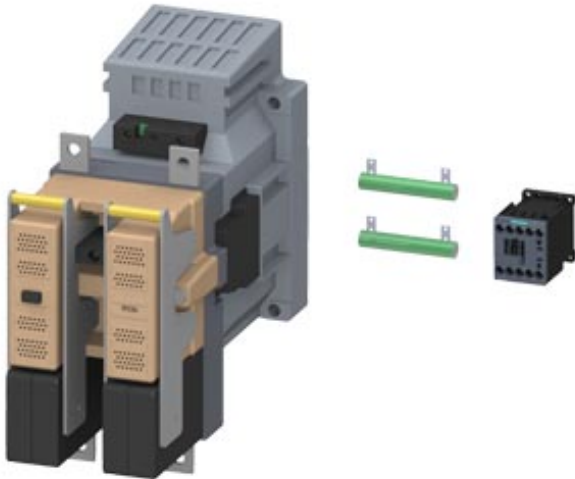


Contactor, size 12, 2-pole, DC-3 and 5, 400 A at 750 V Auxiliary contacts 21 (2NO + 1NC) 24V DC DC operation with varistor and series resistor Operating range 0.7 to 1.25 x US DC operation



Product designation	Contactor
Product type designation	3TC
General technical data	
Size of contactor	12
Product extension	
• function module for communication	No
• Auxiliary switch	No
Insulation voltage rated value	1 000 V
maximum permissible voltage for safe isolation between coil and main contacts acc. to EN 60947-1	660 V
Protection class IP	IP00
• protection class IP on the front	IP00
• Protection class IP of the terminal	IP00
Shock resistance at rectangular impulse	
• at DC	12g / 5 ms, 5,6g / 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	
• during operation	-40 ... +70 °C
• during storage	-50 ... +80 °C
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	
• 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
Operating current	
• at DC-3 at DC-5	
— 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
• with 2 current paths in series at DC-3 at DC-5	
— 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
Operating power	
• at DC-1	
— 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
• at DC-3 at DC-5	
— 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
Operating frequency	
• at DC-1 maximum	1 000 1/h
• at DC-3 maximum	600 1/h
• at DC-5 maximum	600 1/h
Control circuit/ Control	
Type of voltage of the control supply voltage	DC
Control supply voltage at DC	
• rated value	24 V
Design of the surge suppressor	with varistor
Closing power of magnet coil at DC	86 W
Holding power of magnet coil at DC	86 W
Closing delay at DC	110 ... 400 ms
Opening delay at DC	40 ... 110 ms
Arcing time	20 ... 30 ms
Auxiliary circuit	
Number of NC contacts for auxiliary contacts	1
• instantaneous contact	1
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	21
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	8 A
• at 125 V rated value	6 A
• at 220 V rated value	2 A
• at 600 V rated value	0.4 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

<ul style="list-style-type: none"> • at 110 V rated value • at 125 V rated value • at 220 V rated value • at 600 V rated value 	<p>2.4 A</p> <p>2.1 A</p> <p>1.1 A</p> <p>0.21 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

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: 400 A (690 V, 100 kA)</p> <p>gG: 250 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 fixing
<ul style="list-style-type: none"> • Side-by-side mounting 	Yes
Height	281 mm
Width	235 mm
Depth	314 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>25 mm</p> <p>0 mm</p> <p>10 mm</p> <p>10 mm</p> <p>10 mm</p> <p>100 mm</p> <p>0 mm</p> <p>10 mm</p> <p>10 mm</p> <p>10 mm</p> <p>100 mm</p> <p>0 mm</p> <p>10 mm</p>

- downwards
- at the side

10 mm
10 mm

Connections/ Terminals

- **type of electrical connection** screw-type terminals
- Type of electrical connection for main current circuit screw-type terminals
- Type of electrical connection for auxiliary and control current circuit screw-type terminals

Type of connectable conductor cross-sections


- for auxiliary contacts
 - single or multi-stranded 2x (1 ... 2,5 mm²)
 - finely stranded with core end processing 2x (0.75 ... 2.5 mm²)

Safety related data

Protection against electrical shock finger-safe only with terminal cover

Certificates/ approvals

General Product Approval			Functional Safety/Safety of Machinery	Declaration of Conformity
				
CCC	CSA	UL	Type Examination Certificate	EG-Konf.

