

Contactor, Size 2, 2-pole, DC-3 and 5, 32 A Auxiliary contacts 22 (2 NO + 2 NC) 48V DC DC operation



Product designation	Contactor
Product type designation	3TC
General technical data	
Size of contactor	2
Product extension	
• function module for communication	No
• Auxiliary switch	Yes
Insulation voltage rated value	800 V
maximum permissible voltage for safe isolation between coil and main contacts acc. to EN 60947-1	300 V
Protection class IP	IP00
• on the front	IP00
• of the terminal	IP00
Shock resistance at rectangular impulse	
• at DC	7,5g / 5 ms, 3,4g / 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 acc. to DIN EN 81346-2	Q
Ambient conditions	
Ambient temperature	
<ul style="list-style-type: none"> • during operation • during storage 	<p>-25 ... +55 °C</p> <p>-50 ... +80 °C</p>
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
Operating current	
<ul style="list-style-type: none"> • with 2 current paths in series at DC-1 <ul style="list-style-type: none"> — at 24 V rated value — at 110 V rated value — at 220 V rated value — at 440 V rated value — at 600 V rated value 	<p>32 A</p> <p>32 A</p> <p>32 A</p> <p>32 A</p> <p>32 A</p>
Operating current	
<ul style="list-style-type: none"> • at DC-3 at DC-5 <ul style="list-style-type: none"> — at 220 V rated value — at 440 V rated value — at 600 V rated value — at 750 V rated value • with 2 current paths in series at DC-3 at DC-5 <ul style="list-style-type: none"> — at 24 V rated value — at 110 V rated value — at 220 V rated value — at 440 V rated value — at 600 V rated value 	<p>32 A</p> <p>29 A</p> <p>21 A</p> <p>7.5 A</p> <p>32 A</p> <p>32 A</p> <p>32 A</p> <p>29 A</p> <p>21 A</p>
Operating power	
<ul style="list-style-type: none"> • at DC-1 <ul style="list-style-type: none"> — at 110 V rated value — at 220 V rated value — at 440 V rated value — at 750 V rated value • at DC-3 at DC-5 <ul style="list-style-type: none"> — at 110 V rated value — at 220 V rated value — at 440 V rated value — at 600 V rated value 	<p>3.5 kW</p> <p>7 kW</p> <p>14 kW</p> <p>24 kW</p> <p>2.5 kW</p> <p>5 kW</p> <p>9 kW</p> <p>9 kW</p>

— at 750 V rated value	4 kW
Operating frequency	
• 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	
Type of voltage of the control supply voltage	DC
Control supply voltage at DC	
• rated value	48 V
Closing power of magnet coil at DC	10 W
Holding power of magnet coil at DC	10 W
Closing delay at DC	35 ... 190 ms
Opening delay at DC	10 ... 25 ms
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
Operating current at AC-12 maximum	10 A
Operating 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
Operating current at DC-12	
• 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
Operating current at DC-13	
• 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

<ul style="list-style-type: none"> • at 125 V rated value • at 220 V rated value • at 600 V rated value 	<p>0.98 A</p> <p>0.48 A</p> <p>0.07 A</p>
Contact reliability of auxiliary contacts	one incorrect switching operation of 100 million switching operations (17 V, 5 mA)

UL/CSA ratings

Contact rating of auxiliary contacts according to UL	A600 / P600
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Short-circuit protection

Design of the fuse link	
<ul style="list-style-type: none"> • for short-circuit protection of the main circuit <ul style="list-style-type: none"> — with type of coordination 1 required — with type of assignment 2 required • for short-circuit protection of the auxiliary switch required 	<p>gG: 50 A (690 V, 100 kA)</p> <p>gG: 35 A (690 V, 100 kA)</p> <p>gG: 16 A (500 V, 1 kA)</p>

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
Mounting type	screw and snap-on mounting onto 35 mm standard mounting rail according to DIN EN 50022
<ul style="list-style-type: none"> • Side-by-side mounting 	Yes
Height	85 mm
Width	70 mm
Depth	145 mm
Required spacing	
<ul style="list-style-type: none"> • with side-by-side mounting <ul style="list-style-type: none"> — forwards — Backwards — upwards — downwards — at the side • for grounded parts <ul style="list-style-type: none"> — forwards — Backwards — upwards — at the side — downwards • for live parts <ul style="list-style-type: none"> — forwards — Backwards — upwards 	<p>15 mm</p> <p>0 mm</p> <p>10 mm</p> <p>10 mm</p> <p>10 mm</p> <p>30 mm</p> <p>0 mm</p> <p>10 mm</p> <p>10 mm</p> <p>10 mm</p> <p>30 mm</p> <p>0 mm</p> <p>10 mm</p>

- downwards
- at the side

10 mm
10 mm







Connections/ Terminals

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

Safety related data

Protection against electrical shock	finger-safe only with terminal cover
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Certificates/ approvals

General Product Approval			Functional Safety/Safety of Machinery	Declaration of Conformity
 CCC	 CSA	 UL		 EG-Konf.
			Type Examination Certificate	
Declaration of Conformity	Test Certificates		Marine / Shipping	other
Miscellaneous	Special Test Certificate	Miscellaneous	 RMRS	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=3TC4417-0AW4>

Cax online generator

<http://support.automation.siemens.com/WW/CAXorder/default.aspx?lang=en&mlfb=3TC4417-0AW4>

