## **SIEMENS**

Data sheet	3RT2015-1FB41-Z X95		
	CONTACTOR, AC-3, 3KW/400V, 1NO, DC 24V, W. INTEGRATED DIODE 3-POLE, SZ S00 SCREW TERMINAL .		
product brand name	SIRIUS		
Product designation	3RT2 contactor		
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		
Insulation voltage			
rated value	690 V		
Degree of pollution	3		
Surge voltage resistance rated value	6 kV		
maximum permissible voltage for safe isolation			
<ul> <li>between coil and main contacts acc. to EN</li> </ul>	400 V		
60947-1			
Protection class IP			
• on the front	IP20		
<ul> <li>of the terminal</li> </ul>	IP20		
Shock resistance			
<ul> <li>at rectangular impulse</li> </ul>			
— at DC	6,7g / 5 ms, 4,2g / 10 ms		
• with sine pulse			
— at DC	10,5g / 5 ms, 6,6g / 10 ms		
Mechanical service life (switching cycles)			
<ul> <li>of contactor typical</li> </ul>	30 000 000		
<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		
Ambient conditions			
Installation altitude at height above sea level	2 000 m		
maximum			
Ambient temperature			
<ul> <li>during operation</li> </ul>	-25 +60 °C		
• during storage	-55 +80 °C		
Main circuit			

