acc. to AC-1 rated value• limited to 10 s switching at zero current maximum96 A; Use minimum cross-section acc. to AC-1 rated value• limited to 30 s switching at zero current maximum96 A; Use minimum cross-section acc. to AC-1 rated value• limited to 60 s switching at zero current maximum61 A; Use minimum cross-section acc. to AC-1 rated value• limited to 60 s switching at zero current maximum61 A; Use minimum cross-section acc. to AC-1 rated value• limited to 60 s switching at zero current maximum61 A; Use minimum cross-section acc. to AC-1 rated value• limited to 60 s switching at zero current maximum61 A; Use minimum cross-section acc. to AC-1 rated value• at DC10 000 1/h• at AC-1 maximum1000 1/h• at AC-2 maximum750 1/h• at AC-3 maximum750 1/h• at AC-3 maximum250 1/h• at AC-4 maximum250 1/h• control supply voltage at DCDC• rated value24 V• operating range factor control supply voltage rated value of magnet coil at DC24 V		
short-time withstand current in cold operating state up to 40 °C       200 A; Use minimum cross-section acc. to AC-1 rated value         • limited to 1 s switching at zero current maximum       200 A; Use minimum cross-section acc. to AC-1 rated value         • limited to 10 s switching at zero current maximum       96 A; Use minimum cross-section acc. to AC-1 rated value         • limited to 10 s switching at zero current maximum       96 A; Use minimum cross-section acc. to AC-1 rated value         • limited to 30 s switching at zero current maximum       74 A; Use minimum cross-section acc. to AC-1 rated value         • limited to 60 s switching at zero current maximum       74 A; Use minimum cross-section acc. to AC-1 rated value         • limited to 60 s switching at zero current maximum       61 A; Use minimum cross-section acc. to AC-1 rated value         • limited to 60 s switching at zero current maximum       74 A; Use minimum cross-section acc. to AC-1 rated value         • at DC       10 000 1/h         operating frequency       10 000 1/h         • at AC-1 maximum       1 000 1/h         • at AC-3 maximum       750 1/h         • at AC-3 maximum       250 1/h         • at AC-4 maximum       250 1/h <t< td=""><td></td><td></td></t<>		
40 °C       e limited to 1 s switching at zero current maximum       200 A; Use minimum cross-section acc. to AC-1 rated value         e limited to 5 s switching at zero current maximum       123 A; Use minimum cross-section acc. to AC-1 rated value         e limited to 10 s switching at zero current maximum       96 A; Use minimum cross-section acc. to AC-1 rated value         e limited to 30 s switching at zero current maximum       96 A; Use minimum cross-section acc. to AC-1 rated value         e limited to 60 s switching at zero current maximum       74 A; Use minimum cross-section acc. to AC-1 rated value         e limited to 60 s switching at zero current maximum       61 A; Use minimum cross-section acc. to AC-1 rated value         no-load switching frequency       61 A; Use minimum cross-section acc. to AC-1 rated value         e at DC       10 000 1/h         operating frequency       10 000 1/h         e at AC-1 maximum       1 000 1/h         e at AC-2 maximum       750 1/h         e at AC-3 maximum       750 1/h         e at AC-4 maximum       250 1/h         Control circuit/ Control       Use minimum cross-section acc.         type of voltage of the control supply voltage       DC         control supply voltage at DC       26 1/h         e rated value       24 V         operating range factor control supply voltage rated value of magnet coil at DC       24 V		5.7 kVA
e limited to 1 s switching at zero current maximum200 A; Use minimum cross-section acc. to AC-1 rated valuee limited to 5 s switching at zero current maximum123 A; Use minimum cross-section acc. to AC-1 rated valuee limited to 10 s switching at zero current maximum96 A; Use minimum cross-section acc. to AC-1 rated valuee limited to 30 s switching at zero current maximum74 A; Use minimum cross-section acc. to AC-1 rated valuee limited to 60 s switching at zero current maximum61 A; Use minimum cross-section acc. to AC-1 rated valuee limited to 60 s switching at zero current maximum61 A; Use minimum cross-section acc. to AC-1 rated valuemo-load switching frequency61 A; Use minimum cross-section acc. to AC-1 rated valuee at DC10 000 1/hoperating frequency10000 1/he at AC-1 maximum1000 1/he at AC-2 maximum750 1/he at AC-3 maximum750 1/he at AC-3 maximum750 1/he at AC-4 maximum250 1/hcontrol circuit/ ControlDCcontrol supply voltage at DC0Ce crotrol supply voltage at DC24 Voperating range factor control supply voltage rated value of magnet coil at DC24 V		
• limited to 5 s switching at zero current maximum123 A; Use minimum cross-section acc. to AC-1 rated value• limited to 10 s switching at zero current maximum96 A; Use minimum cross-section acc. to AC-1 rated value• limited to 30 s switching at zero current maximum74 A; Use minimum cross-section acc. to AC-1 rated value• limited to 60 s switching at zero current maximum61 A; Use minimum cross-section acc. to AC-1 rated value• limited to 60 s switching at zero current maximum61 A; Use minimum cross-section acc. to AC-1 rated value• limited to 60 s switching at zero current maximum61 A; Use minimum cross-section acc. to AC-1 rated value• limited to 60 s switching at zero current maximum61 A; Use minimum cross-section acc. to AC-1 rated value• limited to 60 s switching at zero current maximum61 A; Use minimum cross-section acc. to AC-1 rated value• limited to 60 s switching at zero current maximum61 A; Use minimum cross-section acc. to AC-1 rated value• limited to 60 s switching at zero current maximum61 A; Use minimum cross-section acc. to AC-1 rated value• at DC10 000 1/h• at AC-1 maximum1 000 1/h• at AC-2 maximum750 1/h• at AC-3 maximum750 1/h• at AC-4 maximum250 1/h• control supply voltageDC• control circuit/ ControlE• type of voltage of the control supply voltageDC• rated value24 V• operating range factor control supply voltage rated value of magnet coil at DCImage: Section control supply voltage rated value of magnet coil at DC		200 A: Use minimum cross-section acc. to AC-1 rated value
