## **SIEMENS**

Data sheet 3RT2025-1BB40



power contactor, AC-3e/AC-3, 17 A, 7.5 kW / 400 V, 3-pole, 24 V DC, auxiliary contacts: 1 NO + 1 NC, screw terminal, size: S0  $\,$ 

size of contactor  product extension	product brand name	SIRIUS
size of contactor product extension  • function module for communication • auxiliary switch  power loss [W] for rated value of the current • at AC in hot operating state • at AC in hot operating state per pole • without load current share typical • without load current share typical • of main circuit with degree of pollution 3 rated value • of auxiliary circuit with degree of pollution 3 rated value • of auxiliary circuit with degree of pollution 3 rated value • of auxiliary circuit vated value • of auxiliary circuit rated value • of bkV  maximum permissible voltage for protective separation between coll and main contacts according to EN 60947-1  ### 100 V  **Shock resistance at rectangular impulse • at DC  10g / 5 ms, 7,5g / 10 ms  ### 100 W 000  ### 15g / 5 ms, 10g / 10 ms  ### 100 W 000	product designation	Power contactor
size of contactor  product extension	product type designation	3RT2
product extension	General technical data	
• function module for communication • auxiliary switch  Power loss [W] for rated value of the current • at AC in hot operating state • at AC in hot operating state per pole • without load current share typical • of main circuit with degree of pollution 3 rated value • of auxiliary circuit with degree of pollution 3 rated value • of auxiliary circuit with degree of pollution 3 rated value • of main circuit rated value • of main circuit rated value • of auxiliary circuit rated value • of be auxiliary circuit rated value • of be contactor with sine pulse • at DC  10g / 5 ms, 7,5g / 10 ms  **Shock resistance with sine pulse • at DC  10g / 5 ms, 7,5g / 10 ms  **Mechanical service life (operating cycles) • of contactor typical • of the contactor with added electronically optimized auxiliary switch block typical • of the contactor with added auxiliary switch block typical • of the contactor with added auxiliary switch block typical  reference code according to IEC 81346-2 Q  Substance Prohibitance (Date)	size of contactor	S0
e auxiliary switch  power loss [W] for rated value of the current  e at AC in hot operating state e at AC in hot operating state per pole without load current share typical  insulation voltage e of main circuit with degree of pollution 3 rated value e of auxiliary circuit with degree of pollution 3 rated value e of auxiliary circuit with degree of pollution 3 rated value e of auxiliary circuit rated value e of the contactor with added electronically optimized auxiliary switch block typical e of the contactor with added auxiliary switch block typical reference code according to IEC 81346-2 Q Substance Prohibitance (Date)  1.8 W  8. W  6. W	product extension	
power loss [W] for rated value of the current  • at AC in hot operating state • at AC in hot operating state per pole • without load current share typical • of main circuit with degree of pollution 3 rated value • of auxiliary circuit with degree of pollution 3 rated value • of auxiliary circuit with degree of pollution 3 rated value • of auxiliary circuit rated value • of book resistance at rectangular impulse • at DC  10g / 5 ms, 7,5g / 10 ms  mechanical service life (operating cycles) • of contactor typical • of the contactor with added electronically optimized auxiliary switch block typical • of the contactor with added auxiliary switch block typical • of the contactor with added auxiliary switch block typical  reference code according to IEC 81346-2  Q  Substance Prohibitance (Date)	<ul> <li>function module for communication</li> </ul>	No
<ul> <li>at AC in hot operating state</li> <li>at AC in hot operating state per pole</li> <li>without load current share typical</li> <li>5.9 W</li> <li>insulation voltage</li> <li>of main circuit with degree of pollution 3 rated value</li> <li>of auxiliary circuit with degree of pollution 3 rated value</li> <li>of main circuit rated value</li> <li>of main circuit rated value</li> <li>of auxiliary circuit rated value</li> <li>of wold auxiliary circuit rated value</li> <li>of wold auxiliary circuit rated value</li> <li>of kV</li> <li>maximum permissible voltage for protective separation between coil and main contacts according to EN 60947-1</li> <li>shock resistance at rectangular impulse</li> <li>at DC</li> <li>10g / 5 ms, 7,5g / 10 ms</li> <li>shock resistance with sine pulse</li> <li>at DC</li> <li>15g / 5 ms, 10g / 10 ms</li> <li>mechanical service life (operating cycles)</li> <li>of contactor typical</li> <li>of the contactor with added electronically optimized auxiliary switch block typical</li> <li>of the contactor with added auxiliary switch block typical</li> <li>of the contactor with added auxiliary switch block typical</li> <li>of the contactor with added auxiliary switch block typical</li> <li>of the contactor with added auxiliary switch block typical</li> <li>of the contactor with added auxiliary switch block typical</li> <li>of the contactor with added auxiliary switch block typical</li> <li>of the contactor with added auxiliary switch block typical</li> <li>of the contactor with added auxiliary switch block typical</li> <li>of the contactor with added auxiliary switch block typical</li> <li>of the contactor with added auxiliary switch block typical</li> <li>of the contactor with added auxiliary switch block typical</li> <li>10 000 000</li> </ul>	auxiliary switch	Yes
at AC in hot operating state per pole without load current share typical  insulation voltage of main circuit with degree of pollution 3 rated value of auxiliary circuit with degree of pollution 3 rated value of main circuit with degree of pollution 3 rated value of auxiliary circuit rated value of main circuit rated value of auxiliary solution between coll and main contacts according to EN 60947-1  shock resistance at rectangular impulse of at DC 10g / 5 ms, 7,5g / 10 ms  shock resistance with sine pulse of the contactor typical of the contactor with added electronically optimized auxiliary switch block typical of the contactor with added auxiliary switch block typical of the contactor with added auxiliary switch block typical of the contactor with added auxiliary switch block typical of the contactor with added auxiliary switch block typical of the contactor with added auxiliary switch block typical of the contactor with added auxiliary switch block typical of the contactor with added auxiliary switch block typical of the contactor with added auxiliary switch block typical of the contactor with added auxiliary switch block typical of the contactor with added auxiliary switch block typical	power loss [W] for rated value of the current	
