

Contactor, size 12, 2-pole, DC-3 and 5, 400 A Auxiliary switch 22 (2 NO + 2 NC) 230V AC 50Hz, 277 V 60 Hz AC operation AC operation

product designation
product type designation

Contactor
3TC

General technical data

size of contactor	12
product extension	
• function module for communication	No
• auxiliary switch	Yes
insulation voltage rated value	1 000 V
maximum permissible voltage for safe isolation between coil and main contacts according to EN 60947-1	660 V
shock resistance at rectangular impulse	
• at AC	12g / 5 ms, 5,6g / 10 ms
mechanical service life (switching 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)	05/01/2012

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	400 A
— at 110 V rated value	400 A
— at 220 V rated value	400 A
• with 2 current paths in series at DC-1	
— 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
• at 1 current path at DC-3 at DC-5	
— at 24 V rated value	220 A
— at 110 V rated value	220 A
— at 220 V rated value	400 A
• with 2 current paths in series 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	44 kW
— at 220 V rated value	88 kW
— at 440 V rated value	176 kW
— at 750 V rated value	300 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	1 000 1/h
• at DC-3 maximum	600 1/h
• at DC-5 maximum	600 1/h
Control circuit/ Control	
type of voltage of the control supply voltage	AC
control supply voltage at AC	
• at 50 Hz rated value	230 V
• at 60 Hz rated value	277 V
operating range factor control supply voltage rated value of magnet coil at AC	
• at 50 Hz	0.8 ... 1.1
apparent pick-up power of magnet coil at AC	1 780 VA
• at 50 Hz	1 780 VA
• at 60 Hz	2 140 VA
inductive power factor with closing power of the coil	0.3
• at 50 Hz	0.3
• at 60 Hz	0.3
apparent holding power of magnet coil at AC	121 VA
• at 50 Hz	121 VA
• at 60 Hz	140 VA
inductive power factor with the holding power of the coil	0.22
• at 50 Hz	0.22
• at 60 Hz	0.29
arcing time	20 ... 30 ms
Auxiliary circuit	
number of NC contacts for auxiliary contacts	2
• 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 • at 48 V rated value • at 60 V rated value • at 110 V rated value • at 125 V rated value • at 220 V rated value • at 600 V rated value	10 A 10 A 10 A 8 A 6 A 2 A 0.4 A
operational current at DC-13	
• at 24 V rated value • at 48 V rated value • at 60 V rated value • at 110 V rated value • at 125 V rated value • at 220 V rated value • at 600 V rated value	10 A 5 A 5 A 2.4 A 2.1 A 1.1 A 0.21 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 — with type of assignment 2 required • for short-circuit protection of the auxiliary switch required	2 x 3NE1330-4D (315 A) parallel (750 V, 12 kA) 2 x 3NE1330-4D (315 A) parallel (750 V, 12 kA) 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; standing, on horizontal mounting surface
fastening method	screw fixing
• side-by-side mounting	Yes
height	281 mm
width	160 mm
depth	255 mm
required spacing	
• with side-by-side mounting — forwards — backwards — upwards — downwards — at the side • for grounded parts — forwards — backwards — upwards — at the side — downwards • for live parts — forwards — backwards — upwards — downwards — at the side	25 mm 0 mm 10 mm 10 mm 10 mm 100 mm 0 mm 10 mm 10 mm 10 mm 100 mm 0 mm 10 mm 10 mm 10 mm
Connections/ Terminals	
type of electrical connection	screw-type terminals
• for main current circuit • for auxiliary and control circuit	screw-type terminals screw-type terminals
type of connectable conductor cross-sections	
• for auxiliary contacts — solid or stranded — finely stranded with core end processing	2x (1 ... 2,5 mm²) 2x (0.75 ... 1.5 mm²)
Safety related data	
product function mirror contact according to IEC 60947-4-1	Yes

protection class IP on the front according to IEC 60529
touch protection on the front according to IEC 60529

IP00; IP20 with box terminal/cover

finger-safe, for vertical contact from the front with cover

Certificates/ approvals

General Product Approval

Functional
Safety/Safety of
Machinery



[Confirmation](#)



[Type Examination
Certificate](#)

Functional
Safety/Safety of
Machinery

Declaration of Conformity

Test Certificates

[Type Examination
Certificate](#)



[Type Test Certificates/Test Report](#)

[Special Test Certificate](#)

[Miscellaneous](#)

Marine / Shipping

other

Dangerous Good



[Confirmation](#)

[Transport Information](#)

Further information

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=3TC5617-0BP0>

Cax online generator

<http://support.automation.siemens.com/WW/CAXorder/default.aspx?lang=en&mlfb=3TC5617-0BP0>

