## **SIEMENS**

### Data sheet

### 3RT2015-2BF48-3MA5



CONTACTOR, AC-3, 3KW/400V, 1NC, VERTICAL MOUNTING POSITION DC 110V 3-POLE, SIZE S00 SPRING-LOADED TERMINAL PERMANENT AUXILIARY SWITCH 13/14 31/32\_/\_41/42 CENTER AUX. NC CONTACT CURRENT PATH UNEQUIPPED

, igai o on ma	
product brand name	SIRIUS
Product designation	3RT2 contactor

Insulation voltage		
Rated value	V	690
Degree of pollution		3
Surge voltage resistance Rated value	kV	6
Mechanical service life (switching cycles)		
of the contactor typical		10 000 000
<ul> <li>of the contactor with added electronics- compatible 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
Thermal short-time current restricted to 10 s	Α	56
Protection class IP		
• on the front		IP20
of the terminal		IP20
Equipment marking		
• acc. to DIN EN 61346-2		Q
• acc. to DIN EN 81346-2		Q

Main circuit:		
Number of poles for main current circuit	3	
Number of NC contacts for main contacts	0	
Number of NO contacts for main contacts	3	
Operating voltage		

<ul> <li>at AC-3 Rated value maximum</li> </ul>	V	690
Operating current		
● at AC-1		
<ul> <li>at 400 V at ambient temperature 40 °C</li> <li>Rated value</li> </ul>	Α	18
— up to 690 V at ambient temperature 40 °C Rated value	Α	18
— up to 690 V at ambient temperature 60 °C Rated value	Α	16
• at AC-2 at 400 V Rated value	Α	7
• at AC-3		
— at 400 V Rated value	Α	7
— at 500 V Rated value	Α	6
— at 690 V Rated value	Α	4.9
• at AC-4 at 400 V Rated value	Α	6.5
Operating current with 1 current path		
• at DC-1		
— at 24 V Rated value	Α	15
— at 110 V Rated value	Α	1.5
— at 220 V Rated value	Α	0.6
— at 440 V Rated value	Α	0.42
— at 600 V Rated value	Α	0.42
• at DC-3 at DC-5		
— at 24 V Rated value	Α	15
— at 110 V Rated value	Α	0.1
Operating current with 2 current paths in series		
• at DC-1		
— at 24 V Rated value	Α	15
— at 110 V Rated value	Α	8.4
— at 220 V Rated value	Α	1.2
— at 440 V Rated value	Α	0.6
— at 600 V Rated value	Α	0.5
• at DC-3 at DC-5		
— at 110 V Rated value	Α	0.25
— at 24 V Rated value	Α	15
Operating current with 3 current paths in series		
• at DC-1		
— at 24 V Rated value	Α	15
— at 110 V Rated value	Α	15
— at 220 V Rated value	Α	15
— at 440 V Rated value	Α	0.9
— at 600 V Rated value	Α	0.7

• at DC-3 at DC-5		
— at 110 V Rated value	Α	15
— at 220 V Rated value	Α	1.2
— at 24 V Rated value	Α	15
— at 440 V Rated value	Α	0.14
— at 600 V Rated value	Α	0.14
Operating power		~
at AC-1 at 400 V Rated value	kW	11
at AC-2 at 400 V Rated value	kW	3
• at AC-4 at 400 V Rated value	kW	3
Operating power		ů
• at AC-1		
— at 230 V at 60 °C Rated value	kW	6
— at 230 V Rated value	kW	6.3
— at 400 V at 60 °C Rated value	kW	10.5
— at 690 V at 60 °C Rated value	kW	18
— at 690 V Rated value	kW	19
at AC-3	KVV	
— at 230 V Rated value	kW	1.5
— at 250 V Rated value  — at 400 V Rated value	kW	3
	kW	4
— at 690 V Rated value	KVV	4
Operating power for ≥ 200000 operating cycles at AC-4		
• at 400 V Rated value	kW	1.15
● at 690 V Rated value	kW	1.15
Operating frequency		
• at AC-3 maximum	1/h	750
Control circuit/ Control:		
Type of voltage of the control supply voltage		DC
Control supply voltage for DC		
Rated value	V	110
Operating range factor control supply voltage rated value of the magnet coil for DC		0.8 1.1
Closing power of the magnet coil for DC	W	4
Holding power of the magnet coil for DC	W	4
Auxiliary circuit:		
Number of NC contacts		
• for auxiliary contacts		
— instantaneous contact		4
Number of NO contacts		
<ul><li>for auxiliary contacts</li></ul>		

