## SIEMENS

## Data sheet

## 3RT2018-2BE42



power contactor, AC-3e/AC-3, 16 A, 7.5 kW / 400 V, 3-pole, 60 V DC, auxiliary contacts: 1 NC, spring-loaded 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
<ul> <li>auxiliary switch</li> </ul>	Yes
power loss [W] for rated value of the current	
<ul> <li>at AC in hot operating state</li> </ul>	3 W
<ul> <li>at AC in hot operating state per pole</li> </ul>	1 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
Ambient conditions	
installation altitude at height above sea level maximum	2 000 m
ambient temperature	
during operation	-25 +60 °C
<ul> <li>during storage</li> </ul>	-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

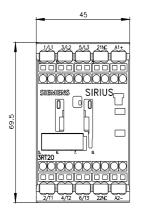
number of NO contacts for main contacts	3
operating voltage	
at AC-3 rated value maximum	690 V
<ul> <li>at AC-3e rated value maximum</li> </ul>	690 V
operational current	
• at AC-1 at 400 V at ambient temperature 40 °C rated	22 A
value	
• at AC-1	
<ul> <li>— up to 690 V at ambient temperature 40 °C rated value</li> </ul>	22 A
— up to 690 V at ambient temperature 60 °C rated	20 A
value	
• at AC-3	
— at 400 V rated value	16 A
— at 500 V rated value	12.4 A
— at 690 V rated value	8.9 A
• at AC-3e	
— at 400 V rated value	16 A
— at 500 V rated value	12.4 A
— at 690 V rated value	8.9 A
• at AC-4 at 400 V rated value	11.5 A
• at AC-5a up to 690 V rated value	19.4 A
• at AC-5b up to 400 V rated value	13.2 A
• at AC-6a	
<ul> <li>— up to 230 V for current peak value n=20 rated value</li> </ul>	9.6 A
<ul> <li>— up to 400 V for current peak value n=20 rated value</li> </ul>	9.6 A
<ul> <li>— up to 500 V for current peak value n=20 rated value</li> </ul>	9.6 A
— up to 690 V for current peak value n=20 rated value	8.9 A
• at AC-6a	
— up to 230 V for current peak value n=30 rated value	6.6 A
— up to 400 V for current peak value n=30 rated value	6.4 A
— up to 500 V for current peak value n=30 rated value	6.4 A
— up to 690 V for current peak value n=30 rated value	6.4 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	5.5 A
• at 690 V rated value	4.4 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
<ul> <li>at 1 current path at DC-3 at DC-5</li> </ul>	

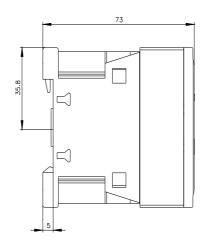
- all dV miled value     20 A       - all dV miled value     0.5 A       - all dV miled value     0.5 A       - all dV miled value     20 A       - all dV miled value     75 NV       - all dV miled value     25 NV       - all dV		
	— at 24 V rated value	20 A
• with 2 current path in sories at DC-3 at DC-5         20 A           - at 24 V rated value         0.35 A           - at 11 U V rated value         0.35 A           - at 24 V rated value         20 A           - at 240 V rated value         22 A           - at 250 V rated value         75 W           - at 400 V rated value         25 KW           - at 400 V frated value         38 N/A           - at 600 V frated value         38 N/A		
- # 24 V rate value     20 Å       - # 110 V rated value     0.35 Å       - # 110 V rated value     20 Å       - # 120 V rated value     0.2 Å       - # 120 V rated value     7.5 kW       - # 120 V rated value		0.15 A
	-	
	— at 24 V rated value	
<ul> <li>with 3 current paths in series at DC-3 at DC-5</li> <li>at 24 V rated value</li> <li>at 30 V rated value</li> <li>20 A</li> <li>at 10 V rated value</li> <li>20 A</li> <li>at 40 V rated value</li> <li>20 A</li> <li>at 40 V rated value</li> <li>20 A</li> <li>at 40 V rated value</li> <li>22 A</li> <li>at 40 V rated value</li> <li>22 A</li> <li>at 40 V rated value</li> <li>22 A</li> <li>at 40 V rated value</li> <li>23 A</li> <li>at 40 V rated value</li> <li>24 A</li> <li>at 40 V rated value</li> <li>25 W</li> <li>at 40 V rated value</li> <li>75 W</li> <li>at 60 V rated value</li> <li>75 W</li> <li>at 80 V rated value</li> <li>75 W</li> <li>at 800 V rated value</li> <li>75 W</li> <li>at 800 V rated value</li> <li>75 W</li> <li>at 800 V rated value</li> <li>56 W</li> <li>at 800 V rated value</li> <li>80 V rated value</li> <li>90 b 200 V for current pake value n=20 rated value</li> <li>90 b 200 V for current pake value n=20 rated value</li> <li>90 b 500 V for current pake value n=30 rated value</li> <li>90 b 500 V for current pake value n=30 rated value</li> <li>90 b 500 V for current pake value n=30 rated value</li> <li>90 b 500 V for current pake value n=30 rated value</li> <li>90 b 500 V for current pake value n=30 rated value</li> <li>90 b 500 V for current pake value n=30 rated val</li></ul>	— at 60 V rated value	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
	— at 60 V rated value	20 A
	— at 110 V rated value	20 A
	— at 220 V rated value	1.5 A