without load current share typical     insulation voltage         of main circuit with degree of pollution 3 rated value         of auxiliary circuit with degree of pollution 3 rated value         of auxiliary circuit with degree of pollution 3 rated value         of main circuit rated value         of main circuit rated value         of auxiliary circuit rated value         of bkV          auxiliary circuit rated value         of bkV          auxiliary sible voltage for protective separation between coll and main contacts according to EN 60947-1          shock resistance at rectangular impulse         of at DC	<ul> <li>at AC in hot operating state</li> </ul>	1.8 W
insulation voltage     of main circuit with degree of pollution 3 rated value     of auxiliary circuit with degree of pollution 3 rated value     of auxiliary circuit with degree of pollution 3 rated value     of main circuit rated value     of main circuit rated value     of auxiliary circuit rated value     of kV  maximum permissible voltage for protective separation between coll and main contacts according to EN 60947-1  Shock resistance at rectangular impulse     of D     at DC     10g / 5 ms, 7,5g / 10 ms  Shock resistance with sine pulse     of contactor life (operating cycles)     of contactor typical     of the contactor with added electronically optimized auxiliary switch block typical     of the contactor with added auxiliary switch block typical     of the contactor with added auxiliary switch block typical     of the contactor with added auxiliary switch block typical     of the contactor with added auxiliary switch block typical     of the contactor with added auxiliary switch block typical     of the contactor with added auxiliary switch block typical     of the contactor with added auxiliary switch block typical	<ul> <li>at AC in hot operating state per pole</li> </ul>	0.6 W
of main circuit with degree of pollution 3 rated value     of auxiliary circuit with degree of pollution 3 rated value     of auxiliary circuit with degree of pollution 3 rated value     of main circuit rated value     of auxiliary circuit rated value     of kV      maximum permissible voltage for protective separation between coil and main contacts according to EN 60947-1  shock resistance at rectangular impulse     of DC     10g / 5 ms, 7,5g / 10 ms  shock resistance with sine pulse     of contactor with sine pulse     of contactor typical     of contactor typical     of the contactor with added electronically optimized auxiliary switch block typical     of the contactor with added auxiliary switch block typical     of the contactor with added auxiliary switch block typical     of the contactor with added auxiliary switch block typical     of the contactor with added auxiliary switch block typical     of the contactor with added auxiliary switch block typical     of the contactor with added auxiliary switch block typical     of the contactor with added auxiliary switch block typical     of the contactor with added auxiliary switch block typical     of the contactor with added auxiliary switch block typical     of the contactor with added auxiliary switch block typical     of the contactor with added auxiliary switch block typical	<ul> <li>without load current share typical</li> </ul>	5.9 W
of auxiliary circuit with degree of pollution 3 rated value     surge voltage resistance     of main circuit rated value     of auxiliary circuit rated value     of auxiliary circuit rated value     of auxiliary circuit rated value     of kV  maximum permissible voltage for protective separation between coil and main contacts according to EN 60947-1  shock resistance at rectangular impulse     ot DC     10g / 5 ms, 7,5g / 10 ms  shock resistance with sine pulse     ot DC     15g / 5 ms, 10g / 10 ms  mechanical service life (operating cycles)     of contactor typical     of the contactor with added electronically optimized auxiliary switch block typical     of the contactor with added auxiliary switch block typical     of the contactor with added auxiliary switch block typical     of the contactor with added auxiliary switch block typical     of the contactor with added auxiliary switch block typical     of the Prohibitance (Date)  Substance Prohibitance (Date)	insulation voltage	
surge voltage resistance  of main circuit rated value  of auxiliary circuit rated value  of auxiliary circuit rated value  of auxiliary circuit rated value  for protective separation between coil and main contacts according to EN 60947-1  shock resistance at rectangular impulse  o at DC  10g / 5 ms, 7,5g / 10 ms  shock resistance with sine pulse  o at DC  15g / 5 ms, 10g / 10 ms  mechanical service life (operating cycles)  of contactor typical  of the contactor with added electronically optimized auxiliary switch block typical  of the contactor with added auxiliary switch block typical  of the contactor with added auxiliary switch block typical  of the contactor with added auxiliary switch block typical  of the contactor with added auxiliary switch block typical  for the contactor with added auxiliary switch block typical  of the contactor with added auxiliary switch block typical  10 000 000  reference code according to IEC 81346-2  Q  Substance Prohibitance (Date)	<ul> <li>of main circuit with degree of pollution 3 rated value</li> </ul>	690 V
of main circuit rated value     of auxiliary circuit rated value     of auxiliary circuit rated value     of auxiliary circuit rated value      maximum permissible voltage for protective separation between coil and main contacts according to EN 60947-1      shock resistance at rectangular impulse	<ul> <li>of auxiliary circuit with degree of pollution 3 rated value</li> </ul>	690 V
