



contactor, DC-3/DC-5, 220 A, 2-pole, 230 V AC, 50 Hz / 277 V AC, 60 Hz, auxiliary contacts: 4 NO + 4 NC, connecting bar, frame size 8

product designation	Contactor
product type designation	3TC
General technical data	
size of contactor	8
product extension	
• function module for communication	No
• auxiliary switch	No
insulation voltage rated value	1 000 V
maximum permissible voltage for protective separation between coil and main contacts according to EN 60947-1	660 V
shock resistance at rectangular impulse	
• at AC	12g / 5 ms, 5,5g / 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 - 7439-92-1
Weight	7.1 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	220 A
— at 110 V rated value	220 A
— at 220 V rated value	220 A
• with 2 current paths in series at DC-1	
— at 24 V rated value	220 A

— at 110 V rated value	220 A
— at 220 V rated value	220 A
— at 440 V rated value	220 A
— at 600 V rated value	220 A
— at 750 V rated value	220 A
● at DC-3 at DC-5	
— at 220 V rated value	220 A
— at 600 V rated value	220 A
— at 750 V rated value	170 A
● at 1 current path at DC-3 at DC-5	
— at 24 V rated value	220 A
— at 110 V rated value	220 A
— at 220 V rated value	220 A
● with 2 current paths in series at DC-3 at DC-5	
— at 24 V rated value	220 A
— at 110 V rated value	220 A
— at 220 V rated value	220 A
— at 440 V rated value	220 A
— at 600 V rated value	220 A
— at 750 V rated value	170 A
operating power	
● at DC-1	
— at 110 V rated value	24 kW
— at 220 V rated value	48 kW
— at 440 V rated value	97 kW
— at 750 V rated value	165 kW
● at DC-3 at DC-5	
— at 110 V rated value	20 kW
— at 220 V rated value	41 kW
— at 440 V rated value	82 kW
— at 600 V rated value	110 kW
— at 750 V rated value	110 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	230 V
● at 60 Hz rated value	277 V
operating range factor control supply voltage rated value of magnet coil at AC	
● at 50 Hz	0.8 ... 1.1
apparent pick-up power of magnet coil at AC	640 VA
● at 50 Hz	640 VA
● at 60 Hz	730 VA
inductive power factor with closing power of the coil	0.48
● at 50 Hz	0.48
● at 60 Hz	0.38
apparent holding power of magnet coil at AC	46 VA
● at 50 Hz	46 VA
● at 60 Hz	56 VA
inductive power factor with the holding power of the coil	0.23
● at 50 Hz	0.23
● at 60 Hz	0.24
arcing time	20 ... 30 ms
Auxiliary circuit	
number of NC contacts for auxiliary contacts	4

• instantaneous contact	4
number of NO contacts for auxiliary contacts	4
• instantaneous contact	4
number of CO contacts for auxiliary contacts	0
identification number and letter for switching elements	44
operational current at AC-12 maximum	10 A
operational 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
operational 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
operational 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	2.4 A
• at 125 V rated value	2.1 A
• at 220 V rated value	1.1 A
• at 600 V rated value	0.21 A
UL/CSA ratings	
contact rating of auxiliary contacts according to UL	A600 / P600
Short-circuit protection	
design of the fuse link	
• for short-circuit protection of the main circuit	
— with type of coordination 1 required	3NE1332-4D (400 A) (750 V, 6 kA)
— with type of coordination 2 required	3NE1332-4D (400 A) (750 V, 6 kA)
• 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	240 mm
width	160 mm
depth	204 mm
required spacing	
• with side-by-side mounting	
— forwards	20 mm
— backwards	0 mm
— upwards	10 mm
— downwards	10 mm
— at the side	10 mm
• for grounded parts	
— forwards	70 mm
— backwards	0 mm
— upwards	10 mm
— at the side	10 mm
— downwards	10 mm
• for live parts	
— forwards	70 mm
— backwards	0 mm
— upwards	10 mm

— downwards

10 mm

— at the side

10 mm

Connections/ Terminals

type of electrical connection

- for main current circuit
- for auxiliary and control circuit

screw terminal
screw-type terminals
screw-type terminals

type of connectable conductor cross-sections

- for auxiliary contacts
 - solid or stranded
 - finely stranded with core end processing

2x (1 ... 2.5 mm²)
2x (0.75 ... 1.5 mm²)

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

General Product Approval

Functional Safety



EG-Konf.



UL



[Type Examination Certificate](#)

Test Certificates

other

Railway

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[Miscellaneous](#)

[Special Test Certificate](#)



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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=3TC5214-0BP0>

Cax online generator

<https://support.automation.siemens.com/WW/CAXorder/default.aspx?lang=en&mlfb=3TC5214-0BP0>

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

<https://support.industry.siemens.com/cs/ww/en/ps/3TC5214-0BP0>

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

https://www.automation.siemens.com/bilddb/cax_de.aspx?mlfb=3TC5214-0BP0&lang=en

Characteristic: Tripping characteristics, I_t, Let-through current

<https://support.industry.siemens.com/cs/ww/en/ps/3TC5214-0BP0/char>

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

<https://www.automation.siemens.com/bilddb/index.aspx?view=Search&mlfb=3TC5214-0BP0&objecttype=14&gridview=view1>