operating power <ul> <li>at AC3</li> <li>at AC3</li> <li>at AC3</li> <li>at AC3</li> <li>at AC3</li> <li>bt AC3</li> <li>at AC3 V rated value</li> <li>7.5 KW</li> <li>at AC30 V rated value</li> <li>7.5 KW</li> <li>at AC3</li> <li>at AC3 V rated value</li> <li>at 600 V for current pack value n=20 rated value</li> <li>bit b 00 V for current pack value n=20 rated value</li> <li>bit b 00 V for current pack value n=20 rated value</li> <li>bit b 00 V for current pack value n=20 rated value</li> <li>bit b 00 V for current pack value n=20 rated value</li> <li>bit b 00 V for current pack value n=20 rated value</li> <li>bit b 00 V for current pack value n=20 rated value</li> <li>bit b 00 V for current pack value n=20 rated value</li> <li>bit b 00 V for current pack value n=20 rated value</li> <li>bit b 00 V for current pack value n=20 rated value</li> <li>bit b 00 V for current pack value n=20 rated value</li> <li>bit b 00 V for current pack value n=20 rated value</li> <li>bit b 00 V for current pack value n=20 rated value</li> <li>bit b 00 V for current pa</li></ul>	— at 440 V rated value	0.2 A
er at 2-3         - at 230 V rated value         - at 400 V rated value         - at 400 V rated value         - at 500 V for current pask value n=20 rated value         - at 500 V for current pask value n=20 rated value         - at 500 V for current pask value n=20 rated value         - at 500 V for current pask value n=20 rated value         - at 500 V for current pask value n=20 rated value         - at 500 V for current pask value n=20 rated value         - at 500 V for current pask value n=30 rated value         - at 500 V for current pask value n=30 rated value         - at 500 V for current pask value n=30 rated value         - at 500 V for current pask value n=30 rated value         - at 500 V for current pask value n=30 rated value         - at 500 V for current pask value n=30 rated value         - at 500 V for current pask value n=30 rated value         - at 500 V for current pask value n=30 rated value         - at 600 V for current pask value n=30 rated value         - at 600 V for current	— at 600 V rated value	0.2 A
	operating power	
	• at AC-3	
	— at 230 V rated value	4 kW
	— at 400 V rated value	7.5 kW
e at AC-3e <ul> <li>- at 230 V rated value</li> <li>- at 230 V rated value</li> <li>- at 600 V rated value</li> </ul> <li>- at 600 V rated value</li> <li>- at 600 V for current peak value n=20 rated value</li> <li>- up to 230 V for current peak value n=20 rated value</li> <li>- up to 500 V for current peak value n=20 rated value</li> <li>- up to 500 V for current peak value n=20 rated value</li> <li>- up to 500 V for current peak value n=20 rated value</li> <li>- up to 600 V for current peak value n=30 rated value</li> <li>- up to 600 V for current peak value n=30 rated value</li> <li>- up to 600 V for current peak value n=30 rated value</li> <li>- for 40°C</li> <li>- up to 600 V for current peak value n=30 rated value</li> <li>- for 40°C</li> <li>- inhited to 1 s switching at zero current maximum</li> <li>- inhited to 1 s switching at zero current maximum</li> <li>- inhited to 1 s switching at zero current maximum</li> <li>- inhited to 10 s switching at zero current maximum</li> <li>- at AC-3 maximum</li>	— at 500 V rated value	7.5 kW
	— at 690 V rated value	7.5 kW
	• at AC-3e	
	— at 230 V rated value	4 kW
operating power for approx. 200000 operating cycles at AC-4       2.5 kW         • at 400 V rated value       3.5 kW         operating apparent power at AC-6a       3.8 kVA         • up to 230 V for current peak value n=20 rated value       6.6 kVA         • up to 500 V for current peak value n=20 rated value       8.3 kVA         • up to 500 V for current peak value n=20 rated value       8.3 kVA         • up to 500 V for current peak value n=30 rated value       2.5 kVA         • up to 500 V for current peak value n=30 rated value       2.5 kVA         • up to 500 V for current peak value n=30 rated value       5.5 kVA         • up to 500 V for current peak value n=30 rated value       5.5 kVA         • up to 500 V for current peak value n=30 rated value       7.6 kVA         • up to 500 V for current peak value n=30 rated value       7.6 kVA         • up to 500 V for current peak value n=30 rated value       7.6 kVA         • up to 500 V for current peak value n=30 rated value       7.6 kVA         • up to 500 V for current maximum       300 A: Use minimum cross-section acc. to AC-1 rated value         • limited to 5 s switching at zero current maximum       19.4 Use minimum cross-section acc. to AC-1 rated value         • limited to 00 s switching at zero current maximum       10.000 1/h         • at AC-2 maximum       10000 1/h         • at AC-3 maximum		
