3TC4417-0CY80-0AC0

Data sheet



Contactor size 2, 2-pole DC-3 and 5, 32 A Auxiliary switch 22 (2 NO + 2 NC) 24 V DC, 0.7...1.33 US $\,$

product type designation Ceneral technical data size of contactor Insulation voltage rated value maximum permissible voltage for protective separation between coll and main contacts according to EN 80947-1 shock resistance at rectangular impulse at DC mechanical service life (operating cycles) of contactor typical of the contactor with added auxiliary switch block typical of the contactor with added auxiliary switch block typical of the contactor with added auxiliary switch block typical of the contactor with added auxiliary switch block typical of the contactor with added auxiliary switch block typical of the contactor with added auxiliary switch block typical of the contactor with added auxiliary switch block typical insulation of the contactor with added auxiliary switch block typical of the contactor with added auxiliary switch block typical insulation of the contactor with added auxiliary switch block typical insulation of the contactor with added auxiliary switch block typical of the contactor with added auxiliary switch block typical insulation of contactor protein of contactor typical of contactor typical of the contactor typical of contactor typical of the contactor typical of contactor typical of contactor typ	product designation	Contactor	
size of contactor product extension • function module for communication • auxillary switch auxillary switch • auxillary switch • auxillary switch Soo V	product type designation	3TC	
product extension • function module for communication • function module for communication • function module for communication • auxiliary switch Insulation voltage rated value maximum permissible voltage for protective separation between coil and main contacts according to EN 60947-1 shock resistance at rectangular impulse • at DC 7.5g / 5 ms, 3,4g / 10 ms mechanical service life (operating cycles) • of contactor typical • of the contactor with added auxiliary switch block typical • of the contactor with added auxiliary switch block typical • of the contactor with added auxiliary switch block typical • of the contactor with added auxiliary switch block typical • of the contactor with added auxiliary switch block typical • of the contactor with added auxiliary switch block typical • of the contactor with added auxiliary switch block typical • of the contactor with added auxiliary switch block typical • of the contactor with added auxiliary switch block typical • of the contactor with added auxiliary switch block typical • of the contactor with added auxiliary switch block typical • of the contactor with added auxiliary switch block typical • of the contactor in the contact in the	General technical data		
• function module for communication • auxiliary switch insulation voltage rated value maximum permissible voltage for protective separation between coil and main contacts according to EN 60947-1 shock resistance at rectangular impulse • at DC mechanical service life (operating cycles) • of contactor typical • of the contactor with added auxiliary switch block typical 10 000 000 reference code according to IEC 81346-2 Q Substance Prohibitance (Date) SVHC substance name Lead - 7439-92-1 6,6"-di-tert-butyl-2,2"-methylenedi-p-cresol - 119-47-1 Weight 1.312 kg Ambient temperature • during operation • during operation • during storage relative humidity minimum 10 % relative humidity at 55 °C according to IEC 60068-2-30 maximum Main circuit number of poles 2 number of NC contacts for main contacts 2 number of NC contacts for main contacts 10 ype of voltage operational current • at 1 current path at DC-1 — at 24 V rated value — at 220 V rated value • with 2 current paths in series at DC-1	size of contactor	2	
* auxiliary switch insulation voltage rated value maximum persistile voltage for protective separation between coil and main contacts according to EN 80947-1 shock resistance at rectangular impulse * at DC shock resistance at rectangular impulse * at DC of contactor typical of othe contactor with added auxiliary switch block typical reference code according to IEC 81346-2 Substance Prohibitance (Date) SVHC substance Prohibitance (Date) SVHC substance name Lead - 7439-92-1 6,6*-di-tert-butyl-2,2*-methylenedi-p-cresol - 119-47-1 Weight 1.312 kg Ambient conditions ambient temperature during operation during storage during storage during storage -50 +80°C relative humidity at 55 °C according to IEC 60068-2-30 maximum Main circuit number of poles for main current circuit number of NC contacts for main contacts type of voltage operational current * at 1 current path at DC-1 — at 220 V rated value * with 2 current paths in series at DC-1	product extension		
