

Reference: 3RT1025-1BF40

CONTACTOR, AC-3 7.5 KW/400 V, DC  
110 V, 3-POLE, SIZE S0, SCREW  
CONNECTION

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product brand name	SIRIUS
Product designation	power contactor
General technical data:	
Size of contactor	S0
Degree of pollution	3
Protection class IP	
on the front	IP20
of the terminal	IP20
Mechanical service life (switching cycles)	
of contactor typical	10 000 000
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	40 A
at AC-1	
— up to 690 V at ambient temperature 40 °C rated value	40 A
— up to 690 V at ambient temperature 60 °C rated value	35 A
at AC-3	
— at 400 V rated value	17 A
Operating current	
at 1 current path at DC-1	
— at 24 V rated value	35 A
— at 110 V rated value	4.5 A
with 2 current paths in series at DC-1	
— at 24 V rated value	35 A
— at 110 V rated value	35 A
with 3 current paths in series at DC-1	
— at 24 V rated value	35 A
— at 110 V rated value	35 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	2.5 A
with 2 current paths in series at DC-3 at DC-5	
— at 110 V rated value	15 A
— at 24 V rated value	35 A
with 3 current paths in series at DC-3 at DC-5	
— at 110 V rated value	35 A
— at 24 V rated value	35 A
Operating power	
at AC-1	
— at 400 V rated value	23 kW
at AC-2 at 400 V rated value	7.5 kW
at AC-3	
— at 400 V rated value	7.5 kW
— at 500 V rated value	10 kW
— at 690 V rated value	11 kW
Power loss [W] at AC-3 at 400 V for rated value of the operating current per conductor	0.9 W
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	0.8 ... 1.1
Closing power of magnet coil at DC	5.4 W
Holding power of magnet coil at DC	5.4 W
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	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: 63 A
— with type of assignment 2 required	fuse gL/gG: 25 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	85 mm
Width	45 mm
Depth	101 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 (1 ... 2.5 mm <sup>2</sup> ), 2x (2.5 ... 6 mm <sup>2</sup> ), max. 2x 10 mm <sup>2</sup>
— single or multi-stranded	2x (1 ... 2,5 mm <sup>2</sup> ), 2x (2,5 ... 6 mm <sup>2</sup> ), max. 2x 10 mm <sup>2</sup>
— finely stranded with core end processing	2x (1 ... 2.5 mm <sup>2</sup> ), 2x (2.5 ... 6 mm <sup>2</sup> )
at AWG conductors for main contacts	2x (16 ... 12), 2x (14 ... 10), 1x 8
Type of connectable conductor cross-sections	
for auxiliary contacts	
— solid	2x (0.5 ... 1.5 mm <sup>2</sup> ), 2x (0.75 ... 2.5 mm <sup>2</sup> ), max. 2x (0.75 ... 4 mm <sup>2</sup> )
— finely stranded with core end processing	2x (0.5 ... 1.5 mm <sup>2</sup> ), 2x (0.75 ... 2.5 mm <sup>2</sup> )
at AWG conductors for auxiliary contacts	2x (20 ... 16), 2x (18 ... 14), 1x 12