Declaration of Conformity	Test Certificates	Marine / Ship- ping	other
Miscellaneous	Special Test Certificate		Confirmation
	Miscellaneous	RMRS	
	Type Test Certificates/Test Report		

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=3TC5617-0LB4>

Cax online generator

<http://support.automation.siemens.com/WW/CAXorder/default.aspx?lang=en&mlfb=3TC5617-0LB4>

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

<https://support.industry.siemens.com/cs/ww/en/ps/3TC5617-0LB4>

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

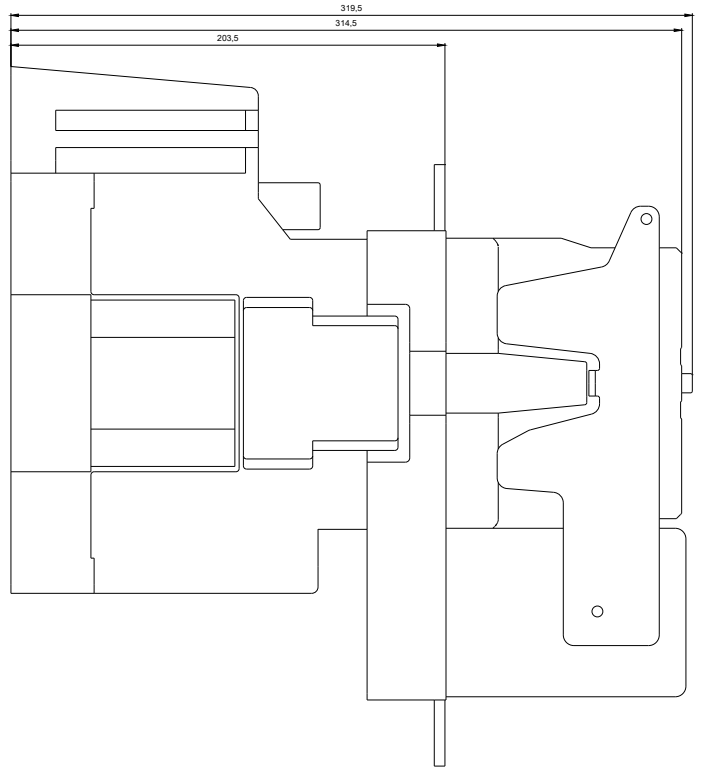
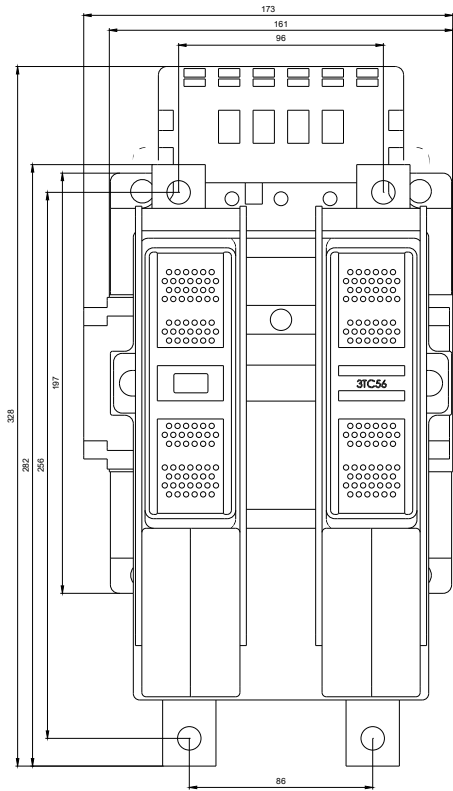
http://www.automation.siemens.com/bilddb/cax_de.aspx?mlfb=3TC5617-0LB4&lang=en

