



Contactor, Size 2, 2-pole, DC-3 and 5, 32 A Auxiliary contacts 22 (2 NO + 2 NC) 110V AC 50Hz/132V AC 60Hz AC 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
shock resistance at rectangular impulse	
• at AC	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 IEC 81346-2	Q
Substance Prohibittance (Date)	01.02.2012 00:00:00
Ambient conditions	
• ambient temperature during operation	-25 ... +55 °C
• ambient temperature 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
operational current 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
operational current	
• at DC-3 at DC-5	
— at 220 V rated value	32 A
— at 440 V rated value	29 A
— at 600 V rated value	21 A

<ul style="list-style-type: none"> — 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 	7.5 A 32 A 32 A 32 A 29 A 21 A
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 — at 750 V rated value 	3.5 kW 7 kW 14 kW 24 kW 2.5 kW 5 kW 9 kW 9 kW 4 kW
operating frequency <ul style="list-style-type: none"> • at DC-1 maximum • at DC-3 maximum • at DC-5 maximum 	1 500 1/h 750 1/h 750 1/h
Control circuit/ Control	
type of voltage of the control supply voltage	AC
control supply voltage at AC <ul style="list-style-type: none"> • at 50 Hz rated value • at 60 Hz rated value 	110 V 132 V
operating range factor control supply voltage rated value of magnet coil at AC <ul style="list-style-type: none"> • at 50 Hz 	0.8 ... 1.1
apparent pick-up power of magnet coil at AC <ul style="list-style-type: none"> • at 50 Hz • at 60 Hz 	68 V·A 68 V·A 95 V·A
inductive power factor with closing power of the coil <ul style="list-style-type: none"> • at 50 Hz • at 60 Hz 	0.86 0.86 0.79
apparent holding power of magnet coil at AC <ul style="list-style-type: none"> • at 50 Hz • at 60 Hz 	10 V·A 10 V·A 12 V·A
inductive power factor with the holding power of the coil <ul style="list-style-type: none"> • at 50 Hz • at 60 Hz 	0.29 0.29 0.3
arcing time	20 ... 30 ms
Auxiliary circuit	
number of NC contacts for auxiliary contacts <ul style="list-style-type: none"> • instantaneous contact 	2 2
number of NO contacts for auxiliary contacts <ul style="list-style-type: none"> • instantaneous contact 	2 2
number of CO contacts for auxiliary contacts	0
identification number and letter for switching elements	22
operational current at AC-12 maximum	10 A
operational current at AC-15 <ul style="list-style-type: none"> • at 230 V rated value • at 400 V rated value • at 500 V rated value 	5.6 A 3.6 A 2.5 A
operational current at DC-12	

<ul style="list-style-type: none"> • at 24 V rated value • at 48 V rated value • at 60 V rated value • at 110 V rated value • at 125 V rated value • at 220 V rated value • at 600 V rated value 	10 A 10 A 10 A 3.2 A 2.5 A 0.9 A 0.22 A
operational current at DC-13 <ul style="list-style-type: none"> • at 24 V rated value • at 48 V rated value • at 60 V rated value • at 110 V rated value • at 125 V rated value • at 220 V rated value • at 600 V rated value 	10 A 5 A 5 A 1.14 A 0.98 A 0.48 A 0.07 A
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 	gG: 50 A (690 V, 100 kA) gG: 35 A (690 V, 100 kA) gG: 16 A (500 V, 1 kA)
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
fastening method	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	104 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 — downwards — at the side 	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	
type of electrical connection <ul style="list-style-type: none"> • for main current circuit • for auxiliary and control 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"> — solid or 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"> — solid or stranded — finely stranded with core end processing 	2x (1 ... 2,5 mm ²) 2x (0.75 ... 2.5 mm ²)
Safety related data	
product function mirror contact acc. 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 acc. to IEC 60529	IP00
Certificates/ approvals	
General Product Approval	Functional Safety/Safety of Machinery
	Declaration of Conformity



[Type Examination Certificate](#)



Declaration of Conformity	Test Certificates	Marine / Shipping	other
---------------------------	-------------------	-------------------	-------

[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=3TC4417-0BF0>

Cax online generator

<http://support.automation.siemens.com/WW/CAXorder/default.aspx?lang=en&mlfb=3TC4417-0BF0>

