SIEMENS

Data sheet 3TC4417-0AB4



Contactor, Size 2, 2-pole, DC-3 and 5, 32 A Auxiliary contacts 22 (2 NO + 2 NC) 24V DC DC operation Operating range 0.85-1.1 UN

product designation	Contactor
product type designation	3TC
General technical data	
size of contactor	2
product extension	
 function module for communication 	No
auxiliary switch	Yes
insulation voltage rated value	800 V
maximum permissible voltage for protective separation between coil and main contacts according to EN 60947-1	300 V
shock resistance at rectangular impulse	
• at DC	7,5g / 5 ms, 3,4g / 10 ms
mechanical service life (operating cycles)	
 of contactor typical 	10 000 000
of the contactor with added auxiliary switch block typical	10 000 000
reference code according to IEC 81346-2	Q
Substance Prohibitance (Date)	02/01/2012
SVHC substance name	Blei - 7439-92-1 6,6'-Di-tert-butyl-2,2'-methylendi-p-cre - 119-47-1
Ambient conditions	
ambient temperature	
 during operation 	-25 +55 °C
during storage	-50 +80 °C
relative humidity minimum	10 %
relative humidity at 55 °C according to IEC 60068-2-30 maximum	95 %
Main circuit	
number of poles	2
number of poles for main current circuit	2
number of NO contacts for main contacts	2
number of NC contacts for main contacts	0
type of voltage	DC
operational current	
at 1 current path at DC-1	
— at 24 V rated value	32 A
— at 110 V rated value	32 A
— at 220 V rated value	32 A
 with 2 current paths in series at DC-1 	
— at 24 V rated value	32 A
— at 110 V rated value	32 A
— at 220 V rated value	32 A