• limited to 10 s switching at zero current maximum       96 A; Use minimum cross-section acc. to AC-1 rated value         • limited to 30 s switching at zero current maximum       74 A; Use minimum cross-section acc. to AC-1 rated value         • limited to 60 s switching at zero current maximum       61 A; Use minimum cross-section acc. to AC-1 rated value         • limited to 60 s switching at zero current maximum       61 A; Use minimum cross-section acc. to AC-1 rated value         • at DC       10 000 1/h         operating frequency       10 000 1/h         • at AC-1 maximum       1 000 1/h         • at AC-2 maximum       750 1/h         • at AC-3 maximum       750 1/h         • at AC-4 maximum       250 1/h         Control circuit/ Control       UC         type of voltage of the control supply voltage       DC         • rated value       24 V         operating range factor control supply voltage rated value of magnet coil at DC       24 V	C C	
• limited to 30 s switching at zero current maximum       74 A; Use minimum cross-section acc. to AC-1 rated value         • limited to 60 s switching at zero current maximum       61 A; Use minimum cross-section acc. to AC-1 rated value         no-load switching frequency       10 000 1/h         • at DC       10 000 1/h         operating frequency       1 000 1/h         • at AC-1 maximum       1 000 1/h         • at AC-2 maximum       750 1/h         • at AC-3 maximum       750 1/h         • at AC-3 maximum       750 1/h         • at AC-4 maximum       250 1/h         Control circuit/ Control       DC         type of voltage of the control supply voltage       DC         • rated value       24 V         operating range factor control supply voltage rated value of magnet coil at DC       24 V	C C	
• limited to 60 s switching at zero current maximum       61 A; Use minimum cross-section acc. to AC-1 rated value         no-load switching frequency       10 000 1/h         • at DC       10 000 1/h         operating frequency       -         • at AC-1 maximum       1 000 1/h         • at AC-2 maximum       750 1/h         • at AC-3 maximum       750 1/h         • at AC-3 maximum       750 1/h         • at AC-3 maximum       250 1/h         • at AC-4 maximum       250 1/h         Control circuit/ Control       250 1/h         type of voltage of the control supply voltage       DC         • rated value       24 V         operating range factor control supply voltage rated value of magnet coil at DC       24 V	-	
no-load switching frequency       10 000 1/h         operating frequency       -         • at AC-1 maximum       1 000 1/h         • at AC-2 maximum       750 1/h         • at AC-3 maximum       250 1/h         • at AC-4 maximum       250 1/h         Control circuit/ Control       U         type of voltage of the control supply voltage       DC         control supply voltage at DC       -         • rated value       24 V         operating range factor control supply voltage rated value of magnet coil at DC       -	-	
• at DC10 000 1/hoperating frequency1 000 1/h• at AC-1 maximum1 000 1/h• at AC-2 maximum750 1/h• at AC-3 maximum750 1/h• at AC-3e maximum750 1/h• at AC-3e maximum250 1/h• at AC-4 maximum250 1/hControl circuit/ ControlDCtype of voltage of the control supply voltageDC• rated value24 Voperating range factor control supply voltage rated value of magnet coil at DC24 V		
operating frequencyI• at AC-1 maximum1 000 1/h• at AC-2 maximum750 1/h• at AC-3 maximum750 1/h• at AC-3e maximum750 1/h• at AC-4 maximum250 1/h• at AC-4 maximum250 1/hControl circuit/ ControlDCtype of voltage of the control supply voltageDC• rated value24 Voperating range factor control supply voltage rated value of magnet coil at DCImage: Control supply voltage rated value of magnet coil at DC		10 000 1/h
• at AC-1 maximum1 000 1/h• at AC-2 maximum750 1/h• at AC-3 maximum750 1/h• at AC-3e maximum750 1/h• at AC-3e maximum250 1/h• at AC-4 maximum250 1/h• at AC-4 maximumDCControl circuit/ ControlDCcontrol supply voltage at DCPC• rated value24 V• operating range factor control supply voltage rated value of magnet coil at DCImage: Control supply voltage rated value of magnet coil at DC		
• at AC-2 maximum750 1/h• at AC-3 maximum750 1/h• at AC-3e maximum750 1/h• at AC-3e maximum250 1/h• at AC-4 maximum250 1/hControl circuit/ ControlDCtype of voltage of the control supply voltageDC• rated value24 V• perating range factor control supply voltage rated value of magnet coil at DCImage: Control supply voltage rated value of magnet coil at DC		1 000 1/b
• at AC-3 maximum750 1/h• at AC-3e maximum750 1/h• at AC-4 maximum250 1/hControl circuit/ Control250 1/htype of voltage of the control supply voltageDCcontrol supply voltage at DC24 V• rated value24 V		
• at AC-3e maximum750 1/h• at AC-4 maximum250 1/hControl circuit/ ControlDCtype of voltage of the control supply voltageDCcontrol supply voltage at DC24 V• rated value24 V		
• at AC-4 maximum     250 1/h       Control circuit/ Control     DC       type of voltage of the control supply voltage     DC       control supply voltage at DC     24 V       operating range factor control supply voltage rated value of magnet coil at DC     24 V		
Control circuit/ Control         type of voltage of the control supply voltage       DC         control supply voltage at DC       24 V         • rated value       24 V         operating range factor control supply voltage rated value of magnet coil at DC       Image: Control supply voltage rated value of magnet coil at DC		
type of voltage of the control supply voltage     DC       control supply voltage at DC     24 V       • rated value     24 V		230 1/11
control supply voltage at DC     24 V       • rated value     24 V       operating range factor control supply voltage rated value of magnet coil at DC     24 V		
rated value 24 V operating range factor control supply voltage rated value of magnet coil at DC		
operating range factor control supply voltage rated value of magnet coil at DC		24 \/
magnet coil at DC		2 T V
	-	0.8

