



contactor, DC-3/DC-5, 400 A, 2-pole, 48 V DC, auxiliary contacts: 2 NO + 2 NC, connecting bar, frame size 12

<b>product designation</b>	Contactor
<b>product type designation</b>	3TC
<b>General technical data</b>	
<b>size of contactor</b>	12
<b>product extension</b>	
• function module for communication	No
• auxiliary switch	Yes
<b>insulation voltage rated value</b>	1 000 V
maximum permissible voltage for protective separation between coil and main contacts according to EN 60947-1	660 V
<b>shock resistance at rectangular impulse</b>	
• at DC	12g / 5 ms, 5,6g / 10 ms
<b>mechanical service life (operating cycles)</b>	
• of contactor typical	10 000 000
• of the contactor with added auxiliary switch block typical	10 000 000
<b>reference code according to IEC 81346-2</b>	Q
<b>Substance Prohibition (Date)</b>	03/01/2017
<b>SVHC substance name</b>	Lead - 7439-92-1
<b>Weight</b>	21.08 kg
<b>Ambient conditions</b>	
<b>ambient temperature</b>	
• during operation	-25 ... +55 °C
• during storage	-50 ... +80 °C
<b>relative humidity minimum</b>	10 %
<b>relative humidity at 55 °C according to IEC 60068-2-30 maximum</b>	95 %
<b>Main circuit</b>	
<b>number of poles</b>	2
<b>number of poles for main current circuit</b>	2
<b>number of NO contacts for main contacts</b>	2
<b>number of NC contacts for main contacts</b>	0
<b>type of voltage</b>	DC
<b>operational current</b>	
• 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>	DC
<b>control supply voltage at DC rated value</b>	48 V
<b>closing power of magnet coil at DC</b>	86 W
<b>holding power of magnet coil at DC</b>	86 W
closing delay at DC	110 ... 400 ms
opening delay at DC	40 ... 110 ms
<b>arcing time</b>	20 ... 30 ms
<b>Auxiliary circuit</b>	
<b>number of NC contacts for auxiliary contacts</b>	2
● instantaneous contact	2
<b>number of NO contacts for auxiliary contacts</b>	2
● instantaneous contact	2
number of CO contacts for auxiliary contacts	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

<ul style="list-style-type: none"> <li>• at 60 V rated value</li> <li>• at 110 V rated value</li> <li>• at 125 V rated value</li> <li>• at 220 V rated value</li> <li>• at 600 V rated value</li> </ul>	10 A 8 A 6 A 2 A 0.4 A
<b>operational current at DC-13</b> <ul style="list-style-type: none"> <li>• at 24 V rated value</li> <li>• at 48 V rated value</li> <li>• at 60 V rated value</li> <li>• at 110 V rated value</li> <li>• at 125 V rated value</li> <li>• at 220 V rated value</li> <li>• at 600 V rated value</li> </ul>	10 A 5 A 5 A 2.4 A 2.1 A 1.1 A 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> <ul style="list-style-type: none"> <li>• for short-circuit protection of the main circuit               <ul style="list-style-type: none"> <li>— with type of coordination 1 required</li> <li>— with type of coordination 2 required</li> </ul> </li> <li>• for short-circuit protection of the auxiliary switch required</li> </ul>	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)
<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>	314 mm
<b>required spacing</b> <ul style="list-style-type: none"> <li>• with side-by-side mounting               <ul style="list-style-type: none"> <li>— forwards</li> <li>— backwards</li> <li>— upwards</li> <li>— downwards</li> <li>— at the side</li> </ul> </li> <li>• for grounded parts               <ul style="list-style-type: none"> <li>— forwards</li> <li>— backwards</li> <li>— upwards</li> <li>— at the side</li> <li>— downwards</li> </ul> </li> <li>• for live parts               <ul style="list-style-type: none"> <li>— forwards</li> <li>— backwards</li> <li>— upwards</li> <li>— downwards</li> <li>— at the side</li> </ul> </li> </ul>	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
<b>Connections/ Terminals</b>	
<b>type of electrical connection</b> <ul style="list-style-type: none"> <li>• for main current circuit</li> <li>• for auxiliary and control circuit</li> </ul>	screw terminal screw-type terminals 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> )
<b>Safety related data</b>	
product function mirror contact according to IEC 60947-4-1	Yes
Electrical Safety	

protection class IP on the front according to IEC 60529	IP00; IP20 with box terminal/cover
touch protection on the front according to IEC 60529	finger-safe, for vertical contact from the front with cover

### Approvals Certificates

#### General Product Approval



Functional Safety	Test Certificates	other	
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[Type Examination Certificate](#)

[Special Test Certificate](#)

[Miscellaneous](#)

[Type Test Certificates/Test Report](#)



[Confirmation](#)

Dangerous goods	Environment
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[Transport Information](#)

[Environmental Conformations](#)

### 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)

<https://mall.industry.siemens.com/mall/en/en/Catalog/product?mlfb=3TC5617-0AW4>

#### Cax online generator

<https://support.automation.siemens.com/WW/CAXorder/default.aspx?lang=en&mlfb=3TC5617-0AW4>

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

<https://support.industry.siemens.com/cs/ww/en/ps/3TC5617-0AW4>

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

[https://www.automation.siemens.com/bilddb/cax\\_de.aspx?mlfb=3TC5617-0AW4&lang=en](https://www.automation.siemens.com/bilddb/cax_de.aspx?mlfb=3TC5617-0AW4&lang=en)

#### Characteristic: Tripping characteristics, I<sup>2</sup>t, Let-through current

<https://support.industry.siemens.com/cs/ww/en/ps/3TC5617-0AW4/char>

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

<https://www.automation.siemens.com/bilddb/index.aspx?view=Search&mlfb=3TC5617-0AW4&objecttype=14&gridview=view1>



