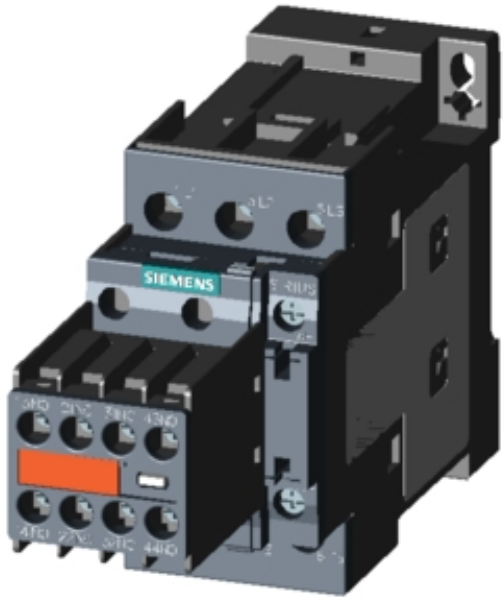
SIEMENS

Product data sheet 3RT2025-1FB44-3MA0



CONTACTOR, AC-3, 7.5KW/400V, 2NO+2NC,
DC 24V,
W. PLUGGED-IN DIODE ASSEMBLIES 3-POLE,
SZ S0 SCREW TERMINAL PERMANENT AUX. SWITCH

General technical data:		
product brand name		SIRIUS
product designation		3RT2 contactor
Size of the contactor		S0
Protection class IP / on the front		IP20
Degree of pollution		3
Installation altitude / at a height over sea level / maximum	m	2,000
Ambient temperature		
• during storage	°C	-55 … 80
• during operating phase	°C	-25 … 60
• during transport	°C	-55 … 80
Resistance against shock		12.5g / 5 ms and 7.8g / 10 ms
Impulse voltage resistance / rated value	kV	6
Insulation voltage / rated value	V	690
Resistive loss		
• per conductor / typical	W	0.9
• of the magnet coil / for DC / typical	W	5.9
Item designation		
• according to DIN 40719 extendable after IEC 204-2 / according to IEC 750		K

• according to DIN EN 61346-2		Q
Mechanical operating cycles as operating time		
• of the contactor / typical		10,000,000
• of the contactor with added auxiliary switch block / typical		10,000,000
• of the contactor with added electronics-compatible auxiliary switch block / typical		5,000,000

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 / at AC-3 / rated value		
• maximum	V	690
Operating current / at AC-1 / at 400 V		
• at 40 °C ambient temperature / rated value	A	40
• at 60 °C ambient temperature / rated value	A	35
Operating current		
• at AC-2 / at 400 V / rated value	A	17
• at AC-3 / at 400 V / rated value	A	17
• at AC-4 / at 400 V / rated value	A	15.5
• with 1 current path / at DC-1		
• at 24 V / rated value	A	35
• at 110 V / rated value	A	4.5
• with 2 current paths in series / at DC-1		
• at 24 V / rated value	A	35
• at 110 V / rated value	A	35
• with 3 current paths in series / at DC-1		
• at 24 V / rated value	A	35
• at 110 V / rated value	A	35
• with 1 current path / at DC-3 / at DC-5		
• at 24 V / rated value	A	20
• at 110 V / rated value	A	2.5
• with 2 current paths in series / at DC-3 / at DC-5		
• at 24 V / rated value	A	35
• at 110 V / rated value	A	15
• with 3 current paths in series / at DC-3 / at DC-5		
• at 24 V / rated value	A	35
• at 110 V / rated value	A	35
Service power		
• at AC-2 / at 400 V / rated value	kW	7.5

• at AC-3		
• at 400 V / rated value	kW	7.5
• at 500 V / rated value	kW	10
• at 690 V / rated value	kW	11
• at AC-4 / at 400 V / rated value	kW	7.5
Off-load operating frequency	1/h	1,500
Frequency of operation		
• at AC-1 / according to IEC 60947-6-2 / maximum	1/h	1,000
• at AC-2 / according to IEC 60947-6-2 / maximum	1/h	1,000
• at AC-3 / according to IEC 60947-6-2 / maximum	1/h	1,000
• at AC-4 / according to IEC 60947-6-2 / maximum	1/h	300

Control circuit:

Design of activation		conventional
Design of the surge suppressor		with diode assemblies
Type of voltage / of the controlled supply voltage		DC
Control supply voltage / 1		
• for DC		
• rated value	V	24
Operating range factor control supply voltage rated value / of the solenoid		
• for DC		0.8 … 1.1
Pull-in power / of the solenoid / for DC	W	5.9
Holding power / of the solenoid / for DC	W	5.9

Auxiliary circuit:

Product extension / auxiliary switch		No
Contact reliability / of the auxiliary contacts		1 faulty switching per 100 million (17 V, 1 mA)
Number of NC contacts / for auxiliary contacts		
• instantaneous switching		2
• lagging switching		0
Number of NO contacts / for auxiliary contacts		
• instantaneous switching		2
• leading switching		0
Operating current / of the auxiliary contacts		
• at AC-12 / maximum	A	10
• at AC-15		
• at 230 V	A	10
• at 400 V	A	3
• at DC-12		
• at 48 V	A	6

• at 60 V	A	6
• at 110 V	A	3
• at 220 V	A	1
• at DC-13		
• at 24 V	A	6
• at 48 V	A	2
• at 60 V	A	2
• at 110 V	A	1
• at 220 V	A	0.3

Short-circuit:

Design of the fuse link		
• for short-circuit protection of the auxiliary switch / required		fuse gL/gG: 10 A
• for short-circuit protection of the main circuit		
• with type of assignment 1 / required		gL/gG LV HRC 3NA, DIAZED 5SB, NEOZED 5SE: 63 A
• at type of coordination 2 / required		gL/gG LV HRC 3NA, DIAZED 5SB, NEOZED 5SE: 25A

