SIEMENS

Data sheet 3RT2646-1AP03



capacitor contactor, AC-6b 100 kVAr, / 400 V, 3-pole, 230 V AC, 50 Hz, auxiliary contacts: 1 NO + 1 NC, screw terminal

product brand name	SIRIUS
product designation	capacitor contactors
product type designation	3RT26
General technical data	
size of contactor	S3
product extension auxiliary switch	Yes
insulation voltage	
 of main circuit with degree of pollution 3 rated value 	1 000 V
 of auxiliary circuit with degree of pollution 3 rated value 	690 V
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 according to EN 60947-1	400 V
shock resistance at rectangular impulse	
• at AC	10.3g / 5 ms, 6,.g / 10 ms
shock resistance with sine pulse	
• at AC	16.3g / 5 ms, 10.g / 10 ms
mechanical service life (operating cycles)	
 of the contactor with added auxiliary switch block typical 	3 000 000
electrical endurance (operating cycles)	120 000
reference code according to IEC 81346-2	Q
Substance Prohibitance (Date)	06/26/2017
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
relative humidity minimum	10 %
relative humidity at 55 °C according to IEC 60068-2-30 maximum	95 %
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-6b at 690 V at ambient temperature 60 °C rated value	144 A
operating 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 	33 100 kvar