Insulation voltage rated value maximum permissible voltage for protective separation between coil and main contacts according to EN 60947-1 shock resistance at rectangular impulse • at DC 7.5g / 5 ms, 3.4g / 10 ms mechanical service life (operating cycles) • of contactor typical • of the contactor with added auxiliary switch block typical reference code according to IEC 81346-2 Q Substance Prohibitance (Date) SVHC substance name Lead - 7439-92-1 6,6°-di-tert-butyl-2,2'-methylenedi-p-cresol - 119-47-1 Weight Ambient conditions ambient temperature • during poperation • during storage relative humidity at 55 °C according to IEC 60068-2-30 maximum Main circuit number of poles number of poles number of NC contacts for main contacts type of voltage operational current • at 1 current path at DC-1 — at 224 V rated value — at 110 V rated value — at 220 V rated value — with 2 current paths in series at DC-1	 function module for communication 	No	
maximum permissible voltage for protective separation between coil and main contacts according to EN 60947-1 shock resistance at rectangular impulse	auxiliary switch	Yes	
coil and main contacts according to EN 60947-1 shock resistance at rectangular impulse • at DC mechanical service life (operating cycles) • of contactor typical • of the contactor with added auxiliary switch block typical of the contactor with added auxiliary switch block typical reference code according to IEC 81346-2 Q Substance Prohibitance (Date) SVHC substance name 6.6°d-(letr-butyl-2,2'-methylenedi-p-cresol - 119-47-1 Weight 1.312 kg Ambient conditions ambient temperature • during operation • during storage relative humidity minimum 10 % relative humidity at 55 °C according to IEC 80068-2-30 maximum Main circuit number of poles for main current circuit 2 number of NC contacts for main contacts type of voltage operational current • at 1 current path at DC-1 — at 24 V rated value — at 110 V rated value — at 220 V rated value • with 2 current paths in series at DC-1	insulation voltage rated value	800 V	
• at DC mechanical service life (operating cycles) • of contactor typical • of the contactor with added auxiliary switch block typical of the contactor with added auxiliary switch block typical reference code according to IEC 81346-2 Q Substance Prohibitance (Date) SVHC substance name 02/01/2012 SVHC substance name 06/04-lert-butyl-2,2'-methylenedi-p-cresol - 119-47-1 Weight 1,312 kg Ambient conditions ambient temperature • during operation • during storage -50 +80 °C relative humidity at 55 °C according to IEC 60068-2-30 maximum Main circuit number of poles number of poles for main current circuit 2 number of PNC contacts for main contacts 2 number of NC contacts for main contacts 10 type of voltage 0 DC 0 0 operational current • at 1 current path at DC-1 - at 24 V rated value - at 110 V rated value - at 220 V rated value - with 2 current paths in series at DC-1		300 V	
mechanical service life (operating cycles)	shock resistance at rectangular impulse		
of contactor typical of the contactor with added auxiliary switch block typical reference code according to IEC 81346-2 Q Substance Prohibitance (Date) SVHC substance name Lead - 7439-92-1 6,6"-di-tert-butyl-2,2"-methylenedi-p-cresol - 119-47-1 Weight 1,312 kg Ambient conditions ambient temperature of during operation of during storage relative humidity minimum relative humidity minimum Main circuit number of poles number of Poles number of NO contacts for main current circuit 2 number of NO contacts for main contacts 1 type of voltage DC operational current of at 1 current path at DC-1 — at 24 V rated value — at 110 V rated value — at 220 V rated value of with 2 current paths in series at DC-1	• at DC	7,5g / 5 ms, 3,4g / 10 ms	
of the contactor with added auxiliary switch block typical reference code according to IEC 81346-2 Q Substance Prohibitance (Date) SVHC substance name Lead - 7439-92-1 6,6'-di-tert-butyl-2,2'-methylenedi-p-cresol - 119-47-1 Weight 1.312 kg Ambient conditions ambient temperature e during operation -25 +55 °C e during storage -50 +80 °C relative humidity minimum 10 % relative humidity at 55 °C according to IEC 60068-2-30 maximum Main circuit 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 110 V rated value - at 110 V rated value - at 220 V rated value - at 210 V rated value - at 220 V rated value - with 2 current paths in series at DC-1	mechanical service life (operating cycles)		
reference code according to IEC 81346-2 Substance Prohibitance (Date) SVHC substance name Lead - 7439-92-1 6,6"-di-tert-butyl-2,2'-methylenedi-p-cresol - 119-47-1 Weight Ambient conditions ambient temperature • during operation • during storage -50 +85 °C • during storage relative humidity minimum relative humidity minimum relative humidity at 55 °C according to IEC 60068-2-30 maximum Main circuit number of poles for main current circuit number of NC contacts for main contacts type of voltage operational current • at 1 current path at DC-1 — at 24 V rated value — at 110 V rated value — at 220 V rated value • with 2 current paths in series at DC-1	 of contactor typical 	10 000 000	
Substance Prohibitance (Date) SVHC substance name Lead - 7439-92-1 6,6°-di-tert-butyl-2,2'-methylenedi-p-cresol - 119-47-1 Weight Ambient conditions ambient temperature	of the contactor with added auxiliary switch block typical	10 000 000	
SVHC substance name Lead - 7439-92-1 6,6'-di-tert-butyl-2,2'-methylenedi-p-cresol - 119-47-1 Weight Ambient conditions ambient temperature	reference code according to IEC 81346-2	Q	
Section Section	Substance Prohibitance (Date)	02/01/2012	
