SIEMENS

Data sheet 3TC4417-0LW4



Contactor, Size 2, 2-pole, for railway applications DC-3 and 5, 7.5 A at 750 V 48V DC Auxiliary contacts 21 (2NO+1NC) with varistor and series resistor Operating range 0.7...1.25xUS

product designation	Contactor
product type designation	3TC
General technical data	
size of contactor	2
product extension	
 function module for communication 	No
auxiliary switch	No
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 	-40 +70 °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	
type of voltage of the control supply voltage	DC
control supply voltage at DC	
• rated value	48 V
design of the surge suppressor	with varistor
closing power of magnet coil at DC	48 W
holding power of magnet coil at DC	13 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	1
number of NO contacts for auxiliary contacts	2
instantaneous contact	2
number of CO contacts for auxiliary contacts	0
identification number and letter for switching elements	21
operational current at AC-12 maximum	10 A
operational current at AC-15	
• at 230 V rated value	5.6 A
• at 400 V rated value	3.6 A
at 500 V rated value	2.5 A
operational current at DC-12	
at 24 V rated value	10 A
at 48 V rated value	10 A
at 60 V rated value	10 A
• at 110 V rated value	3.2 A
• at 125 V rated value	2.5 A
at 220 V rated value	0.9 A
at 600 V rated value	0.22 A
operational current at DC-13	
 at 24 V rated value 	10 A
at 24 V rated value at 48 V rated value	10 A 5 A

 at 60 V rated value 		
	5 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; of and backward by +/- 22.5° on vertical mounting surface; mounting surface	
fastening method	screw and snap-on mounting onto 35 mm DIN rail accor	ding to DIN EN 50022
side-by-side mounting	Yes	
height	115 mm	
width	82 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





Miscellaneous

Special Test Certificate

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=3TC4417-0LW4

Cax online generator

http://support.automation.siemens.com/WW/CAXorder/default.aspx?lang=en&mlfb=3TC4417-0LW4

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

https://support.industry.siemens.com/cs/ww/en/ps/3TC4417-0LW4

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

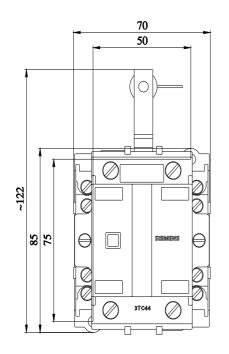
http://www.automation.siemens.com/bilddb/cax_de.aspx?mlfb=3TC4417-0LW4&lang=en

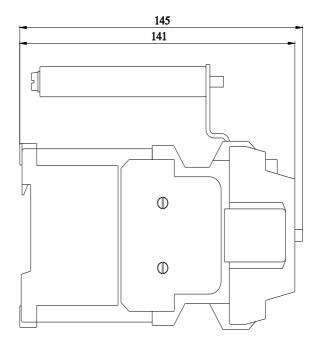
Characteristic: Tripping characteristics, I2t, Let-through current

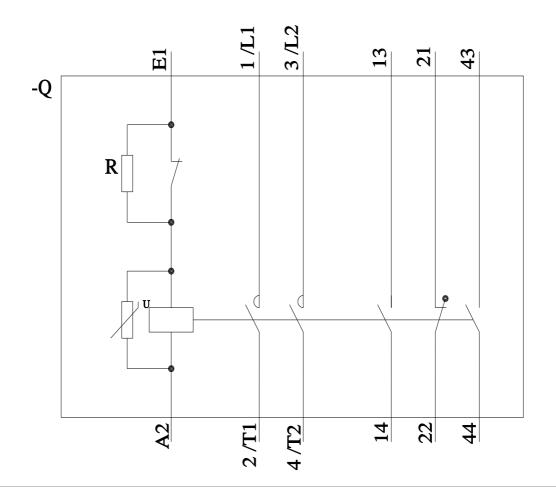
https://support.industry.siemens.com/cs/ww/en/ps/3TC4417-0LW4/char

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

http://www.automation.siemens.com/bilddb/index.aspx?view=Search&mlfb=3TC4417-0LW4&objecttype=14&gridview=view1







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