## Main circuit



Number of poles for main current circuit	3
Number of NO contacts for main contacts	3
Number of NC contacts for main contacts	0
Operating voltage	
<ul> <li>at AC-3 rated value maximum</li> </ul>	690 V
Operating current	
• at AC-1 at 400 V	
— at ambient temperature 40 °C rated value	18 A
• at AC-1	
— up to 690 V at ambient temperature 40 °C rated value	18 A
— up to 690 V at ambient temperature 60 °C rated value	16 A
• at AC-2 at 400 V rated value	7 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
Connectable conductor cross-section in main circuit at AC-1	
• at 60 °C minimum permissible	2.5 mm <sup>2</sup>
<ul> <li>at 40 °C minimum permissible</li> </ul>	2.5 mm <sup>2</sup>
Operating 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
Operating current	
• at 1 current path at DC-1	
— at 24 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
<ul> <li>with 2 current paths in series at DC-1</li> </ul>	
— at 24 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	
— at 24 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
Operating current	
<ul> <li>at 1 current path at DC-3 at DC-5</li> </ul>	
— at 24 V rated value	15 A
— at 110 V rated value	0.1 A
<ul> <li>with 2 current paths in series at DC-3 at DC-5</li> </ul>	
— at 110 V rated value	0.25 A
— at 24 V rated value	15 A
<ul> <li>with 3 current paths in series at DC-3 at DC-5</li> </ul>	
— at 110 V rated value	15 A
— at 220 V rated value	1.2 A
— at 24 V rated value	15 A
— at 440 V rated value	0.14 A
— at 600 V rated value	0.14 A
Operating power	
● at AC-1	
— at 230 V rated value	6.3 kW
— at 230 V at 60 °C rated value	6 kW
— at 400 V rated value	11 kW
— at 400 V at 60 °C rated value	10.5 kW
— at 690 V rated value	19 kW
— at 690 V at 60 °C rated value	18 kW
• at AC-2 at 400 V rated value	3 kW
• at AC-3	
— at 230 V rated value	1.5 kW
— at 400 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
Thermal short-time current limited to 10 s	56 A
Power loss [W] at AC-3 at 400 V for rated value of	0.4 W
the operating current per conductor	
No-load switching frequency	40.000.4/h
• at DC	10 000 1/h
	1 000 1/b
• at AC-1 maximum	1 000 1/h
• at AC-2 maximum	750 1/h
• at AC-3 maximum	750 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         0.8 1.1           Design of the surge suppressor         with diode           Closing delay • 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           Residual current of the electronics for control with signal <0>         3 mA           • at AC at 230 V maximum permissible         3 mA           • at DC at 24 V maximum permissible         10 mA           Auxiliary circuit         Number of NC contacts           • for auxiliary contacts         0           - instantaneous contact         1           Operating current at AC-15         1           • at 300 V rated value         3 A           • at 400 V rated value         3 A           • at 600 V rated value         3 A           • at 600 V rated value         3 A	• at AC-4 maximum	250 1/h
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     0.8 1.1       Design of the surge suppressor     with diode       Closing power of magnet coil at DC     4 W       Holding power of magnet coil at DC     4 W       Closing delay     0.8 100 ms       • at DC     7 13 ms       Arcing time     10 15 ms       Residual current of the electronics for control with signal 4D>     3 mA       • at DC     3 mA       • at DC at 24 V maximum permissible     3 mA       • at DC at 24 V maximum permissible     10 mA       Auxiliary circuit     10 mA       Number of NC contacts     0       • for auxiliary contacts     0       - instantaneous contact     0       Operating current at AC-15     1       • at 230 V rated value     10 A       Operating current at AC-15     3       • at 320 V rated value     2A       • at 320 V rated value     1       • at 320 V rated value     1       • at 320 V rated value     1       • at 320 V rated value     3       • at 320 V rated value     3       • at 4300 V rated value     3 <t< th=""><th>Control circuit/ Control</th><th></th></t<>	Control circuit/ Control	
• rated value24 VOperating range factor control supply voltage rated value of magnet coil at DC0.8 1.1Design of the surge suppressorwith diodeClosing power of magnet coil at DC4 WHolding power of magnet coil at DC4 WClosing delay • at DC30 100 msOpening delay • at DC7 13 msArcing time10 15 msResidual current of the electronics for control with signal <0>3 mA• at DC at 230 V maximum permissible3 mA• at DC at 24 V maximum permissible3 mA• at DC at 24 V maximum permissible10 mA• at DC at 24 V maximum permissible10 mA• or auxiliary contacts • for auxiliary contacts0• for auxiliary contacts1• nistantaneous contact1• operating current at AC-12 maximum10 AOperating current at AC-15 • at 230 V rated value3 A• at 630 V rated value3 A• at 650 V rated value1 A• at 650 V rated value1 A		DC
