

Contactor, Size 2, 2-pole, DC-3 and 5, 32 A Auxiliary contacts 22 (2 NO + 2 NC) 36 V DC DC operation



<b>Product designation</b>	Contactor
<b>Product type designation</b>	3TC
<b>General technical data</b>	
<b>Size of contactor</b>	2
<b>Product extension</b>	
• function module for communication	No
• Auxiliary switch	Yes
<b>Insulation voltage rated value</b>	800 V
<b>maximum permissible voltage for safe isolation between coil and main contacts acc. to EN 60947-1</b>	300 V
<b>Protection class IP</b>	IP00
• on the front	IP00
• of the terminal	IP00
<b>Shock resistance at rectangular impulse</b>	
• at DC	7,5g / 5 ms, 3,4g / 10 ms
<b>Mechanical service life (switching cycles)</b>	
• of contactor typical	10 000 000
• of the contactor with added auxiliary switch block typical	10 000 000

Reference code acc. to DIN 40719 extended according to IEC 204-2 acc. to IEC 750	K
Reference code acc. to DIN EN 81346-2	Q
Reference code acc. to DIN EN 61346-2	Q
<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
<b>Operating current</b>	
<ul style="list-style-type: none"> <li>• with 2 current paths in series at DC-1 <ul style="list-style-type: none"> <li>— at 24 V rated value</li> <li>— at 110 V rated value</li> <li>— at 220 V rated value</li> <li>— at 440 V rated value</li> <li>— at 600 V rated value</li> </ul> </li> </ul>	32 A 32 A 32 A 32 A 32 A
<b>Operating current</b>	
<ul style="list-style-type: none"> <li>• at DC-3 at DC-5 <ul style="list-style-type: none"> <li>— at 220 V rated value</li> <li>— at 440 V rated value</li> <li>— at 600 V rated value</li> <li>— at 750 V rated value</li> </ul> </li> <li>• with 2 current paths in series at DC-3 at DC-5 <ul style="list-style-type: none"> <li>— at 24 V rated value</li> <li>— at 110 V rated value</li> <li>— at 220 V rated value</li> <li>— at 440 V rated value</li> <li>— at 600 V rated value</li> </ul> </li> </ul>	32 A 29 A 21 A 7.5 A 32 A 32 A 32 A 29 A 21 A
<b>Operating power</b>	
<ul style="list-style-type: none"> <li>• at DC-1 <ul style="list-style-type: none"> <li>— at 110 V rated value</li> <li>— at 220 V rated value</li> <li>— at 440 V rated value</li> <li>— at 750 V rated value</li> </ul> </li> <li>• at DC-3 at DC-5 <ul style="list-style-type: none"> <li>— at 110 V rated value</li> <li>— at 220 V rated value</li> <li>— at 440 V rated value</li> <li>— at 600 V rated value</li> <li>— at 750 V rated value</li> </ul> </li> </ul>	3.5 kW 7 kW 14 kW 24 kW 2.5 kW 5 kW 9 kW 9 kW 4 kW
<b>Operating frequency</b>	

- 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

<b>Type of voltage of the control supply voltage</b>	DC
<b>Control supply voltage at DC</b>	
• rated value	36 V
<b>Closing power of magnet coil at DC</b>	10 W
<b>Holding power of magnet coil at DC</b>	10 W
Closing delay at DC	35 ... 190 ms
Opening delay at DC	10 ... 25 ms
<b>Arcing time</b>	20 ... 30 ms

#### Auxiliary circuit

<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
<b>Number of CO contacts</b>	
• for auxiliary contacts	0
<b>Identification number and letter for switching elements</b>	22
Operating current at AC-12 maximum	10 A
<b>Operating 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>Operating 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	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
<b>Operating 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	1.14 A
• at 125 V rated value	0.98 A
• at 220 V rated value	0.48 A

