3RT2015-2BB44-3MA0

Data sheet



power contactor, AC-3e/AC-3, 7 A, 3 kW / 400 V, 3-pole, 24 V DC, auxiliary contacts: 2 NO + 2 NC, spring-loaded terminal, size: S00, captive auxiliary switch

product designation Power product type designation 3RT2	ver contactor
product type designation 3RT	Γ2
General technical data	
size of contactor S00	
product extension	
• function module for communication No	
• auxiliary switch No	
power loss [W] for rated value of the current	
• at AC in hot operating state 0.6 V	W
• at AC in hot operating state per pole 0.2 V	W
• without load current share typical 4 W	
insulation voltage	
• of main circuit with degree of pollution 3 rated value 690	V
• of auxiliary circuit with degree of pollution 3 rated value 690	V
surge voltage resistance	
• of main circuit rated value 6 kV	\checkmark
• of auxiliary circuit rated value 6 kV	\checkmark
maximum permissible voltage for protective separation between coil and main contacts according to EN 60947-1	V
shock resistance at rectangular impulse	
• at DC 6,7g	g / 5 ms, 4,2g / 10 ms
shock resistance with sine pulse	
• at DC 10,5	5g / 5 ms, 6,6g / 10 ms
mechanical service life (operating cycles)	
• of contactor typical 10 0	000 000
 of the contactor with added electronically optimized auxiliary switch block typical 	00 000
• of the contactor with added auxiliary switch block typical 10 0	000 000
reference code according to IEC 81346-2 Q	
Substance Prohibitance (Date) 10/0	01/2009
Ambient conditions	
installation altitude at height above sea level maximum 2 000	00 m
ambient temperature	
• during operation -25 .	+60 °C
• during storage -55 .	+80 °C
relative humidity minimum 10 %	%
relative humidity at 55 °C according to IEC 60068-2-30 95 % maximum	%
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
at AC-3e rated value maximum	690 V
operational current	
 at AC-1 at 400 V at ambient temperature 40 °C rated 	18 A
value	
• at AC-1	
— up to 690 V at ambient temperature 40 °C rated	18 A
value	40.4
 up to 690 V at ambient temperature 60 °C rated value 	16 A
• at AC-3	
— at 400 V rated value	7 A
— at 500 V rated value	6 A
— at 690 V rated value	4.9 A
• at AC-3e	7.071
— at 400 V rated value	7 A
— at 500 V rated value	6 A
— at 690 V rated value	4.9 A
at AC-4 at 400 V rated value at AC-5 up to 600 V rated value	6.5 A
at AC-5a up to 690 V rated value	15.8 A
at AC-5b up to 400 V rated value	5.8 A
• at AC-6a	
 up to 230 V for current peak value n=20 rated value 	4 A
— up to 400 V for current peak value n=20 rated value	4 A
 up to 500 V for current peak value n=20 rated value 	3.8 A
 up to 690 V for current peak value n=20 rated value 	3.6 A
• at AC-6a	
 up to 230 V for current peak value n=30 rated value 	2.7 A
 up to 400 V for current peak value n=30 rated value 	2.7 A
 up to 500 V for current peak value n=30 rated value 	2.5 A
 up to 690 V for current peak value n=30 rated value 	2.4 A
minimum cross-section in main circuit at maximum AC-1 rated value	2.5 mm²
operational current for approx. 200000 operating cycles at	
AC-4	
at 400 V rated value	2.6 A
at 690 V rated value	1.8 A
operational current	
at 1 current path at DC-1	
— at 24 V rated value	15 A
— at 60 V rated value	15 A
— at 110 V rated value	1.5 A
— at 220 V rated value	0.6 A
— at 440 V rated value	0.42 A
— at 600 V rated value	0.42 A
 with 2 current paths in series at DC-1 	
— at 24 V rated value	15 A
— at 60 V rated value	15 A
— at 110 V rated value	8.4 A
— at 220 V rated value	1.2 A
— at 440 V rated value	0.6 A
— at 600 V rated value	0.5 A
with 3 current paths in series at DC-1	
-	15 A
— at 24 V rated value	15 A
— at 60 V rated value	15 A
— at 110 V rated value	15 A
— at 220 V rated value	15 A
— at 440 V rated value	0.9 A
— at 600 V rated value	0.7 A
 at 1 current path at DC-3 at DC-5 	

