## **SIEMENS**

Data sheet 3RT2026-1AF00

power contactor, AC-3 25 A, 11 kW / 400 V 1 NO + 1 NC, 110 V AC, 50 Hz, 3-pole, Size S0 screw terminal



product brand name	SIRIUS
product designation	Power contactor
product type designation	3RT2

size of contactor	S0
product extension	
<ul> <li>function module for communication</li> </ul>	No
auxiliary switch	Yes
power loss [W] for rated value of the current	
• at AC in hot operating state	4.8 W
• at AC in hot operating state per pole	1.6 W
power loss [W] for rated value of the current without load current share typical	9.8 W
surge voltage resistance	
of main circuit rated value	6 kV
• of auxiliary circuit rated value	6 kV
maximum permissible voltage for safe isolation	
<ul> <li>between coil and main contacts acc. to EN 60947-1</li> </ul>	400 V

protection class IP		
• on the front	IP20	
• of the terminal	IP20	
shock resistance at rectangular impulse		
• at AC	8,3g / 5 ms, 5,3g / 10 ms	
shock resistance with sine pulse		
• at AC	13,5g / 5 ms, 8,3g / 10 ms	
mechanical service life (switching cycles)		
of contactor typical	10 000 000	
<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 acc. to IEC 81346-2	Q	
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	
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	
operational current		
• at AC-1 at 400 V		
<ul><li>— at ambient temperature 40 °C rated value</li><li>• at AC-1</li></ul>	40 A	
·	40 A 40 A	
<ul><li>at AC-1</li><li>up to 690 V at ambient temperature 40 °C</li></ul>		
<ul> <li>at AC-1</li> <li>up to 690 V at ambient temperature 40 °C rated value</li> <li>up to 690 V at ambient temperature 60 °C</li> </ul>	40 A	
<ul> <li>at AC-1</li> <li>up to 690 V at ambient temperature 40 °C rated value</li> <li>up to 690 V at ambient temperature 60 °C rated value</li> </ul>	40 A	
<ul> <li>at AC-1</li> <li>up to 690 V at ambient temperature 40 °C rated value</li> <li>up to 690 V at ambient temperature 60 °C rated value</li> <li>at AC-3</li> </ul>	40 A 35 A	
<ul> <li>at AC-1</li> <li>up to 690 V at ambient temperature 40 °C rated value</li> <li>up to 690 V at ambient temperature 60 °C rated value</li> <li>at AC-3</li> <li>at 400 V rated value</li> </ul>	40 A 35 A 25 A	
<ul> <li>at AC-1         <ul> <li>up to 690 V at ambient temperature 40 °C rated value</li> <li>up to 690 V at ambient temperature 60 °C rated value</li> </ul> </li> <li>at AC-3         <ul> <li>at 400 V rated value</li> <li>at 500 V rated value</li> </ul> </li> </ul>	40 A 35 A 25 A 18 A	
<ul> <li>at AC-1         <ul> <li>up to 690 V at ambient temperature 40 °C rated value</li> <li>up to 690 V at ambient temperature 60 °C rated value</li> </ul> </li> <li>at AC-3         <ul> <li>at 400 V rated value</li> <li>at 500 V rated value</li> <li>at 690 V rated value</li> </ul> </li> <li>at AC-4 at 400 V rated value</li> </ul>	40 A 35 A 25 A 18 A 13 A	
<ul> <li>at AC-1         <ul> <li>up to 690 V at ambient temperature 40 °C rated value</li> <li>up to 690 V at ambient temperature 60 °C rated value</li> </ul> </li> <li>at AC-3         <ul> <li>at 400 V rated value</li> <li>at 500 V rated value</li> <li>at 690 V rated value</li> </ul> </li> </ul>	40 A 35 A 25 A 18 A 13 A 15.5 A	

<ul> <li>up to 230 V for current peak value n=20 rated value</li> </ul>	20.2 A
<ul> <li>up to 400 V for current peak value n=20 rated value</li> </ul>	20.2 A
<ul> <li>up to 500 V for current peak value n=20 rated value</li> </ul>	20.2 A
<ul> <li>up to 690 V for current peak value n=20 rated value</li> </ul>	12.9 A
• at AC-6a	
<ul><li>— up to 230 V for current peak value n=30 rated value</li></ul>	13.5 A
<ul> <li>up to 400 V for current peak value n=30 rated value</li> </ul>	13.5 A
<ul> <li>up to 500 V for current peak value n=30 rated value</li> </ul>	13.5 A
<ul><li>up to 690 V for current peak value n=30 rated value</li></ul>	13 A
minimum cross-section in main circuit	
• at maximum AC-1 rated value	10 mm²
operational current for approx. 200000 operating cycles at AC-4	
• at 400 V rated value	9 A
• at 690 V rated value	9 A
operational current	
• at 1 current path at DC-1	
— at 24 V rated value	35 A
— at 110 V rated value	4.5 A
— at 220 V rated value	1 A
— at 440 V rated value	0.4 A
— at 600 V rated value	0.25 A
<ul><li>with 2 current paths in series at DC-1</li></ul>	
— at 24 V rated value	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 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
operational current	

