

SIEMENS

Data sheet

3RT1075-6AP36



Power contactor, AC-3 400 A, 200 kW / 400 V AC (50-60 Hz) / DC operation 220-240 V UC Auxiliary contacts 2 NO + 2 NC 3-pole, Size S12
Busbar connections Drive: conventional screw terminal

product brand name	SIRIUS
product designation	Power contactor
product type designation	3RT1
General technical data	
size of contactor	S12
product extension - function module for communication - auxiliary switch	No Yes
power loss [W] for rated value of the current at AC in hot operating state per pole	105 W 35 W
power loss [W] for rated value of the current without load current share typical	10 W
insulation voltage - of main circuit with degree of pollution 3 rated value - of auxiliary circuit with degree of pollution 3 rated value	1 000 V 500 V
surge voltage resistance - of main circuit rated value - of auxiliary circuit rated value	8 kV 6 kV
maximum permissible voltage for safe isolation between coil and main contacts acc. to EN 60947-1	690 V
shock resistance at rectangular impulse - at AC - at DC	8,5g / 5 ms, 4,2g / 10 ms 8,5g / 5 ms, 4,2g / 10 ms
shock resistance with sine pulse - at AC - at DC	13,4g / 5 ms, 6,5g / 10 ms 13,4g / 5 ms, 6,5g / 10 ms
mechanical service life (switching cycles) - of contactor typical - of the contactor with added electronically optimized auxiliary switch block typical - of the contactor with added auxiliary switch block typical	10 000 000 5 000 000 10 000 000
reference code acc. to IEC 81346-2	Q
Substance Prohibitance (Date)	01.05.2012
Ambient conditions	
installation altitude at height above sea level maximum	2 000 m
ambient temperature - during operation - during storage	-25 ... +60 °C -55 ... +80 °C

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— at 110 V rated value — at 220 V rated value — at 440 V rated value — at 600 V rated value	400 A 400 A 4 A 2 A
● with 3 current paths in series at DC-1 — at 24 V rated value — at 110 V rated value — at 220 V rated value — at 440 V rated value — at 600 V rated value	400 A 400 A 400 A 11 A 5.2 A
● at 1 current path at DC-3 at DC-5 — at 24 V rated value — at 110 V rated value — at 220 V rated value — at 440 V rated value — at 600 V rated value	400 A 3 A 0.6 A 0.18 A 0.125 A
● with 2 current paths in series at DC-3 at DC-5 — at 24 V rated value — at 110 V rated value — at 220 V rated value — at 440 V rated value — at 600 V rated value	400 A 400 A 2.5 A 0.65 A 0.37 A
● with 3 current paths in series at DC-3 at DC-5 — at 24 V rated value — at 110 V rated value — at 220 V rated value — at 440 V rated value — at 600 V rated value	400 A 400 A 400 A 1.4 A 0.75 A
operating power ● at AC-3 — at 230 V rated value — at 400 V rated value — at 500 V rated value — at 690 V rated value — at 1000 V rated value	132 kW 200 kW 250 kW 400 kW 250 kW
operating power for approx. 200000 operating cycles at AC-4 ● at 400 V rated value ● at 690 V rated value	85 kW 133 kW
operating apparent power at AC-6a ● up to 230 V for current peak value n=20 rated value ● up to 400 V for current peak value n=20 rated value ● up to 500 V for current peak value n=20 rated value ● up to 690 V for current peak value n=20 rated value ● up to 1000 V for current peak value n=20 rated value	150 000 kV·A 270 000 V·A 340 000 V·A 470 000 V·A 310 000 V·A
operating apparent power at AC-6a ● up to 230 V for current peak value n=30 rated value ● up to 400 V for current peak value n=30 rated value ● up to 500 V for current peak value n=30 rated value ● up to 690 V for current peak value n=30 rated value ● up to 1000 V for current peak value n=30 rated value	100 000 V·A 180 000 V·A 220 000 V·A 310 000 V·A 310 000 V·A
short-time withstand current in cold operating state up to 40 °C ● limited to 1 s switching at zero current maximum ● limited to 5 s switching at zero current maximum ● limited to 10 s switching at zero current maximum ● limited to 30 s switching at zero current maximum ● limited to 60 s switching at zero current maximum	6 600 A; Use minimum cross-section acc. to AC-1 rated value 5 761 A; Use minimum cross-section acc. to AC-1 rated value 4 143 A; Use minimum cross-section acc. to AC-1 rated value 2 635 A; Use minimum cross-section acc. to AC-1 rated value 2 088 A; Use minimum cross-section acc. to AC-1 rated value
no-load switching frequency	