— at 440 V rated value	32 A
— at 600 V rated value	32 A
— at 750 V rated value	32 A
• at 1 current path at DC-3 at DC-5	
— at 24 V rated value	32 A
— at 110 V rated value	32 A
— at 220 V rated value	32 A
 with 2 current paths in series at DC-3 at DC-5 	
— at 24 V rated value	32 A
— at 110 V rated value	32 A
— at 220 V rated value	32 A
	29 A
— at 440 V rated value	
— at 600 V rated value	21 A
— at 750 V rated value	7.5 A
operating power	
• at DC-1	
— at 110 V rated value	3.5 kW
— at 220 V rated value	7 kW
— at 440 V rated value	14 kW
— at 750 V rated value	24 kW
• at DC-3 at DC-5	
— at 110 V rated value	2.5 kW
— at 220 V rated value	5 kW
— at 440 V rated value	9 kW
— at 600 V rated value	9 kW
— at 750 V rated value	4 kW
operating frequency	
at DC-1 maximum	1 500 1/h
at DC-3 maximum	750 1/h
• at DC-5 maximum	750 1/h
Control circuit/ Control	750 1/11
	DC .
type of voltage of the control supply voltage	DC
type of voltage of the control supply voltage control supply voltage at DC	
type of voltage of the control supply voltage control supply voltage at DC • rated value	24 V
type of voltage of the control supply voltage control supply voltage at DC • rated value closing power of magnet coil at DC	24 V 10 W
type of voltage of the control supply voltage control supply voltage at DC • rated value closing power of magnet coil at DC holding power of magnet coil at DC	24 V 10 W 10 W
type of voltage of the control supply voltage control supply voltage at DC • rated value closing power of magnet coil at DC holding power of magnet coil at DC closing delay at DC	24 V 10 W 10 W 35 190 ms
type of voltage of the control supply voltage control supply voltage at DC • rated value closing power of magnet coil at DC holding power of magnet coil at DC	24 V 10 W 10 W 35 190 ms 10 25 ms
type of voltage of the control supply voltage control supply voltage at DC • rated value closing power of magnet coil at DC holding power of magnet coil at DC closing delay at DC opening delay at DC arcing time	24 V 10 W 10 W 35 190 ms
type of voltage of the control supply voltage control supply voltage at DC • rated value closing power of magnet coil at DC holding power of magnet coil at DC closing delay at DC opening delay at DC arcing time Auxiliary circuit	24 V 10 W 10 W 35 190 ms 10 25 ms 20 30 ms
type of voltage of the control supply voltage control supply voltage at DC • rated value closing power of magnet coil at DC holding power of magnet coil at DC closing delay at DC opening delay at DC arcing time	24 V 10 W 10 W 35 190 ms 10 25 ms
type of voltage of the control supply voltage control supply voltage at DC • rated value closing power of magnet coil at DC holding power of magnet coil at DC closing delay at DC opening delay at DC arcing time Auxiliary circuit	24 V 10 W 10 W 35 190 ms 10 25 ms 20 30 ms
type of voltage of the control supply voltage control supply voltage at DC • rated value closing power of magnet coil at DC holding power of magnet coil at DC closing delay at DC opening delay at DC arcing time Auxiliary circuit number of NC contacts for auxiliary contacts	24 V 10 W 10 W 35 190 ms 10 25 ms 20 30 ms
type of voltage of the control supply voltage control supply voltage at DC • rated value closing power of magnet coil at DC holding power of magnet coil at DC closing delay at DC opening delay at DC arcing time Auxiliary circuit number of NC contacts for auxiliary contacts • instantaneous contact	24 V 10 W 10 W 35 190 ms 10 25 ms 20 30 ms
type of voltage of the control supply voltage control supply voltage at DC • rated value closing power of magnet coil at DC holding power of magnet coil at DC closing delay at DC opening delay at DC arcing time Auxiliary circuit number of NC contacts for auxiliary contacts • instantaneous contact number of NO contacts for auxiliary contacts	24 V 10 W 10 W 35 190 ms 10 25 ms 20 30 ms
type of voltage of the control supply voltage control supply voltage at DC • rated value closing power of magnet coil at DC holding power of magnet coil at DC closing delay at DC opening delay at DC arcing time Auxiliary circuit number of NC contacts for auxiliary contacts • instantaneous contact number of NO contacts for auxiliary contacts • instantaneous contact	24 V 10 W 10 W 35 190 ms 10 25 ms 20 30 ms
type of voltage of the control supply voltage control supply voltage at DC • rated value closing power of magnet coil at DC holding power of magnet coil at DC closing delay at DC opening delay at DC arcing time Auxiliary circuit number of NC contacts for auxiliary contacts • instantaneous contact number of NO contacts for auxiliary contacts • instantaneous contact number of CO contacts for auxiliary contacts	24 V 10 W 10 W 35 190 ms 10 25 ms 20 30 ms
type of voltage of the control supply voltage control supply voltage at DC	24 V 10 W 10 W 35 190 ms 10 25 ms 20 30 ms 2 2 2 2 0 22
type of voltage of the control supply voltage control supply voltage at DC • rated value closing power of magnet coil at DC holding power of magnet coil at DC closing delay at DC opening delay at DC arcing time Auxiliary circuit number of NC contacts for auxiliary contacts • instantaneous contact number of NO contacts for auxiliary contacts • instantaneous contact number of CO contacts for auxiliary contacts identification number and letter for switching elements operational current at AC-12 maximum	24 V 10 W 10 W 35 190 ms 10 25 ms 20 30 ms 2 2 2 2 0 22
type of voltage of the control supply voltage control supply voltage at DC	24 V 10 W 10 W 35 190 ms 10 25 ms 20 30 ms 2 2 2 2 2 10 A
type of voltage of the control supply voltage control supply voltage at DC • rated value closing power of magnet coil at DC holding power of magnet coil at DC closing delay at DC opening delay at DC arcing time Auxiliary circuit number of NC contacts for auxiliary contacts • instantaneous contact number of NO contacts for auxiliary contacts • instantaneous contact number of CO contacts for auxiliary contacts identification number and letter for switching elements operational current at AC-12 maximum operational current at AC-15 • at 230 V rated value	24 V 10 W 10 W 35 190 ms 10 25 ms 20 30 ms 2 2 2 2 2 10 A 5.6 A
type of voltage of the control supply voltage control supply voltage at DC	24 V 10 W 10 W 35 190 ms 10 25 ms 20 30 ms 2 2 2 2 2 10 A 5.6 A 3.6 A
type of voltage of the control supply voltage control supply voltage at DC	24 V 10 W 10 W 35 190 ms 10 25 ms 20 30 ms 2 2 2 2 2 10 A 5.6 A 3.6 A 2.5 A
type of voltage of the control supply voltage control supply voltage at DC	24 V 10 W 10 W 35 190 ms 10 25 ms 20 30 ms 2 2 2 2 10 A 5.6 A 3.6 A 2.5 A
type of voltage of the control supply voltage control supply voltage at DC • rated value closing power of magnet coil at DC holding power of magnet coil at DC closing delay at DC opening delay at DC arcing time Auxiliary circuit number of NC contacts for auxiliary contacts • instantaneous contact number of NO contacts for auxiliary contacts instantaneous contact number of CO contacts for auxiliary contacts identification number and letter for switching elements operational current at AC-12 maximum operational current at AC-15 • at 230 V rated value • at 400 V rated value • at 500 V rated value operational current at DC-12 • at 24 V rated value • at 48 V rated value • at 48 V rated value	24 V 10 W 10 W 35 190 ms 10 25 ms 20 30 ms 2 2 2 2 2 10 A 5.6 A 3.6 A 2.5 A 10 A 10 A
type of voltage of the control supply voltage control supply voltage at DC • rated value closing power of magnet coil at DC holding power of magnet coil at DC closing delay at DC opening delay at DC arcing time Auxiliary circuit number of NC contacts for auxiliary contacts • instantaneous contact number of NO contacts for auxiliary contacts instantaneous contact number of CO contacts for auxiliary contacts identification number and letter for switching elements operational current at AC-12 maximum operational current at AC-15 • at 230 V rated value • at 400 V rated value • at 500 V rated value • at 24 V rated value • at 24 V rated value • at 48 V rated value • at 48 V rated value • at 60 V rated value	24 V 10 W 10 W 35 190 ms 10 25 ms 20 30 ms 2 2 2 2 2 10 A 5.6 A 3.6 A 2.5 A 10 A 10 A 10 A
type of voltage of the control supply voltage control supply voltage at DC • rated value closing power of magnet coil at DC holding power of magnet coil at DC closing delay at DC opening delay at DC arcing time Auxiliary circuit number of NC contacts for auxiliary contacts • instantaneous contact number of NO contacts for auxiliary contacts instantaneous contact number of CO contacts for auxiliary contacts identification number and letter for switching elements operational current at AC-12 maximum operational current at AC-15 • at 230 V rated value • at 400 V rated value • at 500 V rated value operational current at DC-12 • at 24 V rated value • at 48 V rated value • at 60 V rated value • at 110 V rated value • at 110 V rated value	24 V 10 W 10 W 35 190 ms 10 25 ms 20 30 ms 2 2 2 2 2 0 22 10 A 5.6 A 3.6 A 2.5 A 10 A 10 A 10 A 10 A 3.2 A
type of voltage of the control supply voltage control supply voltage at DC • rated value closing power of magnet coil at DC holding power of magnet coil at DC closing delay at DC opening delay at DC arcing time Auxiliary circuit number of NC contacts for auxiliary contacts • instantaneous contact number of NO contacts for auxiliary contacts instantaneous contact number of CO contacts for auxiliary contacts identification number and letter for switching elements operational current at AC-12 maximum operational current at AC-15 • at 230 V rated value • at 400 V rated value • at 500 V rated value • at 24 V rated value • at 48 V rated value • at 48 V rated value • at 48 V rated value • at 60 V rated value • at 110 V rated value • at 110 V rated value • at 125 V rated value	24 V 10 W 10 W 35 190 ms 10 25 ms 20 30 ms 2 2 2 2 10 A 5.6 A 3.6 A 2.5 A 10 A 10 A 10 A 10 A 10 A 10 A 2.5 A
type of voltage of the control supply voltage control supply voltage at DC • rated value closing power of magnet coil at DC holding power of magnet coil at DC closing delay at DC opening delay at DC arcing time Auxiliary circuit number of NC contacts for auxiliary contacts • instantaneous contact number of NO contacts for auxiliary contacts instantaneous contact number of CO contacts for auxiliary contacts identification number and letter for switching elements operational current at AC-12 maximum operational current at AC-15 • at 230 V rated value • at 400 V rated value • at 500 V rated value • at 48 V rated value • at 48 V rated value • at 48 V rated value • at 60 V rated value • at 110 V rated value • at 125 V rated value • at 125 V rated value • at 220 V rated value • at 220 V rated value	24 V 10 W 10 W 35 190 ms 10 25 ms 20 30 ms 2 2 2 2 2 10 A 5.6 A 3.6 A 2.5 A 10 A
type of voltage of the control supply voltage control supply voltage at DC	24 V 10 W 10 W 35 190 ms 10 25 ms 20 30 ms 2 2 2 2 10 A 5.6 A 3.6 A 2.5 A 10 A 10 A 10 A 10 A 10 A 10 A 2.5 A
type of voltage of the control supply voltage control supply voltage at DC • rated value closing power of magnet coil at DC holding power of magnet coil at DC closing delay at DC opening delay at DC arcing time Auxiliary circuit number of NC contacts for auxiliary contacts • instantaneous contact number of NO contacts for auxiliary contacts instantaneous contact number of CO contacts for auxiliary contacts identification number and letter for switching elements operational current at AC-12 maximum operational current at AC-15 • at 230 V rated value • at 400 V rated value • at 500 V rated value • at 48 V rated value • at 48 V rated value • at 48 V rated value • at 60 V rated value • at 110 V rated value • at 125 V rated value • at 125 V rated value • at 220 V rated value • at 220 V rated value	24 V 10 W 10 W 35 190 ms 10 25 ms 20 30 ms 2 2 2 2 2 10 A 5.6 A 3.6 A 2.5 A 10 A