rated value	
	44 495 lover
 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	57 172 kvar
rated value	37 172 RVdI
no-load switching frequency	
• at AC	500 1/h
operating frequency at AC-6b	300 IIII
• 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 VA
inductive power factor with closing power of the coil	0.61
apparent holding power of magnet coil at AC	19 VA
inductive power factor with the holding power of the	0.38
coil	0.50
closing delay	
• at AC	13 50 ms
opening delay	
opo9	
• at AC	10 21 ms
at AC arcing time	10 21 ms
arcing time	10 20 ms
arcing time control version of the switch operating mechanism	
arcing time control version of the switch operating mechanism Auxiliary circuit	10 20 ms Standard A1 - A2
arcing time control version of the switch operating mechanism Auxiliary circuit number of NC contacts for auxiliary contacts	10 20 ms Standard A1 - A2
arcing time control version of the switch operating mechanism Auxiliary circuit number of NC contacts for auxiliary contacts • attachable	10 20 ms Standard A1 - A2
arcing time control version of the switch operating mechanism Auxiliary circuit number of NC contacts for auxiliary contacts • attachable • instantaneous contact	10 20 ms Standard A1 - A2
arcing time control version of the switch operating mechanism Auxiliary circuit number of NC contacts for auxiliary contacts • attachable • instantaneous contact number of NO contacts for auxiliary contacts	10 20 ms Standard A1 - A2
arcing time control version of the switch operating mechanism Auxiliary circuit number of NC contacts for auxiliary contacts • attachable • instantaneous contact	10 20 ms Standard A1 - A2
arcing time control version of the switch operating mechanism Auxiliary circuit number of NC contacts for auxiliary contacts • attachable • instantaneous contact number of NO contacts for auxiliary contacts	10 20 ms Standard A1 - A2
arcing time control version of the switch operating mechanism Auxiliary circuit number of NC contacts for auxiliary contacts • attachable • instantaneous contact number of NO contacts for auxiliary contacts • attachable • instantaneous contact operational current of auxiliary contacts at AC-12	10 20 ms Standard A1 - A2
arcing time control version of the switch operating mechanism Auxiliary circuit number of NC contacts for auxiliary contacts • attachable • instantaneous contact number of NO contacts for auxiliary contacts • attachable • instantaneous contact operational current of auxiliary contacts at AC-12 maximum	10 20 ms Standard A1 - A2
arcing time control version of the switch operating mechanism Auxiliary circuit number of NC contacts for auxiliary contacts • attachable • instantaneous contact number of NO contacts for auxiliary contacts • attachable • instantaneous contact operational current of auxiliary contacts at AC-12 maximum operational current of auxiliary contacts at AC-15	10 20 ms Standard A1 - A2
arcing time control version of the switch operating mechanism Auxiliary circuit number of NC contacts for auxiliary contacts • attachable • instantaneous contact number of NO contacts for auxiliary contacts • attachable • instantaneous contact operational current of auxiliary contacts at AC-12 maximum operational current of auxiliary contacts at AC-15 • at 230 V	10 20 ms Standard A1 - A2
arcing time control version of the switch operating mechanism Auxiliary circuit number of NC contacts for auxiliary contacts • attachable • instantaneous contact number of NO contacts for auxiliary contacts • attachable • instantaneous contact operational current of auxiliary contacts at AC-12 maximum operational current of auxiliary contacts at AC-15 • at 230 V • at 400 V	10 20 ms Standard A1 - A2
arcing time control version of the switch operating mechanism Auxiliary circuit number of NC contacts for auxiliary contacts • attachable • instantaneous contact number of NO contacts for auxiliary contacts • attachable • instantaneous contact operational current of auxiliary contacts at AC-12 maximum operational current of auxiliary contacts at AC-15 • at 230 V • at 400 V • at 690 V	10 20 ms Standard A1 - A2
arcing time control version of the switch operating mechanism Auxiliary circuit number of NC contacts for auxiliary contacts • attachable • instantaneous contact number of NO contacts for auxiliary contacts • attachable • instantaneous contact operational current of auxiliary contacts at AC-12 maximum operational current of auxiliary contacts at AC-15 • at 230 V • at 400 V • at 690 V operational current of auxiliary contacts at DC-13	10 20 ms Standard A1 - A2
arcing time control version of the switch operating mechanism Auxiliary circuit number of NC contacts for auxiliary contacts	10 20 ms Standard A1 - A2 1 1 1 1 1 1 1 1 1 0 A
arcing time control version of the switch operating mechanism Auxiliary circuit number of NC contacts for auxiliary contacts	10 20 ms Standard A1 - A2 1 1 1 1 1 1 1 1 1 0 A
arcing time control version of the switch operating mechanism Auxiliary circuit number of NC contacts for auxiliary contacts • attachable • instantaneous contact number of NO contacts for auxiliary contacts • attachable • instantaneous contact operational current of auxiliary contacts at AC-12 maximum operational current of auxiliary contacts at AC-15 • at 230 V • at 400 V • at 690 V operational current of auxiliary contacts at DC-13 • at 24 V • at 60 V • at 110 V	10 20 ms Standard A1 - A2 1 1 1 1 1 1 1 1 1 0 A 6 A 3 A 0 A 6 A 2 A 1 A
