

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	Contactor
product type designation	3TC
<b>General technical data</b>	
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 protective separation 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 (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)	05/01/2012
SVHC substance name	Lead - 7439-92-1
Weight	14.537 kg
<b>Ambient conditions</b>	
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 %
<b>Main circuit</b>	
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
● <b>at DC-3 at DC-5</b>	
— at 220 V rated value	400 A
— at 600 V rated value	400 A
— at 750 V rated value	400 A
● <b>at 1 current path at DC-3 at DC-5</b>	
— at 24 V rated value	220 A
— at 110 V rated value	220 A
— at 220 V rated value	400 A
● <b>with 2 current paths in series at DC-3 at DC-5</b>	
— 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
<b>operating power</b>	
● <b>at DC-1</b>	
— 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
● <b>at DC-3 at DC-5</b>	
— 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
<b>operating frequency</b>	
● <b>at DC-1 maximum</b>	1 000 1/h
● <b>at DC-3 maximum</b>	600 1/h
● <b>at DC-5 maximum</b>	600 1/h
<b>Control circuit/ Control</b>	
<b>type of voltage of the control supply voltage</b>	AC
<b>control supply voltage at AC</b>	
● <b>at 50 Hz rated value</b>	230 V
● <b>at 60 Hz rated value</b>	277 V
<b>operating range factor control supply voltage rated value of magnet coil at AC</b>	
● <b>at 50 Hz</b>	0.8 ... 1.1
<b>apparent pick-up power of magnet coil at AC</b>	1 780 VA
● <b>at 50 Hz</b>	1 780 VA
● <b>at 60 Hz</b>	2 140 VA
<b>inductive power factor with closing power of the coil</b>	0.3
● <b>at 50 Hz</b>	0.3
● <b>at 60 Hz</b>	0.3
<b>apparent holding power of magnet coil at AC</b>	121 VA
● <b>at 50 Hz</b>	121 VA
● <b>at 60 Hz</b>	140 VA
<b>inductive power factor with the holding power of the coil</b>	0.22
● <b>at 50 Hz</b>	0.22
● <b>at 60 Hz</b>	0.29
<b>arcing time</b>	20 ... 30 ms
<b>Auxiliary circuit</b>	
<b>number of NC contacts for auxiliary contacts</b>	2
● <b>instantaneous contact</b>	2
<b>number of NO contacts for auxiliary contacts</b>	2
● <b>instantaneous contact</b>	2
<b>number of CO contacts for auxiliary contacts</b>	0

<b>identification number and letter for switching elements</b>	22
operational current at AC-12 maximum	10 A
<b>operational current at AC-15</b>	
• at 230 V rated value	5.6 A
• at 400 V rated value	3.6 A
• at 500 V rated value	2.5 A
<b>operational current at DC-12</b>	
• 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	8 A
• at 125 V rated value	6 A
• at 220 V rated value	2 A
• at 600 V rated value	0.4 A
<b>operational current at DC-13</b>	
• 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	2.4 A
• at 125 V rated value	2.1 A
• at 220 V rated value	1.1 A
• at 600 V rated value	0.21 A
<b>UL/CSA ratings</b>	
<b>contact rating of auxiliary contacts according to UL</b>	A600 / P600
<b>Short-circuit protection</b>	
<b>design of the fuse link</b>	
• 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 assignment 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)
<b>Installation/ mounting/ dimensions</b>	
<b>mounting position</b>	+/-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
<b>fastening method</b>	screw fixing
<b>height</b>	281 mm
<b>width</b>	160 mm
<b>depth</b>	255 mm
<b>required spacing</b>	
• with side-by-side mounting	
— forwards	25 mm
— backwards	0 mm
— upwards	10 mm
— downwards	10 mm
— at the side	10 mm
• for grounded parts	
— forwards	100 mm
— backwards	0 mm
— upwards	10 mm
— at the side	10 mm
— downwards	10 mm
• for live parts	
— forwards	100 mm
— backwards	0 mm
— upwards	10 mm
— downwards	10 mm
— at the side	10 mm
<b>Connections/ Terminals</b>	
<b>type of electrical connection</b>	screw terminal
• for main current circuit	screw-type terminals
• for auxiliary and control circuit	screw-type terminals

<b>type of connectable conductor cross-sections</b>	
<ul style="list-style-type: none"> <li>• for auxiliary contacts <ul style="list-style-type: none"> <li>— solid or stranded</li> <li>— finely stranded with core end processing</li> </ul> </li> </ul>	2x (1 ... 2.5 mm <sup>2</sup> ) 2x (0.75 ... 1.5 mm <sup>2</sup> )

#### Safety related data

product function mirror contact according to IEC 60947-4-1	Yes
Electrical Safety	
<b>protection class IP on the front according to IEC 60529</b>	IP00; IP20 with box terminal/cover
<b>touch protection on the front according to IEC 60529</b>	finger-safe, for vertical contact from the front with cover