<ul style="list-style-type: none"> <li>• at 600 V rated value</li> </ul>	0.07 A
<b>Contact reliability of auxiliary contacts</b>	one incorrect switching operation of 100 million switching operations (17 V, 5 mA)
<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 assignment 2 required</li> </ul> </li> <li>• for short-circuit protection of the auxiliary switch required</li> </ul>	gG: 50 A (690 V, 100 kA) gG: 35 A (690 V, 100 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; standing, on horizontal mounting surface
<b>Mounting type</b>	screw and snap-on mounting onto 35 mm standard mounting rail according to DIN EN 50022
<ul style="list-style-type: none"> <li>• Side-by-side mounting</li> </ul>	Yes
<b>Height</b>	85 mm
<b>Width</b>	70 mm
<b>Depth</b>	145 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>	15 mm 0 mm 10 mm 10 mm 10 mm 30 mm 0 mm 10 mm 10 mm 10 mm 30 mm 0 mm 10 mm 10 mm 10 mm

## Connections/ Terminals

<b>Type of electrical connection</b> <ul style="list-style-type: none"> <li>• for main current circuit</li> <li>• for auxiliary and control current circuit</li> </ul>	screw-type terminals screw-type terminals screw-type terminals
<b>Type of connectable conductor cross-sections</b> <ul style="list-style-type: none"> <li>• for main contacts                         <ul style="list-style-type: none"> <li>— single or multi-stranded</li> <li>— finely stranded with core end processing</li> </ul> </li> </ul>	2x (2,5 ... 10 mm <sup>2</sup> ) 2x (1,5 ... 4 mm <sup>2</sup> )
<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>— single or multi-stranded</li> <li>— finely stranded with core end processing</li> </ul> </li> </ul>	2x (1 ... 2,5 mm <sup>2</sup> ) 2x (0,75 ... 2,5 mm <sup>2</sup> )

## Safety related data

<b>Protection against electrical shock</b>	finger-safe only with terminal cover
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## Certificates/ approvals

<b>General Product Approval</b>	<b>Functional Safety/Safety of Machinery</b>	<b>Declaration of Conformity</b>
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[Type Examination Certificate](#)



<b>Declaration of Conformity</b>	<b>Test Certificates</b>	<b>Marine / Ship-ping</b>	<b>other</b>
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[Miscellaneous](#)

[Special Test Certificate](#)

[Miscellaneous](#)



[Confirmation](#)

## 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=3TC4417-0AV4>

**Cax online generator**

<http://support.automation.siemens.com/WW/CAXorder/default.aspx?lang=en&mlfb=3TC4417-0AV4>

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

<https://support.industry.siemens.com/cs/ww/en/ps/3TC4417-0AV4>

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

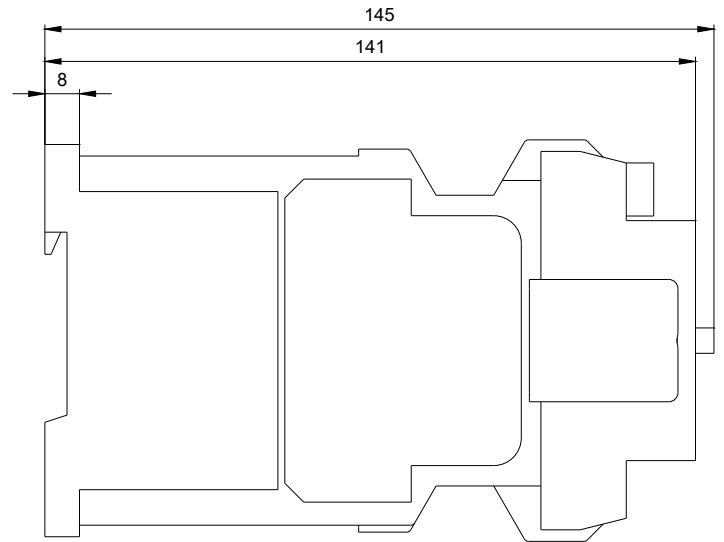
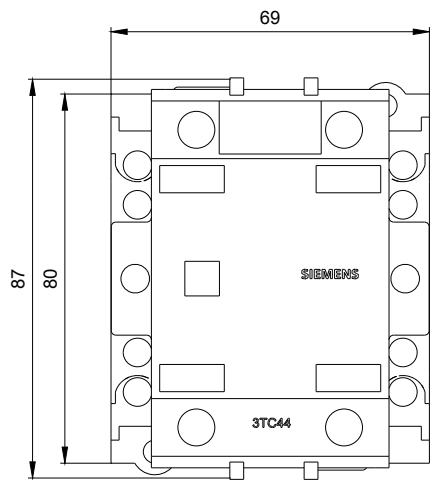
[http://www.automation.siemens.com/bilddb/cax\\_de.aspx?mlfb=3TC4417-0AV4&lang=en](http://www.automation.siemens.com/bilddb/cax_de.aspx?mlfb=3TC4417-0AV4&lang=en)

