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Data sheet 3TC4417-0BL1



contactor, DC-3/DC-5, 32 A, 2-pole, 192 V AC, 50 Hz / 230 V AC, 60 Hz, auxiliary contacts: 2 NO + 2 NC, screw terminal, frame size 2

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 AC	7,5 g / 5 ms, 3,4 g / 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 (day/month/year)	02/01/2012
SVHC substance name	Lead CAS-No. 7439-92-1 6,6'-di-tert-butyl-2,2'-methylenedi-p-cresol CAS-No. 119-47-1
Net Weight	660 g
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

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— 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	AC
control supply voltage at AC	
● at 50 Hz rated value	192 V
● at 60 Hz rated value	230 V
operating range factor control supply voltage rated value of magnet coil at AC	
● at 60 Hz	0.8 ... 1.1
apparent pick-up power of magnet coil at AC	95 V·A
● at 50 Hz	68 V·A
● at 60 Hz	95 V·A
inductive power factor with closing power of the coil	0.79
● at 50 Hz	0.86
● at 60 Hz	0.79
apparent holding power of magnet coil at AC	12 V·A
● at 50 Hz	10 V·A
● at 60 Hz	12 V·A
inductive power factor with the holding power of the coil	0.3
● at 50 Hz	0.29
● at 60 Hz	0.3
arcing time	20 ... 30 ms
Auxiliary circuit	
number of NC contacts for auxiliary contacts	2

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● instantaneous contact	2
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 coordination 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	104 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

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— 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

Environment	General Product Approval				
Environmental Confirmations	CCC	cULus	EAC	CE EG-Konf.	UKCA

Functional Saftey	Test Certificates			other	
Type Examination Certificate	Miscellaneous	Special Test Certificate	Type Test Certificates/Test Report	Confirmation	产品合格 QC PASS

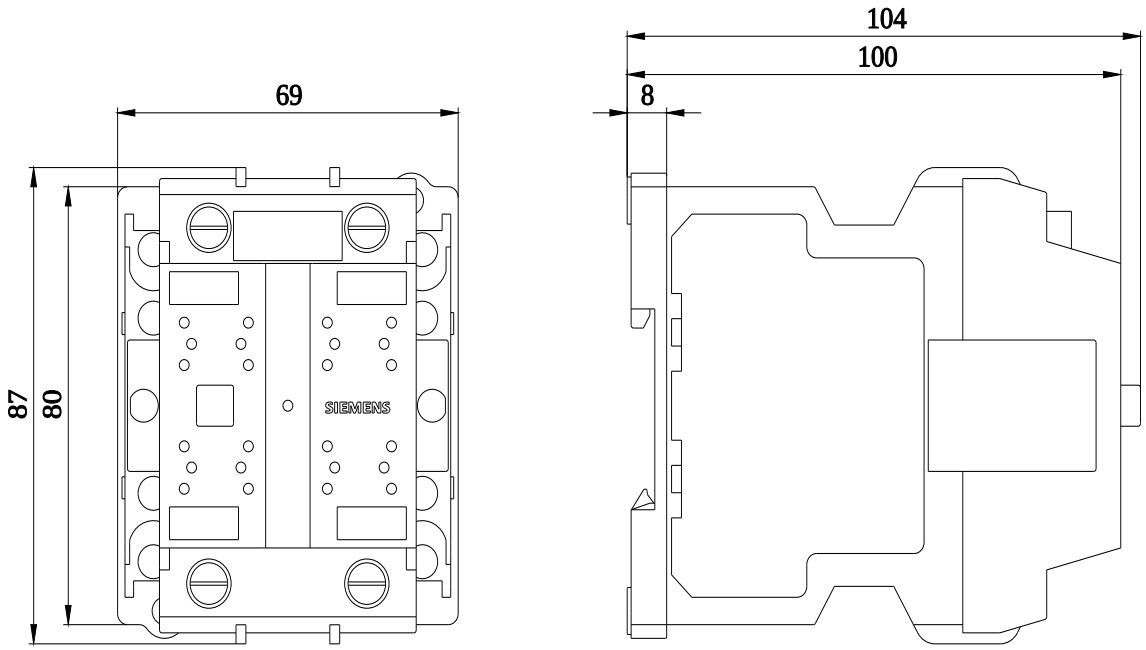
Dangerous goods

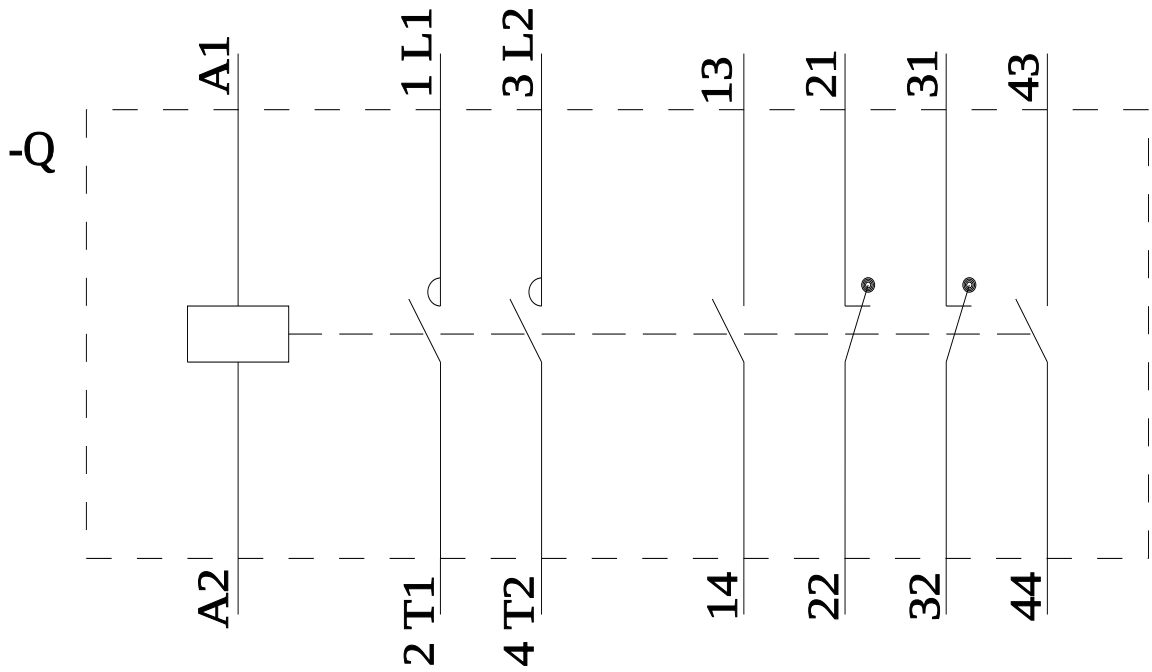
Transport Information

Further information

Information on the packaging
https://support.industry.siemens.com/cs/ww/en/view/109813875
Information for data generation and storage
https://support.industry.siemens.com/cs/ww/en/view/109995012
Information- and Downloadcenter (Catalogs, Brochures,…)
https://www.siemens.com/ic10
Industry Mall (Online ordering system)
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Service&Support (Manuals, Certificates, Characteristics, FAQs,...)
https://support.industry.siemens.com/cs/ww/en/ps/3TC4417-0BL1
Image database (product images, 2D dimension drawings, 3D models, device circuit diagrams, EPLAN macros, ...)
https://www.automation.siemens.com/bilddb/cax_de.aspx?mlfb=3TC4417-0BL1&lang=en
Cax online generator
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