

Reference: 3RT2517-2BG40

2NO+2NC CONTACTOR, AC3: 5.5KW DC
125V 4-POLE, 2NO+2NC, SZ: S00,
SPRING-LOADED TERMINAL

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product brand name	SIRIUS
Product designation	3RT2 contactor
General technical data:	
Size of contactor	S00
Product extension	
function module for communication	No
Auxiliary switch	Yes
Insulation voltage	
rated value	690 V
Degree of pollution	3
Surge voltage resistance rated value	6 kV
maximum permissible voltage for safe isolation	
between coil and main contacts acc. to EN 60947-1	400 V
Protection class IP	
on the front	IP20
Shock resistance	
at rectangular impulse	
— at DC	7.3g / 5 ms, 4.7g / 10 ms
with sine pulse	
— at DC	11,4g / 5 ms, 7,3g / 10 ms
Mechanical service life (switching cycles)	

of contactor typical	30 000 000
of the contactor with atd>	5 000 000
of the contactor with atd>	10 000 000
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 NO contacts for main contacts	2
Number of NC contacts for main contacts	2
Operating current	
at AC-1	
— up to 690 V at ambient temperature 40 °C rated value	22 A
— up to 690 V at ambient temperature 60 °C rated value	20 A
at AC-2 at AC-3 at 400 V	
— per NO contact rated value	12 A
— per NC contact rated value	9 A
Connectable conductor cross-section in main circuit at AC-1	
at 60 °C minimum permissible	2.5 mm ²
at 40 °C minimum permissible	4 mm ²
Operating current	
at 1 current path at DC-1	
— at 24 V rated value	20 A
— at 110 V rated value	2.1 A
— at 220 V rated value	0.8 A
— at 440 V rated value	0.6 A
with 2 current paths in series at DC-1	
— at 24 V rated value	20 A
— at 110 V rated value	12 A
— at 220 V rated value	1.6 A
— at 440 V rated value	0.8 A
Operating current	
at 1 current path at DC-3 at DC-5	
— at 24 V per NC contact rated value	20 A
— at 24 V per NO contact rated value	20 A

— at 110 V per NC contact rated value	0.075 A
— at 110 V per NO contact rated value	0.15 A
— at 220 V per NC contact rated value	0.375 A
— at 220 V per NO contact rated value	0.75 A
with 2 current paths in series at DC-3 at DC-5	
— at 110 V per NC contact rated value	0.175 A
— at 110 V per NO contact rated value	0.35 A
— at 24 V per NC contact rated value	20 A
— at 24 V per NO contact rated value	20 A
Operating power	
at AC-1	
— at 230 V rated value	7.5 kW
— at 400 V rated value	13 kW
at AC-2 at AC-3	
— at 230 V per NC contact rated value	2.2 kW
— at 230 V per NO contact rated value	3 kW
— at 400 V per NC contact rated value	4 kW
— at 400 V per NO contact rated value	5.5 kW
Power loss [W] at AC-3 at 400 V for rated value of the operating current per conductor	1.2 W
No-load switching frequency	
at AC	10 000 1/h
at DC	10 000 1/h
Operating frequency	
at AC-1 maximum	1 000 1/h
Control circuit/ Control:	
Type of voltage of the control supply voltage	DC
Control supply voltage at DC	
rated value	125 V
Operating range factor control supply voltage rated value of magnet coil at DC	0.8 ... 1.1
Closing power of magnet coil 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
Auxiliary circuit:	

Number of NC contacts	
for auxiliary contacts	
— instantaneous contact	0
Number of NO contacts	
for auxiliary contacts	
— instantaneous contact	0
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
Operating current at DC-12	
at 48 V rated value	6 A
at 60 V rated value	6 A
at 110 V rated value	3 A
at 125 V rated value	2 A
at 220 V rated value	1 A
at 600 V rated value	0.15 A
Operating current at DC-13	
at 24 V rated value	10 A
at 48 V rated value	2 A
at 60 V rated value	2 A
at 110 V rated value	1 A
at 220 V rated value	0.3 A
at 600 V rated value	0.1 A
Contact reliability of auxiliary contacts	1 faulty switching per 100 million (17 V, 1 mA)
UL/CSA ratings:	
Yielded mechanical performance [hp]	
for single-phase AC motor	
— at 110/120 V rated value	0.5 hp
— at 230 V rated value	2 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	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
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
Mounting type	screw and snap-on mounting onto 35 mm standard mounting rail according to DIN EN 50022
Side-by-side mounting	Yes
Height	70 mm
Width	45 mm
Depth	73 mm
Required spacing	
with side-by-side mounting	
— forwards	0 mm
— Backwards	0 mm
— upwards	0 mm
— downwards	0 mm
— at the side	0 mm
for grounded parts	
— 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	spring-loaded terminals
for auxiliary and control current circuit	spring-loaded terminals
Type of connectable conductor cross-sections	
for main contacts	
— solid	2x (0.5 ... 4 mm ²)
— single or multi-stranded	2x (0,5 ... 4 mm ²)
— finely stranded with core end processing	2x (0.5 ... 2.5 mm ²)
— finely stranded without core end processing	2x (0.5 ... 2.5 mm ²)

at AWG conductors for main contacts	2x (20 ... 12)
Type of connectable conductor cross-sections	
for auxiliary contacts	
— solid	2x (0.5 ... 4 mm ²)
— single or multi-stranded	2x (0,5 ... 4 mm ²)
— finely stranded with core end processing	2x (0.5 ... 2.5 mm ²)
— finely stranded without core end processing	2x (0.5 ... 2.5 mm ²)
at AWG conductors for auxiliary contacts	2x (20 ... 12)
Safety related data:	
B10 value	
with high demand rate acc. to SN 31920	1 000 000
Proportion of dangerous failures	
with low demand rate acc. to SN 31920	40 %
with high demand rate acc. to SN 31920	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
positively driven operation acc. to IEC 60947-5-1	No
T1 value for proof test interval or service life acc. to IEC 61508	20 y