

Reference: 3RT1016-1BB42

CONTACTOR, AC-3 4 KW/400 V, 1 NC, DC
24 V, 3-POLE, SIZE S00, SCREW
CONNECTION

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product brand name	SIRIUS
Product designation	power contactor
General technical data:	
Size of contactor	S00
Degree of pollution	3
Protection class IP	
on the front	IP20
of the terminal	IP20
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
Main circuit:	
Number of NO contacts for main contacts	3
Number of NC contacts for main contacts	0
Operating current	
at AC-1 at 400 V	

— at ambient temperature 40 °C rated value	22 A
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-3	
— at 400 V rated value	9 A
Operating current	
at 1 current path at DC-1	
— at 24 V rated value	20 A
— at 110 V rated value	2.1 A
with 2 current paths in series at DC-1	
— at 24 V rated value	20 A
— at 110 V rated value	12 A
with 3 current paths in series at DC-1	
— at 24 V rated value	20 A
— at 110 V rated value	20 A
Operating current	
at 1 current path at DC-3 at DC-5	
— at 24 V rated value	20 A
— at 110 V rated value	0.15 A
with 2 current paths in series at DC-3 at DC-5	
— at 110 V rated value	0.35 A
— at 24 V rated value	20 A
with 3 current paths in series at DC-3 at DC-5	
— at 110 V rated value	20 A
— at 24 V rated value	20 A
Operating power	
at AC-1	
— at 400 V rated value	13 kW
at AC-2 at 400 V rated value	4 kW
at AC-3	
— at 400 V rated value	4 kW
— at 500 V rated value	4.5 kW
— at 690 V rated value	5.5 kW
Power loss [W] at AC-3 at 400 V for rated value of the operating current per conductor	0.7 W
Control circuit/ Control:	

Type of voltage of the control supply voltage	DC
Control supply voltage at DC	
rated value	24 V
Operating range factor control supply voltage rated value of magnet coil at DC	0.85 ... 1.1
Closing power of magnet coil at DC	3.3 W
Holding power of magnet coil at DC	3.3 W
Auxiliary circuit:	
Number of NC contacts	
for auxiliary contacts	
— instantaneous contact	1
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	6 A
at 400 V rated value	3 A
Operating current at DC-12	
at 60 V rated value	6 A
at 110 V rated value	3 A
at 220 V rated value	1 A
Operating current at DC-13	
at 24 V rated value	10 A
at 60 V rated value	2 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)
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: 35 A
— with type of assignment 2 required	fuse gL/gG: 20 A
for short-circuit protection of the auxiliary switch required	fuse gL/gG: 10 A
Installation/ mounting/ dimensions:	
Mounting type	screw and snap-on mounting onto 35 mm standard mounting rail according to DIN EN 50022
Side-by-side mounting	Yes

Height	57.5 mm
Width	45 mm
Depth	72 mm
Required spacing	
for grounded parts	
— at the side	6 mm
Connections/Terminals:	
Type of electrical connection	
for main current circuit	screw-type terminals
for auxiliary and control current circuit	screw-type terminals
Type of connectable conductor cross-sections	
for main contacts	
— solid	2x (0.5 ... 1.5 mm ²), 2x (0.75 ... 2.5 mm ²), max. 2x (0.75 ... 4 mm ²)
— single or multi-stranded	2x (0.5 ... 1.5 mm ²), 2x (0.75 ... 2.5 mm ²), max. 2x (0.75 ... 4 mm ²)
— finely stranded with core end processing	2x (0.5 ... 1.5 mm ²), 2x (0.75 ... 2.5 mm ²)
at AWG conductors for main contacts	2x (20 ... 16), 2x (18 ... 14), 1x 12
Type of connectable conductor cross-sections	
for auxiliary contacts	
— solid	2x (0.5 ... 1.5 mm ²), 2x (0.75 ... 2.5 mm ²), max. 2x (0.75 ... 4 mm ²)
— finely stranded with core end processing	2x (0.5 ... 1.5 mm ²), 2x (0.75 ... 2.5 mm ²)
at AWG conductors for auxiliary contacts	2x (20 ... 16), 2x (18 ... 14), 1x 12