of auxiliary circuit rated value     de kV  maximum permissible voltage for protective separation between coil and main contacts according to EN 60947-1  shock resistance at rectangular impulse     o at DC     10g / 5 ms, 7,5g / 10 ms  shock resistance with sine pulse     o at DC     15g / 5 ms, 10g / 10 ms  mechanical service life (operating cycles)     of contactor typical     of the contactor with added electronically optimized auxiliary switch block typical     of the contactor with added auxiliary switch block typical     of the contactor with added auxiliary switch block typical     of the contactor with added auxiliary switch block typical  reference code according to IEC 81346-2  Substance Prohibitance (Date)  6 kV  400 V  400 V  400 V  10g / 5 ms, 7,5g / 10 ms  15g / 5 ms, 10g / 10 ms  15g / 5 ms, 10g / 10 ms  10 000 000  10 000 000  10 000 000  10 000 00	surge voltage resistance	
maximum permissible voltage for protective separation between coil and main contacts according to EN 60947-1  shock resistance at rectangular impulse  • at DC  shock resistance with sine pulse  • at DC  10g / 5 ms, 7,5g / 10 ms  shock resistance with sine pulse  • at DC  15g / 5 ms, 10g / 10 ms  mechanical service life (operating cycles)  • of contactor typical  • of the contactor with added electronically optimized auxiliary switch block typical  • of the contactor with added auxiliary switch block typical  • of the contactor with added auxiliary switch block typical  • of the contactor with added auxiliary switch block typical  verference code according to IEC 81346-2  Substance Prohibitance (Date)  400 V  10g / 5 ms, 7,5g / 10 ms  15g / 5 ms, 10g / 10 ms  10g / 5 ms, 10g / 10 ms  10	<ul> <li>of main circuit rated value</li> </ul>	6 kV
shock resistance at rectangular impulse  • at DC  shock resistance with sine pulse  • at DC  10g / 5 ms, 7,5g / 10 ms  shock resistance with sine pulse  • at DC  15g / 5 ms, 10g / 10 ms  mechanical service life (operating cycles)  • of contactor typical  • of the contactor with added electronically optimized auxiliary switch block typical  • of the contactor with added auxiliary switch block typical  • of the contactor with added auxiliary switch block typical  • of the contactor with added auxiliary switch block typical  • of the contactor with added auxiliary switch block typical  • of the contactor with added auxiliary switch block typical  • of the contactor with added auxiliary switch block typical  • of the contactor with added auxiliary switch block typical  • of the contactor with added auxiliary switch block typical  • of the contactor with added auxiliary switch block typical  • of the contactor with added auxiliary switch block typical  • of the contactor with added auxiliary switch block typical  • of the contactor with added auxiliary switch block typical  • of the contactor with added auxiliary switch block typical	<ul> <li>of auxiliary circuit rated value</li> </ul>	6 kV
● at DC  shock resistance with sine pulse ● at DC  15g / 5 ms, 10g / 10 ms  mechanical service life (operating cycles) ● of contactor typical ● of the contactor with added electronically optimized auxiliary switch block typical ● of the contactor with added auxiliary switch block typical ● of the contactor with added auxiliary switch block typical  of the contactor with added auxiliary switch block typical  of the contactor with added auxiliary switch block typical  10 000 000  reference code according to IEC 81346-2  Q  Substance Prohibitance (Date)  10/01/2009		400 V
shock resistance with sine pulse  • at DC  15g / 5 ms, 10g / 10 ms  mechanical service life (operating cycles)  • of contactor typical  • of the contactor with added electronically optimized auxiliary switch block typical  • of the contactor with added auxiliary switch block typical  • of the contactor with added auxiliary switch block typical  • of the prohibitance (Date)  10 000 000  Contactor with added auxiliary switch block typical  10 000 000  10 000 000  10 000 000  10 000 00	shock resistance at rectangular impulse	
● at DC  mechanical service life (operating cycles)  ● of contactor typical  ● of the contactor with added electronically optimized auxiliary switch block typical  ● of the contactor with added auxiliary switch block typical  ● of the contactor with added auxiliary switch block typical  ● of the contactor with added auxiliary switch block typical  Preference code according to IEC 81346-2  Substance Prohibitance (Date)  15g / 5 ms, 10g / 10 ms  10 000 000  10 000 000  10 000 000  10 000 00	• at DC	10g / 5 ms, 7,5g / 10 ms
mechanical service life (operating cycles)  • of contactor typical  • of the contactor with added electronically optimized auxiliary switch block typical  • of the contactor with added auxiliary switch block typical  • of the contactor with added auxiliary switch block typical  reference code according to IEC 81346-2  Substance Prohibitance (Date)  10 000 000  Q  10/01/2009	shock resistance with sine pulse	
<ul> <li>of contactor typical</li> <li>of the contactor with added electronically optimized auxiliary switch block typical</li> <li>of the contactor with added auxiliary switch block typical</li> <li>of the contactor with added auxiliary switch block typical</li> <li>reference code according to IEC 81346-2</li> <li>Substance Prohibitance (Date)</li> <li>10 000 000</li> <li>10/01/2009</li> </ul>	• at DC	15g / 5 ms, 10g / 10 ms
of the contactor with added electronically optimized auxiliary switch block typical     of the contactor with added auxiliary switch block typical     of the contactor with added auxiliary switch block typical      reference code according to IEC 81346-2  Substance Prohibitance (Date)      10/01/2009	mechanical service life (operating cycles)	
auxiliary switch block typical  • of the contactor with added auxiliary switch block typical  reference code according to IEC 81346-2  Substance Prohibitance (Date)  10 000 000  Q  10/01/2009	of contactor typical	10 000 000
reference code according to IEC 81346-2 Q Substance Prohibitance (Date) 10/01/2009		5 000 000
Substance Prohibitance (Date) 10/01/2009	<ul> <li>of the contactor with added auxiliary switch block typical</li> </ul>	10 000 000
· ·	reference code according to IEC 81346-2	Q
Ambient conditions	Substance Prohibitance (Date)	10/01/2009
	Ambient conditions	
installation altitude at height above sea level maximum 2 000 m	installation altitude at height above sea level maximum	2 000 m
ambient temperature	ambient temperature	
• during operation -25 +60 °C	<ul> <li>during operation</li> </ul>	-25 +60 °C
• during storage -55 +80 °C	during storage	-55 +80 °C
relative humidity minimum 10 %	relative humidity minimum	10 %
relative humidity at 55 °C according to IEC 60068-2-30 95 % maximum		95 %
Environmental footprint	Environmental footprint	
Environmental Product Declaration(EPD)  Yes	Environmental Product Declaration(EPD)	Yes

