SIEMENS

Data sheet

3TC4417-0AV4



Contactor, Size 2, 2-pole, DC-3 and 5, 32 A Auxiliary contacts 22 (2 NO + 2 NC) 36 V DC DC operation

e g	
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 betweencoil 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	25100
— 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	
type of voltage of the control supply voltage	DC
control supply voltage at DC	
rated value	36 V
closing power of magnet coil at DC	10 W
holding power of magnet coil at DC	10 W
closing delay at DC	35 190 ms
opening delay at DC	10 25 ms
arcing time	20 30 ms
Auxiliary circuit	
number of NC contacts for auxiliary contacts	2
 instantaneous contact 	
	2
number of NO contacts for auxiliary contacts	2
number of NO contacts for auxiliary contacts instantaneous contact 	2 2
number of NO contacts for auxiliary contacts instantaneous contact number of CO contacts for auxiliary contacts	2 2 0
number of NO contacts for auxiliary contacts • instantaneous contact number of CO contacts for auxiliary contacts identification number and letter for switching elements	2 2 0 22
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	2 2 0
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	2 2 0 22 10 A
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 230 V rated value	2 2 0 22 10 A 5.6 A
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	2 2 0 22 10 A 5.6 A 3.6 A
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 230 V rated value	2 2 0 22 10 A 5.6 A
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 • at 230 V rated value • at 400 V rated value • at 400 V rated value	2 2 0 22 10 A 5.6 A 3.6 A
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	2 2 0 22 10 A 5.6 A 3.6 A 2.5 A 10 A
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 500 V rated value • at 500 V rated value	2 2 0 22 10 A 5.6 A 3.6 A 2.5 A
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	2 2 0 22 10 A 5.6 A 3.6 A 2.5 A 10 A
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 	2 2 0 22 10 A 5.6 A 3.6 A 2.5 A 10 A 10 A
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	2 2 0 22 10 A 5.6 A 3.6 A 2.5 A 10 A 10 A 10 A
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 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	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
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	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 2.5 A
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 500 V rated value • at 500 V rated value • at 24 V rated value • at 24 V rated value • at 48 V rated value • at 10 V rated value • at 125 V rated value • at 220 V rated value	2 2 0 22 10 A 5.6 A 3.6 A 2.5 A 10 A 10 A 10 A 3.2 A 2.5 A 0.9 A
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 500 V rated value • at 500 V rated value • at 48 V rated value • at 48 V rated value • at 48 V rated value • at 110 V rated value • at 125 V rated value • at 220 V rated value • at 600 V rated value	2 2 0 22 10 A 5.6 A 3.6 A 2.5 A 10 A 10 A 10 A 3.2 A 2.5 A 0.9 A
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 400 V rated value • at 24 V rated value • at 25 V rated value • at 110 V rated value • at 220 V rated value • at 250 V rated value • at 260 V rated value • at 60 V rated value • at 60 V rated value • at 60 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	2 2 0 22 10 A 5.6 A 3.6 A 2.5 A 10 A 10 A 10 A 3.2 A 2.5 A 0.9 A 0.22 A
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 220 V rated value • at 220 V rated value • at 24 V rated value • at 24 V rated value • at 24 V rated value • at 48 V rated value • at 60 V rated value • at 220 V rated value • at 600 V rated value • at 600 V rated value • at 24 V rated value	2 2 0 22 10 A 5.6 A 3.6 A 2.5 A 10 A 10 A 10 A 3.2 A 2.5 A 0.9 A 0.22 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	
UL/CSA ratings		
contact rating of auxiliary contacts according to UL	A600 / P600	
Short-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)	
Installation/ mounting/ dimensions		
mounting position	+/-22,5° rotation possible on vertical mounting surface; c and backward by +/- 22.5° on vertical mounting surface; mounting surface	
fastening method	screw and snap-on mounting onto 35 mm DIN rail accord	ling 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 mm ²)	
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	or 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

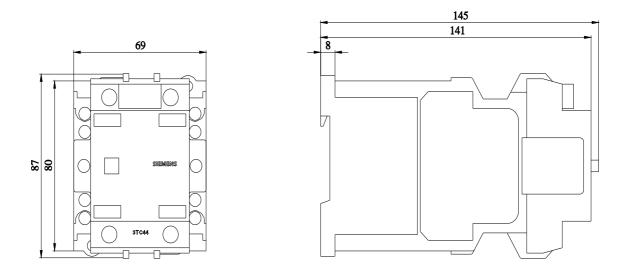
(SP)	<u>Confirmation</u>	CCC CCC		EAC	<u>Type Examination Cer-</u> tificate
Functional Safety/Safety of Ma- chinery	Declaration of Conformity	,	Test Certificates		
<u>Type Examination Cer-</u> <u>tificate</u>	CE EG-Konf.	UK CA	Miscellaneous	<u>Type Test Certific-</u> ates/Test Report	<u>Special Test Certific-</u> <u>ate</u>
other	Dangerous Good				
Confirmation	Transport Information				

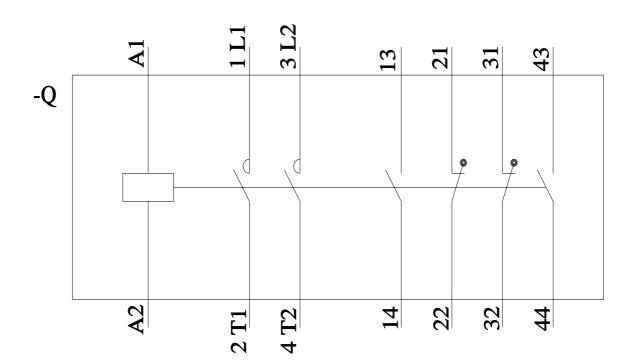
Siemens has decided to exit the Russian market (see here).
https://press.siemens.com/global/en/pressrelease/siemens-wind-down-russian-business
Siemens is working on the renewal of the current EAC certificates.
Please contact your local Siemens office on the status of validity of the EAC certification 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=3TC4417-0AV4
Cax online generator
http://support.automation.siemens.com/WW/CAXorder/default.aspx?lang=en&mlfb=3TC4417-0AV4
Service&Support (Manuals, Certificates, Characteristics, FAQs,)
https://support.industry.siemens.com/cs/ww/en/ps/3TC4417-0AV4
Image database (product images, 2D dimension drawings, 3D models, device circuit diagrams, EPLAN macros,)
http://www.automation.siemens.com/bilddb/cax_de.aspx?mlfb=3TC4417-0AV4⟨=en
Characteristic: Tripping characteristics, I ² t, Let-through current

Characteristic: Tripping characteristics, I²t, Let-through current <u>https://support.industry.siemens.com/cs/ww/en/ps/3TC4417-0AV4/char</u>

Further characteristics (e.g. electrical endurance, switching frequency) http://www.automation.siemens.com/bilddb/index.aspx?view=Search&mlfb=3TC4417-0AV4&objecttype=14&gridview=view1

Further information





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