- at AC - at DC	2 000 1/h 2 000 1/h
operating frequency - at AC-1 maximum - at AC-2 maximum - at AC-3 maximum - at AC-4 maximum	700 1/h 200 1/h 500 1/h 130 1/h
Control circuit/ Control	
type of voltage of the control supply voltage	AC/DC
control supply voltage at AC - at 50 Hz rated value - at 60 Hz rated value	220 ... 240 V 220 ... 240 V
control supply voltage at DC rated value	220 ... 240 V
operating range factor control supply voltage rated value of magnet coil at DC - initial value - full-scale value	0.8 1.1
operating range factor control supply voltage rated value of magnet coil at AC - at 50 Hz - at 60 Hz	0.8 ... 1.1 0.8 ... 1.1
design of the surge suppressor	with varistor
apparent pick-up power of magnet coil at AC - at 50 Hz - at 60 Hz	830 V·A 830 V·A
inductive power factor with closing power of the coil - at 50 Hz - at 60 Hz	0.9 0.9
apparent holding power of magnet coil at AC - at 50 Hz - at 60 Hz	9.2 V·A 9.2 V·A
inductive power factor with the holding power of the coil - at 50 Hz - at 60 Hz	0.9 0.9
closing power of magnet coil at DC	920 W
holding power of magnet coil at DC	10 W
closing delay - at AC - at DC	45 ... 100 ms 45 ... 100 ms
opening delay - at AC - at DC	60 ... 100 ms 60 ... 100 ms
arcing time	10 ... 15 ms
control version of the switch operating mechanism	Standard A1 - A2
Auxiliary circuit	
number of NC contacts for auxiliary contacts instantaneous contact	2
number of NO contacts for auxiliary contacts instantaneous contact	2
operational current at AC-12 maximum	10 A
operational current at AC-15 - at 230 V rated value - at 400 V rated value - at 500 V rated value - at 690 V rated value	6 A 3 A 2 A 1 A
operational current at DC-12 - at 24 V rated value - at 48 V rated value - at 60 V rated value	10 A 6 A 6 A

- at 110 V rated value - at 125 V rated value - at 220 V rated value - at 600 V rated value	3 A 2 A 1 A 0.15 A
operational current at DC-13 - at 24 V rated value - at 48 V rated value - at 60 V rated value - at 110 V rated value - at 125 V rated value - at 220 V rated value - at 600 V rated value	10 A 2 A 2 A 1 A 0.9 A 0.3 A 0.1 A
contact reliability of auxiliary contacts	1 faulty switching per 100 million (17 V, 1 mA)
UL/CSA ratings	
full-load current (FLA) for 3-phase AC motor - at 480 V rated value - at 600 V rated value	361 A 382 A
yielded mechanical performance [hp] - for 3-phase AC motor - at 200/208 V rated value - at 220/230 V rated value - at 460/480 V rated value - at 575/600 V rated value	125 hp 150 hp 300 hp 400 hp
contact rating of auxiliary contacts according to UL	A600 / Q600
Short-circuit protection	
design of the fuse link - for short-circuit protection of the main circuit - with type of coordination 1 required - with type of assignment 2 required - for short-circuit protection of the auxiliary switch required	gG: 630 A (690 V, 100 kA) gG: 500 A (690 V, 100 kA), aM: 400 A (690 V, 50 kA), BS88: 450 A (415 V, 50 kA) gG: 10 A (500 V, 1 kA)
Installation/ mounting/ dimensions	
mounting position	with vertical mounting surface +/-90° rotatable, with vertical mounting surface +/- 22.5° tiltable to the front and back
fastening method side-by-side mounting	screw fixing Yes
height	214 mm
width	160 mm
depth	225 mm
required spacing - with side-by-side mounting - forwards - upwards - downwards - at the side - for grounded parts - forwards - upwards - at the side - downwards - for live parts - forwards - upwards - downwards - at the side	20 mm 10 mm 10 mm 0 mm 20 mm 10 mm 10 mm 10 mm 20 mm 10 mm 10 mm 10 mm
Connections/ Terminals	
width of connection bar	25 mm
thickness of connection bar	6 mm
diameter of holes	11 mm

