

Traction contactor, AC-3 265 A, 132 kW / 400 V Coil 72 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



Figure similar

Product brand name	SIRIUS
Product designation	Power contactor
Product type designation	3RT1
General technical data	
Size of contactor	S10
Product extension	
• function module for communication	No
• Auxiliary switch	Yes
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
Protection class IP • on the front • of the terminal	IP00; IP20 on the front with cover / box terminal IP00
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 • of the contactor with added electronics-compatible auxiliary switch block typical • of the contactor with added auxiliary switch block typical	10 000 000 5 000 000 10 000 000
Reference code acc. to DIN EN 81346-2	Q

Ambient conditions

Installation altitude at height above sea level • maximum	2 000 m
Ambient temperature • during operation • 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
Operating current • at AC-1 at 400 V — rated value — at ambient temperature 40 °C rated value • 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 • at AC-2 at 400 V rated value	330 A 330 A 330 A 300 A 150 A 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 • at AC-4 at 400 V rated value	265 A 265 A 265 A 95 A 230 A
Connectable conductor cross-section in main circuit at AC-1 • at 60 °C minimum permissible • at 40 °C minimum permissible	185 mm ² 185 mm ²
Operating current for approx. 200000 operating cycles at AC-4 • at 400 V rated value • at 690 V rated value	117 A 105 A
Operating 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
Operating 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	300 A
— at 220 V rated value	2.5 A
— at 440 V rated value	0.65 A
— at 600 V rated value	0.37 A
• with 3 current paths in series at DC-3 at DC-5	
— at 24 V rated value	300 A
— at 110 V rated value	300 A
— at 220 V rated value	300 A
— at 440 V rated value	1.4 A
— at 600 V rated value	0.75 A
Operating power	
• at AC-1	
— at 230 V at 60 °C rated value	113 kW
— at 400 V rated value	197 kW
— at 400 V at 60 °C rated value	197 kW
— at 690 V at 60 °C rated value	340 kW
— at 1000 V at 60 °C rated value	246 kW
• at AC-2 at 400 V rated value	132 kW
• at AC-3	
— at 230 V rated value	85 kW
— at 400 V rated value	132 kW
— at 500 V rated value	160 kW
— at 690 V rated value	250 kW
— at 1000 V rated value	132 kW
Operating power for approx. 200000 operating cycles at AC-4	
• at 400 V rated value	66 kW
• at 690 V rated value	102 kW
Thermal short-time current limited to 10 s	
	2.4 kA
Power loss [W] at AC-3 at 400 V for rated value of the operating current per conductor	
	18 W
No-load switching frequency	
• at DC	700 1/h
Operating frequency	
• at AC-1 maximum	700 1/h
• at AC-2 maximum	250 1/h
• at AC-3 maximum	500 1/h
• at AC-4 maximum	130 1/h
Operating frequency	
• at DC-1 maximum	350 1/s
• at DC-3 maximum	350 1/s
• at DC-5 maximum	350 1/s

Ratings for railway applications	
Thermal current (I_{th}) up to 690 V	
• up to 40 °C according to IEC 60077 rated value	330 A
• up to 70 °C according to IEC 60077 rated value	265 A
Connectable conductor cross-section in main circuit	
• up to 40 °C according to IEC 60077 rated value minimum permissible	185 mm ²
• up to 70 °C according to IEC 60077 rated value minimum permissible	185 mm ²
Control circuit/ Control	
Type of voltage	DC
Type of voltage of the control supply voltage	DC
Control supply voltage at DC	
• rated value	72 V
Operating range factor control supply voltage rated value of magnet coil at DC	
• initial value	0.7
• Full-scale value	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	2
• instantaneous contact	2
Number of NO contacts for auxiliary contacts	2
• instantaneous contact	2
Operating current at AC-12 maximum	10 A
Operating current at AC-15	
• at 230 V rated value	6 A
• at 400 V rated value	3 A
• at 500 V rated value	2 A
Operating current at DC-12	
• at 24 V rated value	10 A
• at 48 V rated value	6 A
• at 60 V rated value	6 A
• at 110 V rated value	3 A

