



contactor, DC-3/DC-5, 75 A, 2-pole, 100 V AC, 50 Hz / 120 V AC, 60 Hz, auxiliary contacts: 2 NO + 2 NC, connecting bar, frame size 4

product designation	Contactor
product type designation	3TC
General technical data	
size of contactor	4
product extension	
• function module for communication	No
• auxiliary switch	Yes
insulation voltage rated value	800 V
maximum permissible voltage for protective separation between coil and main contacts according to EN 60947-1	300 V
shock resistance at rectangular impulse	
• at AC	10g / 5 ms, 5g / 10 ms
mechanical service life (operating cycles)	
• of contactor typical	10 000 000
• of the contactor with added auxiliary switch block typical	10 000 000
reference code according to IEC 81346-2	Q
Substance Prohibitance (Date)	03/01/2017
SVHC substance name	Lead CAS-No. 7439-92-1
Net Weight	3.4 kg
Ambient conditions	
ambient temperature	
• during operation	-25 ... +55 °C
• during storage	-50 ... +80 °C
relative humidity minimum	10 %
relative humidity at 55 °C according to IEC 60068-2-30 maximum	95 %
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	
• at 1 current path at DC-1	
— at 24 V rated value	75 A
— at 110 V rated value	75 A
— at 220 V rated value	75 A
• with 2 current paths in series at DC-1	
— at 24 V rated value	75 A

— at 110 V rated value	75 A
— at 220 V rated value	75 A
— at 440 V rated value	75 A
— at 600 V rated value	75 A
— at 750 V rated value	75 A
● at DC-3 at DC-5	
— at 220 V rated value	75 A
— at 600 V rated value	75 A
— at 750 V rated value	75 A
● at 1 current path at DC-3 at DC-5	
— at 24 V rated value	75 A
— at 110 V rated value	75 A
— at 220 V rated value	75 A
● with 2 current paths in series at DC-3 at DC-5	
— at 24 V rated value	75 A
— at 110 V rated value	75 A
— at 220 V rated value	75 A
— at 440 V rated value	75 A
— at 600 V rated value	75 A
— at 750 V rated value	75 A
operating power	
● at DC-1	
— at 110 V rated value	8.2 kW
— at 220 V rated value	16.5 kW
— at 440 V rated value	33 kW
— at 750 V rated value	56 kW
● at DC-3 at DC-5	
— at 110 V rated value	6.5 kW
— at 220 V rated value	13 kW
— at 440 V rated value	27 kW
— at 600 V rated value	38 kW
— at 750 V rated value	45 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	AC
control supply voltage at AC	
● at 50 Hz rated value	100 V
● at 60 Hz rated value	120 V
operating range factor control supply voltage rated value of magnet coil at AC	
● at 60 Hz	0.8 ... 1.1
apparent pick-up power of magnet coil at AC	300 VA
● at 50 Hz	300 VA
● at 60 Hz	365 VA
inductive power factor with closing power of the coil	0.5
● at 50 Hz	0.5
● at 60 Hz	0.45
apparent holding power of magnet coil at AC	26 VA
● at 50 Hz	26 VA
● at 60 Hz	35 VA
inductive power factor with the holding power of the coil	0.24
● at 50 Hz	0.24
● at 60 Hz	0.26
arcing time	20 ... 30 ms
Auxiliary circuit	
number of NC contacts for auxiliary contacts	2

<ul style="list-style-type: none"> instantaneous contact 	2
number of NO contacts for auxiliary contacts	2
<ul style="list-style-type: none"> instantaneous contact 	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 	5.6 A
<ul style="list-style-type: none"> at 400 V rated value 	3.6 A
<ul style="list-style-type: none"> at 500 V rated value 	2.5 A
operational current at DC-12	
<ul style="list-style-type: none"> at 24 V rated value 	10 A
<ul style="list-style-type: none"> at 48 V rated value 	10 A
<ul style="list-style-type: none"> at 60 V rated value 	10 A
<ul style="list-style-type: none"> at 110 V rated value 	3.2 A
<ul style="list-style-type: none"> at 125 V rated value 	2.5 A
<ul style="list-style-type: none"> at 220 V rated value 	0.9 A
<ul style="list-style-type: none"> at 600 V rated value 	0.22 A
operational current at DC-13	
<ul style="list-style-type: none"> at 24 V rated value 	10 A
<ul style="list-style-type: none"> at 48 V rated value 	5 A
<ul style="list-style-type: none"> at 60 V rated value 	5 A
<ul style="list-style-type: none"> at 110 V rated value 	1.14 A
<ul style="list-style-type: none"> at 125 V rated value 	0.98 A
<ul style="list-style-type: none"> at 220 V rated value 	0.48 A
<ul style="list-style-type: none"> at 600 V rated value 	0.07 A
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 coordination 2 required 	2 x 3NA31 (160 A) in series (750 V, 5 kA) 2 x 3NA31 (63 A) in series (750 V, 5 kA)
<ul style="list-style-type: none"> for short-circuit protection of the auxiliary switch required 	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
fastening method side-by-side mounting	Yes
fastening method	screw fixing
height	177.5 mm
width	100 mm
depth	156 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 	20 mm 0 mm 10 mm 10 mm 10 mm
<ul style="list-style-type: none"> for grounded parts <ul style="list-style-type: none"> forwards backwards upwards at the side downwards 	55 mm 0 mm 10 mm 10 mm 10 mm
<ul style="list-style-type: none"> for live parts <ul style="list-style-type: none"> forwards backwards upwards 	55 mm 0 mm 10 mm

— downwards	10 mm
— at the side	10 mm

Connections/ Terminals

type of electrical connection	screw terminal
• for main current circuit	screw-type terminals
• for auxiliary and control circuit	screw-type terminals
type of connectable conductor cross-sections	
• for auxiliary contacts	
— solid or stranded	2x (1 ... 2.5 mm ²)
— finely stranded with core end processing	2x (0.75 ... 1.5 mm ²)

Safety related data

product function mirror contact according to IEC 60947-4-1	Yes
Electrical Safety	
protection class IP on the front according to IEC 60529	IP00; IP20 with box terminal/cover
touch protection on the front according to IEC 60529	finger-safe, for vertical contact from the front with cover

Approvals Certificates

Environment	General Product Approval
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[Environmental Confirmations](#)



General Product Approval	Functional Safety	Test Certificates	other
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[Type Examination Certificate](#)

[Special Test Certificate](#)

[Type Test Certificates/Test Report](#)

[Miscellaneous](#)



other	Dangerous goods
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[Confirmation](#)

[Transport Information](#)

Further information

Information on the packaging

<https://support.industry.siemens.com/cs/ww/en/view/109813875>

Information for data generation and storage

<https://support.industry.siemens.com/cs/ww/en/view/109995012>

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=3TC4817-0BK1>

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

<https://support.industry.siemens.com/cs/ww/en/ps/3TC4817-0BK1>

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

https://www.automation.siemens.com/bilddb/cax_de.aspx?mlfb=3TC4817-0BK1&lang=en

Cax online generator

<https://support.automation.siemens.com/WW/CAXorder/default.aspx?lang=en&mlfb=3TC4817-0BK1>

Characteristic curves

[https://curves.simaris.siemens.com/curves/<mmp_prod_noCOMP="HAUPT"></mmp_prod_no>](https://curves.simaris.siemens.com/curves/<mmp_prod_noCOMP=)