● full-scale value	1.1			
design of the surge suppressor	diode			
closing power of magnet coil at DC	4 W			
holding power of magnet coil at DC	4 W			
closing delay				
• at DC	30 100 ms			
opening delay				
• at DC	38 65 ms			
arcing time	10 15 ms			
control version of the switch operating mechanism	Standard A1 - A2			
Auxiliary circuit				
number of NC contacts for auxiliary contacts instantaneous contact	1			
operational current at AC-12 maximum	10 A			
operational current at AC-15				
• at 230 V rated value	10 A			
• at 400 V rated value	3 A			
• at 500 V rated value	2 A			
• at 690 V rated value	1 A			
operational 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			
operational current at DC-13				
• at 24 V rated value	10 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 3-phase AC motor				
• at 480 V rated value	11 A			
at 600 V rated value	11 A			
yielded mechanical performance [hp]				
for single-phase AC motor				
— at 110/120 V rated value	0.5 hp			
— at 230 V rated value	2 hp			
for 3-phase AC motor     at 200/208 M stad value				
— at 200/208 V rated value	3 hp			
— at 220/230 V rated value	3 hp			
— at 460/480 V rated value	7.5 hp			
- at 575/600 V rated value	10 hp			
contact rating of auxiliary contacts according to UL Short-circuit protection	A600 / Q600			
e for short-circuit protection of the main circuit				
<ul> <li>for short-circuit protection of the main circuit</li> <li>with type of coordination 1 required</li> </ul>	06.200 (000/ 100kg) 200 (000/ 100kg) B600 250 (115/ 00kg)			
<ul> <li>with type of coordination 1 required</li> <li>with type of assignment 2 required</li> </ul>	gG: 50A (690V,100kA), aM: 20A (690V,100kA), BS88: 35A (415V,80kA)			
<ul> <li>with type of assignment 2 required</li> <li>for short circuit protection of the auxiliany switch required</li> </ul>	gG: 20A (690V,100kA), aM: 16A (690V, 100kA), BS88: 20A (415V, 80kA)			
<ul> <li>for short-circuit protection of the auxiliary switch required Installation/ mounting/ dimensions</li> </ul>	gG: 10 A (500 V, 1 kA)			
	1/ 190° rotation possible on vertical mounting surfaces are to tilted forward and			
mounting position	+/-180° rotation possible on vertical mounting surface; can be tilted forward and backward by +/- 22.5° on vertical mounting surface			
fastening method	screw and snap-on mounting onto 35 mm DIN rail according to DIN EN 60715			
side-by-side mounting	Yes			