Ambient conditions ambient temperature • during operation • during storage relative humidity minimum 10 % relative humidity at 55 °C according to IEC 60068-2-30 maximum Main circuit number of poles number of poles for main current circuit number of NO contacts for main contacts number of NC contacts for main contacts type of voltage operational current • at 1 current path at DC-1 — at 24 V rated value — at 110 V rated value — at 220 V rated value • with 2 current paths in series at DC-1	SVHC substance name		
ambient temperature • during operation • during storage -50 +80 °C relative humidity minimum 10 % relative humidity at 55 °C according to IEC 60068-2-30 maximum Main circuit number of poles 2 number of poles 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	Weight	1.312 kg	
 during operation during storage 50 +80 °C relative humidity minimum 10 % relative humidity at 55 °C according to IEC 60068-2-30 maximum Main circuit number of poles 2 number of poles for main current circuit number of NO contacts for main contacts number of NC contacts for main contacts type of voltage operational current at 1 current path at DC-1 — at 24 V rated value — at 110 V rated value — at 220 V rated value with 2 current paths in series at DC-1 	Ambient conditions		
 during storage -50 +80 °C relative humidity minimum 10 % relative humidity at 55 °C according to IEC 60068-2-30 maximum Main circuit number of poles number of poles for main current circuit number of NO contacts for main contacts number of NC contacts for main contacts type of voltage DC operational current at 1 current path at DC-1 — at 24 V rated value — at 110 V rated value — at 220 V rated value — at 220 V rated value with 2 current paths in series at DC-1 	ambient temperature		
relative humidity minimum relative humidity at 55 °C according to IEC 60068-2-30 maximum Main circuit number of poles number of poles or main current circuit number of NO contacts for main contacts number of NC contacts for main contacts type of voltage operational current • at 1 current path at DC-1 — at 24 V rated value — at 110 V rated value — at 220 V rated value • with 2 current paths in series at DC-1	during operation	-25 +55 °C	
relative humidity at 55 °C according to IEC 60068-2-30 maximum Main circuit number of poles number of poles for main current circuit number of NO contacts for main contacts number of NC contacts for main contacts type of voltage operational current • at 1 current path at DC-1 — at 24 V rated value — at 110 V rated value — at 220 V rated value • with 2 current paths in series at DC-1	during storage	-50 +80 °C	
maximum Main circuit number of poles number of poles for main current circuit number of NO contacts for main contacts number of NC contacts for main contacts type of voltage operational current • at 1 current path at DC-1 — at 24 V rated value — at 110 V rated value 32 A — at 220 V rated value • with 2 current paths in series at DC-1	relative humidity minimum	10 %	
number of poles number of poles for main current circuit number of NO contacts for main contacts number of NC contacts for main contacts type of voltage operational current at 1 current path at DC-1 - at 24 V rated value - at 110 V rated value - at 220 V rated value with 2 current paths in series at DC-1		95 %	
number of poles for main current circuit number of NO contacts for main contacts number of NC contacts for main contacts type of voltage operational current • at 1 current path at DC-1 — at 24 V rated value — at 110 V rated value — at 220 V rated value • with 2 current paths in series at DC-1	Main circuit		
number of NO contacts for main contacts 1 number of NC contacts for main contacts 1 type of voltage 1 pc	number of poles	2	
number of NC contacts for main contacts type of voltage operational current • at 1 current path at DC-1 — at 24 V rated value — at 110 V rated value 32 A — at 220 V rated value 32 A • with 2 current paths in series at DC-1	number of poles for main current circuit	2	
type of voltage operational current • at 1 current path at DC-1 — at 24 V rated value — at 110 V rated value 32 A — at 220 V rated value 32 A • with 2 current paths in series at DC-1	number of NO contacts for main contacts	2	
operational current • at 1 current path at DC-1 — at 24 V rated value — at 110 V rated value 32 A — at 220 V rated value • with 2 current paths in series at DC-1	number of NC contacts for main contacts	0	
• 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	type of voltage	DC	
 — at 24 V rated value — at 110 V rated value — at 220 V rated value • with 2 current paths in series at DC-1 	operational current		
 — at 110 V rated value — at 220 V rated value • with 2 current paths in series at DC-1 	• at 1 current path at DC-1		
 — at 220 V rated value 32 A • with 2 current paths in series at DC-1 	— at 24 V rated value	32 A	
• with 2 current paths in series at DC-1	— at 110 V rated value	32 A	
	— at 220 V rated value	32 A	
— at 24 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 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
• 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	24 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	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	22
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 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 Saftey Test Certificates other

