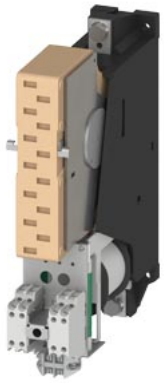
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Data sheet 3TC7414-0EB



contactor, DC-3/DC-5, 400 A, 1-pole, 24 V DC, auxiliary contacts: 4 NO + 4 NC, connecting bar

product designation	Contactor
product type designation	3TC
General technical data	
size of contactor	12
product extension	
● function module for communication	No
● auxiliary switch	No
insulation voltage rated value	1 500 V
surge voltage resistance rated value	8 kV
maximum permissible voltage for protective separation between coil and main contacts according to EN 60947-1	630 V
mechanical service life (operating cycles)	
● of contactor typical	30 000 000
● of the contactor with added auxiliary switch block typical	30 000 000
reference code according to IEC 81346-2	Q
Substance Prohibitance (day/month/year)	03/01/2017
SVHC substance name	Lead CAS-No. 7439-92-1
Net Weight	10.494 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	1
number of poles for main current circuit	1
number of NO contacts for main contacts	1
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	500 A
— at 110 V rated value	500 A
— at 220 V rated value	500 A
— at 440 V rated value	500 A
— at 600 V rated value	500 A
— at 750 V rated value	500 A

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● at DC-3 at DC-5	
— at 220 V rated value	400 A
— at 600 V rated value	400 A
— at 750 V rated value	400 A
● at 1 current path at DC-3 at DC-5	
— at 24 V rated value	400 A
— at 110 V rated value	400 A
— at 220 V rated value	400 A
— at 440 V rated value	400 A
— at 600 V rated value	400 A
— at 750 V rated value	400 A
operating power	
● at DC-1	
— at 110 V rated value	55 kW
— at 220 V rated value	110 kW
— at 440 V rated value	220 kW
— at 750 V rated value	375 kW
● at DC-3 at DC-5	
— at 110 V rated value	35 kW
— at 220 V rated value	70 kW
— at 440 V rated value	140 kW
— at 600 V rated value	200 kW
— at 750 V rated value	250 kW
operating frequency	
● at DC-1 maximum	750 1/h
● at DC-3 maximum	500 1/h
● at DC-5 maximum	500 1/h
Control circuit/ Control	
type of voltage of the control supply voltage	DC
control supply voltage at DC rated value	24 V
operating range factor control supply voltage rated value of magnet coil at AC	
● at 50 Hz	0.8 ... 1.2
closing power of magnet coil at DC	46 W
holding power of magnet coil at DC	46 W
closing delay at DC	60 ... 100 ms
opening delay at DC	20 ... 35 ms
arcing time	40 ... 70 ms
Auxiliary circuit	
number of NC contacts for auxiliary contacts	4
● instantaneous contact	4
number of NO contacts for auxiliary contacts	4
● instantaneous contact	4
number of CO contacts for auxiliary contacts	0
identification number and letter for switching elements	44
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	

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● 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
Short-circuit protection	
design of the fuse link	
● for short-circuit protection of the main circuit	
— with type of coordination 1 required	2 x 3NE1330-4D (315 A) parallel (750 V, 12 kA)
— with type of coordination 2 required	2 x 3NE1330-4D (315 A) parallel (750 V, 12 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 fixing
height	360 mm
width	78 mm
depth	276 mm
required spacing	
● with side-by-side mounting	
— forwards	20 mm
— backwards	0 mm
— upwards	25 mm
— downwards	10 mm
— at the side	10 mm
● for grounded parts	
— forwards	50 mm
— backwards	0 mm
— upwards	25 mm
— at the side	10 mm
— downwards	10 mm
● for live parts	
— forwards	50 mm
— backwards	0 mm
— upwards	25 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 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
Electrical Safety	
protection class IP on the front according to IEC 60529	IP00

Approvals Certificates

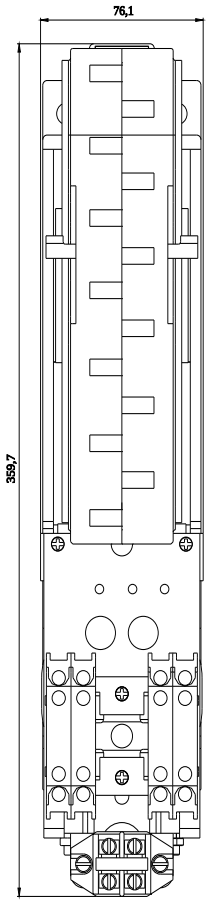
Environment	General Product Approval				Functional Saftey
Environmental Confirmations	CCC	EAC	CE EG-Konf.	UKCA	Type Examination Certificate