#### Approvals Certificates

General Product Approval
--------------------------



[Confirmation](#)



Functional Safety	Test Certificates	other
-------------------	-------------------	-------

[Type Examination Certificate](#)

[Type Examination Certificate](#)

[Type Test Certificates/Test Report](#)

[Special Test Certificate](#)

[Miscellaneous](#)

[Confirmation](#)

Dangerous goods	Environment
-----------------	-------------

[Transport Information](#)

[Environmental Confirmations](#)

#### 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=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, ...)

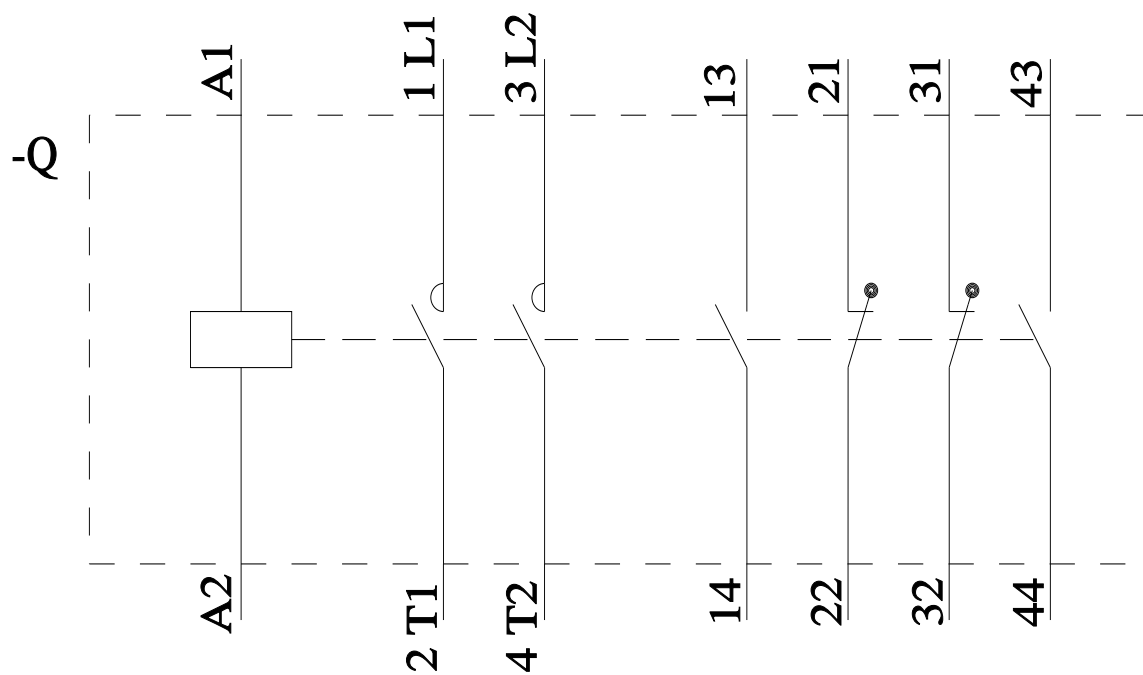
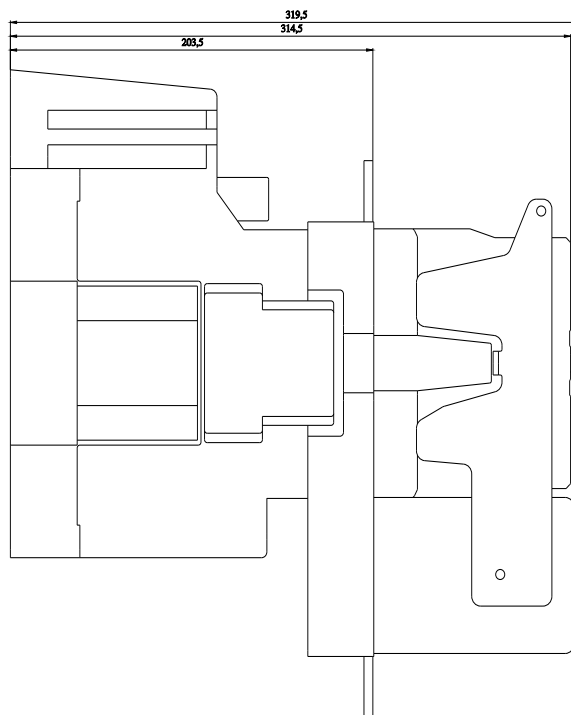
[http://www.automation.siemens.com/bilddb/cax\\_de.aspx?mlfb=3TC5617-0BP0&lang=en](http://www.automation.siemens.com/bilddb/cax_de.aspx?mlfb=3TC5617-0BP0&lang=en)

Characteristic: Tripping characteristics, I<sup>2</sup>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>



8/20/2024 