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

<https://support.industry.siemens.com/cs/ww/en/ps/3TC5617-0BP0>

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

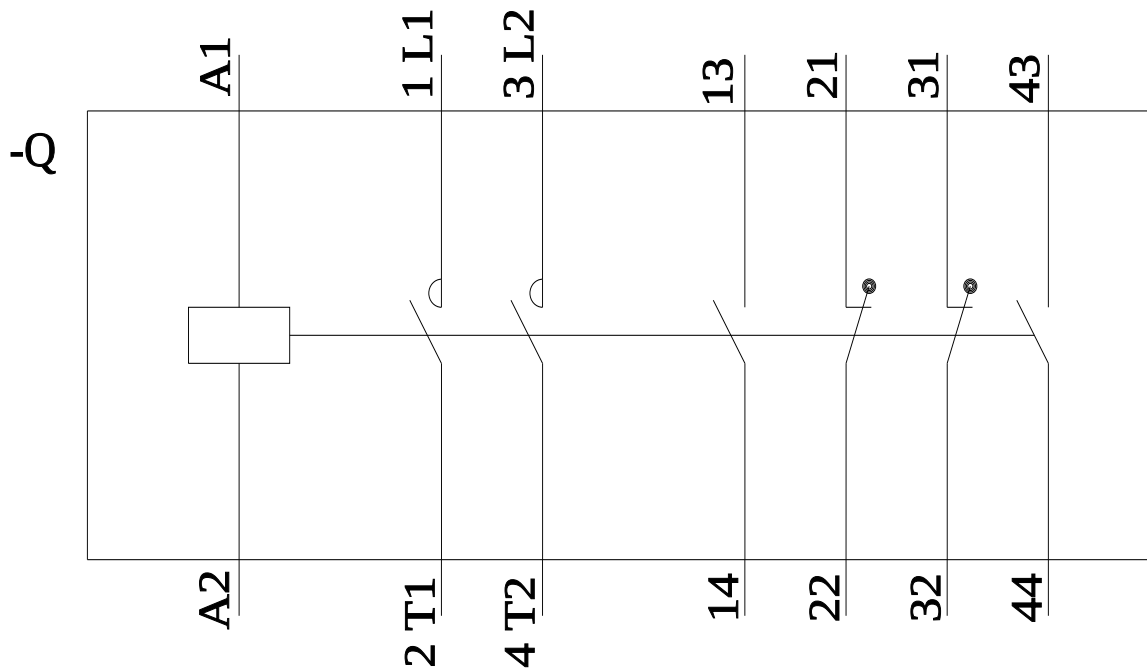
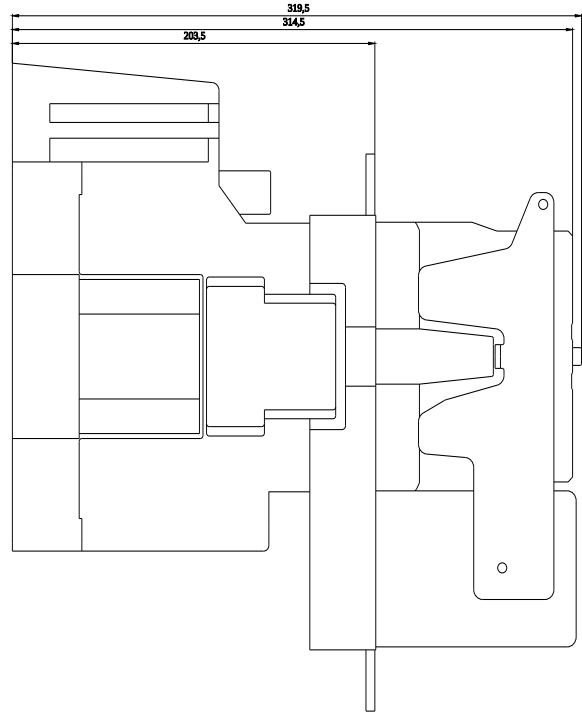
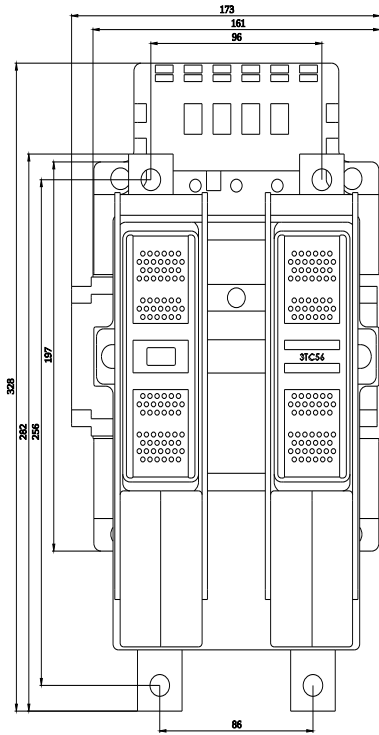
http://www.automation.siemens.com/bilddb/cax_de.aspx?mlfb=3TC5617-0BP0&lang=en

Characteristic: Tripping characteristics, I_t, Let-through current

<https://support.industry.siemens.com/cs/ww/en/ps/3TC5617-0BP0/char>

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

<http://www.automation.siemens.com/bilddb/index.aspx?view=Search&mlfb=3TC5617-0BP0&objecttype=14&gridview=view1>



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