arcing time control version of the switch operating mechanism Auxiliary circuit number of NC contacts for auxiliary contacts	10 20 ms Standard A1 - A2 1 1 1 1 1 1 1 1 1 1 0 A
arcing time control version of the switch operating mechanism Auxiliary circuit number of NC contacts for auxiliary contacts • attachable • instantaneous contact number of NO contacts for auxiliary contacts • attachable • instantaneous contact operational current of auxiliary contacts at AC-12 maximum operational current of auxiliary contacts at AC-15 • at 230 V • at 400 V • at 690 V operational current of auxiliary contacts at DC-13 • at 24 V • at 60 V • at 110 V • at 125 V • at 220 V	10 20 ms Standard A1 - A2 1 1 1 1 1 1 1 1 1 1 0 A 6 A 3 A 0 A 6 A 2 A 1 A 0.9 A 0.3 A
arcing time control version of the switch operating mechanism Auxiliary circuit number of NC contacts for auxiliary contacts	10 20 ms Standard A1 - A2 1 1 1 1 1 1 1 1 1 1 0 A
arcing time control version of the switch operating mechanism Auxiliary circuit number of NC contacts for auxiliary contacts • attachable • instantaneous contact number of NO contacts for auxiliary contacts • attachable • instantaneous contact operational current of auxiliary contacts at AC-12 maximum operational current of auxiliary contacts at AC-15 • at 230 V • at 400 V • at 690 V operational current of auxiliary contacts at DC-13 • at 24 V • at 60 V • at 110 V • at 125 V • at 220 V	10 20 ms Standard A1 - A2 1 1 1 1 1 1 1 1 1 1 0 A 6 A 3 A 0 A 6 A 2 A 1 A 0.9 A 0.3 A
arcing time control version of the switch operating mechanism Auxiliary circuit number of NC contacts for auxiliary contacts • attachable • instantaneous contact number of NO contacts for auxiliary contacts • attachable • instantaneous contact operational current of auxiliary contacts at AC-12 maximum operational current of auxiliary contacts at AC-15 • at 230 V • at 400 V • at 690 V operational current of auxiliary contacts at DC-13 • at 24 V • at 60 V • at 110 V • at 125 V • at 220 V contact reliability of auxiliary contacts	10 20 ms Standard A1 - A2 1 1 1 1 1 1 1 1 1 1 0 A 6 A 3 A 0 A 6 A 2 A 1 A 0.9 A 0.3 A
arcing time control version of the switch operating mechanism Auxiliary circuit number of NC contacts for auxiliary contacts • attachable • instantaneous contact number of NO contacts for auxiliary contacts • attachable • instantaneous contact operational current of auxiliary contacts at AC-12 maximum operational current of auxiliary contacts at AC-15 • at 230 V • at 400 V • at 690 V operational current of auxiliary contacts at DC-13 • at 24 V • at 60 V • at 110 V • at 125 V • at 220 V contact reliability of auxiliary contacts UL/CSA ratings contact rating of auxiliary contacts according to UL	10 20 ms Standard A1 - A2 1 1 1 1 1 1 1 1 1 1 1 0 A 6 A 3 A 0 A 6 A 2 A 1 A 0.9 A 0.3 A 0.00000001
arcing time control version of the switch operating mechanism Auxiliary circuit number of NC contacts for auxiliary contacts • attachable • instantaneous contact number of NO contacts for auxiliary contacts • attachable • instantaneous contact operational current of auxiliary contacts at AC-12 maximum operational current of auxiliary contacts at AC-15 • at 230 V • at 400 V • at 690 V operational current of auxiliary contacts at DC-13 • at 24 V • at 60 V • at 110 V • at 125 V • at 220 V contact reliability of auxiliary contacts UL/CSA ratings contact rating of auxiliary contacts according to UL Short-circuit protection	10 20 ms Standard A1 - A2 1 1 1 1 1 1 1 1 1 1 1 0 A 6 A 3 A 0 A 6 A 2 A 1 A 0.9 A 0.3 A 0.00000001
arcing time control version of the switch operating mechanism Auxiliary circuit number of NC contacts for auxiliary contacts	10 20 ms Standard A1 - A2 1 1 1 1 1 1 1 1 1 1 1 0 A 6 A 3 A 0 A 6 A 2 A 1 A 0.9 A 0.3 A 0.00000001
arcing time control version of the switch operating mechanism Auxiliary circuit number of NC contacts for auxiliary contacts • attachable • instantaneous contact number of NO contacts for auxiliary contacts • attachable • instantaneous contact operational current of auxiliary contacts at AC-12 maximum operational current of auxiliary contacts at AC-15 • at 230 V • at 400 V • at 690 V operational current of auxiliary contacts at DC-13 • at 24 V • at 60 V • at 110 V • at 125 V • at 220 V contact reliability of auxiliary contacts UL/CSA ratings contact rating of auxiliary contacts according to UL Short-circuit protection	10 20 ms Standard A1 - A2 1 1 1 1 1 1 1 1 1 1 1 0 A 6 A 3 A 0 A 6 A 2 A 1 A 0.9 A 0.3 A 0.00000001
arcing time control version of the switch operating mechanism Auxiliary circuit number of NC contacts for auxiliary contacts	10 20 ms Standard A1 - A2 1 1 1 1 1 1 1 1 1 1 1 0 A 6 A 3 A 0 A 6 A 2 A 1 A 0.9 A 0.3 A 0.00000001 A600 / Q600
arcing time control version of the switch operating mechanism Auxiliary circuit number of NC contacts for auxiliary contacts	10 20 ms Standard A1 - A2 1 1 1 1 1 1 1 1 1 1 1 0 A 6 A 3 A 0 A 6 A 2 A 1 A 0.9 A 0.3 A 0.00000001