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

<https://support.industry.siemens.com/cs/ww/en/ps/3TC4417-0AW4>

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

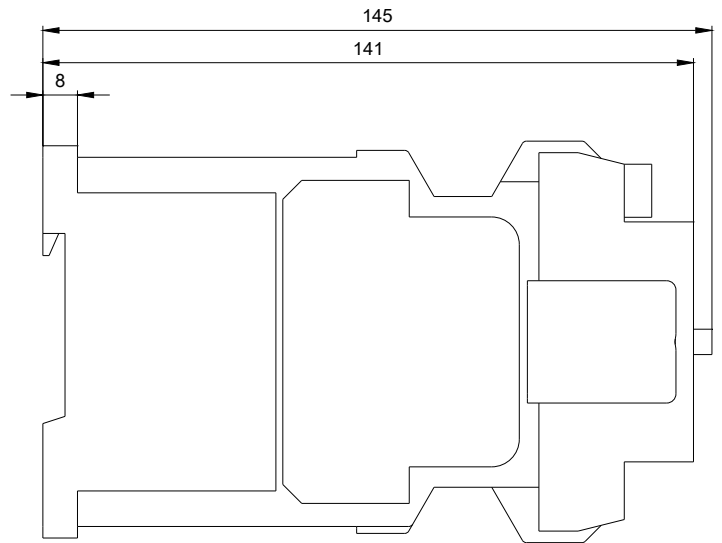
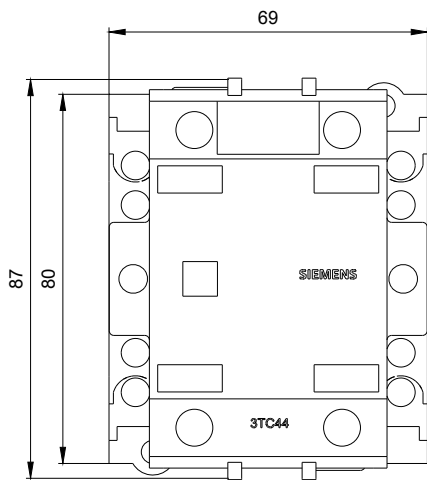
http://www.automation.siemens.com/bilddb/cax_de.aspx?mlfb=3TC4417-0AW4&lang=en

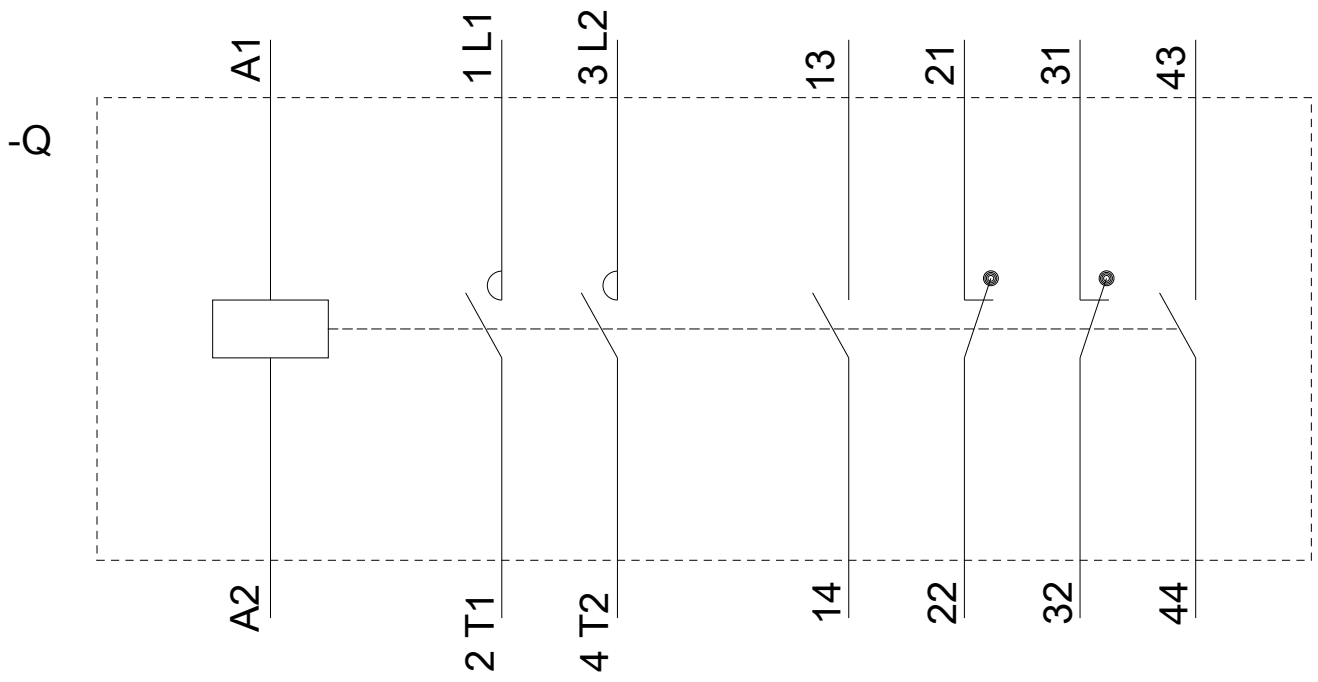
Characteristic: Tripping characteristics, I²t, Let-through current

<https://support.industry.siemens.com/cs/ww/en/ps/3TC4417-0AW4/char>

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

<http://www.automation.siemens.com/bilddb/index.aspx?view=Search&mlfb=3TC4417-0AW4&objecttype=14&gridview=view1>





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