<ul> <li>at 1 current path at DC-3 at DC-5</li> </ul>	
— at 24 V rated value	20 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 110 V rated value	15 A
— at 220 V rated value	3 A
— at 440 V rated value	0.27 A
— at 600 V rated value	0.16 A
• with 3 current paths in series at DC-3 at DC-5	
— at 24 V rated value	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	5.5 kW
— at 400 V rated value	11 kW
— at 500 V rated value	11 kW
— at 690 V rated value	11 kW
operating power for approx. 200000 operating cycles at AC-4	
• at 400 V rated value	4.4 kW
• at 690 V rated value	7.7 kW
operating apparent power at AC-6a	
<ul> <li>up to 230 V for current peak value n=20 rated value</li> </ul>	8 kV·A
<ul> <li>up to 400 V for current peak value n=20 rated value</li> </ul>	13.9 kV·A
<ul> <li>up to 500 V for current peak value n=20 rated value</li> </ul>	17.4 kV·A
<ul> <li>up to 690 V for current peak value n=20 rated value</li> </ul>	15.4 kV·A
operating apparent power at AC-6a	
• up to 230 V for current peak value n=30 rated value	5.3 kV·A

<ul> <li>up to 500 V for current peak value n=30 rated value</li> </ul>	11.6 kV·A
<ul> <li>up to 690 V for current peak value n=30 rated value</li> </ul>	15.5 kV·A
short-time withstand current in cold operating state up to 40 °C	
<ul> <li>limited to 1 s switching at zero current maximum</li> </ul>	375 A; Use minimum cross-section acc. to AC-1 rated value
<ul> <li>limited to 5 s switching at zero current maximum</li> </ul>	299 A; Use minimum cross-section acc. to AC-1 rated value
<ul> <li>limited to 10 s switching at zero current maximum</li> </ul>	200 A; Use minimum cross-section acc. to AC-1 rated value
<ul> <li>limited to 30 s switching at zero current maximum</li> </ul>	128 A; Use minimum cross-section acc. to AC-1 rated value
<ul> <li>limited to 60 s switching at zero current maximum</li> </ul>	106 A; Use minimum cross-section acc. to AC-1 rated value
no-load switching frequency	
• at AC	5 000 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-4 maximum	250 1/h
Control circuit/ Control	

Control circuit/ Control	
type of voltage of the control supply voltage	AC
control supply voltage at AC	
● at 50 Hz rated value	110 V
operating range factor control supply voltage rated	
value of magnet coil at AC	
● at 50 Hz	0.8 1.1
apparent pick-up power of magnet coil at AC	
● at 50 Hz	77 V·A
inductive power factor with closing power of the coil	
● at 50 Hz	0.82
apparent holding power of magnet coil at AC	
● at 50 Hz	9.8 V·A
inductive power factor with the holding power of the	
coil	
● at 50 Hz	0.25
closing delay	
• at AC	8 40 ms
opening delay	
• at AC	4 16 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	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	21 A		
• at 600 V rated value	22 A		
yielded mechanical performance [hp]			
• for single-phase AC motor			
— at 110/120 V rated value	2 hp		
— at 230 V rated value	3 hp		
• for 3-phase AC motor			
— at 200/208 V rated value	5 hp		
— at 220/230 V rated value	7.5 hp		

— at 460/480 V rated value	15 hp
— at 575/600 V rated value	20 hp
contact rating of auxiliary contacts according to UL	A600 / P600

100 kA), aM: 50 A (690 V, 100 kA), BS88: 100
0kA), aM: 20A (690V, 100kA), BS88: 35A

(415V, 80kA)

• for short-circuit protection of the auxiliary switch required

gG: 10 A (500 V, 1 kA)

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 standard mounting rail
	according to DIN EN 60715
<ul><li>side-by-side mounting</li></ul>	Yes
height	85 mm
width	45 mm
depth	97 mm
required spacing	
<ul><li>with side-by-side mounting</li></ul>	
— forwards	10 mm
— upwards	10 mm
— downwards	10 mm
— at the side	0 mm
• for grounded parts	
— forwards	10 mm
— upwards	10 mm
— at the side	6 mm
— downwards	10 mm
• for live parts	
— forwards	10 mm
— upwards	10 mm
— downwards	10 mm
— at the side	6 mm