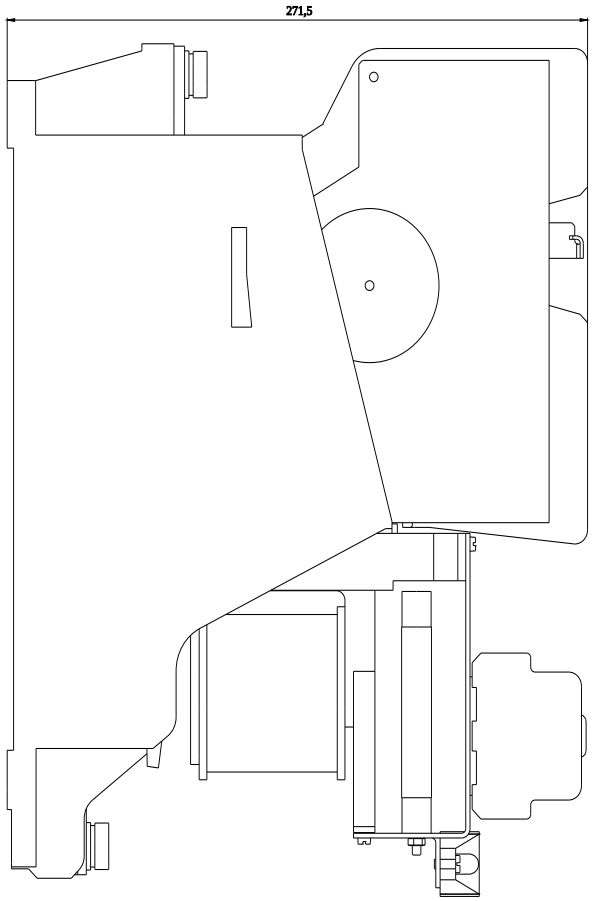
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Test Certificates			other		Dangerous goods
Special Test Certific-ate	Miscellaneous	Type Test Certific-ates/Test Report	Confirmation	产品合格 QC PASS	Transport Information

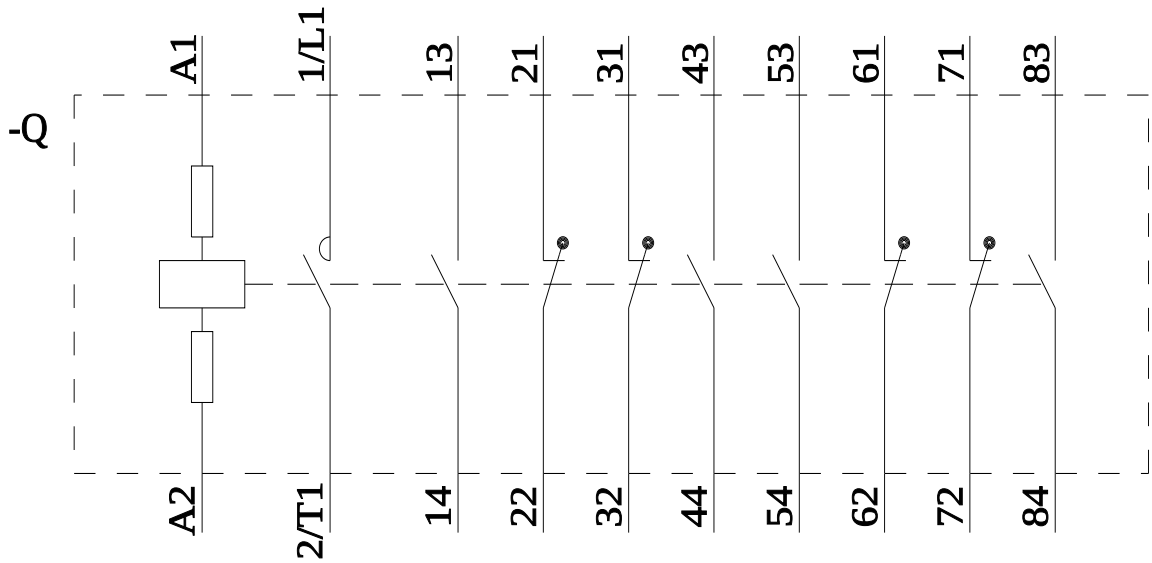
Further information

Information on the packaging
https://support.industry.siemens.com/cs/ww/en/view/109813875
Information for data generation and storage
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Image database (product images, 2D dimension drawings, 3D models, device circuit diagrams, EPLAN macros, ...)
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