Operating range factor control supply voltage rated value of magnet coil at DC         0.8 1.1           Design of the surge suppressor         with diode           Closing power of magnet coil at DC         4 W           Holding power of magnet coil at DC         4 W           Closing delay         30 100 ms           • at DC         7 13 ms           Arcing time         10 15 ms           Residual current of the electronics for control with signal <0>         3 mA           • at DC         3 mA           • at DC at 24 V maximum permissible         3 mA           • at DC at 24 V maximum permissible         0           • at DC ontacts         0           • for auxiliary contacts         0           - instantaneous contact         0           Operating current at AC-12 maximum         10 A           Operating current at AC-15         1           • for auxiliary contacts         1           - instantaneous contact         1           Operating current at AC-15         1           • at 400 V rated value         3 A           • at 600 V rated value	Control supply voltage at DC	
value of magnet coil at DCwith diodeDesign of the surge suppressorwith diodeClosing power of magnet coil at DC4 WHolding power of magnet coil at DC4 WClosing delay4 W• at DC30 100 msOpening delay0 100 ms• at DC7 13 msArcing time10 15 msResidual current of the electronics for control with signal <0>• at AC at 230 V maximum permissible3 mA• at DC at 24 V maximum permissible10 mAAuxiliary circuitNumber of NC contacts• for auxiliary contacts0• instantaneous contact0Number of NO contacts1• instantaneous contact1• at 230 V rated value10 AOperating current at AC-12 maximum10 AOperating current at AC-15-• at 200 V rated value3 A• at 400 V rated value3 A• at 600 V rated value1 A• at 600 V rated value1 A	• rated value	24 V
Closing power of magnet coil at DC       4 W         Holding power of magnet coil at DC       4 W         Closing delay       4 W         • at DC       30 100 ms         Opening delay       -         • at DC       7 13 ms         Arcing time       10 15 ms         Residual current of the electronics for control with signal <0>       3 mA         • at AC at 230 V maximum permissible       3 mA         • at DC at 24 V maximum permissible       10 mA         Atvitiary circuit		0.8 1.1
Holding power of magnet coil at DC       4 W         Closing delay       30 100 ms         • at DC       30 100 ms         Opening delay       -         • at DC       7 13 ms         Arcing time       10 15 ms         Residual current of the electronics for control with signal <0>       3 mA         • at AC at 230 V maximum permissible       3 mA         • at DC at 24 V maximum permissible       10 mA         Auxiliary circuit       10 mA         Auxiliary contacts       -         • for auxiliary contacts       0         • instantaneous contact       0         Number of NO contacts       -         • instantaneous contact       1         Operating current at AC-12 maximum       10 A         Operating current at AC-15       -         • at 230 V rated value       3 A         • at 400 V rated value       3 A         • at 400 V rated value       3 A         • at 690 V rated value       1 A         Operating current at DC-12       1 A	Design of the surge suppressor	with diode
Closing delay       30 100 ms         Opening delay       30 100 ms         • at DC       7 13 ms         Arcing time       10 15 ms         Residual current of the electronics for control with signal <0>       3 mA         • at AC at 230 V maximum permissible       3 mA         • at DC at 24 V maximum permissible       10 mA         Auxiliary circuit       10 mA         Auxiliary contacts       0         – instantaneous contact       0         Number of NC contacts       1         – instantaneous contact       1         Operating current at AC-12 maximum       10 A         Operating current at AC-15       1         • at 230 V rated value       3A         • at 300 V rated value       3A         • at 690 V rated value       1A         Operating current at DC-12       1A	Closing power of magnet coil at DC	4 W
• at DC30 100 msOpening delay • at DC7 13 msArcing time10 15 msResidual current of the electronics for control with signal <0>3 mA• at AC at 230 V maximum permissible3 mA• at AC at 230 V maximum permissible10 mAAuxiliary circuit0Number of NC contacts • for auxiliary contacts • instantaneous contact0Number of NO contacts • for auxiliary contacts • instantaneous contact0Poperating current at AC-12 maximum10 AOperating current at AC-15 	Holding power of magnet coil at DC	4 W