number of holes	1
type of electrical connection - for main current circuit - for auxiliary and control circuit - at contactor for auxiliary contacts - of magnet coil	Connection bar screw-type terminals Screw-type terminals Screw-type terminals
type of connectable conductor cross-sections at AWG cables for main contacts	2/0 ... 500 kcmil
connectable conductor cross-section for main contacts stranded	70 ... 240 mm ²
connectable conductor cross-section for auxiliary contacts - solid or stranded - finely stranded with core end processing	0.5 ... 4 mm ² 0.5 ... 2.5 mm ²
type of connectable conductor cross-sections - for auxiliary contacts - solid - solid or stranded - finely stranded with core end processing - at AWG cables for auxiliary contacts	2x (0.5 ... 1.5 mm ²), 2x (0.75 ... 2.5 mm ²), max. 2x (0.75 ... 4 mm ²) 2x (0,5 ... 1,5 mm ²), 2x (0,75 ... 2,5 mm ²), max. 2x (0,75 ... 4 mm ²) 2x (0.5 ... 1.5 mm ²), 2x (0.75 ... 2.5 mm ²) 2x (20 ... 16), 2x (18 ... 14), 1x 12
AWG number as coded connectable conductor cross section for auxiliary contacts	18 ... 14
Safety related data	
B10 value with high demand rate acc. to SN 31920	1 000 000
protection class IP on the front acc. to IEC 60529	IP00; IP20 with box terminal/cover
touch protection on the front acc. to IEC 60529	finger-safe, for vertical contact from the front with box terminal/cover
suitability for use safety-related switching OFF	Yes
Certificates/ approvals	
General Product Approval EMC	



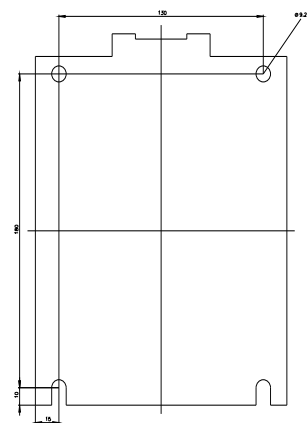
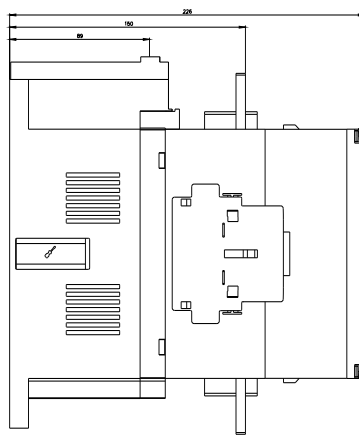
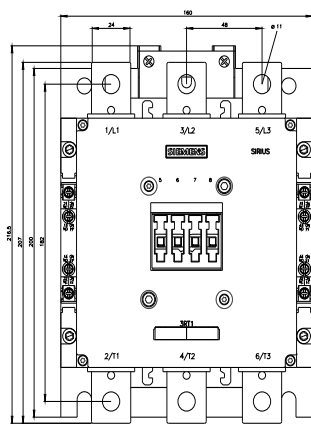
Functional Safety/Safety of Machinery	Declaration of Conformity	Test Certificates
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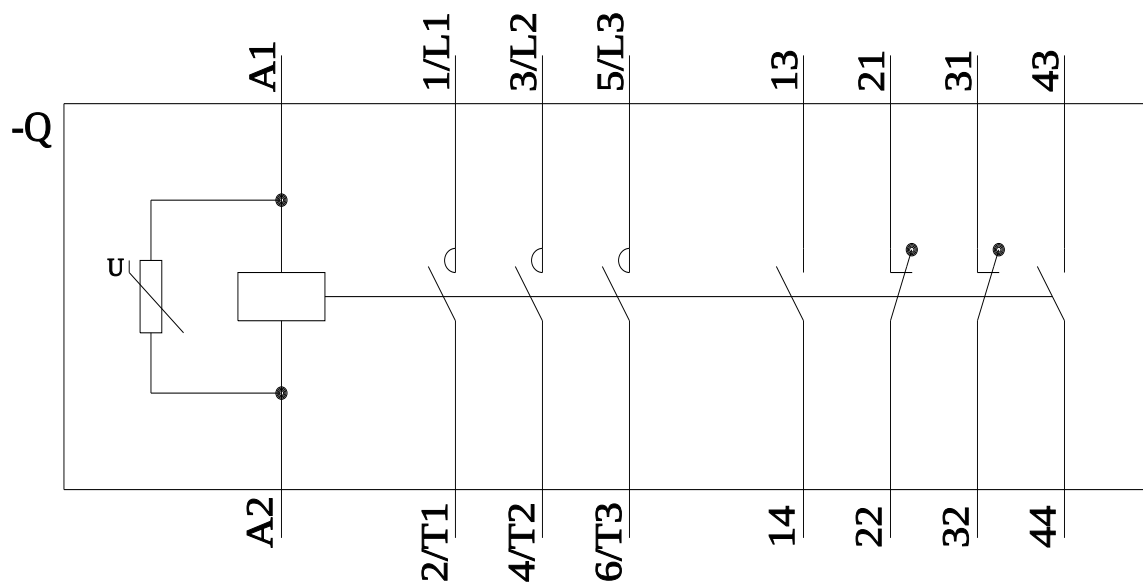


Marine / Shipping	other
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other	Railway
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