A tool V rated value     at 600 V for current peak value n=20 rated value     au p to 500 V for current peak value n=20 rated value     au p to 500 V for current peak value n=20 rated value     au p to 500 V for current peak value n=20 rated value     au p to 500 V for current peak value n=20 rated value     au p to 500 V for current peak value n=20 rated value     au p to 500 V for current peak value n=20 rated value     au p to 500 V for current peak value n=30 rated value     au p to 500 V for current peak value n=30 rated value     au p to 500 V for current peak value n=30 rated value     au p to 500 V for current peak value n=30 rated value     au p to 500 V for current peak value n=30 rated value     for 5 switching at zero current maximum     au initied to 1 s switching at zero current maximum     alimited to 1 s switching at zero current maximum     alimited to 3 s switching at zero current maximum     alimited to 3 s switching at zero current maximum     alimited to 30 s switching at zero current maximum     alimited to 30 s switching at zero current maximum     alimited to 30 s switching at zero current maximum     alimited to 30 s switching at zero current maximum     alimited to 30 s switching at zero current maximum     alimited to 30 s switching at zero current maximum     alimited to 40 s switching at zero current maximum     ali AC-4 ma		
• at 690 V rated value     3.5 kW       operating apparent power at AC-6a     3.8 kVA       • up to 230 V for current peak value n=20 rated value     6.6 kVA       • up to 500 V for current peak value n=20 rated value     8.3 kVA       • up to 500 V for current peak value n=20 rated value     10.6 kVA       operating apparent power at AC-6a     0       • up to 500 V for current peak value n=30 rated value     2.5 kVA       • up to 500 V for current peak value n=30 rated value     5.6 kVA       • up to 500 V for current peak value n=30 rated value     5.6 kVA       • up to 500 V for current peak value n=30 rated value     5.6 kVA       • up to 600 V for current peak value n=30 rated value     5.6 kVA       • up to 600 V for current peak value n=30 rated value     7.6 kVA       short-time withstand current neximum     300 A: Use minimum cross-section acc. to AC-1 rated value       • limited to 1 s switching at zero current maximum     128 A: Use minimum cross-section acc. to AC-1 rated value       • limited to 1 s switching at zero current maximum     128 A: Use minimum cross-section acc. to AC-1 rated value       • limited to 60 S switching at zero current maximum     128 A: Use minimum cross-section acc. to AC-1 rated value       • limited to 61 S switching at zero current maximum     128 A: Use minimum cross-section acc. to AC-1 rated value       • limited to 61 S switching at zero current maximum     1000 1/h       • at AC-2 maximum <td< td=""><td></td><td></td></td<>		
operating apparent power at AC-6a       3.8 kVA         • up to 230 V for current peak value n=20 rated value       6.6 kVA         • up to 500 V for current peak value n=20 rated value       8.3 kVA         • up to 690 V for current peak value n=20 rated value       8.3 kVA         • up to 530 V for current peak value n=20 rated value       10.6 kVA         operating apparent power at AC-6a       2.5 kVA         • up to 530 V for current peak value n=30 rated value       2.5 kVA         • up to 500 V for current peak value n=30 rated value       5.5 kVA         • up to 500 V for current peak value n=30 rated value       5.5 kVA         • up to 690 V for current peak value n=30 rated value       7.6 kVA         • up to 690 V for current peak value n=30 rated value       7.6 kVA         short-firms withstand current in cold operating state up to 40 °C       300 A; Use minimum cross-section acc. to AC-1 rated value         • limited to 10 s switching at zero current maximum       199 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         • at AC-1 maximum       1000 1/h         • at AC-2 maximum       1000 1/h         • at AC-3 maximum       750 1/h         • at AC-3 maximum       750 1/h         • at AC-3 maximum       750 1/h<	<ul> <li>at 400 V rated value</li> </ul>	2.5 kW
• 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 230 V for current peak value n=30 rated value     • up to 400 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 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     • limited to 1s 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     • locad switching frequency     • at AC-1 maximum     • to C     • operating range factor co	• at 690 V rated value	3.5 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=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 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     • Us 55 switching at zero current maximum     • limited to 1 s switching at zero current maximum     • limited to 1 s switching at zero current maximum     • limited to 30 s switching at zero current maximum     • limited to 50 s switching at zero current maximum     • limited to 50 s switching at zero current maximum     • limited to 50 s switching at zero current maximum     • limited to 50 s switching at zero current maximum     • limited to 50 s switching at zero current maximum     • limited to 60 s switching at zero current maximum     • limited to 10 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     • ta 4C-1 maximum     • ta 4C-1 maximum     • at AC-3 maximum     • at AC-3 maximum     • at AC-3 maximum     • at AC-4 maximum     • at AC-4 maximum     • at AC-4 maxim	operating apparent power at AC-6a	