Type Examination Cer-**Miscellaneous Special Test Certific-**Type Test Certific-Confirmation ates/Test Report tificate tificate ate

Environment **Dangerous goods**

Environmental Con-Transport Information firmations

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=3TC4417-0CY80-0AC0

Cax online generator

http://support.automation.siemens.com/WW/CAXorder/default.aspx?lang=en&mlfb=3TC4417-0CY80-0AC0

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

https://support.industry.siemens.com/cs/ww/en/ps/3TC4417-0CY80-0AC0

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

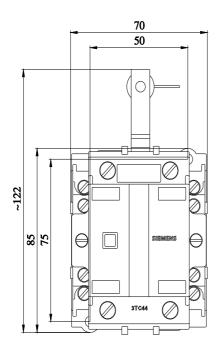
http://www.automation.siemens.com/bilddb/cax_de.aspx?mlfb=3TC4417-0CY80-0AC0&lang=en

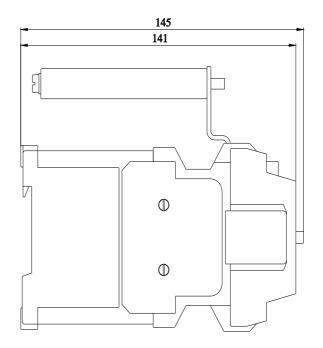
Characteristic: Tripping characteristics, I2t, Let-through current

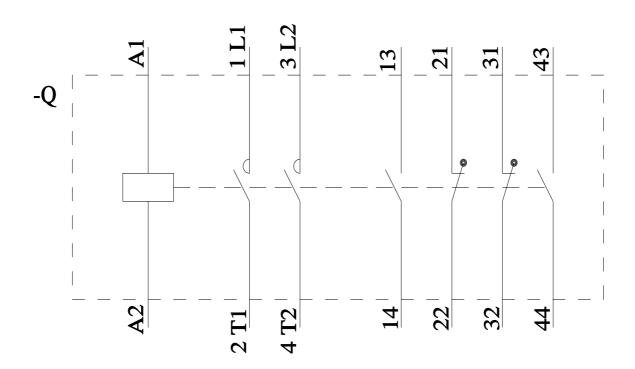
https://support.industry.siemens.com/cs/ww/en/ps/3TC4417-0CY80-0AC0/char

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

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last modified: 8/20/2024 🖸