Global Warming Potential [CO2 eq] total	221 kg
Global Warming Potential [CO2 eq] during manufacturing	2.65 kg
Global Warming Potential [CO2 eq] during operation	219 kg
Global Warming Potential [CO2 eq] after end of life	-0.639 kg
Main circuit	
number of poles for main current circuit	3
number of NO contacts for main contacts	3
operating voltage	
<ul> <li>at AC-3 rated value maximum</li> </ul>	690 V
at AC-3e rated value maximum	690 V
operational current	
<ul> <li>at AC-1 at 400 V at ambient temperature 40 °C rated value</li> </ul>	40 A
• at AC-1	
— up to 690 V at ambient temperature 40 °C rated	40 A
value	
<ul> <li>up to 690 V at ambient temperature 60 °C rated value</li> </ul>	35 A
• at AC-3	
— at 400 V rated value	17 A
— at 500 V rated value	17 A
— at 690 V rated value	13 A
• at AC-3e	
— at 400 V rated value	17 A
— at 500 V rated value	17 A
— at 690 V rated value	13 A
<ul> <li>at AC-4 at 400 V rated value</li> </ul>	15.5 A
<ul> <li>at AC-5a up to 690 V rated value</li> </ul>	35.2 A
• at AC-5b up to 400 V rated value	14.1 A
• at AC-6a	
— up to 230 V for current peak value n=20 rated value	11.4 A
<ul> <li>up to 400 V for current peak value n=20 rated value</li> </ul>	11.4 A
— up to 500 V for current peak value n=20 rated value	11.4 A
<ul> <li>up to 690 V for current peak value n=20 rated value</li> </ul>	11.3 A
• at AC-6a	
— up to 230 V for current peak value n=30 rated value	7.6 A
— up to 400 V for current peak value n=30 rated value	7.6 A
— up to 500 V for current peak value n=30 rated value	7.6 A
— up to 690 V for current peak value n=30 rated value	7.6 A
minimum cross-section in main circuit at maximum AC-1 rated value	10 mm <sup>2</sup>
operational current for approx. 200000 operating cycles at	
AC-4  • at 400 V rated value	7.7 A
at 400 V rated value     at 690 V rated value	7.7 A
operational current	
• at 1 current path at DC-1	
— at 24 V rated value	35 A
— at 60 V rated value	20 A
— at 110 V rated value	4.5 A
— at 220 V rated value	1 A
— at 440 V rated value	0.4 A
— at 600 V rated value	0.25 A
• with 2 current paths in series at DC-1	
— at 24 V rated value	35 A
— at 60 V rated value	35 A
— at 110 V rated value	35 A
— at 220 V rated value	5 A
— at 440 V rated value	1 A
— at 600 V rated value	0.8 A
<ul> <li>with 3 current paths in series at DC-1</li> </ul>	
— at 24 V rated value	35 A