• up to 500 V for current peak value n=20 rated value       8.3 kVA         • up to 630 V for current peak value n=30 rated value       10.6 kVA         operating apparent power at AC-6a       2.5 kVA         • up to 500 V for current peak value n=30 rated value       2.5 kVA         • up to 500 V for current peak value n=30 rated value       5.5 kVA         • up to 500 V for current peak value n=30 rated value       5.5 kVA         • up to 600 V for current peak value n=30 rated value       7.6 kVA         short-time withstand current in cold operating state up to 40° C       7.6 kVA         • limited to 1 s switching at zero current maximum       300 A; Use minimum cross-section acc. to AC-1 rated value         • limited to 1 s switching at zero current maximum       108 A; Use minimum cross-section acc. to AC-1 rated value         • limited to 1 s switching at zero current maximum       28 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         • at DC       10 000 1/h         operating frequency       10 000 1/h         • at AC-3 maximum       750 1/h         • at AC-4 maximum       250 1/h	<ul> <li>up to 230 V for current peak value n=20 rated value</li> </ul>	3.8 kVA
• up to 690 V for current peak value n=20 rated value       10.6 kVA         operating apparent power at AC-Ga       2.5 kVA         • up to 230 V for current peak value n=30 rated value       4.4 kVA         • up to 500 V for current peak value n=30 rated value       5.6 kVA         • up to 500 V for current peak value n=30 rated value       7.6 kVA         • up to 500 V for current peak value n=30 rated value       7.6 kVA         • up to 500 V for current peak value n=30 rated value       7.6 kVA         short-time withstand current in cold operating state up to 40 °C       10.8 kVA         • limited to 1 s switching at zero current maximum       300 A; Use minimum cross-section acc. to AC-1 rated value         • limited to 1 s switching at zero current maximum       128 A; Use minimum cross-section acc. to AC-1 rated value         • limited to 10 s switching at zero current maximum       128 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         • at AC-2 maximum       1 000 1/h         • at AC-3 maximum       750 1/h         • at AC-3 maximum       750 1/h         • at AC-4 maximum       250 1/h         • at AC-4 maximum       250 1/h         • control supply voltage at DC       60 V	<ul> <li>up to 400 V for current peak value n=20 rated value</li> </ul>	6.6 kVA
operating apparent power at AC-6a       2.5 kVA         • up to 230 V for current peak value n=30 rated value       4.4 kVA         • up to 500 V for current peak value n=30 rated value       5.5 kVA         • up to 690 V for current peak value n=30 rated value       5.5 kVA         • up to 690 V for current peak value n=30 rated value       5.5 kVA         short-time withstand current in cold operating state up to 40°C       300 A; Use minimum cross-section acc. to AC-1 rated value         • limited to 1 s switching at zero current maximum       169 A; Use minimum cross-section acc. to AC-1 rated value         • limited to 30 s switching at zero current maximum       128 A; Use minimum cross-section acc. to AC-1 rated value         • limited to 30 s switching at zero current maximum       22 A; Use minimum cross-section acc. to AC-1 rated value         • limited to 60 s switching at zero current maximum       128 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         • 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         Control circuit/ Control       Uppe of voltage of the control supply voltage         DC       DC	<ul> <li>up to 500 V for current peak value n=20 rated value</li> </ul>	8.3 kVA