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

<https://support.industry.siemens.com/cs/ww/en/ps/3TC4417-0BF0>

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

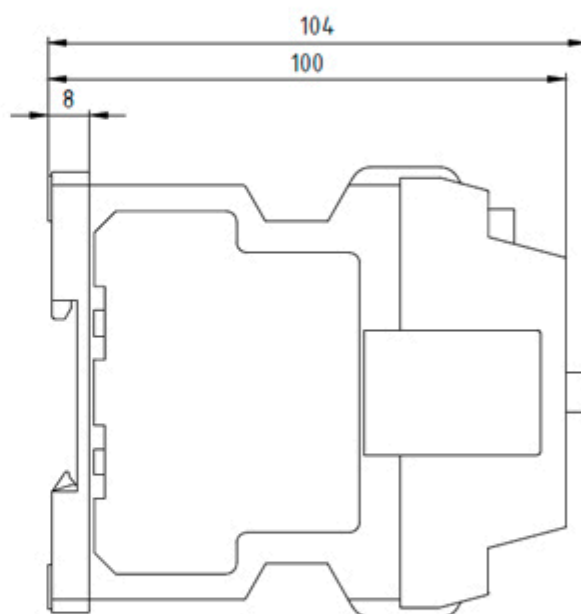
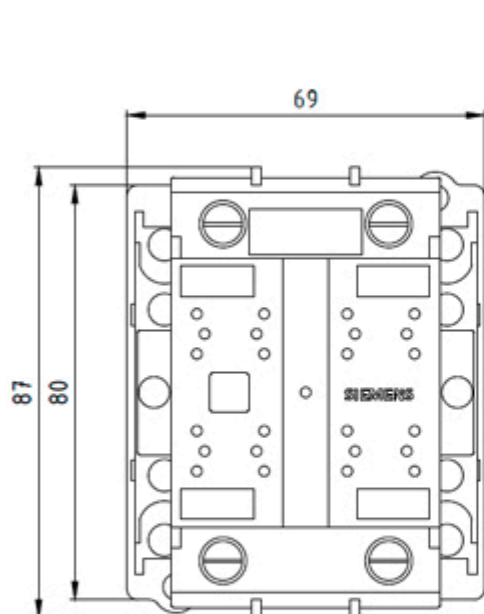
http://www.automation.siemens.com/bilddb/cax_de.aspx?mlfb=3TC4417-0BF0&lang=en

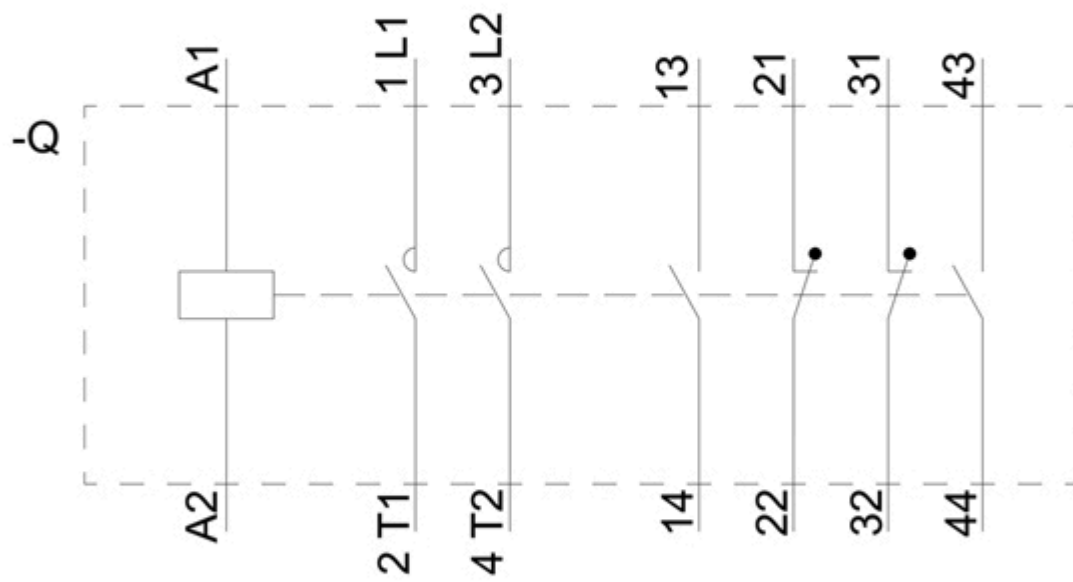
Characteristic: Tripping characteristics, I_t, Let-through current

<https://support.industry.siemens.com/cs/ww/en/ps/3TC4417-0BF0/char>

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

<http://www.automation.siemens.com/bilddb/index.aspx?view=Search&mlfb=3TC4417-0BF0&objecttype=14&gridview=view1>





last modified:

1/18/2021 [🔗](#)