3TC4417-0CY80-0AG0

Data sheet



Contactor size 2, 2-pole DC-3 and 5, 32 A Auxiliary switch 22 (2 NO + 2 NC) 630 V DC, 0.7...1.2 US $\,$

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	Lead - 7439-92-1 6,6'-di-tert-butyl-2,2'-methylenedi-p-cresol - 119-47-1	
Weight	1.374 kg	
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 DC-3 at DC-5	
— at 220 V rated value	32 A
— at 600 V rated value	21 A
— at 750 V rated value	7.5 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
	750 1/h
at DC-5 maximum	700 1111
at DC-5 maximum Control circuit/ Control	130 1111
	DC DC
Control circuit/ Control	
Control circuit/ Control type of voltage of the control supply voltage	DC
Control circuit/ Control type of voltage of the control supply voltage control supply voltage at DC rated value	DC 630 V
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	DC 630 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	DC 630 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	DC 630 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	DC 630 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	DC 630 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	DC 630 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	DC 630 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	DC 630 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	DC 630 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 identification number and letter for switching elements	DC 630 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 identification number and letter for switching elements operational current at AC-12 maximum	DC 630 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 identification number and letter for switching elements operational current at AC-12 maximum operational current at AC-15	DC 630 V 10 W 10 W 35 190 ms 10 25 ms 20 30 ms 2 1 2 2 0 22 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	DC 630 V 10 W 10 W 35 190 ms 10 25 ms 20 30 ms 2 1 2 2 0 22 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	DC 630 V 10 W 10 W 35 190 ms 10 25 ms 20 30 ms 2 1 2 2 1 2 2 1 0 22 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	DC 630 V 10 W 10 W 35 190 ms 10 25 ms 20 30 ms 2 1 2 2 0 22 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	DC 630 V 10 W 10 W 35 190 ms 10 25 ms 20 30 ms 2 1 2 2 0 22 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 operational current at DC-12 output at 24 V rated value	DC 630 V 10 W 10 W 35 190 ms 10 25 ms 20 30 ms 2 1 2 2 1 2 2 1 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	DC 630 V 10 W 10 W 35 190 ms 10 25 ms 20 30 ms 2 1 2 1 2 2 1 0 22 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	DC 630 V 10 W 10 W 35 190 ms 10 25 ms 20 30 ms 2 1 2 2 2 0 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 48 V rated value	DC 630 V 10 W 10 W 35 190 ms 10 25 ms 20 30 ms 2 1 2 1 2 2 1 0 22 10 A 5.6 A 3.6 A 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 48 V rated value	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; can be tilted forward
	and backward by +/- 22.5° on vertical mounting surface
fastening method side-by-side mounting	Yes
fastening method	screw and snap-on mounting onto 35 mm DIN rail according to DIN EN 50022
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	10 111111
— forwards	30 mm
	0 mm
— backwards	
— 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 terminal
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 for the right and left
	auxiliary switch block respectively
Electrical Safety	
protection class IP on the front according to IEC 60529	IP00

Approvals Certificates

General Product Approval





Confirmation







Functional Saftev	Test Certificates	other
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<u>Type Examination Cer-</u> <u>Type Examination Cer-</u> <u>Special Test Certific-</u> <u>Miscellaneous</u> <u>Type Test Certific-</u> <u>Confirmation tificate</u> <u>ate</u> <u>ates/Test Report</u>

Dangerous goods Environment

<u>Transport Information</u> <u>Environmental Confirmations</u>

Further information

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=3TC4417-0CY80-0AG0

Cax online generator

http://support.automation.siemens.com/WW/CAXorder/default.aspx?lang=en&mlfb=3TC4417-0CY80-0AG0

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

https://support.industry.siemens.com/cs/ww/en/ps/3TC4417-0CY80-0AG0

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

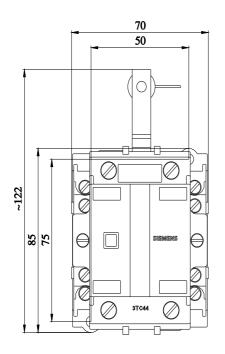
http://www.automation.siemens.com/bilddb/cax_de.aspx?mlfb=3TC4417-0CY80-0AG0&lang=en

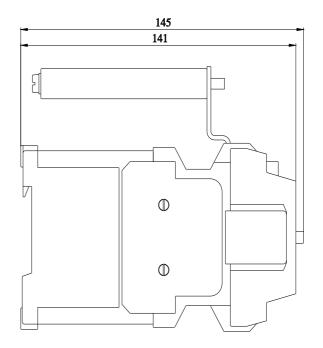
Characteristic: Tripping characteristics, I2t, Let-through current

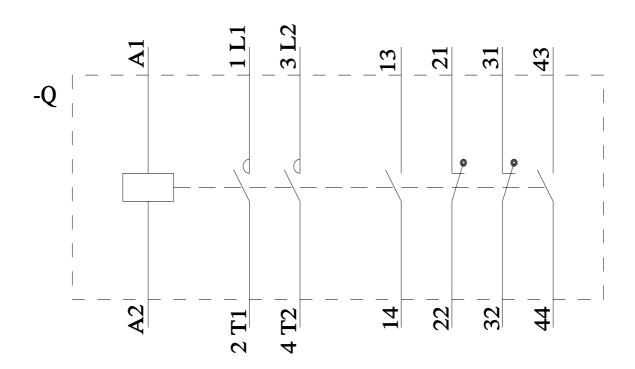
https://support.industry.siemens.com/cs/ww/en/ps/3TC4417-0CY80-0AG0/char

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

http://www.automation.siemens.com/bilddb/index.aspx?view=Search&mlfb=3TC4417-0CY80-0AG0&objecttype=14&gridview=view1







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