• up to 230 V for current peak value n=30 rated value     • up to 400 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 500 V for current peak value n=30 rated value     • up to 500 V for current in cold operating state up to     40 °C     • ilmited to 1 s switching at zero current maximum     • limited to 1 s switching at zero current maximum     • limited to 10 s switching at zero current maximum     • limited to 10 s switching at zero current maximum     • limited to 10 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 10 s switching at zero current maximum     • limited to 10 s switching at zero current maximum     • limited to 10 s switching at zero current maximum     • limited to 10 s switching at zero current maximum     • limited to 10 s switching at zero current maximum     • limited to 10 s switching at zero current maximum     • limited to 10 s switching at zero current maximum     • limited to 10 s switching at zero current maximum     • limited to 10 s switching at zero current maximum     • to 20 1/h     • at AC-1 maximum     • at AC-3 maximum     • at AC-3 maximum     * at AC-4 maximum     * at AC-3 maximum     * at AC-4 maximum     * a	<ul> <li>up to 690 V for current peak value n=20 rated value</li> </ul>	10.6 kVA
• up to 400 V for current peak value n=30 rated value       4.4 kVA         • up to 500 V for current peak value n=30 rated value       5.5 kVA         • up to 690 V for current peak value n=30 rated value       7.6 kVA         short-time withstand current in cold operating state up to 40 °C       imited to 1 s switching at zero current maximum         • limited to 1 s switching at zero current maximum       300 A; Use minimum cross-section acc. to AC-1 rated value         • limited to 10 s switching at zero current maximum       128 A; Use minimum cross-section acc. to AC-1 rated value         • limited to 10 s switching at zero current maximum       92 A; Use minimum cross-section acc. to AC-1 rated value         • limited to 60 s switching at zero current maximum       92 A; Use minimum cross-section acc. to AC-1 rated value         • limited to 60 s switching at zero current maximum       92 A; Use minimum cross-section acc. to AC-1 rated value         • limited to 60 s switching at zero current maximum       92 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       750 1/h         • at AC-3 maximum       750 1/h         • at AC-4 maximum       250 1/h         Control circuit/ Control       EV         type of voltage of the control supply voltage       DC         control supply voltage	operating apparent power at AC-6a	
• up to 500 V for current peak value n=30 rated value5.5 kVA• up to 690 V for current peak value n=30 rated value7.6 kVAshort-time withstand current in cold operating state up to 40 °C300 A; Use minimum cross-section acc. to AC-1 rated value• limited to 1 s switching at zero current maximum300 A; Use minimum cross-section acc. to AC-1 rated value• limited to 10 s switching at zero current maximum128 A; Use minimum cross-section acc. to AC-1 rated value• limited to 30 s switching at zero current maximum92 A; Use minimum cross-section acc. to AC-1 rated value• limited to 60 s switching at zero current maximum92 A; Use minimum cross-section acc. to AC-1 rated value• limited to 60 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 maximum74 A; Use minimum cross-section acc. to AC-1 rated value• limited to 60 s switching at zero current maximum75 1/h• at AC-1 maximum1 000 1/h• at AC-2 maximum1 000 1/h• at AC-3 maximum750 1/h• at AC-3 maximum250 1/h• at AC-3 maximum250 1/h• at AC-4 maximum250 1/h• control supply voltage at DC60 V• operating range factor control supply voltage rated value of manget col at DC60 V• operating range factor control supply voltage rated value of manget col at DC0.8	<ul> <li>up to 230 V for current peak value n=30 rated value</li> </ul>	2.5 kVA
• up to 690 V for current peak value n=30 rated value7.6 kVAshort-time withstand current in cold operating state up to 40°C300 A; Use minimum cross-section acc. to AC-1 rated value• limited to 1s switching at zero current maximum169 A; Use minimum cross-section acc. to AC-1 rated value• limited to 10 s switching at zero current maximum128 A; Use minimum cross-section acc. to AC-1 rated value• limited to 30 s switching at zero current maximum92 A; Use minimum cross-section acc. to AC-1 rated value• limited to 60 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 maximum74 A; Use minimum cross-section acc. to AC-1 rated value• limited to 60 s switching at zero current maximum74 A; Use minimum cross-section acc. to AC-1 rated value• at DC10 000 1/hoperating frequency100 00 1/h• at AC-2 maximum750 1/h• at AC-3 maximum750 1/h• at AC-3 maximum750 1/h• at AC-3 maximum250 1/h• at AC-4 maximum250 1/h• at AC-4 maximum250 1/h• at AC-4 maximum50 V• control supply voltage at DC60 V• rated value60 V• operating range factor control supply voltage rated value of magnet col at DC• initial value0.8	<ul> <li>up to 400 V for current peak value n=30 rated value</li> </ul>	4.4 kVA