<ul> <li>instantaneous contact</li> </ul>		1
Product expansion Auxiliary switch		No
Operating current at AC-15		
● at 230 V Rated value	Α	6
● at 400 V Rated value	Α	3
● at 690 V Rated value	Α	1
Operating current		
at DC-12 at 125 V Rated value	Α	2
• at DC-12 at 220 V Rated value	Α	1
● at DC-12 at 600 V Rated value	Α	0.15
● at DC-13 at 125 V Rated value	Α	0.9
● at DC-13 at 220 V Rated value	Α	0.3
• at DC-13 at 600 V Rated value	Α	0.1
Operating current		
● at DC-12		
— at 60 V Rated value	Α	6
— at 110 V Rated value	Α	3
• at DC-13		
— at 24 V Rated value	Α	6
— at 60 V Rated value	Α	2
— at 110 V Rated value	Α	1
Contact reliability of the auxiliary contacts		1 faulty switching per 100 million (17 V, 1 mA)
UL/CSA ratings:		
Full-load current (FLA) for three-phase AC motor		
● at 480 V Rated value	Α	4.8
• at 600 V Rated value	Α	6.1
yielded mechanical performance [hp]		

UL/CSA ratings:		
Full-load current (FLA) for three-phase AC motor		
• at 480 V Rated value	Α	4.8
• at 600 V Rated value	Α	6.1
yielded mechanical performance [hp]		
<ul> <li>• for single-phase AC motor at 110/120 V Rated value</li> </ul>	metric hp	0.25
<ul> <li>for single-phase AC motor at 230 V Rated value</li> </ul>	metric hp	0.75
<ul> <li>for three-phase AC motor at 200/208 V Rated value</li> </ul>	metric hp	1.5
<ul> <li>for three-phase AC motor at 220/230 V Rated value</li> </ul>	metric hp	2
<ul> <li>for three-phase AC motor at 460/480 V Rated value</li> </ul>	metric hp	3
<ul> <li>for three-phase AC motor at 575/600 V Rated value</li> </ul>	metric hp	5
Contact rating of the auxiliary contacts acc. to UL		A600 / Q600

Short-circuit:		
Design of the fuse link		

• for short-circuit protection of the main circuit

— with type of assignment 1 required

— with type of assignment 2 required

• for short-circuit protection of the auxiliary switch required

gL/gG LV HRC 3NA, DIAZED 5SB, NEOZED 5SE:

35 A

gL/gG LV HRC 3NA, DIAZED 5SB, NEOZED 5SE:

