

Contactor, AC-1, 525 A/400 V/40 °C, S12, 4-pole, 48-130 V AC/DC, 2 NO+2 NC, Connection rail/ screw terminal

product brand name	SIRIUS
product designation	Contactor
product type designation	3RT13
General technical data	
size of contactor	S12
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	288 W
• at AC in hot operating state per pole	72 W
• without load current share typical	2.5 W
type of calculation of power loss current-dependent	quadratic
insulation voltage	
• of main circuit with degree of pollution 3 rated value	1 000 V
• of the auxiliary and control 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
reference code according to IEC 81346-2	Q
Substance Prohibittance (day/month/year)	03/27/2017
Net Weight	6.814 kg
Ambient conditions	
installation altitude at height above sea level maximum	2 000 m
ambient temperature	
• during operation	-40 ... +60 °C
• during storage	-40 ... +70 °C
relative humidity minimum	10 %
relative humidity at 55 °C according to IEC 60068-2-30 maximum	95 %
Main circuit	
number of poles for main current circuit	4
number of NO contacts for main contacts	4
type of voltage for main current circuit	AC
operational current	
• at AC-1 at 400 V at ambient temperature 40 °C rated value	525 A
• at AC-1	
— up to 690 V at ambient temperature 40 °C rated value	525 A
— up to 690 V at ambient temperature 60 °C rated value	425 A
— up to 1000 V at ambient temperature 40 °C rated value	400 A
— up to 1000 V at ambient temperature 60 °C rated value	350 A
• at AC-3	
— at 400 V rated value	370 A
minimum cross-section in main circuit at maximum AC-1 rated value	370 mm ²
operating power	

<ul style="list-style-type: none"> • at AC-3 at 400 V rated value 	200 kW
no-load switching frequency	
<ul style="list-style-type: none"> • at AC 	300 1/h
<ul style="list-style-type: none"> • at DC 	300 1/h
Control circuit/ Control	
type of voltage	AC
type of voltage of the control supply voltage	AC/DC
control supply voltage at AC	
<ul style="list-style-type: none"> • at 50 Hz rated value 	48 ... 130 V
<ul style="list-style-type: none"> • at 60 Hz rated value 	48 ... 130 V
control supply voltage at DC rated value	48 ... 130 V
operating range factor control supply voltage rated value of magnet coil at DC	
<ul style="list-style-type: none"> • initial value 	0.8
<ul style="list-style-type: none"> • full-scale value 	1.1
operating range factor control supply voltage rated value of magnet coil at AC	
<ul style="list-style-type: none"> • at 50 Hz 	0.85 ... 1.1
<ul style="list-style-type: none"> • at 60 Hz 	0.85 ... 1.1
design of the surge suppressor	with varistor
apparent pick-up power of magnet coil at AC	
<ul style="list-style-type: none"> • at 50 Hz 	340 VA
<ul style="list-style-type: none"> • at 60 Hz 	340 VA
apparent holding power of magnet coil at AC	
<ul style="list-style-type: none"> • at 50 Hz 	17 VA
<ul style="list-style-type: none"> • at 60 Hz 	17 VA
closing power of magnet coil at DC	360 W
holding power of magnet coil at DC	2.5 W
closing delay	
<ul style="list-style-type: none"> • at AC 	30 ... 60 ms
<ul style="list-style-type: none"> • at DC 	30 ... 60 ms
opening delay	
<ul style="list-style-type: none"> • at AC 	45 ... 80 ms
<ul style="list-style-type: none"> • at DC 	45 ... 80 ms
control version of the switch operating mechanism	Standard A1 - A2
Auxiliary circuit	
number of NC contacts for auxiliary contacts	2
<ul style="list-style-type: none"> • attachable 	2
<ul style="list-style-type: none"> • instantaneous contact 	2
number of NO contacts for auxiliary contacts	2
<ul style="list-style-type: none"> • attachable 	2
<ul style="list-style-type: none"> • instantaneous contact 	2
operational current at AC-15	
<ul style="list-style-type: none"> • at 230 V rated value 	4 A
<ul style="list-style-type: none"> • at 400 V rated value 	3 A
<ul style="list-style-type: none"> • at 500 V rated value 	2 A
<ul style="list-style-type: none"> • at 690 V rated value 	2 A
operational current at DC-13	
<ul style="list-style-type: none"> • at 24 V rated value 	3 A
<ul style="list-style-type: none"> • at 48 V rated value 	1.5 A
<ul style="list-style-type: none"> • at 110 V rated value 	0.55 A
<ul style="list-style-type: none"> • at 125 V rated value 	0.55 A
<ul style="list-style-type: none"> • at 220 V rated value 	0.3 A
UL/CSA ratings	
contact rating of auxiliary contacts according to UL	A600 / Q300
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 2 required 	gG: 630 A (500 V, 100 kA)