short-time withstand current in cold operating state up to 40 °C       300 A; Use minimum cross-section acc. to AC-1 rated value         • limited to 1 s switching at zero current maximum       169 A; Use minimum cross-section acc. to AC-1 rated value         • limited to 10 s switching at zero current maximum       128 A; Use minimum cross-section acc. to AC-1 rated value         • limited to 03 s switching at zero current maximum       92 A; Use minimum cross-section acc. to AC-1 rated value         • limited to 60 s switching at zero current maximum       92 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         • 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         • at AC-1 maximum       1000 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       DC         • rated value       60 V         • operating range factor control supply voltage rated value of magnet coil at DC       60 V	<ul> <li>up to 500 V for current peak value n=30 rated value</li> </ul>	5.5 kVA
40 °C       300 A; Use minimum cross-section acc. to AC-1 rated value         • limited to 1 s switching at zero current maximum       169 A; Use minimum cross-section acc. to AC-1 rated value         • limited to 10 s switching at zero current maximum       128 A; Use minimum cross-section acc. to AC-1 rated value         • limited to 30 s switching at zero current maximum       92 A; Use minimum cross-section acc. to AC-1 rated value         • limited to 60 s switching at zero current maximum       92 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         • at AC-1 maximum       1 00 01/h         • at AC-1 maximum       1 000 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       Uc         • per of voltage of the control supply voltage       DC         • rated value       60 V         • operating range factor control supply voltage rated value of magnet coil at DC       60 V	• up to 690 V for current peak value n=30 rated value	7.6 kVA
• limited to 1 s switching at zero current maximum300 A; Use minimum cross-section acc. to AC-1 rated value• limited to 5 s switching at zero current maximum169 A; Use minimum cross-section acc. to AC-1 rated value• limited to 10 s switching at zero current maximum128 A; Use minimum cross-section acc. to AC-1 rated value• limited to 30 s switching at zero current maximum92 A; Use minimum cross-section acc. to AC-1 rated value• limited to 60 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 maximum74 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-1 maximum1 000 1/h• at AC-3 maximum750 1/h• at AC-3 maximum750 1/h• at AC-4 maximum250 1/h• at AC-4 maximum250 1/h• at AC-4 maximum250 1/h• at AC-4 maximum250 1/h• at AC-4 maximum60 V• control supply voltage at DC60 V• rated value60 V• initial value0.8	short-time withstand current in cold operating state up to	
Imited to 5 s switching at zero current maximum169 A; Use minimum cross-section acc. to AC-1 rated valueImited to 10 s switching at zero current maximum128 A; Use minimum cross-section acc. to AC-1 rated valueImited to 30 s switching at zero current maximum92 A; Use minimum cross-section acc. to AC-1 rated valueImited to 60 s switching at zero current maximum74 A; Use minimum cross-section acc. to AC-1 rated valueImited to 60 s switching frequency74 A; Use minimum cross-section acc. to AC-1 rated valueImited to 60 s switching frequency10 000 1/hImited to 60 s aximum1000 1/hImited to 60 s maximum1000 1/hImited	40 °C	
• limited to 10 s switching at zero current maximum128 A; Use minimum cross-section acc. to AC-1 rated value• limited to 30 s switching at zero current maximum92 A; Use minimum cross-section acc. to AC-1 rated value• limited to 60 s switching at zero current maximum74 A; Use minimum cross-section acc. to AC-1 rated valueno-load switching frequency10 000 1/h• at DC10 000 1/h• at AC-1 maximum1 000 1/h• at AC-1 maximum1 000 1/h• at AC-2 maximum750 1/h• at AC-3 maximum750 1/h• at AC-3 maximum750 1/h• at AC-4 maximum250 1/h• at AC-4 maximum250 1/h• at AC-4 maximum250 1/h• at AC-4 maximum60 V• at AC-4 maximum60 V• at AC-4 maximum60 V• at AC-4 maximum60 V	<ul> <li>limited to 1 s switching at zero current maximum</li> </ul>	
<ul> <li>Iimited to 30 s switching at zero current maximum</li> <li>92 A; Use minimum cross-section acc. to AC-1 rated value</li> <li>Iimited to 60 s switching at zero current maximum</li> <li>74 A; Use minimum cross-section acc. to AC-1 rated value</li> <li>no-load switching frequency         <ul> <li>at DC</li> <li>10 000 1/h</li> </ul> </li> <li>operating frequency         <ul> <li>at AC-1 maximum</li> <li>1000 1/h</li> <li>at AC-2 maximum</li> <li>1000 1/h</li> <li>at AC-2 maximum</li> <li>50 1/h</li> <li>at AC-3 maximum</li> <li>50 1/h</li> <li>at AC-3 maximum</li> <li>50 1/h</li> <li>at AC-4 maximum</li> <li>250 1/h</li> </ul> </li> <li>Control circuit/ Control         <ul> <li>type of voltage of the control supply voltage</li> <li>Control supply voltage at DC                  <ul></ul></li></ul></li></ul>	<ul> <li>limited to 5 s switching at zero current maximum</li> </ul>	169 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         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-3 maximum       750 1/h         • at AC-4 maximum       250 1/h         • at AC-4 maximum       250 1/h         Control circuit/ Control       DC         forthol circuity control       DC         • rated value       60 V         operating range factor control supply voltage rated value of magnet coil at DC       0.8	<ul> <li>limited to 10 s switching at zero current maximum</li> </ul>	128 A; Use minimum cross-section acc. to AC-1 rated value