Installation/ mounting/ dimensions			
mounting position	+/-180° rotation possible on vertical mounting surfactor forward and backward by +/- 22.5° on vertical mounting surfactor.		
fastening method	screw and snap-on mounting onto 35 mm DIN rail a 50022	ccording to DIN EN	
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 circuit 	screw-type terminals		
 at contactor for auxiliary contacts 	Screw-type terminals		
of magnet coil	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)		
 solid or stranded 	2x (10 70 mm²), 1x (10 70 mm²)		
 finely stranded with core end processing 	2x (10 50 mm²)		
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		
— solid or 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 cables 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 according to IEC 60947-4-1 	No		
 positively driven operation according to IEC 60947- 5-1 	No		
protection class IP on the front according to IEC 60529	IP20		
touch protection on the front according to IEC 60529	finger-safe, for vertical contact from the front		
Certificates/ approvals			
General Product Approval		ЕМС	

Confirmation





<u>KC</u>





Declaration of Conformity

Test Certificates

Marine / Shipping





Type Test Certificates/Test Report







other Dangerous Good

Further information

Siemens has decided to exit the Russian market (see here).

https://press.siemens.com/global/en/pressrelease/siemens-wind-down-russian-business

Siemens is working on the renewal of the current EAC certificates.

Please contact your local Siemens office on the status of validity of the EAC certification if you intend to import or offer to supply these products to an EAC relevant market (other than the sanctioned EAEU member states Russia or Belarus).

Information on the packaging

https://support.industry.siemens.com/cs/ww/en/view/109813875

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=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,...)

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

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

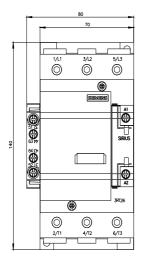
http://www.automation.siemens.com/bilddb/cax_de.aspx?mlfb=3RT2646-1AP03&lang=en

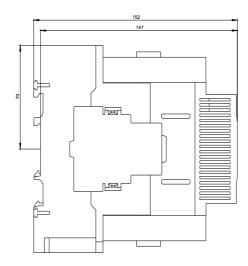
Characteristic: Tripping characteristics, I2t, Let-through current

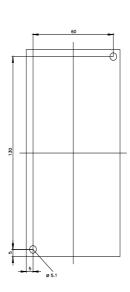
https://support.industry.siemens.com/cs/ww/en/ps/3RT2646-1AP03/char

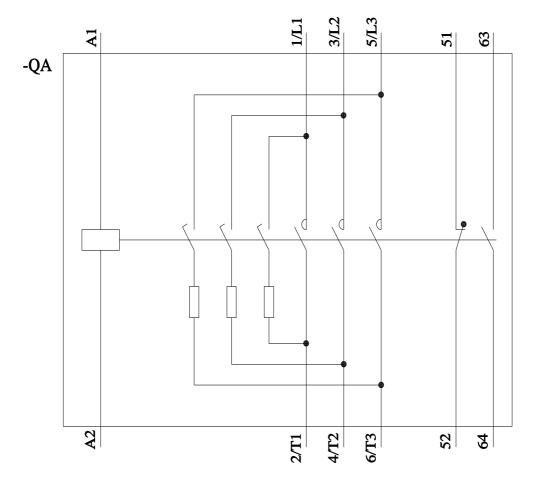
Further characteristics (e.g. electrical endurance, switching frequency)

http://www.automation.siemens.com/bilddb/index.aspx?view=Search&mlfb=3RT2646-1AP03&objecttype=14&gridview=view1









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