SIEMENS

Data sheet

3RT2646-1AF05



capacitor contactor, AC-6b 100 kVAr, / 400 V, 3-pole, 110 V AC, 50 Hz, auxiliary contacts: 2 NC, screw terminal, size: S3

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 protective separation 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 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 	57 172 kvar
value	
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	110 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 coil	0.38
closing delay	
• at AC	13 50 ms
opening delay	
• at AC	10 21 ms
arcing time	10 20 ms
control version of the switch operating mechanism	Standard A1 - A2
Auxiliary circuit	
number of NC contacts for auxiliary contacts	2
attachable	1
instantaneous contact	2
number of NO contacts for auxiliary contacts	0
attachable	1
instantaneous contact	0
operational current of auxiliary contacts at AC-12 maximum	10 A
operational current of auxiliary contacts at AC-15	
• at 230 V	6 A
• at 400 V	3 A
• at 690 V	0 A
operational current of auxiliary contacts at DC-13	C 4
• at 24 V	6 A
• at 60 V	2 A
• at 110 V	1A
• at 125 V	0.9 A
• at 220 V	0.3 A
contact reliability of auxiliary contacts	0.0000001
UL/CSA ratings	A200 / 0200
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 	
	gG: 10 A (500 V, 1 kA)
Installation/ mounting/ dimensions	
	gG: 10 A (500 V, 1 kA) +/-180° rotation possible on vertical mounting surface: can be tilted forward and

			backward by	+/- 22.5° on verti	cal mounting surface			
fastening method			screw and snap-on mounting onto 35 mm DIN rail according to DIN EN 50022					
height			140 mm					
width			80 mm					
depth			152 mm					
required spacing								
	de mounting at the side		10 mm					
-	 for grounded parts at the side 			10 mm				
Connections/ Termin		_						
type of electrical co								
 for main currer 			screw-type terminals					
 for auxiliary ar 			screw-type terminals					
-	r auxiliary contacts		Screw-type terminals					
 of magnet coil 			Screw-type terminals					
	onductor cross-sections for ma		ooron type t					
 solid 			2x (10 16 mm²)					
 stranded 			2x (10 10 mm²) 2x (10 70 mm²), 1x (10 70 mm²)					
 solid or strand 	ed			mm²), 1x (10 70 mm²), 1x (10 70				
	with core end processing		2x (10 70 i 2x (10 50 i					
	conductor cross-sections							
 for auxiliary co 								
— solid			2x (0.5 1.5 mm²), 2x (0.75 2.5 mm²), 2x 4 mm²					
— solid or s	tranded			· · · · ·	2.5 mm²), 2x 4 mm²			
	anded with core end processing		2x (0.5 1.5 mm²), 2x (0.75 2.5 mm²)					
-	s for auxiliary contacts		2x (20 16), 2x (18 14), 2x 12					
	nnectable cross-sections for		,	,				
• at 40 °C			1x 70 mm²					
● at 60 °C			2x 50 mm²					
AWG number as cod main contacts	AWG number as coded connectable conductor cross section for				8			
Safety related data								
product function								
 mirror contact 	according to IEC 60947-4-1		No					
 positively drive 	n operation according to IEC 60)947-5-1	No					
protection class IP	on the front according to IEC	60529	IP20					
touch protection on	the front according to IEC 60	529	finger-safe, fo	or vertical contact	from the front			
Certificates/ approval	s							
General Product A	proval					EMC		
<u>Confirmation</u>		(JL)		<u>KC</u>	FAC	Ø		
	ccc	UL				RCM		
Declaration of Con	ormity 1	est Certificates	Marin	ne / Shipping				
	1.112	Type Test Certifi	•					
CE EG-Konf.	UK CA	ates/Test Repor		Lloyd's Register	PRS	RINA		
other	Dangerous Good							
Confirmation	Transport Information							

Further information

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

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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=3RT2646-1AF05

Cax online generator

http://support.automation.siemens.com/WW/CAXorder/default.aspx?lang=en&mlfb=3RT2646-1AF05

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

https://support.industry.siemens.com/cs/ww/en/ps/3RT2646-1AF0

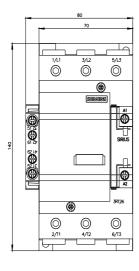
Image database (product images, 2D dimension drawings, 3D models, device circuit diagrams, EPLAN macros, ...)

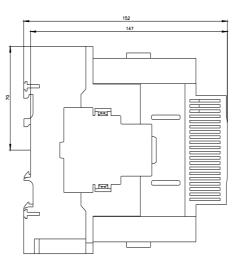
http://www.automation.siemens.com/bilddb/cax_de.aspx?mlfb=3RT2646-1AF05&lang=en

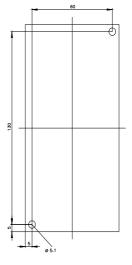
Characteristic: Tripping characteristics, I²t, Let-through current

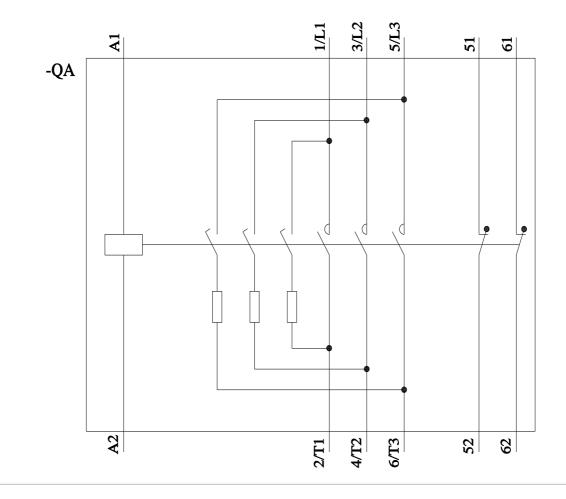
https://support.industry.siemens.com/cs/ww/en/ps/3RT2646-1AF05/char

Further characteristics (e.g. electrical endurance, switching frequency) http://www.automation.siemens.com/bilddb/index.aspx?view=Search&mlfb=3RT2646-1AF05&objecttype=14&gridview=view1









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