SIEMENS

Data sheet 3RT5044-1BF40

Contactor DC 110 V AC3 30 kW 400 V 3-pole, size S3 screw terminal

product brand name	SIRIUS
product designation	Power contactor
product type designation	3RT5
General technical data	
size of contactor	S3
product extension auxiliary switch	Yes
power loss [W] for rated value of the current	
● at AC in hot operating state per pole	4.6 W
● without load current share typical	15 W
type of calculation of power loss current-dependent	quadratic
insulation voltage rated value	1 000 V
degree of pollution	3
surge voltage resistance rated value	6 kV
maximum permissible voltage for protective separation between coil and main contacts according to EN 60947-1	690 V
shock resistance at rectangular impulse	
● at DC	6,8 g / 5 ms, 4 g / 10 ms
shock resistance with sine pulse	
● at DC	10,6 g / 5 ms, 6,2 g / 10 ms
mechanical service life (operating cycles)	
● of contactor typical	10 000 000
● of the contactor with added auxiliary switch block typical	10 000 000
Substance Prohibitance (day/month/year)	03/01/2017
Net Weight	2.8 kg
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
number of NC contacts for main contacts	0
operating voltage	
● at AC-3 rated value maximum	1 000 V
● at AC-3e rated value maximum	1 000 V
operational current	
● at AC-1 up to 690 V	
— at ambient temperature 40 °C rated value	100 A

— at ambient temperature 60 °C rated value	90 A
● at AC-3	
— at 400 V rated value	65 A
— at 690 V rated value	47 A
● at AC-3e	
— at 400 V rated value	65 A
— at 690 V rated value	47 A
— at 1000 V rated value	25 A
connectable conductor cross-section in main circuit at AC-1	
● at 60 °C minimum permissible	35 mm²
● at 40 °C minimum permissible	35 mm²
operational current for approx. 200000 operating cycles at AC-4	
● at 400 V rated value	28 A
● at 690 V rated value	20 A
operating power	
● at AC-1	
— at 230 V at 60 °C rated value	34 kW
— at 400 V at 60 °C rated value	59 kW
— at 690 V at 60 °C rated value	102 kW
● at AC-3	
— at 230 V rated value	18.5 kW
— at 400 V rated value	30 kW
— at 500 V rated value	37 kW
— at 690 V rated value	45 kW
● at AC-3e	
— at 230 V rated value	18.5 kW
— at 400 V rated value	30 kW
— at 500 V rated value	37 kW
— at 690 V rated value	45 kW
— at 1000 V rated value	30 kW
operating power for approx. 200000 operating cycles at AC-4	
● at 400 V rated value	15.1 kW
● at 690 V rated value	18.6 kW
no-load switching frequency	
● at DC	1 000 1/h
operating frequency	
● at AC-1 maximum	1 000 1/h
● at AC-3 maximum	1 000 1/h
● at AC-3e maximum	1 000 1/h
● at AC-4 maximum	300 1/h
Control circuit/ Control	
type of voltage of the control supply voltage	DC
control supply voltage at DC rated value	110 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	15 W
holding power of magnet coil at DC	15 W
Auxiliary circuit	
number of NC contacts for auxiliary contacts instantaneous contact	0
number of NO contacts for auxiliary contacts instantaneous contact	0
operational current at AC-12 maximum	10 A
operational current at AC-15	
● at 230 V rated value	6 A
● at 400 V rated value	3 A

operational current at DC-12	
● at 110 V rated value	3 A
● at 220 V rated value	1 A
operational current at DC-13	
● at 24 V rated value	6 A
● at 110 V rated value	1 A
● at 220 V rated value	0.3 A
contact reliability of auxiliary contacts	1 faulty switching per 100 million (17 V, 1 mA)
UL/CSA ratings	
yielded mechanical performance [hp] for 3-phase AC motor at 460/480 V rated value	50 hp
Short-circuit protection	
design of the fuse link	
● for short-circuit protection of the main circuit	
— with type of coordination 1 required	fuse gL/gG: 250 A
— with type of coordination 2 required	fuse gL/gG: 125 A
● for short-circuit protection of the auxiliary switch required	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
fastening method side-by-side mounting	Yes
fastening method	screw and snap-on mounting onto 35 mm and 75 mm DIN rail
height	146 mm
width	70 mm
depth	152 mm
Connections/ Terminals	
type of electrical connection	
● for main current circuit	screw-type terminals
● for auxiliary and control circuit	screw-type terminals
type of connectable conductor cross-sections for main contacts	
● solid or stranded	2x (2.5 ... 16 mm²)
● finely stranded with core end processing	2x (2.5 ... 35 mm²)
● finely stranded without core end processing	2x (10 ... 35 mm²)
type of connectable conductor cross-sections	
● for auxiliary contacts	
— finely stranded with core end processing	2x (0.5 ... 1.5 mm²), 2x (0.75 ... 2.5 mm²)
● for AWG cables for auxiliary contacts	2x (20 ... 16), 2x (18 ... 14), 1x 12
Safety related data	
product function mirror contact according to IEC 60947-4-1	Yes
Electrical Safety	
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