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pe 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	Ociew-type terminals
• for main contacts	
— solid	2x (1 2.5 mm²), 2x (2.5 10 mm²)
solid     solid or stranded	2x (1 2,5 mm²), 2x (2,5 10 mm²)
	2x (1 2.5 mm²), 2x (2.5 6 mm²), 1x 10 mm²
<ul> <li>finely stranded with core end processing</li> <li>at AWG cables for main contacts</li> </ul>	2x (16 12), 2x (14 8)
connectable conductor cross-section for main	2 \(\( \( \) \) \( \)
contacts	
• solid	1 10 mm²
• stranded	1 10 mm²
• finely stranded with core end processing	1 10 mm²
connectable conductor cross-section for auxiliary	
contacts	
• solid or stranded	0.5 2.5 mm <sup>2</sup>
<ul> <li>finely stranded with core end processing</li> </ul>	0.5 2.5 mm <sup>2</sup>
<ul> <li>type of connectable conductor cross-sections for auxiliary contacts</li> </ul>	
— solid or stranded	2x (0,5 1,5 mm²), 2x (0,75 2,5 mm²)
— finely stranded with core end processing	2x (0.5 1.5 mm²), 2x (0.75 2.5 mm²)
<ul> <li>type of connectable conductor cross-sections at AWG cables for auxiliary contacts</li> </ul>	2x (20 16), 2x (18 14)
AWG number as coded connectable conductor cross	
section	
• for main contacts	16 8
• for auxiliary contacts	20 14
Safety related data	
B10 value	
<ul> <li>with high demand rate acc. to SN 31920</li> </ul>	1 000 000
proportion of dangerous failures	
<ul> <li>with low demand rate acc. to SN 31920</li> </ul>	40 %
<ul> <li>with high demand rate acc. to SN 31920</li> </ul>	73 %
failure rate [FIT]	
<ul> <li>with low demand rate acc. to SN 31920</li> </ul>	100 FIT
product function	
• mirror contact acc. to IEC 60947-4-1	Yes
T1 value for proof test interval or service life acc. to IEC 61508	20 y
touch protection against electrical shock	finger-safe
suitability for use safety-related switching OFF	Yes

Certificates/ approvals

## **General Product Approval**







KC





**EMC** 

**Declaration of Conformity** 

**Test Certificates** 

Marine / Shipping



Miscellaneous

Type Test Certificates/Test Report

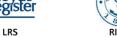
Special Test Certificate





## Marine / Shipping









Confirmation

other



Further information

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=3RT2026-1AF00

Cax online generator

http://support.automation.siemens.com/WW/CAXorder/default.aspx?lang=en&mlfb=3RT2026-1AF00

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

https://support.industry.siemens.com/cs/ww/en/ps/3RT2026-1AF00

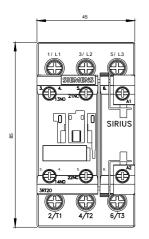
Image database (product images, 2D dimension drawings, 3D models, device circuit diagrams, EPLAN macros, ...) http://www.automation.siemens.com/bilddb/cax\_de.aspx?mlfb=3RT2026-1AF00&lang=en

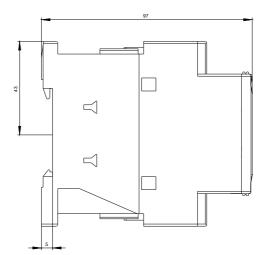
Characteristic: Tripping characteristics, I²t, Let-through current

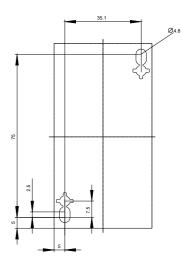
https://support.industry.siemens.com/cs/ww/en/ps/3RT2026-1AF00/char

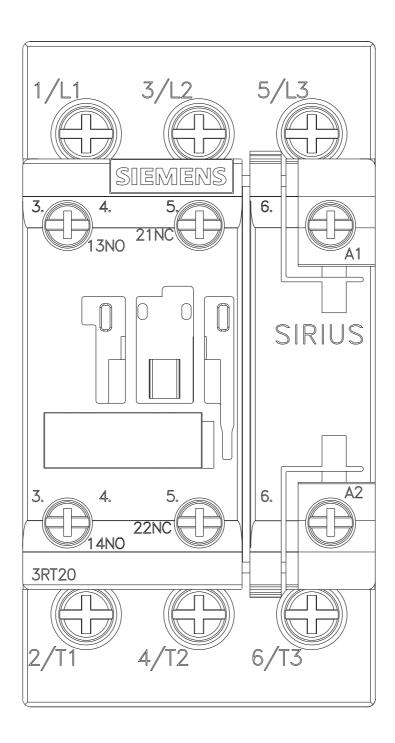
Further characteristics (e.g. electrical endurance, switching frequency)

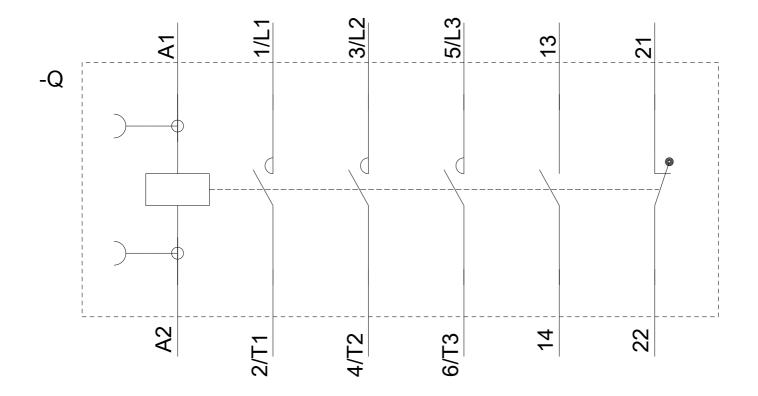
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