



Traction contactor, AC-3 265 A, 132 kW / 400 V Coil 24 V DC x (0.7-1.25)
 PLC input 24-110 V DC Auxiliary contacts 2 NO + 2 NC 3-pole size S10
 Busbar connections Coil connection: Spring-type terminal

product brand name	SIRIUS
product designation	Contactors
design of the product	With extended operating range
product type designation	3RT1
General technical data	
size of contactor	S10
product extension	
• function module for communication	No
• auxiliary switch	Yes
power loss [W] for rated value of the current at AC in hot operating state	54 W
• per pole	18 W
power loss [W] for rated value of the current without load current share typical	3.4 W
insulation voltage	
• of main circuit with degree of pollution 3 rated value	1 000 V
• of auxiliary circuit with degree of pollution 3 rated value	690 V
surge voltage resistance	
• of main circuit rated value	8 kV
• of auxiliary circuit rated value	6 kV
maximum permissible voltage for safe isolation between coil and main contacts acc. to EN 60947-1	690 V
shock resistance for railway applications acc. to DIN EN 61373	Category 1, Class B
shock resistance at rectangular impulse	
• at DC	8,5g / 5 ms, 4,2g / 10 ms
shock resistance with sine pulse	
• at DC	13,4g / 5 ms, 6,5g / 10 ms
mechanical service life (switching cycles)	
• of contactor typical	10 000 000
• of the contactor with added electronically optimized auxiliary switch block typical	5 000 000
• of the contactor with added auxiliary switch block typical	10 000 000
reference code acc. to IEC 81346-2	Q
Substance Prohibition (Date)	06.09.2016 00:00:00
Ambient conditions	
installation altitude at height above sea level maximum	2 000 m

• ambient temperature during operation • ambient temperature during storage	-40 ... +70 °C -55 ... +80 °C
Main circuit	
number of poles for main current circuit	3
number of NO contacts for main contacts	3
number of NC contacts for main contacts	0
• operating voltage at AC-3 rated value maximum	1 000 V
operational current	
• at AC-1 at 400 V at ambient temperature 40 °C rated value	330 A
• at AC-1 — up to 690 V at ambient temperature 40 °C rated value — up to 690 V at ambient temperature 60 °C rated value — up to 1000 V at ambient temperature 60 °C rated value	330 A 300 A 150 A
• at AC-2 at 400 V rated value	265 A
• at AC-3 — at 400 V rated value — at 500 V rated value — at 690 V rated value — at 1000 V rated value	265 A 265 A 265 A 95 A
• at AC-4 at 400 V rated value	230 A
minimum cross-section in main circuit	
• at maximum AC-1 rated value • at maximum Ith rated value	185 mm ² 185 mm ²
operational current for approx. 200000 operating cycles at AC-4	
• at 400 V rated value • at 690 V rated value	117 A 105 A
operational current	
• at 1 current path at DC-1 — 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 • with 2 current paths in series at DC-1 — 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 • with 3 current paths in series at DC-1 — 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	300 A 33 A 3.8 A 0.9 A 0.6 A 300 A 300 A 300 A 4 A 2 A 300 A 300 A 300 A 11 A 5.2 A
operational current	
• at 1 current path at DC-3 at DC-5 — 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 • with 2 current paths in series at DC-3 at DC-5 — at 24 V rated value	300 A 3 A 0.6 A 0.18 A 0.125 A 300 A

