



Contactor, Size 2, 2-pole, DC-3 and 5, 32 A Auxiliary contacts 22 (2 NO + 2 NC) 230V AC 50Hz, 277 V 60 Hz AC operation

product designation	Contactor
product type designation	3TC
<b>General technical data</b>	
size of contactor	2
product extension	<ul style="list-style-type: none"> <li>• function module for communication</li> <li>• auxiliary switch</li> </ul>
insulation voltage rated value	<ul style="list-style-type: none"> <li>800 V</li> <li>300 V</li> </ul>
maximum permissible voltage for safe isolation between coil and main contacts according to EN 60947-1	
shock resistance at rectangular impulse	<ul style="list-style-type: none"> <li>• at AC 7,5g / 5 ms, 3,4g / 10 ms</li> </ul>
mechanical service life (operating cycles)	<ul style="list-style-type: none"> <li>• of contactor typical 10 000 000</li> <li>• of the contactor with added auxiliary switch block typical 10 000 000</li> </ul>
reference code according to IEC 81346-2	Q
Substance Prohibition (Date)	02/01/2012
<b>Ambient conditions</b>	
ambient temperature	<ul style="list-style-type: none"> <li>• during operation -25 ... +55 °C</li> <li>• during storage -50 ... +80 °C</li> </ul>
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	32 A
— at 110 V rated value	32 A
— at 220 V rated value	32 A
• with 2 current paths in series at DC-1	
— at 24 V rated value	32 A
— at 110 V rated value	32 A
— at 220 V rated value	32 A
— at 440 V rated value	32 A
— at 600 V rated value	32 A

— at 750 V rated value	32 A
• <b>at 1 current path at DC-3 at DC-5</b>	
— at 24 V rated value	32 A
— at 110 V rated value	32 A
— at 220 V rated value	32 A
• <b>with 2 current paths in series at DC-3 at DC-5</b>	
— at 24 V rated value	32 A
— at 110 V rated value	32 A
— at 220 V rated value	32 A
— at 440 V rated value	29 A
— at 600 V rated value	21 A
— at 750 V rated value	7.5 A
<b>operating power</b>	
• at DC-1	
— at 110 V rated value	3.5 kW
— at 220 V rated value	7 kW
— at 440 V rated value	14 kW
— at 750 V rated value	24 kW
• at DC-3 at DC-5	
— at 110 V rated value	2.5 kW
— at 220 V rated value	5 kW
— at 440 V rated value	9 kW
— at 600 V rated value	9 kW
— at 750 V rated value	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>	AC
<b>control supply voltage at AC</b>	
• at 50 Hz rated value	230 V
• at 60 Hz rated value	277 V
<b>operating range factor control supply voltage rated value of magnet coil at AC</b>	
• at 50 Hz	0.8 ... 1.1
<b>apparent pick-up power of magnet coil at AC</b>	68 VA
• at 50 Hz	68 VA
• at 60 Hz	95 VA
<b>inductive power factor with closing power of the coil</b>	0.86
• at 50 Hz	0.86
• at 60 Hz	0.79
<b>apparent holding power of magnet coil at AC</b>	10 VA
• at 50 Hz	10 VA
• at 60 Hz	12 VA
<b>inductive power factor with the holding power of the coil</b>	0.29
• at 50 Hz	0.29
• at 60 Hz	0.3
<b>arcng 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
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
• 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>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	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
<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 3NA3020 (50 A) in series (750 V, 3 kA)
— with type of assignment 2 required	2 x 3NA3020 (50 A) in series (750 V, 3 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; standing, on horizontal mounting surface
<b>fastening method</b>	screw and snap-on mounting onto 35 mm DIN rail according to DIN EN 50022
• side-by-side mounting	Yes
<b>height</b>	85 mm
<b>width</b>	70 mm
<b>depth</b>	104 mm
<b>required spacing</b>	
• with side-by-side mounting	
— forwards	15 mm
— backwards	0 mm
— upwards	10 mm
— downwards	10 mm
— at the side	10 mm
• for grounded parts	
— forwards	30 mm
— backwards	0 mm
— upwards	10 mm
— at the side	10 mm
— downwards	10 mm
• for live parts	
— forwards	30 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-type terminals
• for main current circuit	screw-type terminals
• for auxiliary and control circuit	screw-type terminals
<b>type of connectable conductor cross-sections for main contacts</b>	
• solid or stranded	2x (2,5 ... 10 mm <sup>2</sup> )
• finely stranded with core end processing	2x (1.5 ... 4 mm <sup>2</sup> )
<b>type of connectable conductor cross-sections</b>	
• for auxiliary contacts	
— solid or stranded	2x (1 ... 2.5 mm <sup>2</sup> )

— finely stranded with core end processing

2x (0.75 ... 1.5 mm<sup>2</sup>)

#### Safety related data

product function mirror contact according to IEC 60947-4-1

Yes; One NC contact each must be connected in series for the right and left auxiliary switch block respectively

protection class IP on the front according to IEC 60529

IP00

#### 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](#)

Miscellaneous

[Special Test Certificate](#)

other

Dangerous Good

[Confirmation](#)

[Transport Information](#)

#### Further information

Siemens has decided to exit the Russian market (see here).

<https://press.siemens.com/global/en/pressrelease/siemens-wind-down-russian-business>

Siemens is working on the renewal of the current EAC certificates.

Please contact your local Siemens office on the status of validity of the EAC certification if you intend to import or offer to supply these products to an EAC relevant market (other than the sanctioned EAEU member states Russia or Belarus).

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=3TC4417-0BP0>

Cax online generator

<http://support.automation.siemens.com/WW/CAXorder/default.aspx?lang=en&mlfb=3TC4417-0BP0>

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

<https://support.industry.siemens.com/cs/ww/en/ps/3TC4417-0BP0>

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

[http://www.automation.siemens.com/bilddb/cax\\_de.aspx?mlfb=3TC4417-0BP0&lang=en](http://www.automation.siemens.com/bilddb/cax_de.aspx?mlfb=3TC4417-0BP0&lang=en)

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

<https://support.industry.siemens.com/cs/ww/en/ps/3TC4417-0BP0/char>

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

<http://www.automation.siemens.com/bilddb/index.aspx?view=Search&mlfb=3TC4417-0BP0&objecttype=14&gridview=view1>



