SIEMENS

Data sheet 3RT2645-1NF35



Capacitor contactor, AC-6b 75 kVAr, / 400 V 2 NC, 50-60 Hz AC / 83-155 V DC 3-pole, Size S3 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 acc. to EN 60947-1	400 V
shock resistance at rectangular impulse	
• at AC	6.8g / 5 ms, 4g / 10 ms
• at DC	6,8g / 5 ms, 4g / 10 ms
shock resistance with sine pulse	
• at AC	10.6g / 5 ms, 6.2g / 10 ms
• at DC	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)	200 000
reference code acc. to IEC 81346-2	Q
Substance Prohibitance (Date)	26.06.2017
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 acc. to IEC 60068-2-30 maximum	95 %
Main circuit	
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	108 A

operating reactive power at AC-6b	
 at 230 V at 50/60 Hz at ambient temperature 60 °C rated value 	14 43 kvar
 at 400 V at 50/60 Hz at ambient temperature 60 °C rated value 	25 75 kvar
 at 500 V at 50/60 Hz at ambient temperature 60 °C rated value 	31 94 kvar
• at 690 V at 50/60 Hz at ambient temperature 60 °C rated value	43 129 kvar
no-load switching frequency	
• at AC	500 1/h
• at DC	500 1/h
operating frequency at AC-6b	
• at 230 V maximum	200 1/h
at 240 V maximum	200 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	30 1/h
at 690 V maximum	30 1/h
Control circuit/ Control	
type of voltage	AC/DC
type of voltage of the control supply voltage	AC/DC
control supply voltage at AC	
at 50 Hz rated value	83 155 V
at 60 Hz rated value	83 155 V
control supply voltage frequency	
• 1 rated value	50 Hz
• 2 rated value	60 Hz
control supply voltage at DC	
• rated value	83 155 V
operating range factor control supply voltage rated value of magnet coil at DC	
• initial value	0.8
full-scale value	1.1
operating range factor control supply voltage rated	1.1
value of magnet coil at AC	
● at 50 Hz	0.8 1.1
● at 60 Hz	0.8 1.1
inrush current peak	1.5 A
duration of inrush current peak	50 μs
locked-rotor current mean value	1.1 A
locked-rotor current peak	2.7 A
duration of locked-rotor current	150 ms
holding current mean value	15 mA
apparent pick-up power of magnet coil at AC	163 VA
apparent holding power of magnet coil at AC	3.1 VA
closing power of magnet coil at DC	76 W
holding power of magnet coil at DC	1.8 W
closing delay	
• at AC	50 70 ms
• at DC	50 70 ms
opening delay	
• at AC	38 57 ms
• at DC	38 57 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	10 A
maximum	
operational current of auxiliary contacts at AC-15	
• at 230 V	6 A
● at 400 V	3 A
operational 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	gG: 250 A (690 V, 50 kA)
type of coordination 1 required	
for short-circuit protection of the auxiliary switch required.	gG: 10 A (500 V, 1 kA)
required	
Installation/ mounting/ dimensions	.// 4000 1 12 21 22 22 23 24 25 25 25 25 25 25 25 25 25 25 25 25 25
mounting position	+/-180° rotation possible on vertical mounting surface; can be tilted forward and backward by +/- 22.5° on vertical mounting surface
fastening method	screw and snap-on mounting onto 35 mm standard mounting rail
idotoming motifod	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 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)
at AWG cables 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
— 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 50 mm²
● at 60 °C	2x 35 mm²
AWG number as coded connectable conductor cross section for main contacts	8
Safety related data	

mirror contact acc. to IEC 60947-4-1
 positively driven operation acc. to IEC 60947-5-1
 protection class IP on the front acc. to IEC 60529
 touch protection on the front acc. to IEC 60529
 finger-safe, for vertical contact from the front

Certificates/ approvals

General Product Approval EMC



Confirmation



<u>KC</u>





Declaration of Conformity

Test Certificates

Marine / Shipping

other

Dangerous Good



UK Declaration of Conformity Type Test Certificates/Test Report



Confirmation

Transport Informa-

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=3RT2645-1NF35

Cax online generator

http://support.automation.siemens.com/WW/CAXorder/default.aspx?lang=en&mlfb=3RT2645-1NF35

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

https://support.industry.siemens.com/cs/ww/en/ps/3RT2645-1NF35

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

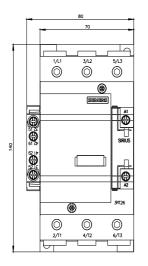
http://www.automation.siemens.com/bilddb/cax_de.aspx?mlfb=3RT2645-1NF35&lang=en

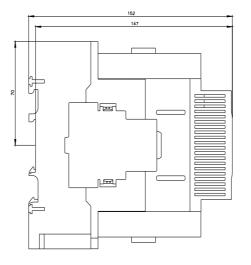
Characteristic: Tripping characteristics, I²t, Let-through current

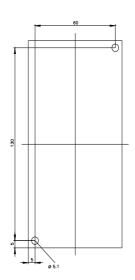
https://support.industry.siemens.com/cs/ww/en/ps/3RT2645-1NF35/char

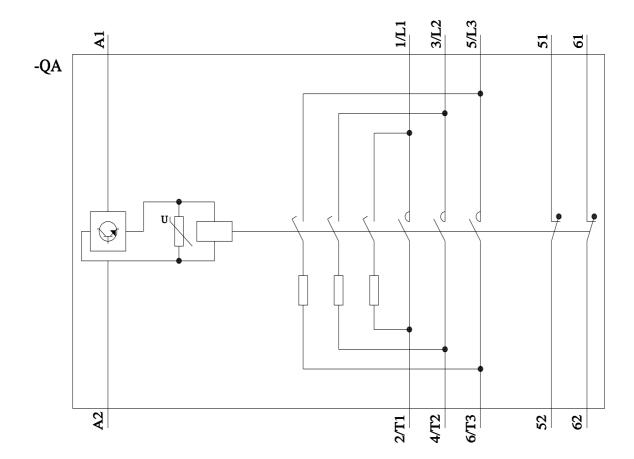
Further characteristics (e.g. electrical endurance, switching frequency)

http://www.automation.siemens.com/bilddb/index.aspx?view=Search&mlfb=3RT2645-1NF35&objecttype=14&gridview=view1









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