



Power Contactor DC 77...137,5 V AC3 7.5 kW 400 V AUX contacts 1 NO +1 NC 3-pole, size S0 screw terminal

product brand name	SIRIUS
product designation	Coupling contactor
product type designation	3RT6
General technical data	
size of contactor	S0
product extension auxiliary switch	No
power loss [W] for rated value of the current	
• at AC in hot operating state per pole	0.9 W
• without load current share typical	5.9 W
type of calculation of power loss current-dependent	quadratic
insulation voltage rated value	690 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	400 V
shock resistance at rectangular impulse	
• at DC	10g / 5 ms, 7,5g / 10 ms
shock resistance with sine pulse	
• at DC	15 g / 5 ms, 10 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 Prohibition (day/month/year)	05/01/2012
Net Weight	0.58 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	690 V
• at AC-3e rated value maximum	690 V
operational current	
• at AC-1 up to 690 V	
— at ambient temperature 40 °C rated value	40 A

— at ambient temperature 60 °C rated value	35 A
● at AC-3	
— at 400 V rated value	17 A
— at 690 V rated value	13 A
● at AC-3e	
— at 400 V rated value	17 A
— at 690 V rated value	13 A
connectable conductor cross-section in main circuit at AC-1	
● at 60 °C minimum permissible	10 mm ²
● at 40 °C minimum permissible	10 mm ²
operational current for approx. 200000 operating cycles at AC-4	
● at 400 V rated value	7.7 A
● at 690 V rated value	7.7 A
operating power	
● at AC-1	
— at 230 V rated value	13.3 kW
— at 230 V at 60 °C rated value	13.3 kW
— at 400 V at 60 °C rated value	23 kW
— at 690 V at 60 °C rated value	40 kW
● at AC-3	
— at 230 V rated value	4 kW
— at 400 V rated value	7.5 kW
— at 690 V rated value	11 kW
● at AC-3e	
— at 230 V rated value	4 kW
— at 400 V rated value	7.5 kW
— at 690 V rated value	11 kW
operating power for approx. 200000 operating cycles at AC-4	
● at 400 V rated value	3.5 kW
● at 690 V rated value	6 kW
no-load switching frequency	
● at DC	1 500 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	0.7
● full-scale value	1.25
design of the surge suppressor	with varistor
closing power of magnet coil at DC	4.5 W
holding power of magnet coil at DC	4.5 W
Auxiliary circuit	
number of NC contacts for auxiliary contacts instantaneous contact	1
number of NO contacts for auxiliary contacts instantaneous contact	1
operational current at AC-12 maximum	10 A
operational current at AC-15	
● at 230 V rated value	10 A
● at 400 V rated value	3 A
● at 690 V rated value	1 A
operational current at DC-12	

<ul style="list-style-type: none"> • at 24 V rated value • at 110 V rated value • at 220 V rated value 	6 A 3 A 1 A
operational current at DC-13	
<ul style="list-style-type: none"> • at 24 V rated value • at 110 V rated value • at 220 V rated value 	6 A 1 A 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	10 hp
Short-circuit protection	
design of the fuse link	
<ul style="list-style-type: none"> • for short-circuit protection of the main circuit <ul style="list-style-type: none"> — with type of coordination 1 required — with type of coordination 2 required • for short-circuit protection of the auxiliary switch required 	gL/gG LV HRC 3NA, DIAZED 5SB, NEOZED 5SE: 63 A gL/gG LV HRC 3NA, DIAZED 5SB, NEOZED 5SE: 25 A 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 DIN rail according to DIN EN 50022
height	85 mm
width	45 mm
depth	107 mm
required spacing	
<ul style="list-style-type: none"> • with side-by-side mounting <ul style="list-style-type: none"> — at the side 	0 mm
Connections/ Terminals	
type of electrical connection	
<ul style="list-style-type: none"> • for main current circuit • for auxiliary and control circuit 	screw-type terminals screw-type terminals
type of connectable conductor cross-sections for main contacts	
<ul style="list-style-type: none"> • solid or stranded • finely stranded with core end processing 	2x (1 ... 2.5 mm ²), 2x (2.5 ... 10 mm ²) 2x (1 ... 2.5 mm ²), 2x (2.5 ... 6 mm ²), 1x 10 mm ²
type of connectable conductor cross-sections	
<ul style="list-style-type: none"> • for auxiliary contacts <ul style="list-style-type: none"> — solid or stranded — finely stranded with core end processing • for AWG cables for auxiliary contacts 	2x (0.5 ... 1.5 mm ²), 2x (0.75 ... 2.5 mm ²) 2x (0.5 ... 1.5 mm ²), 2x (0.75 ... 2.5 mm ²) 2x (20 ... 16), 2x (18 ... 14)
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



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Maritime application	other	Dangerous goods	Environment
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