General Froduct Approval		chinery
General Product Approval		Functional Safety/Safety of Ma-
Approvals Certificates		
protection class IP on the front according to IEC 60529	IP00	
Safety related data	IDOO	
— finely stranded with core end processing	2x (0.75 1.5 mm²)	
— solid or stranded	2x (1 2.5 mm²)	
for auxiliary contacts	2 (4 2.5 may 2)	
type of connectable conductor cross-sections		
finely stranded with core end processing	2x (1.5 4 mm²)	
 solid or stranded 	2x (2,5 10 mm²)	
type of connectable conductor cross-sections for main contacts		
for auxiliary and control circuit	screw-type terminals	
• for main current circuit	screw-type terminals	
type of electrical connection	screw-type terminals	
Connections/ Terminals		
— at the side	10 mm	
— downwards	10 mm	
— upwards	10 mm	
— backwards	0 mm	
— forwards	30 mm	
• for live parts		
— downwards	10 mm	
— at the side	10 mm	
— upwards	10 mm	
— backwards	0 mm	
— forwards	30 mm	
 for grounded parts 		
— at the side	10 mm	
— downwards	10 mm	
— upwards	10 mm	
— backwards	0 mm	
— forwards	15 mm	
with side-by-side mounting		
required spacing		
depth	145 mm	
width	70 mm	
height	85 mm	
side-by-side mounting	Yes	
fastening method	screw and snap-on mounting onto 35 mm DIN rail accord	ding to DIN EN 50022
mounting position	+/-22,5° rotation possible on vertical mounting surface; of and backward by +/- 22.5° on vertical mounting surface; mounting surface	
Installation/ mounting/ dimensions		
for short-circuit protection of the auxiliary switch required	gG: 16 A (500 V, 1 kA)	
 — with type of assignment 2 required 	2 x 3NA3020 (50 A) in series (750 V, 3 kA)	
 — with type of coordination 1 required 	2 x 3NA3020 (50 A) in series (750 V, 3 kA)	
 for short-circuit protection of the main circuit 		
design of the fuse link		
Short-circuit protection		
contact rating of auxiliary contacts according to UL	A600 / P600	
UL/CSA ratings		
at 600 V rated value	0.07 A	
• at 220 V rated value	0.48 A	
• at 125 V rated value	0.98 A	
• at 110 V rated value	1.14 A	
• at 60 V rated value	5 A	
 at 48 V rated value 	5 A	