Installation/mounting/dimensions:

Built in orientation		vertical
Type of mounting		screw and snap-on mounting onto 35 mm standard mounting rail according to DIN EN 50022
Type of fixing/fixation / series installation		Yes
Width	mm	45
Height	mm	85
Depth	mm	151
Distance, to be maintained, to the ranks assembly		
• forwards	mm	0
• backwards	mm	0
• upwards	mm	0
• downwards	mm	0
• sidewards	mm	0
Distance, to be maintained, to earthed part		
• forwards	mm	0
• backwards	mm	0
• upwards	mm	0
• downwards	mm	0
• sidewards	mm	6
Distance, to be maintained, conductive elements		
• forwards	mm	0
• backwards	mm	0

• upwards	mm	0
• downwards	mm	0
• sidewards	mm	6

Connections:

Design of the electrical connection		
• for main current circuit		screw-type terminals
• for auxiliary and control current circuit		screw-type terminals
Type of the connectable conductor cross-section		
• for main contacts		
• solid		2x (1 ... 2.5 mm2), 2x (2.5 ... 10 mm2)
• stranded		2x (1 ... 2.5 mm2), 2x (2.5 ... 10 mm2)
• finely stranded		
• with conductor end processing		2x (1 ... 2.5 mm2), 2x (2.5 ... 6 mm2), 1x 10 mm2
• for AWG conductors / for main contacts		2x (16 ... 12), 2x (14 ... 8)
• for auxiliary contacts		
• solid		2x (0.5 ... 1.5 mm2), 2x (0.75 ... 2.5 mm2)
• finely stranded		
• with conductor end processing		2x (0.5 ... 1.5 mm2), 2x (0.75 ... 2.5 mm2)
• for AWG conductors / for auxiliary contacts		2x (20 ... 16), 2x (18 ... 14)

Certificates/approvals:

Verification of suitability	CE / UL / CSA / CCC

General Product Approval				
CQC		ROSTEST		

Shipping Approval		**other**
ABS	PRS	Manufacturer

UL/CSA ratings

yielded mechanical performance (hp)		
• for single-phase squirrel cage motors		
• at 110/120 V / rated value	hp	1
• at 230 V / rated value	hp	3
• for three-phase squirrel cage motors		
• at 200/208 V / rated value	hp	3
• at 220/230 V / rated value	hp	5
• at 460/480 V / rated value	hp	10
• at 575/600 V / rated value	hp	15
Operating current (FLA) / for three-phase squirrel cage motors		
• at 480 V / rated value	A	14

• at 600 V / rated value	A	17
Contact rating designation / for auxiliary contacts / according to UL		A600 / Q600

Safety:

B10 value / with high demand rate		
• according to SN 31920		1,000,000
T1 value / for proof test interval or service life		
• according to IEC 61508	a	20
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 value) / with low demand rate		
• according to SN 31920	FIT	100
Protection against electrical shock		finger-safe

Further information:

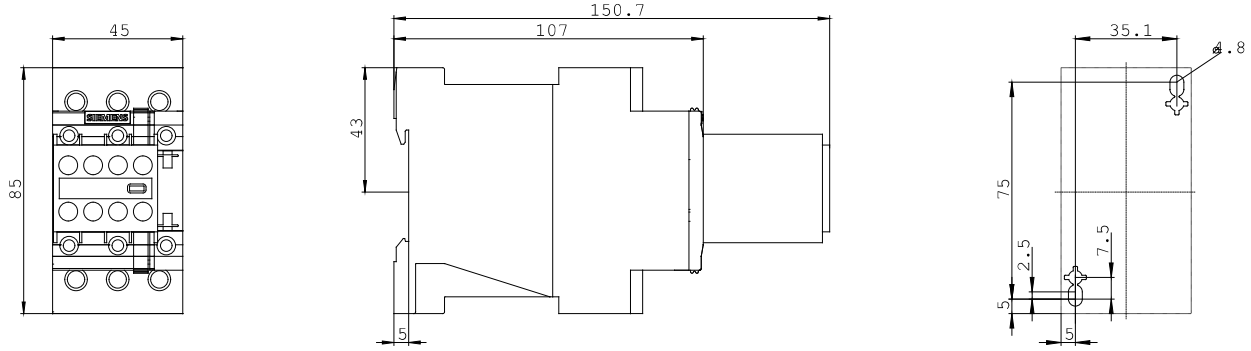
Information- and Downloadcenter (Catalogs, Brochures,…)
http://www.siemens.com/industrial-controls/catalogs

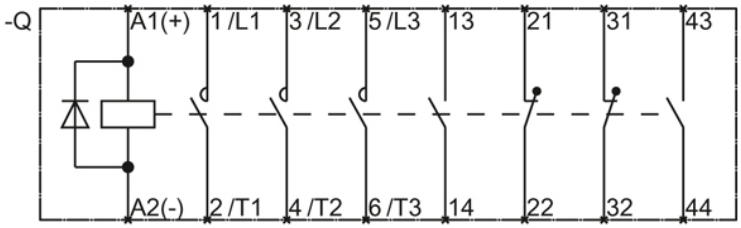
Industry Mall (Online ordering system)
http://www.siemens.com/industrial-controls/mall

CAx-Online-Generator
http://www.siemens.com/cax

Service&Support (Manuals, Certificates, Characteristics, FAQs,...)
http://support.automation.siemens.com/WW/view/en/3RT2025-1FB44-3MA0/all

Image database (product images, 2D dimension drawings, 3D models, device circuit diagrams, ...)
http://www.automation.siemens.com/bilddb/cax_en.aspx?mlfb=3RT2025-1FB44-3MA0





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