— at 110 V rated value — at 220 V rated value — at 440 V rated value — at 600 V rated value • with 3 current paths in series at DC-3 at DC-5 — 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	300 A 2.5 A 0.65 A 0.37 A 300 A 300 A 300 A 1.4 A 0.75 A
operating power • at AC-2 at 400 V rated value • at AC-3 — at 230 V rated value — at 400 V rated value — at 500 V rated value — at 690 V rated value — at 1000 V rated value	132 kW 85 kW 132 kW 160 kW 250 kW 132 kW
operating power for approx. 200000 operating cycles at AC-4 • at 400 V rated value • at 690 V rated value	66 kW 102 kW
short-time withstand current in cold operating state up to 40 °C • limited to 1 s switching at zero current maximum • limited to 5 s switching at zero current maximum • limited to 10 s switching at zero current maximum • limited to 30 s switching at zero current maximum • limited to 60 s switching at zero current maximum	4 880 A; Use minimum cross-section acc. to AC-1 rated value 4 045 A; Use minimum cross-section acc. to AC-1 rated value 2 785 A; Use minimum cross-section acc. to AC-1 rated value 1 664 A; Use minimum cross-section acc. to AC-1 rated value 1 276 A; Use minimum cross-section acc. to AC-1 rated value
no-load switching frequency • at DC	700 1/h
operating frequency • at AC-1 maximum • at AC-2 maximum • at AC-3 maximum • at AC-4 maximum	700 1/h 250 1/h 500 1/h 130 1/h
operating frequency • at DC-1 maximum • at DC-3 maximum • at DC-5 maximum	350 1/h 350 1/h 350 1/h
Ratings for railway applications	
thermal current (I_{th}) up to 690 V • up to 40 °C according to IEC 60077 rated value • up to 70 °C according to IEC 60077 rated value	330 A 265 A
Control circuit/ Control	
type of voltage	DC
type of voltage of the control supply voltage	DC
control supply voltage at DC • rated value	24 V
consumed current at PLC-control input acc. to IEC 60947-1 maximum	2 mA
voltage at PLC-control input rated value	24 V
operating range factor control supply voltage rated value of magnet coil at DC • initial value • full-scale value	0.7 1.25
design of the surge suppressor	with varistor
closing power of magnet coil at DC	580 W
holding power of magnet coil at DC	3.4 W

closing delay • at DC	45 ... 80 ms
opening delay • at DC	80 ... 100 ms
arcing time	10 ... 15 ms
control version of the switch operating mechanism	PLC-IN or Standard A1 - A2 (adjustable)
Auxiliary circuit	
number of NC contacts for auxiliary contacts • instantaneous contact	2 2
number of NO contacts for auxiliary contacts • instantaneous contact	2 2
operational current at AC-12 maximum	10 A
operational current at AC-15 • at 230 V rated value • at 400 V rated value • at 500 V rated value	6 A 3 A 2 A
operational current at DC-12 • 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 6 A 6 A 3 A 2 A 1 A 0.15 A
operational current at DC-13 • 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	6 A 2 A 2 A 1 A 0.9 A 0.3 A 0.1 A
contact reliability of auxiliary contacts	1 faulty switching per 100 million (17 V, 1 mA)
UL/CSA ratings	
full-load current (FLA) for 3-phase AC motor • at 480 V rated value • at 600 V rated value	240 A 242 A
yielded mechanical performance [hp] • for 3-phase AC motor — at 200/208 V rated value — at 220/230 V rated value — at 460/480 V rated value — at 575/600 V rated value	75 hp 100 hp 200 hp 250 hp
contact rating of auxiliary contacts according to UL	A600 / Q600
Short-circuit protection	
product function short circuit protection	No
design of the fuse link • for short-circuit protection of the main circuit — with type of coordination 1 required — with type of assignment 2 required • for short-circuit protection of the auxiliary switch required	gG: 500 A (690 V, 100 kA) gG: 400 A (690 V, 100 kA), aM: 315 A (690 V, 50 kA), BS88: 400 A (415 V, 50 kA) gG: 10 A (500 V, 1 kA)
Installation/ mounting/ dimensions	
mounting position	with vertical mounting surface +/-90° rotatable, with vertical mounting surface +/- 22.5° tiltable to the front and back
fastening method • side-by-side mounting	screw fixing Yes

height	210 mm
width	145 mm
depth	202 mm
required spacing	
• with side-by-side mounting — forwards 20 mm — upwards 10 mm — downwards 10 mm — at the side 10 mm • for grounded parts — forwards 20 mm — upwards 10 mm — at the side 10 mm — downwards 10 mm • for live parts — forwards 20 mm — upwards 10 mm — downwards 10 mm — at the side 10 mm	
Connections/ Terminals	
width of connection bar	25 mm
thickness of connection bar	6 mm
diameter of holes	11 mm
number of holes	1
type of electrical connection	
• for main current circuit • for auxiliary and control circuit	screw-type terminals spring-loaded terminals
type of connectable conductor cross-sections	
• for main contacts — solid or stranded • at AWG cables for main contacts	2x (70 ... 240 mm ²) 2/0 ... 500 kcmil
type of connectable conductor cross-sections	
• for auxiliary contacts — solid — solid or stranded — finely stranded with core end processing — finely stranded without core end processing • at AWG cables for auxiliary contacts	2x (0.25 ... 2.5 mm ²) 2x (0,25 ... 2,5 mm ²) 2x (0.25 ... 1.5 mm ²) 2x (0.25 ... 2.5 mm ²) 2x (24 ... 14)
• AWG number as coded connectable conductor cross section for auxiliary contacts	24 ... 14
Safety related data	
B10 value with high demand rate acc. to SN 31920	1 000 000
product function	
• mirror contact acc. to IEC 60947-4-1 • positively driven operation acc. to IEC 60947-5-1	Yes No
protection class IP on the front acc. to IEC 60529	IP00; IP20 with box terminal/cover
touch protection on the front acc. to IEC 60529	finger-safe, for vertical contact from the front with box terminal/cover
suitability for use safety-related switching OFF	Yes
Communication/ Protocol	
product function bus communication	No
Certificates/ approvals	
General Product Approval	
EMC	