Confirmation





Type Examination Certificate

Functional	
Safety/Safety of Ma-	
chinery	

Declaration of Conformity

Test Certificates

Type Examination Certificate





Special Test Certificate

Miscellaneous

Type Test Certificates/Test Report

other

Dangerous Good

Confirmation

Transport Information

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=3TC4417-0AB4

Cax online generator

http://support.automation.siemens.com/WW/CAXorder/default.aspx?lang=en&mlfb=3TC4417-0AB4

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

https://support.industry.siemens.com/cs/ww/en/ps/3TC4417-0AB4

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

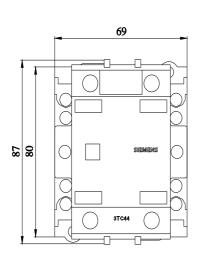
http://www.automation.siemens.com/bilddb/cax_de.aspx?mlfb=3TC4417-0AB4&lang=en

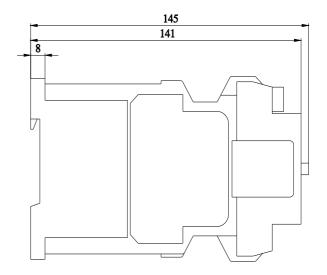
Characteristic: Tripping characteristics, I²t, Let-through current

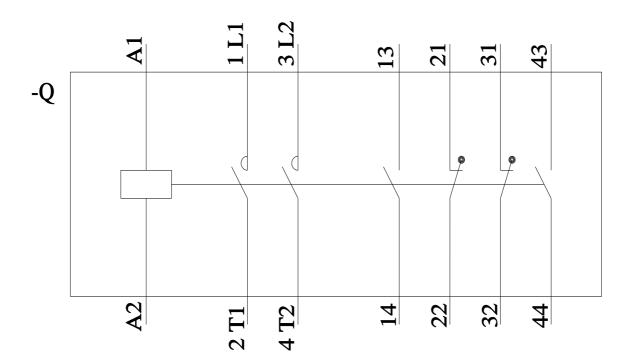
https://support.industry.siemens.com/cs/ww/en/ps/3TC4417-0AB4/char

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

http://www.automation.siemens.com/bilddb/index.aspx?view=Search&mlfb=3TC4417-0AB4&objecttype=14&gridview=view1







last modified: 8/11/2023 🖸

