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	
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
— at 440 V rated value	29 A
— 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	
	5.0
type of voltage of the control supply voltage	DC
type of voltage of the control supply voltage control supply voltage at DC	DC
	DC 24 V
control supply voltage at DC	
control supply voltage at DC • rated value	24 V
control supply voltage at DC • rated value closing power of magnet coil at DC	24 V 10 W
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
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
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	24 V 10 W 10 W 35 190 ms 10 25 ms
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
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
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
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
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
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 instantaneous contact number of CO contacts for auxiliary contacts identification number and letter for switching elements	24 V 10 W 10 W 35 190 ms 10 25 ms 20 30 ms 2 2 2 2 2 0 22
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 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
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	24 V 10 W 10 W 35 190 ms 10 25 ms 20 30 ms 2 2 2 2 0 22 10 A
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
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	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
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	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
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	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
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	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
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 2 10 A 5.6 A 3.6 A 2.5 A
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 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
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 60 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
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 • 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 2 10 A 5.6 A 3.6 A 2.5 A 10 A 10 A 10 A 10 A 3.2 A 2.5 A
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 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	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 10 A 3.2 A 2.5 A 0.9 A
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 60 V rated value • at 110 V rated value • at 125 V rated value • at 220 V rated value • at 220 V rated value • at 220 V rated value • at 600 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 10 A 3.2 A 2.5 A
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 110 V rated value • at 125 V rated value • at 125 V rated value • at 220 V rated value • at 600 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
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 110 V rated value • at 125 V rated value • at 125 V rated value • at 220 V rated value • at 220 V rated value • at 220 V rated value • at 600 V rated value • at 600 V rated value • at 600 V rated value • at 220 V rated value • at 220 V rated value • at 220 V rated value • at 24 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
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 110 V rated value • at 125 V rated value • at 125 V rated value • at 220 V rated value • at 600 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

at 110 V rated value	1.14 A		
at 125 V rated value	0.98 A		
at 220 V rated value	0.48 A		
at 600 V rated value	0.07 A		
IL/CSA ratings			
contact rating of auxiliary contacts according to UL	A600 / P600		
Chort-circuit protection			
design of the fuse link			
 for short-circuit protection of the main circuit 			
 — with type of coordination 1 required 	2 x 3NA3020 (50 A) in series (750 V, 3 kA)		
 — with type of assignment 2 required 	2 x 3NA3020 (50 A) in series (750 V, 3 kA)		
for short-circuit protection of the auxiliary switch required	gG: 16 A (500 V, 1 kA)		
nstallation/ mounting/ dimensions			
mounting position	+/-22,5° rotation possible on vertical mounting surface; of and backward by +/- 22.5° on vertical mounting surface; mounting surface		
fastening method	screw and snap-on mounting onto 35 mm DIN rail accord	ding to DIN EN 50022	
side-by-side mounting	Yes		
height	85 mm		
width	70 mm		
depth	145 mm		
required spacing			
 with side-by-side mounting 			
— forwards	15 mm		
— backwards	0 mm		
— upwards	10 mm		
— downwards	10 mm		
— at the side	10 mm		
for grounded parts			
— forwards	30 mm		
— backwards	0 mm		
— upwards	10 mm		
— at the side	10 mm		
— downwards	10 mm		
for live parts			
— forwards	30 mm		
— backwards	0 mm		
— upwards	10 mm		
— downwards	10 mm		
— at the side	10 mm		
Connections/ Terminals			
type of electrical connection	screw-type terminals		
for main current circuit	screw-type terminals		
for auxiliary and control circuit	screw-type terminals		
type of connectable conductor cross-sections for main contacts			
solid or stranded	2x (2,5 10 mm²)		
finely stranded with core end processing	2x (1.5 4 mm²)		
type of connectable conductor cross-sections			
for auxiliary contacts			
— solid or stranded	2x (1 2.5 mm²)		
finely stranded with core end processing	2x (0.75 1.5 mm²)		
safety related data			
product function mirror contact according to IEC 60947-4-1	Yes; One NC contact each must be connected in series auxiliary switch block respectively	for the right and left	
protection class IP on the front according to IEC 60529	IP00		
Certificates/ approvals			
General Product Approval		Functional Safety/Safety of Ma chinery	





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/qlobal/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, ...)

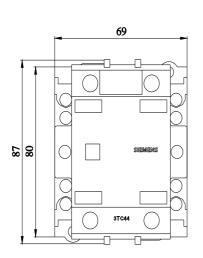
http://www.automation.siemens.com/bilddb/cax_de.aspx?mlfb=3TC4417-0AB4&lang=en

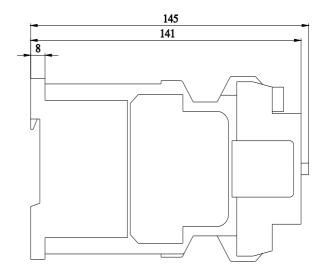
Characteristic: Tripping characteristics, I2t, Let-through current

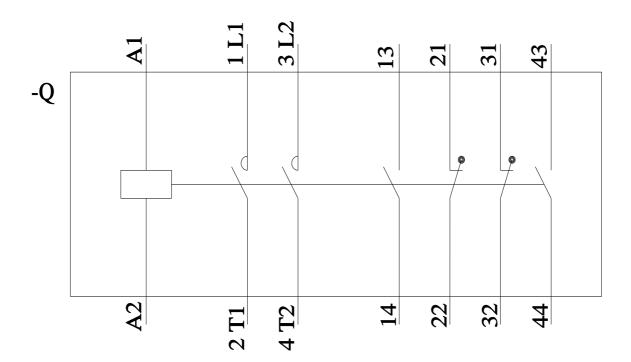
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Further characteristics (e.g. electrical endurance, switching frequency)

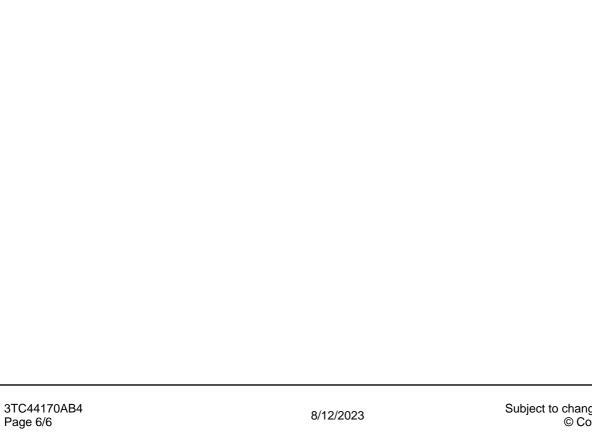
http://www.automation.siemens.com/bilddb/index.aspx?view=Search&mlfb=3TC4417-0AB4&objecttype=14&gridview=view1







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