— at 24 V rated value	15 A
— at 60 V rated value	0.35 A
 with 2 current paths in series at DC-3 at DC-5 	
— at 24 V rated value	15 A
— at 60 V rated value	3.5 A
— at 110 V rated value	0.25 A
 with 3 current paths in series at DC-3 at DC-5 	
— at 24 V rated value	15 A
— at 60 V rated value	15 A
— at 110 V rated value	15 A
— at 220 V rated value	1.2 A
— at 440 V rated value	0.14 A
— at 600 V rated value	0.14 A
operating power	
• at AC-3	
— at 230 V rated value	1.5 kW
— at 400 V rated value	3 kW
— at 500 V rated value	3 kW
— at 690 V rated value	4 kW
• at AC-3e	
— at 230 V rated value	1.5 kW
— at 400 V rated value	3 kW
— at 500 V rated value	3 kW
— at 690 V rated value	4 kW
operating power for approx. 200000 operating cycles at AC-	
4	
 at 400 V rated value 	1.15 kW
at 690 V rated value	1.15 kW
operating apparent power at AC-6a	
 up to 230 V for current peak value n=20 rated value 	1.5 kVA
 up to 400 V for current peak value n=20 rated value 	2.7 kVA
 up to 500 V for current peak value n=20 rated value 	3.3 kVA
• up to 690 V for current peak value n=20 rated value	4.3 kVA
operating apparent power at AC-6a	
 up to 230 V for current peak value n=30 rated value 	1 kVA
 up to 400 V for current peak value n=30 rated value 	1.8 kVA
 up to 500 V for current peak value n=30 rated value 	2.2 kVA
 up to 690 V for current peak value n=30 rated value 	2.9 kVA
short-time withstand current in cold operating state up to 40 $^{\circ}\text{C}$	
 limited to 1 s switching at zero current maximum 	120 A; Use minimum cross-section acc. to AC-1 rated value
 limited to 5 s switching at zero current maximum 	86 A; Use minimum cross-section acc. to AC-1 rated value
 limited to 10 s switching at zero current maximum 	67 A; Use minimum cross-section acc. to AC-1 rated value
• limited to 30 s switching at zero current maximum	52 A; Use minimum cross-section acc. to AC-1 rated value
• limited to 60 s switching at zero current maximum	43 A; Use minimum cross-section acc. to AC-1 rated value
no-load switching frequency	
• at DC	10 000 1/h
operating frequency	
• at AC-1 maximum	1 000 1/h
• at AC-2 maximum	750 1/h
• at AC-3 maximum	750 1/h
• at AC-3e maximum	750 1/h
• at AC-4 maximum	250 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	4 W

