SIEMENS

Data sheet 3RT2646-1AP03

Capacitor contactor, AC-6b 100 kVAr, / 400 V 1 NO + 1 NC, 230 V AC, 50 Hz 3-pole, Size S3 screw terminal



Figure similar

Product brand name	SIRIUS
Product designation	capacitor contactors
Product type designation	3RT26

General technical data	
Size of contactor	S3
Product extension	
Auxiliary switch	Yes
Surge voltage resistance	
 of main circuit rated value 	8 kV
 of auxiliary circuit 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	IP00
• of the terminal	IP00
Shock resistance at rectangular impulse	

• at AC	6,8g / 5 ms, 4g / 10 ms
Shock resistance with sine pulse	
• at AC	10,6g / 5 ms, 6,2g / 10 ms
Mechanical service life (switching cycles)	
 of the contactor with added auxiliary switch block typical 	3 000 000
Electrical endurance (switching cycles)	120 000
Reference code acc. to DIN EN 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 NO contacts for main contacts	3
Number of NC contacts for main contacts	0
Operating current	
 at AC-6b at 690 V at ambient temperature 60 C rated value 	144 A
Operational reactive power at AC-6b	
 at 230 V at 50/60 Hz at ambient temperature 60 C rated value 	19 57 kvar
 at 400 V at 50/60 Hz at ambient temperature 60 C rated value 	33 100 kvar
 at 500 V at 50/60 Hz at ambient temperature 60 C rated value 	41 125 kvar
 at 690 V at 50/60 Hz at ambient temperature 60 C rated value 	57 172 kvar
No-load switching frequency	
• at AC	500 1/h
Operating frequency at AC-6b	
• at 230 V maximum	150 1/h
• at 240 V maximum	150 1/h
• at 400 V maximum	80 1/h
• at 480 V maximum	53 1/h
• at 500 V maximum	53 1/h
• at 600 V maximum	32 1/h
• at 690 V maximum	30 1/h
Control circuit/ Control	
Type of voltage	AC
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	296 V·A
Inductive power factor with closing power of the coil	0.61
Apparent holding power of magnet coil at AC	19 V·A
Inductive power factor with the holding power of the	0.38
coil	
Closing delay	
• at AC	15 25 ms
Arcing time	10 15 ms
Auxiliary circuit	
Number of NC contacts for auxiliary contacts	1
• attachable	1
• instantaneous contact	1
Number of NO contacts for auxiliary contacts	1
• attachable	1
• instantaneous contact	1
Operating current of auxiliary contacts at AC-12 maximum	10 A
Operating current of auxiliary contacts at AC-15	
● at 230 V	6 A
● at 400 V	3 A
Operating current of auxiliary contacts at DC-13	
● at 24 V	6 A
● at 60 V	2 A
● at 110 V	1 A
● at 125 V	0.9 A
● at 220 V	0.3 A
Contact reliability of auxiliary contacts	0.0000001
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	gG: 250 A (690 V, 50 kA)
 for short-circuit protection of the auxiliary switch required 	fuse gL/gG: 10 A
. 4	

nstallation/ mounting/ dimensions	
Mounting position	+/-180° rotation possible on vertical mounting surface; can be tilted forward and backward by +/- 22.5° on vertical mounting surface
Mounting type	screw and snap-on mounting onto 35 mm standard mounting rail according to DIN EN 50022
Height	140 mm
Width	80 mm
Depth	152 mm
Required spacing	
with side-by-side mounting	
— at the side	10 mm
• for grounded parts	
— at the side	10 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 (10 16 mm²)
— stranded	2x (10 70 mm²), 1x (10 70 mm²)
— single or multi-stranded	2x (10 70 mm²), 1x (10 70 mm²)
 finely stranded with core end processing 	2x (10 50 mm²)
 at AWG conductors for main contacts 	2x (8 3/0), 1x (6 3/0)
Type of connectable conductor cross-sections	
• for auxiliary contacts	
— solid	2x (0.5 1.5 mm²), 2x (0.75 2.5 mm²), 2x 4 mm²
— single or multi-stranded	2x (0,5 1,5 mm²), 2x (0,75 2,5 mm²), 2x 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), 2x 12
Type of minimum connectable cross-section for main contacts at AC-6b	
• at 40 °C	1x 70 mm²
● at 60 °C	2x 50 mm²
AWG number as coded connectable conductor cross section for main contacts	8
Safety related data	
Product function	
 Mirror contact acc. to IEC 60947-4-1 	No
positively driven operation acc. to IEC 60947-5-	No

Protection against electrical shock

Not finger-safe

Certificates/approvals

General Product Approval EMC Declaration of Test other Conformity Certificates









Type Test Certificates/Test Report

Confirmation

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=3RT2646-1AP03

Cax online generator

http://support.automation.siemens.com/WW/CAXorder/default.aspx?lang=en&mlfb=3RT2646-1AP03

Service&Support (Manuals, Certificates, Characteristics, FAQs,...)

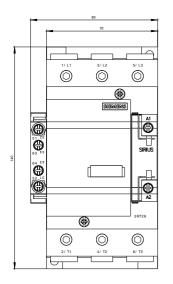
industry.siemens.com/cs/ww/en/ps/3RT2646-1AP03

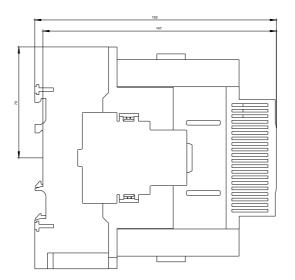
Image database (product images, 2D dimension drawings, 3D models, device circuit diagrams, EPLAN macros, ...)

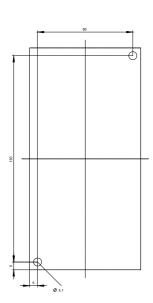
http://www.automation.siemens.com/bilddb/cax_de.aspx?mlfb=3RT2646-1AP03&lang=en

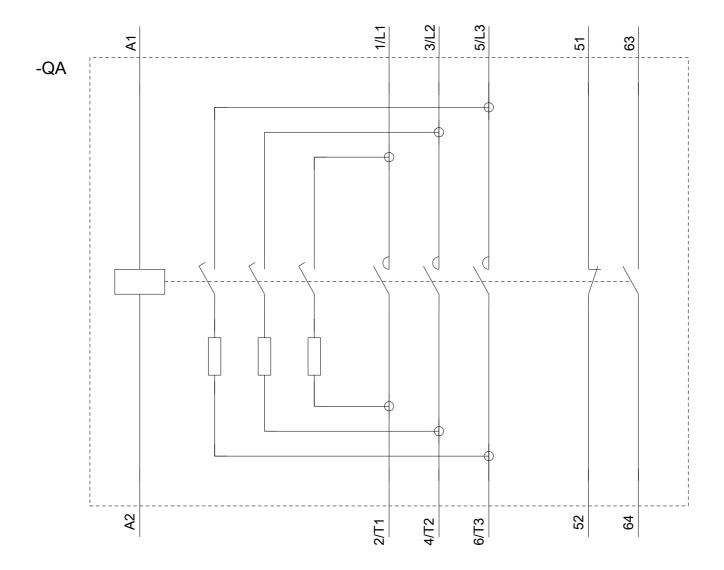
Characteristic: Tripping characteristics, I2t, Let-through current https://support.industry.siemens.com/cs/ww/en/ps/3RT2646-1AP03/char

Further characteristics (e.g. electrical endurance, switching frequency)
http://www.automation.siemens.com/bilddb/index.aspx?view=Search&mlfb=3RT2646-1AP03&objecttype=14&gridview=view1









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