no-load switching frequency10 000 1/hoperating frequency-at AC-1 maximum1 000 1/hat AC-2 maximum750 1/hat AC-3 maximum750 1/hat AC-3 maximum750 1/hat AC-3e maximum750 1/hat AC-3e maximum250 1/hat AC-4 maximum250 1/hcontrol circuit/ ControlDCfype of voltage of the control supply voltageDCcontrol supply voltage at DC60 Voperating range factor control supply voltage rated value of magnet coil at DC0.8	<ul> <li>limited to 30 s switching at zero current maximum</li> </ul>	
• at DC10 000 1/hoperating frequency• at AC-1 maximum1 000 1/h• at AC-2 maximum750 1/h• at AC-3 maximum750 1/h• at AC-3 maximum750 1/h• at AC-3 maximum250 1/h• at AC-4 maximum250 1/h• at AC-4 maximum250 1/h• at AC-4 maximumDC• control circuit/ ControlDC• control supply voltage at DC60 V• rated value60 V• operating range factor control supply voltage rated value of magnet coil at DC0.8	<ul> <li>limited to 60 s switching at zero current maximum</li> </ul>	74 A; Use minimum cross-section acc. to AC-1 rated value
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-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 value60 V• rated value60 Voperating range factor control supply voltage rated value of magnet coil at DC0.8	no-load switching frequency	
• 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/h• at AC-4 maximum250 1/h• control circuit/ ControlDCtype of voltage of the control supply voltageDC• rated value60 V• operating range factor control supply voltage rated value of magnet coil at DC0.8	• at DC	10 000 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/ ControlDCcontrol supply voltage at DC0• rated value60 V• rated value60 V• initial value0.8	operating frequency	
• at AC-3 maximum750 1/h• at AC-3e maximum750 1/h• at AC-4 maximum250 1/hControl circuit/ Control250 1/hControl circuit/ ControlDCcontrol supply voltage at DC60 V• rated value60 Voperating range factor control supply voltage rated value of magnet coil at DC0.8	• at AC-1 maximum	1 000 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 DC60 V• rated value60 Voperating range factor control supply voltage rated value of magnet coil at DC0.8	• at AC-2 maximum	750 1/h
• 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       60 V         • rated value       60 V         operating range factor control supply voltage rated value of magnet coil at DC       0.8	• at AC-3 maximum	750 1/h
Control circuit/ Control         type of voltage of the control supply voltage       DC         control supply voltage at DC       60 V         • rated value       60 V         operating range factor control supply voltage rated value of magnet coil at DC       0.8	• at AC-3e maximum	750 1/h
type of voltage of the control supply voltage     DC       control supply voltage at DC     60 V       • rated value     60 V       operating range factor control supply voltage rated value of magnet coil at DC     0.8	• at AC-4 maximum	250 1/h
control supply voltage at DC     60 V       • rated value     60 V       operating range factor control supply voltage rated value of magnet coil at DC     0.8	Control circuit/ Control	
control supply voltage at DC     60 V       • rated value     60 V       operating range factor control supply voltage rated value of magnet coil at DC     0.8		DC
• rated value     60 V       operating range factor control supply voltage rated value of magnet coil at DC     0.8		
operating range factor control supply voltage rated value of magnet coil at DC       0.8		60 V
	operating range factor control supply voltage rated value of	
• full-scale value 1.1	• initial value	0.8
	full-scale value	1.1

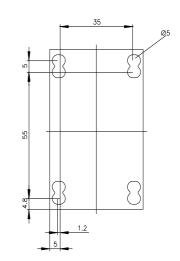
closing power of magnet coil at DC	4 W
holding power of magnet coil at DC	4 W
closing delay	
• at DC	30 100 ms
opening delay	
• at DC	7 13 ms
arcing time	10 15 ms
control version of the switch operating mechanism	Standard A1 - A2
	Standard AT - Az
Auxiliary circuit	
number of NC contacts for auxiliary contacts instantaneous contact	1
operational current at AC-12 maximum	10 A
operational current at AC-15	
<ul> <li>at 230 V rated value</li> </ul>	10 A
<ul> <li>at 400 V rated value</li> </ul>	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 10 V rated value	3 A
	2 A
at 125 V rated value	
at 220 V rated value	1 A
at 600 V rated value	0.15 A
operational current at DC-13	
<ul> <li>at 24 V rated value</li> </ul>	10 A
<ul> <li>at 48 V rated value</li> </ul>	2 A