— at 60 V rated value	35 A
— at 110 V rated value	35 A
— at 220 V rated value	35 A
— at 440 V rated value	2.9 A
— at 600 V rated value	1.4 A
<ul> <li>at 1 current path at DC-3 at DC-5</li> </ul>	
— at 24 V rated value	20 A
— at 60 V rated value	5 A
— at 110 V rated value	2.5 A
— at 220 V rated value	1 A
— at 440 V rated value	0.09 A
— at 600 V rated value	0.06 A
<ul> <li>with 2 current paths in series at DC-3 at DC-5</li> </ul>	
— at 24 V rated value	35 A
— at 60 V rated value	35 A
— at 110 V rated value	15 A
— at 220 V rated value	3 A
— at 440 V rated value	0.27 A
	0.16 A
— at 600 V rated value	0.10 A
with 3 current paths in series at DC-3 at DC-5     at 24 V reted value.	25 A
— at 24 V rated value	35 A
— at 60 V rated value	35 A
— at 110 V rated value	35 A
— at 220 V rated value	10 A
— at 440 V rated value	0.6 A
— at 600 V rated value	0.6 A
operating power	
• at AC-3	
— at 230 V rated value	4 kW
— at 400 V rated value	7.5 kW
— at 500 V rated value	7.5 kW
— at 690 V rated value	11 kW
• at AC-3e	
— at 230 V rated value	4 kW
— at 400 V rated value	7.5 kW
— at 500 V rated value	7.5 kW
— at 690 V rated value	11 kW
operating power for approx. 200000 operating cycles at AC-	
at 400 V rated value	3.5 kW
at 690 V rated value	6 kW
operating apparent power at AC-6a	
up to 230 V for current peak value n=20 rated value	4.5 kVA
up to 400 V for current peak value n=20 rated value  up to 400 V for current peak value n=20 rated value	7.8 kVA
up to 500 V for current peak value n=20 rated value  up to 500 V for current peak value n=20 rated value	9.9 kVA
up to 690 V for current peak value n=20 rated value  up to 690 V for current peak value n=20 rated value	13.6 kVA
operating apparent power at AC-6a	10.0 N/V1
up to 230 V for current peak value n=30 rated value	3 kVA
up to 400 V for current peak value n=30 rated value  up to 400 V for current peak value n=30 rated value	5.2 kVA
up to 500 V for current peak value n=30 rated value  up to 500 V for current peak value n=30 rated value	6.6 kVA
<ul> <li>up to 500 V for current peak value n=30 rated value</li> <li>up to 690 V for current peak value n=30 rated value</li> </ul>	9.1 kVA
short-time withstand current in cold operating state up to	V. 1 KVA
40 °C	
<ul> <li>limited to 1 s switching at zero current maximum</li> </ul>	225 A; Use minimum cross-section acc. to AC-1 rated value
<ul> <li>limited to 5 s switching at zero current maximum</li> </ul>	225 A; Use minimum cross-section acc. to AC-1 rated value
<ul> <li>limited to 10 s switching at zero current maximum</li> </ul>	189 A; Use minimum cross-section acc. to AC-1 rated value
• limited to 30 s switching at zero current maximum	140 A; Use minimum cross-section acc. to AC-1 rated value
• limited to 60 s switching at zero current maximum	115 A; Use minimum cross-section acc. to AC-1 rated value
no-load switching frequency	
• at DC	1 500 1/h
operating frequency	