height	58 mm			
width	45 mm			
depth	45 mm 73 mm			
required spacing				
with side-by-side mounting				
— forwards	10 mm			
— upwards	10 mm			
— downwards	10 mm			
— at the side	0 mm			
for grounded parts	0 mm			
— forwards	10 mm			
— upwards	10 mm			
— at the side	6 mm			
— downwards	10 mm			
for live parts				
<ul> <li>for live parts</li> <li>forwards</li> </ul>	10 mm			
	10 mm			
— upwards				
- downwards	10 mm			
— at the side Connections/ Terminals	6 mm			
type of electrical connection				
for main current circuit	screw-type terminals			
	screw-type terminals			
for auxiliary and control circuit	screw-type terminals			
at contactor for auxiliary contacts	Screw-type terminals			
of magnet coil	Screw-type terminals			
type of connectable conductor cross-sections for main contacts	0 (0.5			
• solid	2x (0.5 1.5 mm <sup>2</sup> ), 2x (0.75 2.5 mm <sup>2</sup> ), 2x 4 mm <sup>2</sup>			
solid or stranded	2x (0,5 1,5 mm <sup>2</sup> ), 2x (0,75 2,5 mm <sup>2</sup> ), 2x 4 mm <sup>2</sup>			
finely stranded with core end processing     connectable conductor cross-section for main contacts	2x (0.5 1.5 mm²), 2x (0.75 2.5 mm²)			
solid	0.5 4 mm²			
stranded	0.5 4 mm <sup>2</sup>			
<ul> <li>finely stranded with core end processing</li> </ul>	0.5 2.5 mm <sup>2</sup>			
connectable conductor cross-section for auxiliary contacts	0.0 2.0 mm			
solid or stranded	0.5 4 mm²			
<ul> <li>finely stranded with core end processing</li> </ul>	0.5 2.5 mm <sup>2</sup>			
type of connectable conductor cross-sections	0.0 2.0 mm			
for auxiliary contacts				
— solid or stranded	2x (0.5 1.5 mm²), 2x (0.75 2.5 mm²), 2x 4 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>for AWG cables for auxiliary contacts</li> </ul>	2x (20 16), 2x (18 14), 2x 12			
AWG number as coded connectable conductor cross	LA (LO 10), LA (10 17), LA 12			
section				
for main contacts	20 12			
<ul> <li>for auxiliary contacts</li> </ul>	20 12			
Safety related data				
product function				
<ul> <li>mirror contact according to IEC 60947-4-1</li> </ul>	Yes			
suitability for use safety-related switching OFF	Yes			
B10 value with high demand rate according to SN 31920	1 000 000			
proportion of dangerous failures				
<ul> <li>with low demand rate according to SN 31920</li> </ul>	40 %			
with high demand rate according to SN 31920	73 %			
failure rate [FIT] with low demand rate according to SN 31920	100 FIT			
T1 value for proof test interval or service life according to IEC 61508	20 a			
protection class IP on the front according to IEC 60529	IP20			
touch protection on the front according to IEC 60529	finger-safe, for vertical contact from the front			
Certificates/ approvals				
General Product Approval				
etter al l'ouver approval				

