SIEMENS

Data sheet 3RT1517-1AK60

CONTACTOR, AC-3 5,5KW/400 V, AC-1 22 A, AC 24 V, 50 HZ, AC 110V 50HZ/120V 60HZ 4-POLE, 2 NO + 2 NC, SIZE S00, SCREW CONNECTION

Figure similar

product brand name	SIRIUS
Product designation	power contactor

General technical data:	
Size of contactor	S00
Insulation voltage	
• rated value	690 V
Degree of pollution	3
Protection class IP	
• on the front	IP20
Mechanical service life (switching cycles)	
• of contactor typical	30 000 000
• of the contactor with added electronics-compatible auxiliary switch block typical	5 000 000
• of the contactor with added auxiliary switch block typical	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
— 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	12 A
Connectable conductor cross-section in main circuit at AC-1	
• at 60 °C minimum permissible	2.5 mm²
• at 40 °C minimum permissible	2.5 mm²
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	3 kW
— at 230 V per NO contact rated value	3 kW
— at 400 V per NC contact rated value	5.5 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	0.7 W
Operating frequency	
• at AC-1 maximum	1 000 1/h

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
Operating range factor control supply voltage rated value of magnet coil at AC	
• at 50 Hz	0.8 ... 1.1
• at 60 Hz	0.85 ... 1.1
Apparent pick-up power of magnet coil at AC	31.7 V·A
• at 50 Hz	31.7 V·A
Inductive power factor with closing power of the coil	0.77
• at 50 Hz	0.77
Apparent holding power of magnet coil at AC	5.1 V·A
• at 50 Hz	5.1 V·A
Inductive power factor with the holding power of the coil	0.27
• at 60 Hz	0.27
Closing delay	
• at AC	8 ... 35 ms
• at DC	25 ... 100 ms
Opening delay	
• at AC	4 ... 30 ms
• at DC	7 ... 10 ms
Arcing time	10 ... 15 ms
Control version of the switch operating mechanism	conventional
Residual current of the electronics for control with signal <0>	
• at AC at 230 V maximum permissible	0.003 A

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: 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 position	with vertical mounting surface +/-180° rotatable, with vertical mounting surface +/- 30° tiltable to the front and back
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 mm²), 2x (0.75 ... 2.5 mm²), max. 2x (0.75 ... 4 mm²)
— single or multi-stranded	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 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 mm²), 2x (0.75 ... 2.5 mm²), max. 2x (0.75 ... 4 mm²)
— single or multi-stranded	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

Safety related data:

Failure rate [FIT]	
• with low demand rate acc. to SN 31920	100 FIT

Certificates/approvals

General Product Approval			Functional Safety/Safety of Machinery	Declaration of Conformity	Test Certificates
CSA	UL	EAC	Baumusterprüfbescheinigung	EG-Konf.	spezielle Prüfbescheinigungen

Shipping Approval					other
ABS	GL	LRS	RINA	RMRS	Umweltbestätigung

other

Bestätigungen sonstig

Further information

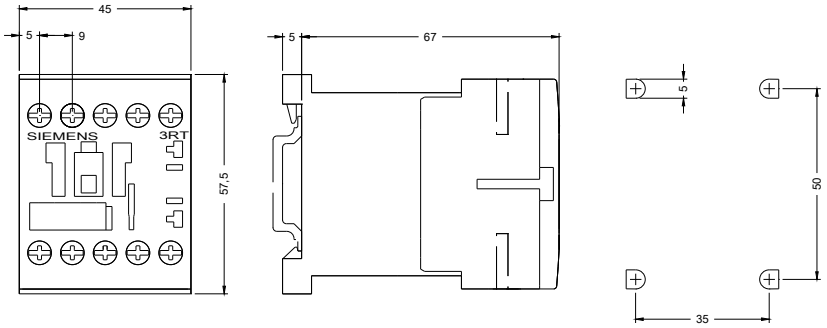
Information- and Downloadcenter (Catalogs, Brochures,…)
http://www.siemens.com/industrial-controls/catalogs

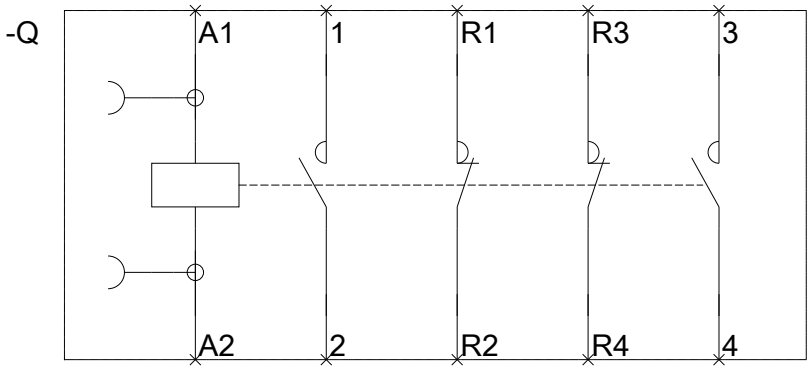
Industry Mall (Online ordering system)
https://mall.industry.siemens.com/mall/en/en/Catalog/product?mlfb=3RT15171AK60

Cax online generator
http://support.automation.siemens.com/WW/CAXorder/default.aspx?lang=en&mlfb=3RT15171AK60

Service&Support (Manuals, Certificates, Characteristics, FAQs,...)
https://support.industry.siemens.com/cs/ww/en/ps/3RT15171AK60

Image database (product images, 2D dimension drawings, 3D models, device circuit diagrams, EPLAN macros, ...)
http://www.automation.siemens.com/bilddb/cax_de.aspx?mlfb=3RT15171AK60&lang=en





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