	4 000 4 11
• at AC-1 maximum	1 000 1/h
• at AC-2 maximum	1 000 1/h
• at AC-3 maximum	1 000 1/h
• at AC-3e maximum	1 000 1/h
at AC-4 maximum	300 1/h
Control circuit/ Control	
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	
• initial value	0.8
• full-scale value	1.1
closing power of magnet coil at DC	5.9 W
holding power of magnet coil at DC	5.9 W
closing delay  • at DC	50 170 ms
opening delay	OO 170 IIIO
• at DC	15 18 ms
arcing time	10 10 ms
control version of the switch operating mechanism	Standard A1 - A2
Auxiliary circuit	
number of NC contacts for auxiliary contacts instantaneous contact	1
number of NO 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     at 440 V rated value	2 A
at 110 V rated value     at 125 V rated value	1.4
<ul><li>at 125 V rated value</li><li>at 220 V rated value</li></ul>	0.9 A
<ul><li>at 220 V rated value</li><li>at 600 V rated value</li></ul>	0.3 A 0.1 A
• at 600 v rated value  contact reliability of auxiliary contacts	1 faulty switching per 100 million (17 V, 1 mA)
UL/CSA ratings	Tradity Switching per 100 million (17 V, 1 m/)
full-load current (FLA) for 3-phase AC motor	
at 480 V rated value	14 A
at 400 V rated value     at 600 V rated value	17 A
yielded mechanical performance [hp]	
• for single-phase AC motor	
— at 110/120 V rated value	1 hp
— at 230 V rated value	3 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 E7E/600 \/ rated value	
<ul> <li>— at 575/600 V rated value</li> </ul>	15 hp