Opening delay     - at DC       Arcing time     10 15 ms       Residual current of the electronics for control with signal <0>     - at AC at 230 V maximum permissible       • at AC at 230 V maximum permissible     3 mA       • at DC at 24 V maximum permissible     10 mA       Auxiliary circuit     - instantaneous contact       Number of NC contacts     0       • for auxiliary contacts     0       • instantaneous contact     0       Number of NO contacts     - instantaneous contact       • for auxiliary contacts     0       • instantaneous contact     1       Operating current at AC-12 maximum     10 A       Operating current at AC-15     - instantaneous contact       • at 230 V rated value     3 A       • at 200 V rated value     10 A       Operating current at AC-15     - instantaneous contact       • at 230 V rated value     10 A       • at 200 V rated value     3 A       • at 690 V rated value     2 A       • at 690 V rated value     1 A	Closing delay	
• at DC7 13 msArcing time10 15 msResidual current of the electronics for control with signal <d>3 mA• at AC at 230 V maximum permissible3 mA• at DC at 24 V maximum permissible10 mAAuxiliary circuit0Number of NC contacts - instantaneous contact0• for auxiliary contacts - instantaneous contact0Operating current at AC-12 maximum10 AOperating current at AC-15 - at 230 V rated value10 A• at 690 V rated value</d>	• at DC	30 100 ms
Arcing time10 15 msResidual current of the electronics for control with signal <0>3 mA• at AC at 230 V maximum permissible3 mA• at DC at 24 V maximum permissible10 mAAuxiliary circuit0Number of NC contacts0- instantaneous contact0• for auxiliary contacts0- instantaneous contact1Operating current at AC-12 maximum10 AOperating current at AC-1510 A• at 230 V rated value10 A• at 230 V rated value2 A• at 600 V rated value1 A• at 690 V rated value1 A• at 690 V rated value1 A	Opening delay	
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signal <0>Image: constraint of the second secon	Arcing time	10 15 ms
• at DC at 24 V maximum permissible10 mAAuxiliary circuit10 mANumber of NC contacts 		
Auxiliary circuit         Number of NC contacts         • for auxiliary contacts         instantaneous contact         0         Number of NO contacts         • for auxiliary contacts         instantaneous contact         1         Operating current at AC-12 maximum         10 A         Operating current at AC-15         • at 230 V rated value         • at 500 V rated value         • at 690 V rated value	<ul> <li>at AC at 230 V maximum permissible</li> </ul>	3 mA
Number of NC contacts• for auxiliary contacts- instantaneous contact0Number of NO contacts• for auxiliary contacts- instantaneous contact1Operating current at AC-12 maximum10 AOperating current at AC-15• at 230 V rated value10 A• at 400 V rated value2A• at 690 V rated value1 AOperating current at DC-12	• at DC at 24 V maximum permissible	10 mA
• for auxiliary contacts0- instantaneous contact0Number of NO contacts-• for auxiliary contacts instantaneous contact1Operating current at AC-12 maximum10 AOperating current at AC-15-• at 230 V rated value10 A• at 400 V rated value3 A• at 500 V rated value1 A• at 690 V rated value1 A• at 690 V rated value1 A		
- instantaneous contact0Number of NO contacts-• for auxiliary contacts instantaneous contact1Operating current at AC-12 maximum10 AOperating current at AC-15-• at 230 V rated value10 A• at 400 V rated value3 A• at 500 V rated value2 A• at 690 V rated value1 A		
Number of NO contacts• for auxiliary contacts instantaneous contact1Operating current at AC-12 maximum10 AOperating current at AC-15• at 230 V rated value10 A• at 400 V rated value3 A• at 500 V rated value2 A• at 690 V rated value1 A	<ul> <li>for auxiliary contacts</li> </ul>	
• for auxiliary contacts1- instantaneous contact10 AOperating current at AC-12 maximum10 AOperating current at AC-1510 A• at 230 V rated value10 A• at 400 V rated value3 A• at 500 V rated value2 A• at 690 V rated value1 A		0
- instantaneous contact1Operating current at AC-12 maximum10 AOperating current at AC-1510 A• at 230 V rated value10 A• at 400 V rated value3 A• at 500 V rated value2 A• at 690 V rated value1 A		
Operating current at AC-12 maximum       10 A         Operating 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	<ul> <li>for auxiliary contacts</li> </ul>	
Operating current at AC-15• at 230 V rated value10 A• at 400 V rated value3 A• at 500 V rated value2 A• at 690 V rated value1 A		1
• at 230 V rated value10 A• at 400 V rated value3 A• at 500 V rated value2 A• at 690 V rated value1 AOperating current at DC-12		10 A
at 500 V rated value 2 A     at 690 V rated value 1 A Operating current at DC-12	• at 230 V rated value	
at 690 V rated value     1 A Operating current at DC-12	• at 400 V rated value	
Operating current at DC-12	• at 500 V rated value	
		1 A
	Operating current at DC-12	
• at 24 V rated value 10 A	• at 24 V rated value	10 A
• at 48 V rated value 6 A	• at 48 V rated value	6 A
• at 60 V rated value 6 A	• at 60 V rated value	6 A
• at 110 V rated value 3 A	• at 110 V rated value	3 A
• at 125 V rated value 2 A	• at 125 V rated value	2 A
• at 220 V rated value 1 A	• at 220 V rated value	1 A
• at 600 V rated value 0.15 A	• at 600 V rated value	0.15 A
Operating current at DC-13	Operating current at DC-13	
• at 24 V rated value 10 A	• at 24 V rated value	10 A



