SIEMENS

Data sheet 3RT1036-1AP00

Power contactor, AC-3 50 A, 22 kW / 400 V 230 V AC, 50 Hz, 3-pole, Size S2, Screw terminal !!! Phased-out product !!! Successor is SIRIUS 3RT2 Preferred successor type is >>3RT2036-1AP00<<

product brand name	SIRIUS
product designation	power contactor

General technical data	
size of contactor	S2
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
• of the terminal	IP00
shock resistance at rectangular impulse	
• at AC	10g / 5 ms, 5g / 10 ms
shock resistance with sine pulse	
• at AC	15g / 5 ms, 8g / 10 ms
mechanical service life (switching cycles)	

• of contactor typical	10 000 000
• of the contactor with added electronically optimized auxiliary switch block typical	5 000 000
• of the contactor with added auxiliary switch block typical	10 000 000
reference code acc. to IEC 81346-2	Q

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 poles for main current circuit	3
number of NO contacts for main contacts	3
number of NC contacts for main contacts	0
operational current	
• at AC-1 at 400 V	
— at ambient temperature 40 °C rated value	60 A
• at AC-1	
— up to 690 V at ambient temperature 40 °C rated value	60 A
— up to 690 V at ambient temperature 60 °C rated value	55 A
• at AC-3	
— at 400 V rated value	50 A
— at 690 V rated value	24 A
• at AC-4 at 400 V rated value	41 A
connectable conductor cross-section in main circuit at AC-1	
• at 60 °C minimum permissible	16 mm²
• at 40 °C minimum permissible	16 mm²
operational current for approx. 200000 operating cycles at AC-4	
• at 400 V rated value	24 A
• at 690 V rated value	12.6 A
operational current	
• at 1 current path at DC-1	
— at 24 V rated value	55 A
— at 110 V rated value	4.5 A
• with 2 current paths in series at DC-1	
— at 24 V rated value	55 A

— at 110 V rated value	25 A
• with 3 current paths in series at DC-1	
— at 24 V rated value	55 A
— at 110 V rated value	55 A
operational current	
• at 1 current path at DC-3 at DC-5	
— at 24 V rated value	35 A
— at 110 V rated value	2.5 A
• with 2 current paths in series at DC-3 at DC-5	
— at 24 V rated value	55 A
— at 110 V rated value	25 A
• with 3 current paths in series at DC-3 at DC-5	
— at 24 V rated value	55 A
— at 110 V rated value	55 A
operating power	
• at AC-1	
— at 230 V at 60 °C rated value	22 kW
— at 400 V rated value	38 kW
— at 690 V rated value	66 kW
— at 690 V at 60 °C rated value	66 kW
• at AC-2 at 400 V rated value	22 kW
• at AC-3	
— at 230 V rated value	15 kW
— at 400 V rated value	22 kW
— at 500 V rated value	30 kW
— at 690 V rated value	22 kW
operating power for approx. 200000 operating cycles at AC-4	
• at 400 V rated value	12.6 kW
• at 690 V rated value	11.4 kW
thermal short-time current limited to 10 s	400 A
no-load switching frequency	
• at AC	5 000 1/h
operating frequency	
• at AC-1 maximum	1 000 1/h
• at AC-2 maximum	400 1/h
• at AC-3 maximum	800 1/h
• at AC-4 maximum	300 1/h
Control circuit/ Control	
type of voltage of the control supply voltage	AC
control supply voltage at AC	

• at 50 Hz rated value	230 V
control supply voltage frequency	
• **1 rated value**	50 Hz
operating range factor control supply voltage rated value of magnet coil at AC	
• at 50 Hz	0.8 ... 1.1
apparent pick-up power of magnet coil at AC	145 V·A
inductive power factor with closing power of the coil	0.79
apparent holding power of magnet coil at AC	12.5 V·A
inductive power factor with the holding power of the coil	0.36
closing delay	
• at AC	10 ... 24 ms
opening delay	
• at AC	7 ... 20 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
operational current at AC-12 maximum	10 A
• operational current at AC-15 at 230 V rated value	6 A
• operational current at AC-15 at 400 V rated value	3 A
operational 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
operational 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)

UL/CSA ratings

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	fuse gL/gG: 160 A

— with type of assignment 2 required	fuse gL/gG: 80 A
• for short-circuit protection of the auxiliary switch required	fuse gL/gG: 10 A

Installation/ mounting/ dimensions

fastening method	screw and snap-on mounting onto 35 mm standard mounting rail according to DIN EN 50022
• side-by-side mounting	Yes
height	112 mm
width	55 mm
depth	115 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 circuit	screw-type terminals
type of connectable conductor cross-sections	
• for main contacts	
— solid	2x (0.75 ... 16 mm²)
— stranded	2x (0.75 ... 25 mm²)
— solid or stranded	2x (0,75 ... 16 mm²)
— finely stranded with core end processing	2x (0.75 ... 16 mm²)
— finely stranded without core end processing	2x (0.75 ... 16 mm²)
• at AWG cables for main contacts	2x (18 ... 2)
• 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)
• type of connectable conductor cross-sections at AWG cables for auxiliary contacts	2x (20 ... 16), 2x (18 ... 14), 1x 12

Certificates/ approvals

General Product Approval				EMC	Declaration of Conformity
CSA	CCC	UL	EAC	RCM	EG-Konf.