	<u>Confirmation</u>	CCC CCC	<b>U</b>	KC	EHC
EMC	Functional Safety/Safety of Ma- chinery	Declaration of Confo	rmity	Test Certificates	
RCM	Type Examination Cer- tificate	UK CA	CE EG-Konf.	Special Test Certific- ate	Type Test Certific- ates/Test Report
Marine / Shipping					
ABS	BUREAU VERITAS		Lloyds Register us	PRS	RINA
Marine / Shipping	other		Railway	Dangerous Good	Environment
RMAS	<u>Confirmation</u>	VDE	<u>Vibration and Shock</u>	Transport Information	Environmental Con- firmations
Further information Siemens has decided to exit the Russian market (see here). https://press.siemens.com/global/en/pressrelease/siemens-wind-down-russian-business Siemens is working on the renewal of the current EAC certificates.					
Please contact your local Siemens office on the status of validity of the EAC certification if you intend to import or offer to supply these products to an EAC relevant market (other than the sanctioned EAEU member states Russia or Belarus). Information on the packaging					ly these products to an
https://support.industry	<u>y.siemens.com/cs/ww/en/vie</u>				

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

https://www.siemens.com/ic10

Industry Mall (Online ordering system) https://mall.industry.siemens.com/mall/en/en/Catalog/product?mlfb=3RT2017-1FB42

Cax online generator

http://support.automation.siemens.com/WW/CAXorder/default.aspx?lang=en&mlfb=3RT2017-1FB42

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

https://support.industry.siemens.com/cs/ww/en/ps/3RT2017-1FB42

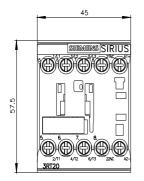
Image database (product images, 2D dimension drawings, 3D models, device circuit diagrams, EPLAN macros, ...) <a href="http://www.automation.siemens.com/bilddb/cax\_de.aspx?mlfb=3RT2017-1FB42&lang=en">http://www.automation.siemens.com/bilddb/cax\_de.aspx?mlfb=3RT2017-1FB42&lang=en</a>

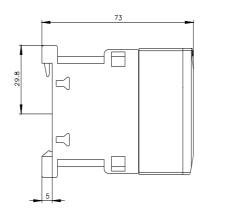
Characteristic: Tripping characteristics, I2t, Let-through current

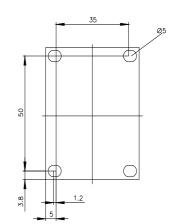
https://support.industry.siemens.com/cs/ww/en/ps/3RT2017-1FB42/char

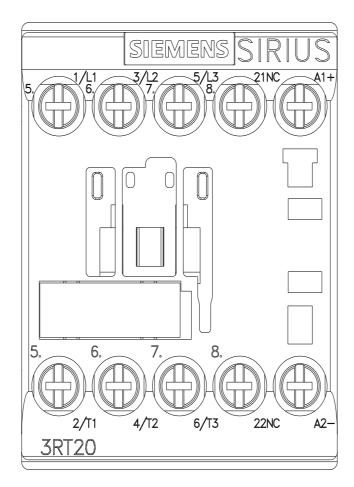
Further characteristics (e.g. electrical endurance, switching frequency)

http://www.automation.siem ens.com/bilddb/index.aspx?view= &mlfb 

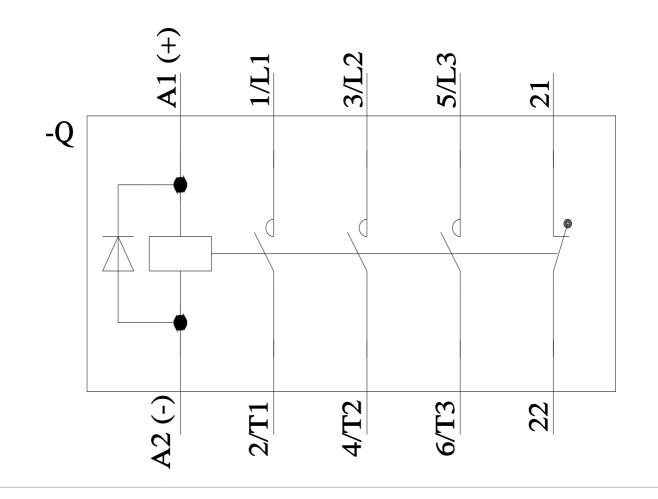








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