KC



Declaration of Conformity	Test Certificates	other
Miscellaneous 	Special Test Certificate Type Test Certificates/Test Report	Confirmation Miscellaneous

other	Railway
Miscellaneous	Special Test Certificate 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=3RT1065-2XB46-0LA2>

Cax online generator

<http://support.automation.siemens.com/WW/CAXorder/default.aspx?lang=en&mlfb=3RT1065-2XB46-0LA2>

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

<https://support.industry.siemens.com/cs/ww/en/ps/3RT1065-2XB46-0LA2>

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

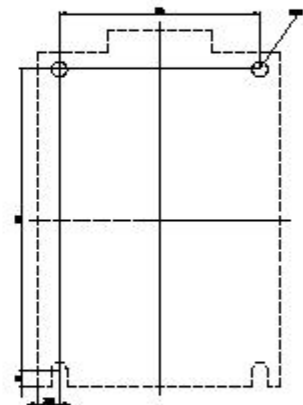
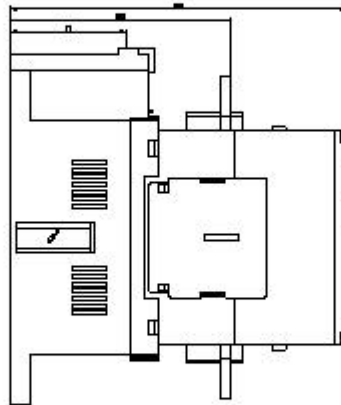
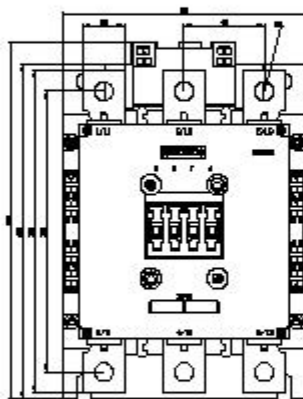
http://www.automation.siemens.com/bilddb/cax_de.aspx?mlfb=3RT1065-2XB46-0LA2&lang=en

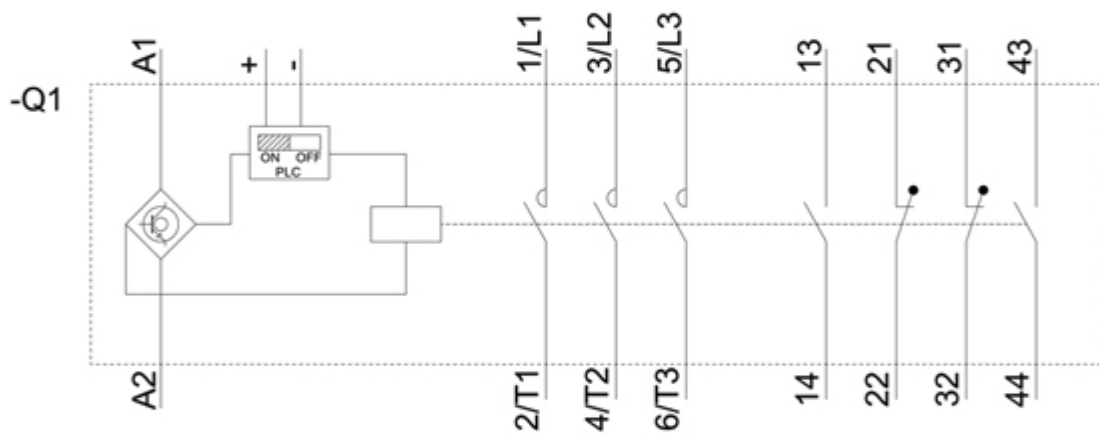
Characteristic: Tripping characteristics, I²t, Let-through current

<https://support.industry.siemens.com/cs/ww/en/ps/3RT1065-2XB46-0LA2/char>

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

<http://www.automation.siemens.com/bilddb/index.aspx?view=Search&mlfb=3RT1065-2XB46-0LA2&objecttype=14&gridview=view1>





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