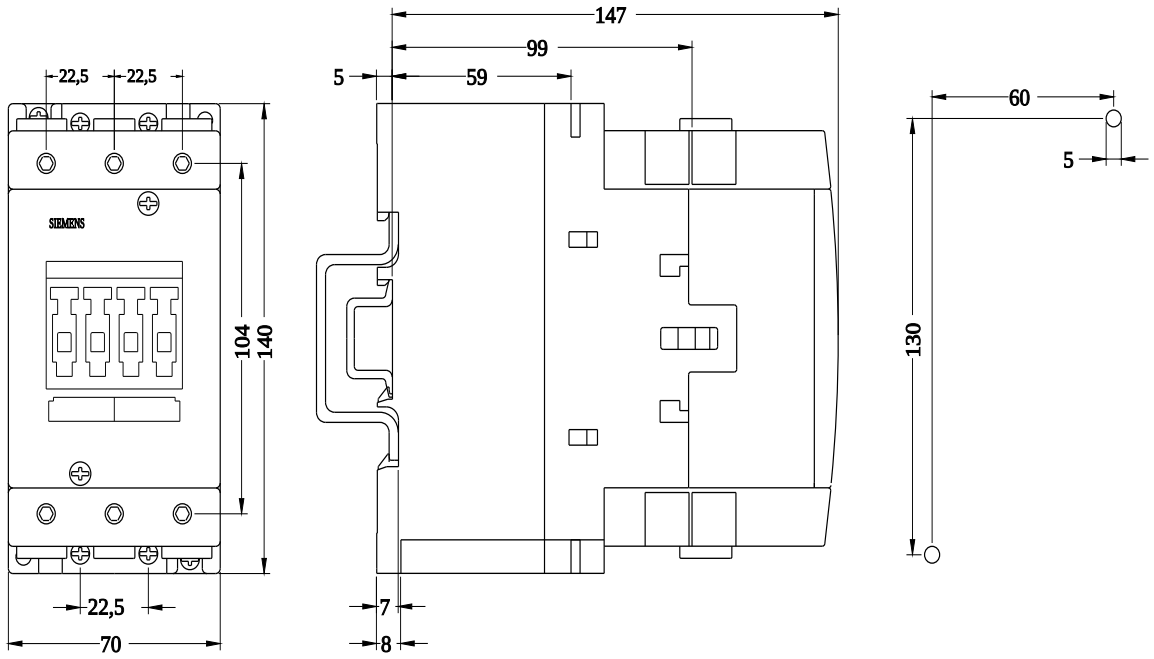
Approvals Certificates

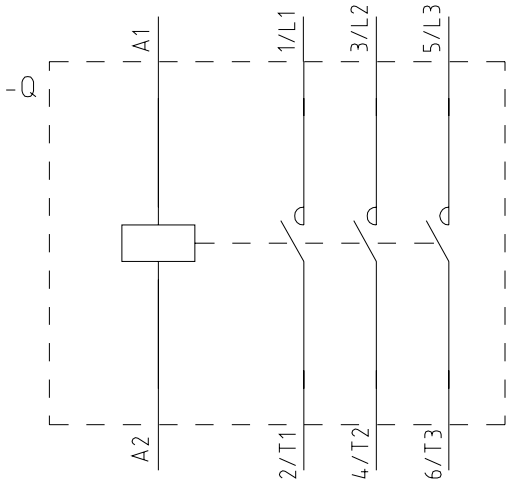
General Product Approval						EMV
CCC	Confirmation	UL	EAC	CE EG-Konf.	RCM	

Maritime application	other		Environment
CCS (China Classification Society)	Confirmation	产品合格 QC PASS	Environmental Confirmations

Further information

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





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