• at 125 V rated value	2 A
• at 220 V rated value	1 A
• at 600 V rated value	0.15 A
Operating current at DC-13	
• at 24 V rated value	6 A
• at 48 V rated value	2 A
• at 60 V rated value	2 A
• at 110 V rated value	1 A
• at 125 V rated value	0.9 A
• at 220 V rated value	0.3 A
• at 600 V rated value	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 three-phase AC motor	
• at 480 V rated value	240 A
• at 600 V rated value	242 A
Yielded mechanical performance [hp]	
• for three-phase AC motor	
— at 200/208 V rated value	75 hp
— at 220/230 V rated value	100 hp
— at 460/480 V rated value	200 hp
— at 575/600 V rated value	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	gG: 500 A (690 V, 100 kA)
— with type of assignment 2 required	gG: 400 A (690 V, 100 kA), aM: 315 A (690 V, 50 kA), BS88: 400 A (415 V, 50 kA)
• for short-circuit protection of the auxiliary switch required	fuse gG: 10 A

Installation/ mounting/ dimensions

Mounting position	with vertical mounting surface +/-90° rotatable, with vertical mounting surface +/- 22.5° tiltable to the front and back
Mounting type	screw fixing
• Side-by-side mounting	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

Type of electrical connection	
• for main current circuit	screw-type terminals
• for auxiliary and control current circuit	spring-loaded terminals
Type of connectable conductor cross-sections	
• for main contacts	
— single or multi-stranded	2x (70 ... 240 mm ²)
• at AWG conductors for main contacts	2/0 ... 500 kcmil
Type of connectable conductor cross-sections	
• for auxiliary contacts	
— solid	2x (0.25 ... 2.5 mm ²)
— single or multi-stranded	2x (0,25 ... 2,5 mm ²)
— finely stranded with core end processing	2x (0.25 ... 1.5 mm ²)
— finely stranded without core end processing	2x (0.25 ... 2.5 mm ²)
• at AWG conductors for auxiliary contacts	2x (24 ... 14)
AWG number as coded connectable conductor cross section	
• for auxiliary contacts	24 ... 14

Safety related data

Product function	
• Mirror contact acc. to IEC 60947-4-1	Yes
• positively driven operation acc. to IEC 60947-5-1	No
Protection against electrical shock	finger-safe when touched vertically from front acc. to IEC 60529

Communication/ Protocol

Certificates/approvals

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

Test Certificates	other	Railway		
Special Test Certificate	Confirmation	Miscellaneous	Vibration and Shock	Confirmation

Further information

Information- and Downloadcenter (Catalogs, Brochures,...)

<http://www.siemens.com/industrial-controls/catalogs>

Industry Mall (Online ordering system)

<https://mall.industry.siemens.com/mall/en/en/Catalog/product?mlfb=3RT1065-2XJ46-0LA2>

Cax online generator

<http://support.automation.siemens.com/WW/CAXorder/default.aspx?lang=en&mlfb=3RT1065-2XJ46-0LA2>