- for short-circuit protection of the auxiliary switch required

gG: 10 A (690 V, 1 kA)

Installation/ mounting/ dimensions

mounting position	For vertical mounting surface can be rotated +/-180°, and with 0° rotation can be tilted forward or backward +/- 30°, or standing
fastening method side-by-side mounting	Yes
fastening method	screw fixing
height	225 mm
width	184 mm
depth	180 mm
required spacing	
<ul style="list-style-type: none"> • with side-by-side mounting <ul style="list-style-type: none"> — forwards 20 mm — upwards 10 mm — downwards 10 mm — at the side 0 mm • for grounded parts <ul style="list-style-type: none"> — forwards 20 mm — upwards 10 mm — at the side 10 mm — downwards 10 mm • for live parts <ul style="list-style-type: none"> — forwards 20 mm — upwards 10 mm — downwards 10 mm — at the side 10 mm 	
net weight	6.5 kg

Connections/ Terminals

type of electrical connection	
<ul style="list-style-type: none"> • for main current circuit • for auxiliary and control circuit • at contactor for auxiliary contacts • of magnet coil 	Connection bar, broadened > 450A required screw-type terminals Screw-type terminals Screw-type terminals
connectable conductor cross-section for auxiliary contacts	
<ul style="list-style-type: none"> • solid or stranded • finely stranded with core end processing 	1 ... 4 mm ² 0.75 ... 2.5 mm ²
type of connectable conductor cross-sections	
<ul style="list-style-type: none"> • for auxiliary contacts <ul style="list-style-type: none"> — solid — solid or stranded — finely stranded with core end processing • for AWG cables for auxiliary contacts 	1x (1 ... 4mm ²), 2x (1 ... 4mm ²) 1x (1 ... 4mm ²), 2x (1 ... 4mm ²) 1x (0.75 ... 2.5 mm ²), 2x (0.75 ... 2.5 mm ²) 1x (AWG 18 ... 14), 2x (AWG 18 ... 14)
AWG number as coded connectable conductor cross section for auxiliary contacts	18 ... 14

Safety related data

product function	
<ul style="list-style-type: none"> • mirror contact according to IEC 60947-4-1 • positively driven operation according to IEC 60947-5-1 	Yes No

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 box terminal/cover

Communication/ Protocol



product function bus communication	No
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Approvals Certificates

Environment	General Product Approval
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[Environmental Con-
firmations](#)



General Product Approval	EMV	Test Certificates	other		Railway
		Special Test Certificate	Miscellaneous	Confirmation	Special Test Certificate

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=3RT1375-6AF36>

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

<https://support.industry.siemens.com/cs/ww/en/ps/3RT1375-6AF36>

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

https://www.automation.siemens.com/bilddb/cax_de.aspx?mlfb=3RT1375-6AF36&lang=en

Cax online generator

<https://support.automation.siemens.com/WW/CAXorder/default.aspx?lang=en&mlfb=3RT1375-6AF36>

Characteristic curves

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

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