Declaration of Conformity	Test Certificates			Marine / Shipping	
Miscellaneous	Type Test Certificates/Test Report	Special Test Certificate	Miscellaneous	ABS	LRS

Marine / Shipping			other		Railway
RINA	RMRS	DNVGL.COM/AF	Confirmation	Miscellaneous	Special Test Certificate

Further information

Information- and Downloadcenter (Catalogs, Brochures,…)
https://www.siemens.com/ic10

Industry Mall (Online ordering system)
https://mall.industry.siemens.com/mall/en/en/Catalog/product?mlfb=3RT1036-1AP00

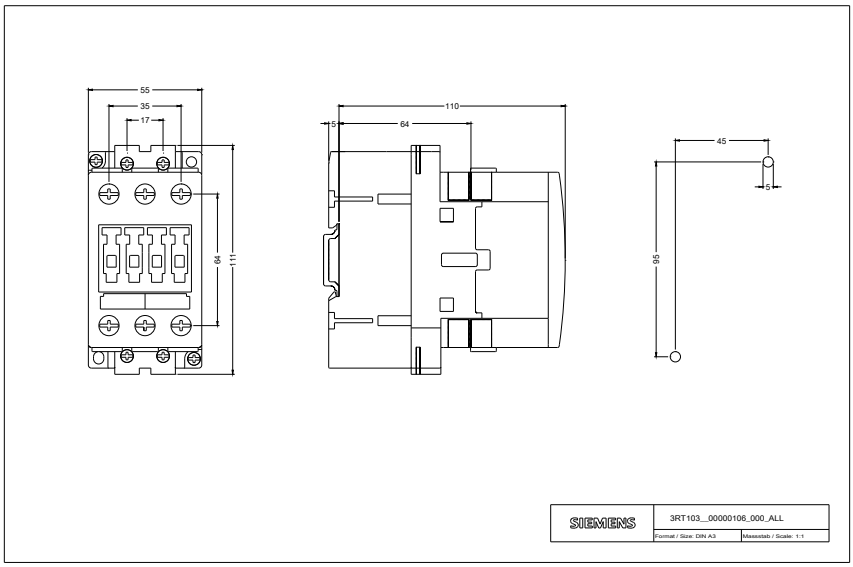
Cax online generator
http://support.automation.siemens.com/WW/CAXorder/default.aspx?lang=en&mlfb=3RT1036-1AP00

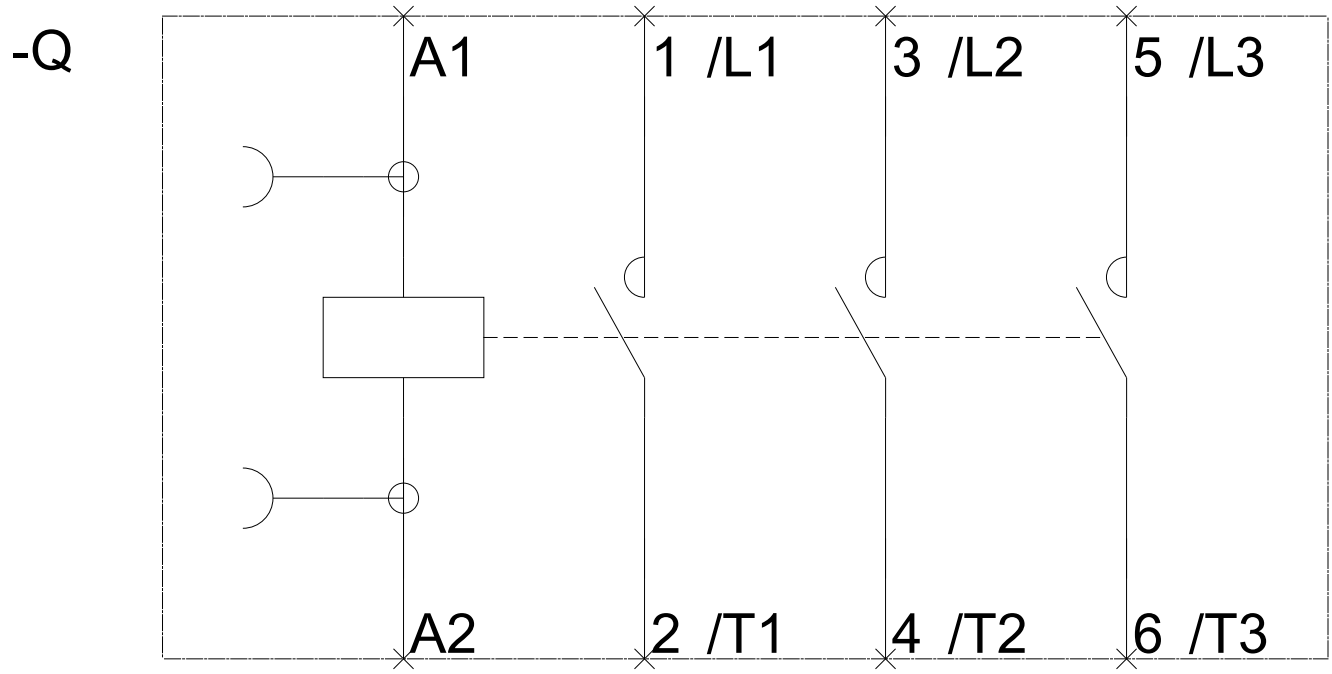
Service&Support (Manuals, Certificates, Characteristics, FAQs,...)
https://support.industry.siemens.com/cs/ww/en/ps/3RT1036-1AP00

Image database (product images, 2D dimension drawings, 3D models, device circuit diagrams, EPLAN macros, ...)
http://www.automation.siemens.com/bilddb/cax_de.aspx?mlfb=3RT1036-1AP00&lang=en

Characteristic: Tripping characteristics, I^2t, Let-through current
https://support.industry.siemens.com/cs/ww/en/ps/3RT1036-1AP00/char

Further characteristics (e.g. electrical endurance, switching frequency)
http://www.automation.siemens.com/bilddb/index.aspx?view=Search&mlfb=3RT1036-1AP00&objecttype=14&gridview=view1





last modified: 11/19/2020