20 A

fuse gL/gG: 10 A

surface; can be tilted forward and backward by +/- 22.5° on vertical mounting surface screw and snap-on mounting onto 35 mm standard mounting rail according to DIN EN 50022 Yes  Height mm 69.5  Width mm 45  Depth mm 121  Required spacing  • with side-by-side mounting — forwards mm 0 — at the side mm 0 — of or grounded parts — forwards mm 0 — at the side mm 0 — at the side mm 0 — at the side mm 0 — of or grounded parts — forwards mm 0 — at the side mm 0 — of or grounded parts — forwards mm 0 — at the side mm 0 — at the si	mounting position		+/-180° rotation possible on vertical mounting
Mounting type  Side-by-side mounting  Side-by-side mounting  Midth  Depth  Required spacing  Midth Side-by-side mounting  Midth Side-By-side mounting National Side Side Side Side Side Side Side Side	<b>.</b>		
Bide-by-side mounting     Height			· ·
Side-by-side mounting  Height  mm 69.5  Width  mm 45  Depth  Required spacing	Mounting type		screw and snap-on mounting onto 35 mm standard
Height  Width  Depth  Required spacing  ■ with side-by-side mounting  — forwards  — Backwards  — upwards  — at the side  — torwards  — to			mounting rail according to DIN EN 50022
Width mm 45  Depth mm 121  Required spacing  ● with side-by-side mounting  — forwards mm 0  — Backwards mm 0  — upwards mm 0  — at the side mm 0  ● for grounded parts  — Backwards mm 0  — towards mm 0  ● for grounded parts  — at the side mm 0  ● for grounded parts  — at the side mm 0  — downwards mm 0  — forwards mm 0  — downwards mm 0  — downwards mm 0  — downwards mm 0  — downwards mm 0	<ul> <li>Side-by-side mounting</li> </ul>		Yes
Depth         mm         121           Required spacing         • with side-by-side mounting           • forwards         mm         0           — Backwards         mm         0           — upwards         mm         0           — downwards         mm         0           — at the side         mm         0           • for grounded parts         mm         0           — backwards         mm         0           — at the side         mm         0           — at the side         mm         6           — downwards         mm         0           • for live parts         mm         0           — Backwards         mm         0           — backwards         mm         0           — upwards         mm         0           — downwards         mm         0	Height	mm	69.5
Required spacing  • with side-by-side mounting  — forwards	Width	mm	45
<ul> <li>with side-by-side mounting</li> <li>forwards</li> <li>Backwards</li> <li>upwards</li> <li>downwards</li> <li>at the side</li> <li>for grounded parts</li> <li>for grounded parts</li> <li>Backwards</li> <li>upwards</li> <li>mm</li> <li>0</li> <li>for grounded parts</li> <li>for grounded parts</li> <li>at the side</li> <li>mm</li> <li>upwards</li> <li>at the side</li> <li>downwards</li> <li>for live parts</li> <li>for live parts</li> <li>Backwards</li> <li>mm</li> <li>for live parts</li> <li>for wards</li> <li>mm</li> <li>downwards</li> <li>mm</li> <li>downwards</li> <li>mm</li> <li>downwards</li> <li>mm</li> <li>o</li> <li>forwards</li> <li>mm</li> <li>o</li> <li>downwards</li> <li>mm</li> <li>o</li> <li>mm<!--</td--><td>Depth</td><td>mm</td><td>121</td></li></ul>	Depth	mm	121
— forwards       mm       0         — Backwards       mm       0         — upwards       mm       0         — downwards       mm       0         — at the side       mm       0         — backwards       mm       0         — upwards       mm       0         — at the side       mm       6         — downwards       mm       0         • for live parts       mm       0         — Backwards       mm       0         — upwards       mm       0         — upwards       mm       0         — downwards       mm       0	Required spacing		
— Backwards mm 0 — upwards mm 0 — downwards mm 0 — at the side mm 0  • for grounded parts — forwards mm 0 — Backwards mm 0 — upwards mm 0 — at the side mm 6 — downwards mm 0  • for live parts — forwards mm 0 — Backwards mm 0 — at the side mm 6 — downwards mm 0 — at the side mm 6 — downwards mm 0 — downwards mm 0 — for live parts — forwards mm 0 — Backwards mm 0 — upwards mm 0 — upwards mm 0 — upwards mm 0	<ul><li>with side-by-side mounting</li></ul>		
<ul> <li>— upwards</li> <li>— downwards</li> <li>— at the side</li> <li>● for grounded parts</li> <li>— forwards</li> <li>— Backwards</li> <li>— upwards</li> <li>— at the side</li> <li>— downwards</li> <li>— for live parts</li> <li>— forwards</li> <li>— forwards</li> <li>— mm</li> <li>0</li> <li>— at the side</li> <li>— downwards</li> <li>— mm</li> <li>0</li> <li>— forwards</li> <li>— mm</li> <li>0</li> <li>— abckwards</li> <li>— mm</li> <li>0</li> <li>— upwards</li> <li>— upwards</li> <li>— upwards</li> <li>— downwards</li> <li>mm</li> <li>0</li> <li>— downwards</li> <li>mm</li> <li>0</li> <li>— upwards</li> <li>— downwards</li> <li>mm</li> <li>0</li> </ul>	— forwards	mm	0