<ul> <li>at 60 V rated value</li> </ul>	2 A
<ul> <li>at 110 V rated value</li> </ul>	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	14 A
at 600 V rated value	11 A
yielded mechanical performance [hp]	
for single-phase AC motor	
	1 hn
— at 110/120 V rated value	1 hp
— at 230 V rated value	2 hp
• for 3-phase AC motor	
- at 200/208 V rated value	3 hp
— at 220/230 V rated value	5 hp
— at 460/480 V rated value	10 hp
— at 575/600 V rated value	10 hp
contact rating of auxiliary contacts according to UL	A600 / Q600
Short-circuit protection	
design of the fuse link	
<ul> <li>for short-circuit protection of the main circuit</li> </ul>	
— with type of coordination 1 required	gG: 50A (690V,100kA), aM: 25A (690V,100kA), BS88: 50A (415V,80kA)
— with type of assignment 2 required	gG: 25A (690V,100kA), aM: 20A (690V,100kA), BS88: 25A (415V,80kA)
<ul> <li>for short-circuit protection of the auxiliary switch required</li> </ul>	gG: 10 A (500 V, 1 kA)
Installation/ mounting/ dimensions	
	+/-180° rotation possible on vertical mounting surfaces can be 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	
	/U mm
width	70 mm 45 mm

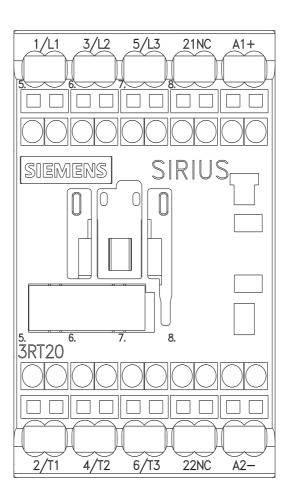
depth	73 mm		
required spacing			
with side-by-side mounting			
— forwards	10 mm		
— upwards	10 mm		
— downwards	10 mm		
— at the side	0 mm		
• for grounded parts			
— forwards	10 mm		
— upwards	10 mm		
— at the side	6 mm		
— downwards	10 mm		
• for live parts			
— forwards	10 mm		
— upwards	10 mm		
— downwards	10 mm		
— at the side	6 mm		
Connections/ Terminals			
type of electrical connection			
<ul> <li>for main current circuit</li> </ul>	spring-loaded terminals		
<ul> <li>for auxiliary and control circuit</li> </ul>	spring-loaded terminals		
<ul> <li>at contactor for auxiliary contacts</li> </ul>	Spring-type terminals		
of magnet coil	Spring-type terminals		
type of connectable conductor cross-sections for main contacts			
• solid	2x (0.5 4 mm <sup>2</sup> )		
solid or stranded	2x (0,5 4 mm <sup>2</sup> )		
• finely stranded with core end processing	2x (0.5 2.5 mm <sup>2</sup> )		
finely stranded without core end processing	2x (0.5 2.5 mm²)		
connectable conductor cross-section for main contacts	0.5 4 mm <sup>2</sup>		
<ul> <li>solid</li> <li>stranded</li> </ul>	0.5 4 mm² 0.5 4 mm²		
	0.5 4 mm <sup>2</sup>		
<ul> <li>finely stranded with core end processing</li> <li>finely stranded without 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>		
<ul> <li>finely stranded without core end processing</li> </ul>	0.5 2.5 mm²		
type of connectable conductor cross-sections			
for auxiliary contacts			
— solid or stranded	2x (0,5 4 mm²)		
— finely stranded with core end processing	2x (0.5 2.5 mm <sup>2</sup> )		
— finely stranded without core end processing	2x (0.5 2.5 mm <sup>2</sup> )		
for AWG cables for auxiliary contacts	2x (20 12)		
AWG number as coded connectable conductor cross 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		
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 %		
<ul> <li>with high demand rate according to SN 31920</li> </ul>	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		
suitability for use			
<ul> <li>safety-related switching OFF</li> </ul>	Yes		

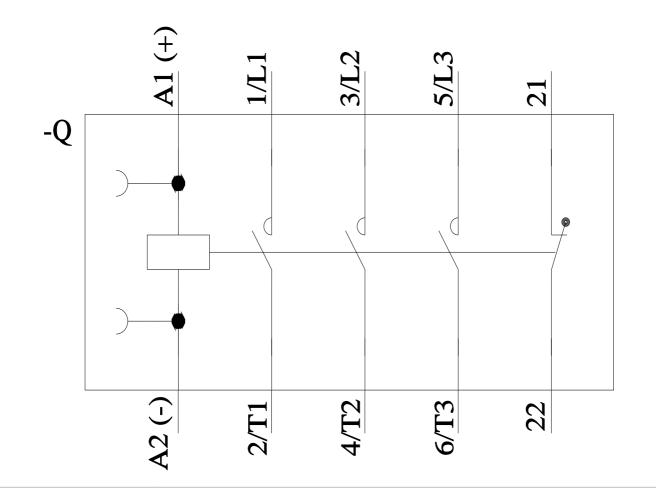
Certificates/ approvals					
General Product App	oroval				
		<u>Confirmation</u>	(UL) III	<u>KC</u>	EHC
EMC	Functional Safety/Safety of Ma- chinery	Declaration of Confo	rmity	Test Certificates	
RCM	<u>Type Examination Cer-</u> tificate	UK CA	CE EG-Konf.	Type Test Certific- ates/Test Report	Special Test Certific- ate
Marine / Shipping					
ABS	BUREAU VERITAS		Lloyds Kegister us	PRS	RINA
Marine / Shipping	other		Railway	Dangerous Good	Environment
RMRS	<u>Confirmation</u>		<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					
https://support.industry.siemens.com/cs/ww/en/view/109813875 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=3RT2018-2BE42 Cax online generator http://support.automation.siemens.com/WW/CAXorder/default.aspx?lang=en&mlfb=3RT2018-2BE42					
ntp://support.automation.siemens.com/www/cAxoroer/derauit.aspx?lang=en&mitp=3R12018-2BE42 Service&Support (Manuals, Certificates, Characteristics, FAQs,) https://support.industry.siemens.com/cs/ww/en/ps/3RT2018-2BE42					
Image database (product images, 2D dimension drawings, 3D models, device circuit diagrams, EPLAN macros,) http://www.automation.siemens.com/bilddb/cax_de.aspx?mlfb=3RT2018-2BE42⟨=en					
Characteristic: Tripping characteristics, I <sup>2</sup> t, Let-through current https://support.industry.siemens.com/cs/ww/en/ps/3RT2018-2BE42/char Further characteristics (e.g. electrical endurance, switching frequency) http://www.automation.siemens.com/bilddb/index.aspx?view=Search&mlfb=3RT2018-2BE42&objecttype=14&gridview=view1					











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