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

<https://support.industry.siemens.com/cs/ww/en/ps/3RT1065-2XJ46-0LA2>

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

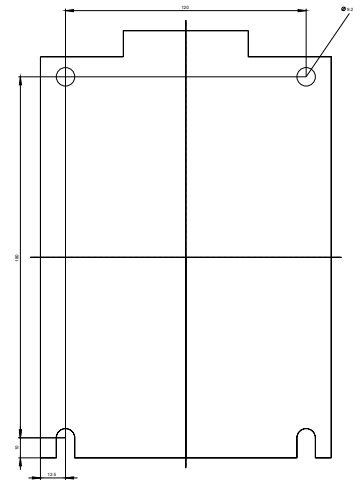
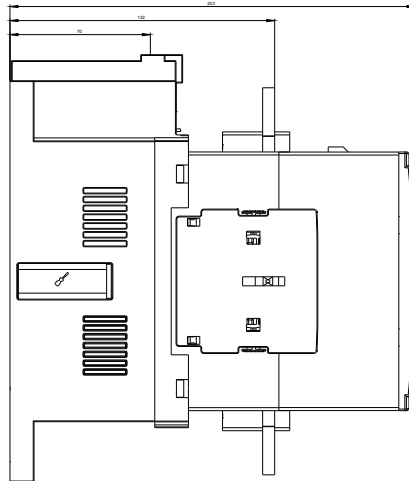
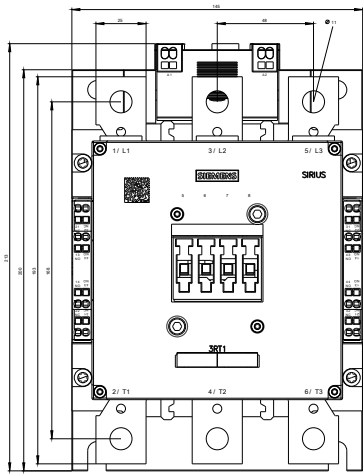
http://www.automation.siemens.com/bilddb/cax_de.aspx?mlfb=3RT1065-2XJ46-0LA2&lang=en

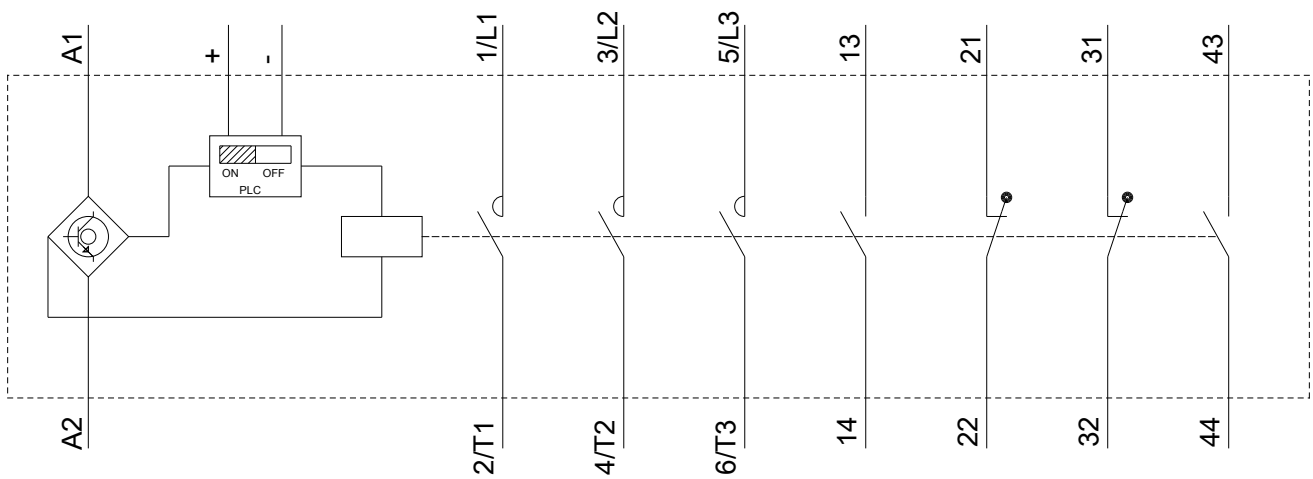
Characteristic: Tripping characteristics, I_t, Let-through current

<https://support.industry.siemens.com/cs/ww/en/ps/3RT1065-2XJ46-0LA2/char>

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

<http://www.automation.siemens.com/bilddb/index.aspx?view=Search&mlfb=3RT1065-2XJ46-0LA2&objecttype=14&gridview=view1>





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