<ul> <li>— downwards</li> <li>— at the side</li> <li>● for grounded parts</li> <li>— forwards</li> <li>— Backwards</li> <li>— upwards</li> <li>— at the side</li> <li>— downwards</li> <li>— for live parts</li> <li>— forwards</li> <li>— mm</li> <li>0</li> <li>— at the side</li> <li>— downwards</li> <li>— for live parts</li> <li>— forwards</li> <li>— mm</li> <li>0</li> <li>— Backwards</li> <li>— mm</li> <li>0</li> <li>— upwards</li> <li>— upwards</li> <li>— mm</li> <li>0</li> <li>— downwards</li> <li>— mm</li> <li>0</li> <li>— upwards</li> <li>— mm</li> <li>0</li> <li>— downwards</li> <li>— mm</li> <li>0</li> <li>— mm</li> <li>0</li> <li>— upwards</li> <li>— mm</li> <li>0</li> <li>— downwards</li> <li>— mm</li> <li>0</li> <li>— mm</li> <li>0</li> <li>— downwards</li> <li>— mm</li> <li>0</li> <li>— mm</li> <li>0</li> <li>— downwards</li> <li>— mm</li> <li>0</li> <li>— downwards</li> <li>— mm</li> <li>0</li> <li>— mm</li> <li>0</li> <li>— mm</li> <li>0</li> <li>— downwards</li> <li>— mm</li> <li>0</li> <li>— mm</li> <li>0</li> <li>— downwards</li> <li>— mm</li> <li>0</li> <li>— mm<!--</td--><td>— Backwards</td><td>mm</td><td>0</td></li></ul>	— Backwards	mm	0
<ul> <li>— at the side</li> <li>● for grounded parts</li> <li>— forwards</li> <li>— Backwards</li> <li>— upwards</li> <li>— at the side</li> <li>— downwards</li> <li>— for live parts</li> <li>— forwards</li> <li>— mm</li> <li>0</li> <li>• for live parts</li> <li>— forwards</li> <li>— mm</li> <li>0</li> <li>— Backwards</li> <li>— upwards</li> <li>— upwards</li> <li>— downwards</li> <li>mm</li> <li>0</li> <li>— mm</li> <li>0</li> <li>— mm</li> <li>0</li> <li>— downwards</li> <li>mm</li> <li>0</li> <li>— mm</li> <li>0</li> <li>— mm</li> <li>0</li> <li>— downwards</li> <li>mm</li> <li>0</li> <li>— mm</li> <li>0</li> <li>— mm</li> <li>0</li> <li>— downwards</li> <li>mm</li> <li>0</li> <li>— mm</li> <li>0</li> <li></li></ul>	— upwards	mm	0
<ul> <li>• for grounded parts</li> <li>— forwards</li> <li>— Backwards</li> <li>— upwards</li> <li>— at the side</li> <li>— downwards</li> <li>• for live parts</li> <li>— forwards</li> <li>— Backwards</li> <li>— mm</li> <li>0</li> <li>• for live parts</li> <li>— forwards</li> <li>— mm</li> <li>0</li> <li>— Backwards</li> <li>— upwards</li> <li>— downwards</li> <li>mm</li> <li>0</li> <li>— downwards</li> <li>mm</li> <li>0</li> <li>— mm</li> <li>0</li> <li>— mm</li> <li>0</li> <li>— upwards</li> <li>— downwards</li> <li>— mm</li> <li>0</li> <li>— downwards</li> <li>— mm</li> <li>0</li> <li>— downwards</li> <li>— mm</li> <li>0</li> <li>— downwards</li> <li>— mm</li> <li>0</li> <li>— mm<td>— downwards</td><td>mm</td><td>0</td></li></ul>	— downwards	mm	0
<ul> <li>— forwards</li> <li>— Backwards</li> <li>— upwards</li> <li>— at the side</li> <li>— downwards</li> <li>— for live parts</li> <li>— forwards</li> <li>— Backwards</li> <li>— upwards</li> <li>— mm</li> <li>0</li> <li>— Backwards</li> <li>— upwards</li> <li>— downwards</li> <li>mm</li> <li>0</li> <li>— downwards</li> <li>mm</li> <li>0</li> <li>— mm</li> <li>0</li> <li>— mm</li> <li>0</li> <li>— downwards</li> <li>mm</li> <li>0</li> <li>— mm</li> <li>0</li> <li>— downwards</li> <li>— mm</li> <li>0</li> <li>— m</li></ul>	— at the side	mm	0
— Backwards	• for grounded parts		
<ul> <li>— upwards</li> <li>— at the side</li> <li>— downwards</li> <li>• for live parts</li> <li>— forwards</li> <li>— Backwards</li> <li>— upwards</li> <li>— downwards</li> <li>mm</li> <li>0</li> <li>— upwards</li> <li>— downwards</li> <li>mm</li> <li>0</li> <li>— mm</li> <li>0</li> <li>— mm</li> <li>0</li> <li>— downwards</li> </ul>	— forwards	mm	0
<ul> <li>— at the side</li> <li>— downwards</li> <li>● for live parts</li> <li>— forwards</li> <li>— Backwards</li> <li>— upwards</li> <li>— downwards</li> <li>mm</li> <li>0</li> </ul>	— Backwards	mm	0
— downwards mm 0   ● for live parts mm 0   — forwards mm 0   — Backwards mm 0   — upwards mm 0   — downwards mm 0	— upwards	mm	0
<ul> <li>for live parts</li> <li>— forwards</li> <li>— Backwards</li> <li>— upwards</li> <li>— downwards</li> <li>mm</li> <li>0</li> <li>mm</li> <li>0</li> <li>mm</li> <li>0</li> <li>mm</li> <li>0</li> </ul>	— at the side	mm	6
— forwards       mm       0         — Backwards       mm       0         — upwards       mm       0         — downwards       mm       0	— downwards	mm	0
<ul> <li>— Backwards</li> <li>— upwards</li> <li>— downwards</li> <li>mm</li> <li>0</li> <li>mm</li> <li>0</li> <li>mm</li> <li>0</li> </ul>	• for live parts		
<ul><li>— upwards</li><li>— downwards</li><li>mm</li><li>0</li><li>mm</li><li>0</li></ul>	— forwards	mm	0
<ul><li>— upwards</li><li>— downwards</li><li>mm</li><li>0</li><li>mm</li><li>0</li></ul>	— Backwards	mm	0
— downwards mm 0		mm	0
	·	mm	0
	— at the side	mm	6