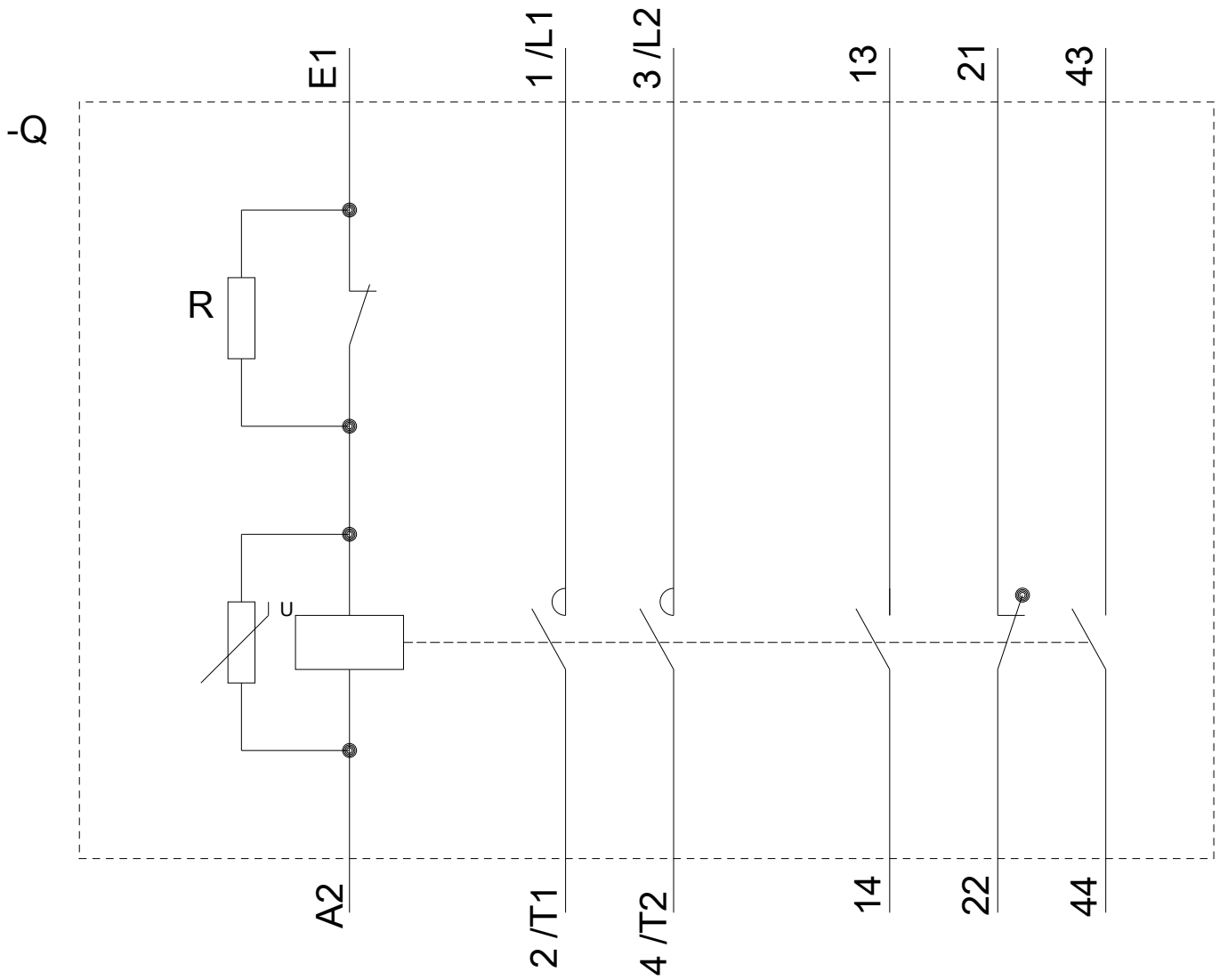
Characteristic: Tripping characteristics, I^t, Let-through current

<https://support.industry.siemens.com/cs/ww/en/ps/3TC5617-0LB4/char>

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

<http://www.automation.siemens.com/bilddb/index.aspx?view=Search&mlfb=3TC5617-0LB4&objecttype=14&gridview=view1>





last modified:

08/13/2020