contact rating of auxiliary contacts according to UL	A600 / P600
Short-circuit protection	
design of the fuse link	
<ul> <li>for short-circuit protection of the main circuit</li> </ul>	
<ul> <li>— with type of coordination 1 required</li> </ul>	gG: 63A (690V,100kA), aM: 32A (690V,100kA), BS88: 63A (415V,80kA)
<ul> <li>— with type of assignment 2 required</li> </ul>	gG: 25A (690V,100kA), aM: 20A (690V,100kA), BS88: 25A (415V,80kA)
• for short-circuit protection of the auxiliary switch required	gG: 10 A (500 V, 1 kA)
Installation/ mounting/ dimensions	
mounting position	+/-180° rotation possible on vertical mounting surface; can be tilted forward and backward by +/- 22.5° on vertical mounting surface
- factoring weeth od	construent and construent contract of the DIN STATE CONTRACT OF THE CONTRACT O
fastening method	screw and snap-on mounting onto 35 mm DIN rail according to DIN EN 60715
fastening method side-by-side mounting	Yes
height	85 mm
width	45 mm
depth	107 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	
• for main current circuit	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 Screw-type terminals
type of connectable conductor cross-sections	Sciew-type terminals
• for main contacts	2v /1 2 5 mm²) 2v /2 5 40 mm²)
— solid	2x (1 2.5 mm²), 2x (2.5 10 mm²)
— solid or stranded	2x (1 2.5 mm²), 2x (2.5 10 mm²)
— finely stranded with core end processing	2x (1 2.5 mm²), 2x (2.5 6 mm²), 1x 10 mm²
for AWG cables for main contacts	2x (16 12), 2x (14 8)
connectable conductor cross-section for main contacts	4. 40. 0
• solid	1 10 mm²
• stranded	1 10 mm²
finely stranded with core end processing	1 10 mm²
connectable conductor cross-section for auxiliary contacts	
<ul> <li>solid or stranded</li> </ul>	0.5 2.5 mm²
finely stranded with core end processing	0.5 2.5 mm²
type of connectable conductor cross-sections	
for auxiliary contacts	
<ul> <li>solid or stranded</li> </ul>	2x (0.5 1.5 mm²), 2x (0.75 2.5 mm²)
<ul> <li>finely stranded with core end processing</li> </ul>	2x (0.5 1.5 mm²), 2x (0.75 2.5 mm²)
for AWG cables for auxiliary contacts	2x (20 16), 2x (18 14)
AWG number as coded connectable conductor cross section	
Section	
• for main contacts	16 8
	16 8 20 14