Connections/ Terminals:	
Type of electrical connection	
• for main current circuit	spring-loaded terminals
<ul> <li>for auxiliary and control current circuit</li> </ul>	spring-loaded terminals
Type of connectable conductor cross-section	
• for main contacts	

— single or multi-stranded	2x (0,5 4 mm²)
— finely stranded with core end processing	2x (0.5 2.5 mm²)
<ul> <li>finely stranded without core end processing</li> </ul>	2x (0.5 2.5 mm²)
• for AWG conductors for main contacts	2x (20 12)
• for auxiliary contacts	
<ul> <li>single or multi-stranded</li> </ul>	2x (0,5 4 mm²)
<ul> <li>finely stranded with core end processing</li> </ul>	2x (0.5 2.5 mm²)
<ul> <li>finely stranded without core end processing</li> </ul>	2x (0.5 2.5 mm²)
• for AWG conductors for auxiliary contacts	2x (20 12)

Safety related data:		
B10 value with high demand rate acc. to SN 31920		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] with low demand rate acc. to SN	FIT	100
31920		
Product function Mirror contact acc. to IEC 60947-4-1		Yes
• Note		with 3RH29
T1 value for proof test interval or service life acc. to	у	20
IEC 61508		
Protection against electrical shock		finger-safe
Mechanical data:		
Size of contactor		S00

Ambient conditions:		
Installation altitude at height above sea level	m	2 000
maximum		
Ambient temperature		
<ul><li>during operation</li></ul>	°C	-25 <b>+</b> 60
during storage	°C	-55 <b>+</b> 80

## Certificates/ approvals:

# General Product Approval Functional Declaration of Safety/Safety Conformity Certificates of Machinery







Type Examination



Special Test Certificate

### **Shipping Approval**









GL





### **Shipping Approval**

### other





Environmental Confirmations



#### Further information

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

http://www.siemens.com/industrial-controls/catalogs

Industry Mall (Online ordering system)

http://www.siemens.com/industrymall

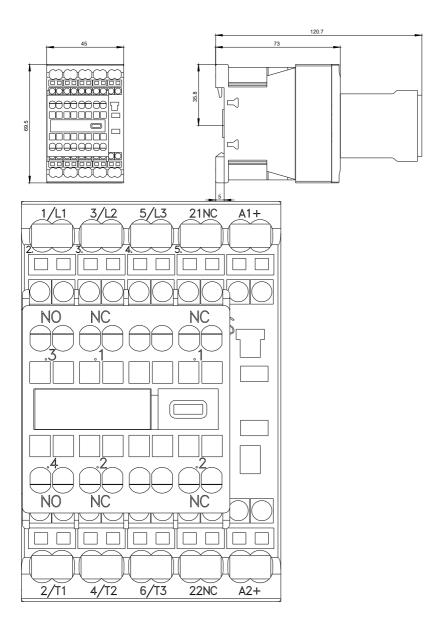
Cax online generator

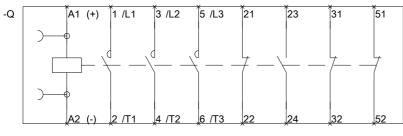
http://support.automation.siemens.com/WW/CAXorder/default.aspx?lang=en&mlfb=3RT20152BF483MA5

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

http://support.automation.siemens.com/WW/view/en/3RT20152BF483MA5/all

Image database (product images, 2D dimension drawings, 3D models, device circuit diagrams, EPLAN macros, ...) http://www.automation.siemens.com/bilddb/cax\_de.aspx?mlfb=3RT20152BF483MA5&lang=en





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