SIEMENS

Electric Automation
Automation specialists

Reference: 3RT1024-1AK60

CONTACTOR, AC-3 5,5KW/400 V, AC 110V 50HZ/120V 60HZ, 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	12 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	5.5 kW
at AC-3	
— at 400 V rated value	5.5 kW
— at 500 V rated value	7.5 kW
— at 690 V rated value	7.5 kW
Power loss [W] at AC-3 at 400 V for rated value of the operating current per conductor	0.5 W
Control circuit/ Control:	

Type of voltage of the control supply voltage	AC
Control supply voltage at AC	
at 50 Hz rated value	110 V
at 60 Hz rated value	120 V
Control supply voltage frequency 1 rated value	50 Hz
Control supply voltage frequency 2 rated value	60 Hz
Operating range factor control supply voltage rated value of magnet coil at AC	
at 50 Hz	0.8 ... 1.1
at 60 Hz	0.8 ... 1.1
Apparent pick-up power of magnet coil at AC	69 V·A
Inductive power factor with closing power of the coil	0.76
Apparent holding power of magnet coil at AC	7.5 V·A
Inductive power factor with the holding power of the coil	0.28
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
Witd>	45 mm
Depth	91 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 mm²), 2x (2.5 ... 6 mm²), max. 2x 10 mm²
— single or multi-stranded	2x (1 ... 2,5 mm²), 2x (2,5 ... 6 mm²), max. 2x 10 mm²
— finely stranded with core end processing	2x (1 ... 2.5 mm²), 2x (2.5 ... 6 mm²)
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 mm²), 2x (0.75 ... 2.5 mm²), max. 2x (0.75 ... 4 mm²)
— finely stranded with core end processing	2x (0.5 ... 1.5 mm²), 2x (0.75 ... 2.5 mm²)
at AWG conductors for auxiliary contacts	2x (20 ... 16), 2x (18 ... 14), 1x 12