product function	
<ul> <li>mirror contact according to IEC 60947-4-1</li> </ul>	Yes
suitability for use safety-related switching OFF	Yes; applies only to contactor operating mechanism
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 %
B10 value with high demand rate according to SN 31920	1 000 000
failure rate [FIT] with low demand rate according to SN 31920	100 FIT
IEC 61508	
T1 value	
<ul> <li>for proof test interval or service life according to IEC 61508</li> </ul>	20 a
Electrical Safety	
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
Approvals Certificates	

## **General Product Approval**







Confirmation





**General Product Approval** 

**EMV** 

**Functional Saftey** 

**Test Certificates** 

<u>KC</u>





Type Examination Cer**tificate** 

Type Test Certificates/Test Report

**Special Test Certific-**<u>ate</u>

**Test Certificates** 

Marine / Shipping

**Miscellaneous** 











Marine / Shipping

other

**Dangerous Good** 

**Environment** 



**Miscellaneous** 

Confirmation

**Transport Information** 



## Further information

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=3RT2025-1BB40

Cax online generator

http://support.automation.siemens.com/WW/CAXorder/default.aspx?lang=en&mlfb=3RT2025-1BB40

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

https://support.industry.siemens.com/cs/ww/en/ps/3RT2025-1BB40

Image database (product images, 2D dimension drawings, 3D models, device circuit diagrams, EPLAN macros, ...)

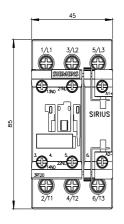
http://www.automation.siemens.com/bilddb/cax\_de.aspx?mlfb=3RT2025-1BB40&lang=en

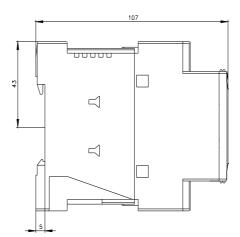
Characteristic: Tripping characteristics, I2t, Let-through current

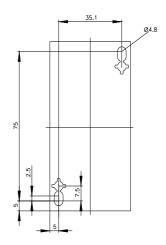
https://support.industry.siemens.com/cs/ww/en/ps/3RT2025-1BB40/char

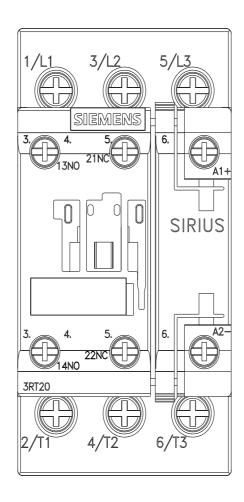
Further characteristics (e.g. electrical endurance, switching frequency)

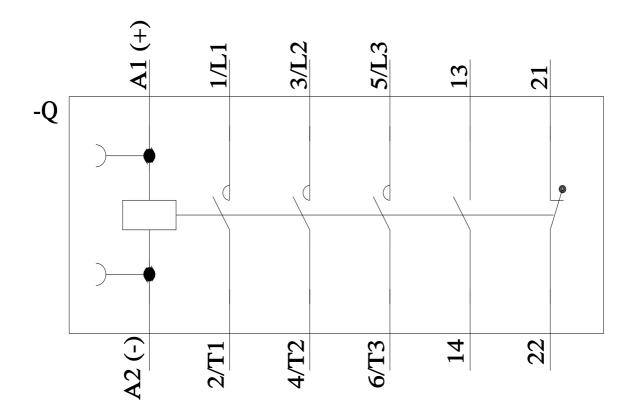
 $\underline{\text{http://www.automation.siemens.com/bilddb/index.aspx?view=Search\&mlfb=3RT2025-1BB40\&objecttype=14\&gridview=view1}$ 











last modified: 1/17/2024 🖸