<ul> <li>at 220 V rated value</li> <li>at 600 V rated value</li> <li>0.3 A</li> <li>0.1 A</li> </ul>	
• at 125 v fated value	
• at 125 V rated value 0.9 A	
• at 110 V rated value 1 A	
• at 60 V rated value 2 A	
• at 48 V rated value 2 A	

UL/CSA ratings	
Full-load current (FLA) for three-phase AC motor	
• at 480 V rated value	4.8 A
• at 600 V rated value	6.1 A
Yielded mechanical performance [hp]	
<ul> <li>for single-phase AC motor</li> </ul>	
— at 110/120 V rated value	0.25 hp
— at 230 V rated value	0.75 hp
<ul> <li>for three-phase AC motor</li> </ul>	
— at 200/208 V rated value	1.5 hp
— at 220/230 V rated value	2 hp
— at 460/480 V rated value	3 hp
— at 575/600 V rated value	5 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	gL/gG LV HRC 3NA, DIAZED 5SB, NEOZED 5SE: 35 A
— with type of assignment 2 required	gL/gG LV HRC 3NA, DIAZED 5SB, NEOZED 5SE: 20 A
<ul> <li>for short-circuit protection of the auxiliary switch required</li> </ul>	fuse gL/gG: 10 A
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
Mounting type	screw and snap-on mounting onto 35 mm standard mounting rail according to DIN EN 50022
Side-by-side mounting	Yes
Height	58 mm
Width	45 mm
Depth	73 mm
Required spacing	
<ul> <li>with side-by-side mounting</li> </ul>	
— forwards	0 mm



De devee '	0 mm
— Backwards	0 mm
— upwards	0 mm
— downwards	0 mm
— at the side	0 mm
<ul> <li>for grounded parts</li> </ul>	
— forwards	0 mm
— Backwards	0 mm
— upwards	0 mm
— at the side	6 mm
— downwards	0 mm
• for live parts	
— forwards	0 mm
— Backwards	0 mm
— upwards	0 mm
— downwards	0 mm
— at the side	6 mm
Connections/Terminals	
Type of electrical connection	
• for main current circuit	screw-type terminals
<ul> <li>for auxiliary and control current circuit</li> </ul>	screw-type terminals
Type of connectable conductor cross-sections	
• for main contacts	
— solid	2x (0.5 1.5 mm²), 2x (0.75 2.5 mm²), 2x 4 mm²
— single or multi-stranded	2x (0,5 1,5 mm²), 2x (0,75 2,5 mm²), 2x 4 mm²
— finely stranded with core end processing	2x (0.5 1.5 mm²), 2x (0.75 2.5 mm²)
<ul> <li>at AWG conductors for main contacts</li> </ul>	2x (20 16), 2x (18 14), 2x 12
Type of connectable conductor cross-sections	
<ul> <li>for auxiliary contacts</li> </ul>	
— single or multi-stranded	2x (0,5 1,5 mm²), 2x (0,75 2,5 mm²), 2x 4 mm²
<ul> <li>finely stranded with core end processing</li> </ul>	2x (0.5 1.5 mm²), 2x (0.75 2.5 mm²)
<ul> <li>at AWG conductors for auxiliary contacts</li> </ul>	2x (20 16), 2x (18 14), 2x 12
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]	
• with low demand rate acc. to SN 31920	100 FIT
Product function	
• Mirror contact acc. to IEC 60947-4-1	Yes; with 3RH29



T1 value for proof test interval or service life acc. to IEC 61508

Certificates/approval	S				
General Product	Approval			Declaration of	Test
				Conformity	Certificates
	CSA	<u>KTL</u>	EHC	EG-Konf.	spezielle Prüfbescheinigunge <u>n</u>
Test Certificates	Shipping Appro	oval			
Typprüfbescheinigu ng/Werkszeugnis	ABS	BUREAU VERITAS	<b>ŮŇ</b> DNV	GL	Llovd's Register LRS
Shipping Approva	al		other		
PRS	RINA	RMRS	Umweltbestätigung	<u>Bestätigungen</u>	

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Further information

Information- and Downloadcenter (Catalogs, Brochures,...) http://www.siemens.com/industrial-controls/catalogs

Industry Mall (Online ordering system)

https://mall.industry.siemens.com/mall/en/en/Catalog/product?mlfb=3RT2015-1FB41-Z X95

Cax online generator

http://support.automation.siemens.com/WW/CAXorder/default.aspx?lang=en&mlfb=3RT2015-1FB41-Z X95

Service&Support (Manuals, Certificates, Characteristics, FAQs,...) https://support.industry.siemens.com/cs/ww/en/ps/3RT2015-1FB41-Z X95

Image database (product images, 2D dimension drawings, 3D models, device circuit diagrams, EPLAN macros, ...) http://www.automation.siemens.com/bilddb/cax\_de.aspx?mlfb=3RT2015-1FB41-Z X95&lang=en

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