4 W
30 100 ms
7 13 ms
10 15 ms
Standard A1 - A2
2
2
10 A
6 A
3 A
2 A
1 A
10 A
6 A
6 A
3 A
2 A
1 A
0.15 A
6 A
2 A
2 A
1 A
0.9 A
0.3 A
0.1 A
1 faulty switching per 100 million (17 V, 1 mA)
4.8 A
6.1 A
0.170
0.25 hp
0.75 hp
0.75 hp
1.5 hp
1.5 hp 2 hp
1.5 hp 2 hp 3 hp
1.5 hp 2 hp 3 hp 5 hp
1.5 hp 2 hp 3 hp
1.5 hp 2 hp 3 hp 5 hp
1.5 hp 2 hp 3 hp 5 hp
1.5 hp 2 hp 3 hp 5 hp A600 / Q600
1.5 hp 2 hp 3 hp 5 hp A600 / Q600 gG: 35A (690V,100kA), aM: 20A (690V,100kA), BS88: 35A (415V,80kA)
1.5 hp 2 hp 3 hp 5 hp A600 / Q600 gG: 35A (690V,100kA), aM: 20A (690V,100kA), BS88: 35A (415V,80kA) gG: 20A (690V,100kA), aM: 16A (690V, 100kA), BS88: 20A (415V, 80kA)
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1.5 hp 2 hp 3 hp 5 hp A600 / Q600 gG: 35A (690V,100kA), aM: 20A (690V,100kA), BS88: 35A (415V,80kA) gG: 20A (690V,100kA), aM: 16A (690V, 100kA), BS88: 20A (415V, 80kA) gG: 10 A (500 V, 1 kA) +/-180° rotation possible on vertical mounting surface; can be tilted forward and backward by +/- 22.5° on vertical mounting surface
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width	45 mm
depth	121 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	spring-loaded terminals
 for auxiliary and control circuit 	spring-loaded terminals
 at contactor for auxiliary contacts 	Spring-type terminals
of magnet coil	Spring-type terminals
type of connectable conductor cross-sections for main contacts	
• solid	2x (0.5 4 mm²)
 solid or stranded 	2x (0,5 4 mm²)
 finely stranded with core end processing 	2x (0.5 2.5 mm²)
 finely stranded without core end processing 	2x (0.5 2.5 mm²)
connectable conductor cross-section for main contacts	
• solid	0.5 4 mm²
• stranded	0.5 4 mm²
 finely stranded with core end processing 	0.5 2.5 mm ²
 finely stranded without core end processing 	0.5 2.5 mm ²
connectable conductor cross-section for auxiliary contacts	
 solid or stranded 	0.5 4 mm²
 finely stranded with core end processing 	0.5 2.5 mm ²
 finely stranded without core end processing 	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 mm²)
 finely stranded without core end processing 	2x (0.5 2.5 mm²)
 for AWG cables for auxiliary contacts 	2x (20 12)
AWG number as coded connectable conductor cross section	
• for main contacts	20 12
for auxiliary contacts	20 12
Safety related data	
product function	
 mirror contact according to IEC 60947-4-1 	Yes
 positively driven operation according to IEC 60947-5-1 	No
B10 value with high demand rate according to SN 31920	1 000 000
proportion of dangerous failures	
 with low demand rate according to SN 31920 	40 %
 with high demand rate according to SN 31920 	73 %
failure rate [FIT] with low demand rate according to SN 31920	100 FIT
T1 value for proof test interval or service life according to IEC 61508	20 a
protection class IP on the front according to IEC 60529	IP20
touch protection on the front according to IEC 60529	finger-safe, for vertical contact from the front

suitability for use

• safety-related switching OFF

Yes

Certificates/ approvals

General Product Approval



Confirmation





<u>KC</u>



EMC

Functional Safety/Safety of Machinery

Declaration of Conformity

Test Certificates



Type Examination Certificate





Type Test Certificates/Test Report

Special Test Certificate

Marine / Shipping













Marine / Shipping

other

Railway

Dangerous Good

Environment



Confirmation



Vibration and Shock

Transport Information

Environmental Confirmations

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=3RT2015-2BB44-3MA0

Cax online generator

http://support.automation.siemens.com/WW/CAXorder/default.aspx?lang=en&mlfb=3RT2015-2BB44-3MA0

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

https://support.industry.siemens.com/cs/ww/en/ps/3RT2015-2BB44-3MA0

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

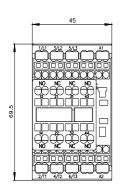
http://www.automation.siemens.com/bilddb/cax_de.aspx?mlfb=3RT2015-2BB44-3MA0&lang=en

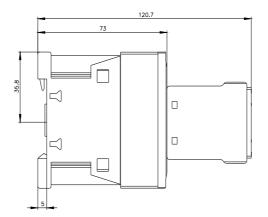
Characteristic: Tripping characteristics, I²t, Let-through current

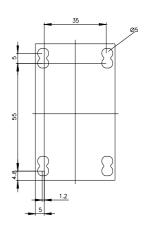
https://support.industry.siemens.com/cs/ww/en/ps/3RT2015-2BB44-3MA0/char

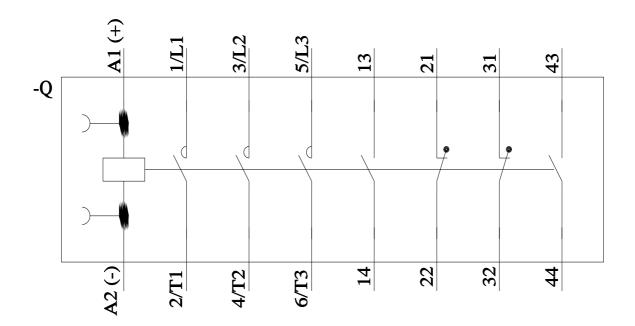
Further characteristics (e.g. electrical endurance, switching frequency)

http://www.automation.siemens.com/bilddb/index.aspx?view=Search&mlfb=3RT2015-2BB44-3MA0&objecttype=14&gridview=view1









last modified:

2/10/2023