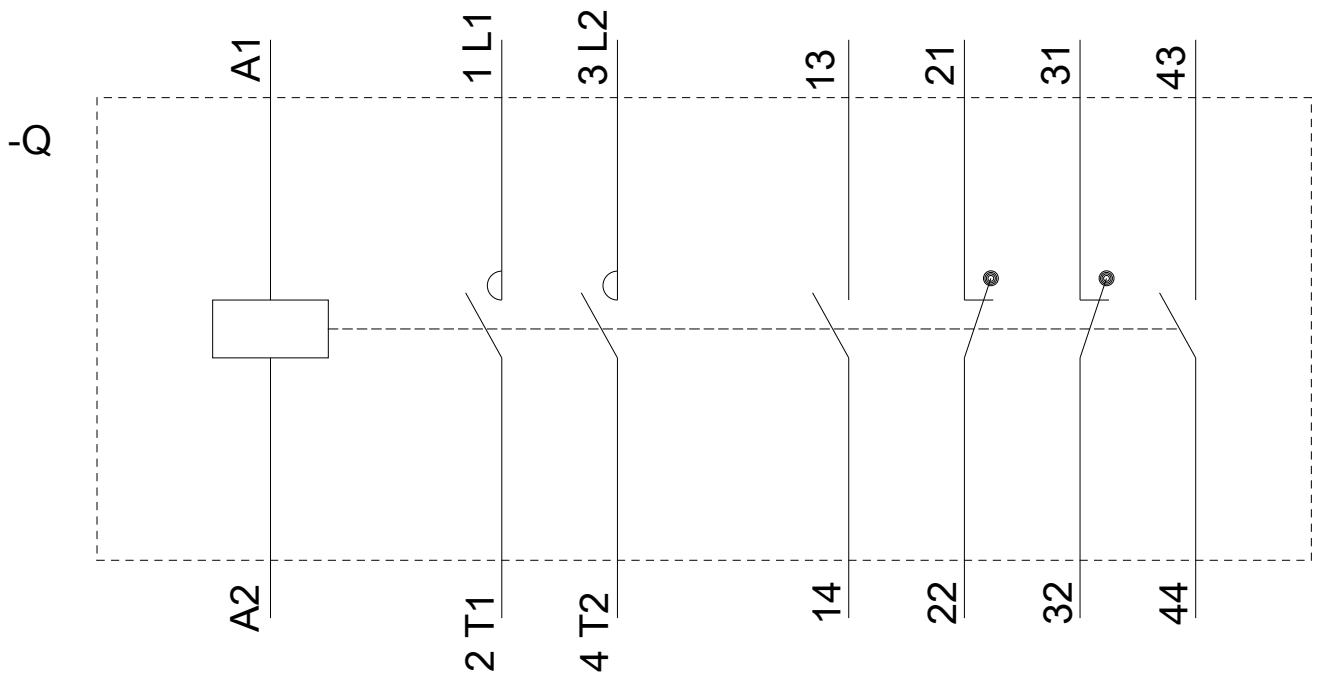
**Characteristic: Tripping characteristics, I<sup>t</sup>, Let-through current**

<https://support.industry.siemens.com/cs/ww/en/ps/3TC4417-0AV4/char>

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

<http://www.automation.siemens.com/bilddb/index.aspx?view=Search&mlfb=3TC4417-0AV4&objecttype=14&gridview=view1>





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