



power contactor, AC-3, 12 A, 5.5 kW / 400 V, 4-pole, 48 V DC, with integrated diode, main contacts: 2 NO + 2 NC, spring-loaded terminal, size: S00

product brand name	SIRIUS
product designation	contactor
product type designation	3RT25
General technical data	
size of contactor	S00
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 per pole	0.5 W
• without load current share typical	4 W
type of calculation of power loss depending on pole	quadratic
insulation voltage	
• of main circuit with degree of pollution 3 rated value	690 V
• of auxiliary circuit with degree of pollution 3 rated value	690 V
surge voltage resistance	
• of main circuit rated value	6 kV
• of auxiliary circuit rated value	6 kV
maximum permissible voltage for protective separation between coil and main contacts according to EN 60947-1	400 V
shock resistance at rectangular impulse	
• at DC	7.3g / 5 ms, 4.7g / 10 ms
shock resistance with sine pulse	
• at DC	11.4g / 5 ms, 7.3g / 10 ms
mechanical service life (operating cycles)	
• of contactor typical	30 000 000
• 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 according to IEC 81346-2	Q
Substance Prohibitance (Date)	10/01/2009
SVHC substance name	Lead - 7439-92-1
Weight	0.309 kg
Ambient conditions	
installation altitude at height above sea level maximum	2 000 m
ambient temperature	
• during operation	-25 ... +60 °C
• during storage	-55 ... +80 °C
relative humidity minimum	10 %
relative humidity at 55 °C according to IEC 60068-2-30 maximum	95 %

Environmental footprint	
Environmental Product Declaration(EPD)	Yes
global warming potential [CO2 eq] total	153 kg
global warming potential [CO2 eq] during manufacturing	1.42 kg
global warming potential [CO2 eq] during operation	152 kg
global warming potential [CO2 eq] after end of life	-0.305 kg
Main circuit	
number of poles for main current circuit	4
number of NO contacts for main contacts	2
number of NC contacts for main contacts	2
operational current	
<ul style="list-style-type: none"> at AC-1 up to 690 V <ul style="list-style-type: none"> at ambient temperature 40 °C rated value at ambient temperature 60 °C rated value at AC-2 at AC-3 at 400 V <ul style="list-style-type: none"> per NO contact rated value per NC contact rated value 	22 A 20 A 12 A 9 A
minimum cross-section in main circuit at maximum AC-1 rated value	4 mm ²
operational current	
<ul style="list-style-type: none"> at 1 current path at DC-1 <ul style="list-style-type: none"> at 24 V rated value at 110 V rated value at 220 V rated value at 440 V rated value with 2 current paths in series at DC-1 <ul style="list-style-type: none"> at 24 V rated value at 110 V rated value at 220 V rated value at 440 V rated value at 1 current path at DC-3 at DC-5 <ul style="list-style-type: none"> at 24 V per NC contact rated value at 24 V per NO contact rated value at 110 V per NC contact rated value at 110 V per NO contact rated value at 220 V per NC contact rated value at 220 V per NO contact rated value with 2 current paths in series at DC-3 at DC-5 <ul style="list-style-type: none"> at 24 V per NC contact rated value at 24 V per NO contact rated value at 110 V per NC contact rated value at 110 V per NO contact rated value 	20 A 2.1 A 0.8 A 0.6 A 20 A 12 A 1.6 A 0.8 A 20 A 20 A 0.075 A 0.15 A 0.375 A 0.75 A 20 A 20 A 0.175 A 0.35 A
operating power at AC-2 at AC-3	
<ul style="list-style-type: none"> at 230 V per NC contact rated value at 230 V per NO contact rated value at 400 V per NC contact rated value at 400 V per NO contact rated value 	2.2 kW 3 kW 4 kW 5.5 kW
short-time withstand current in cold operating state up to 40 °C	
<ul style="list-style-type: none"> 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 	125 A; Use minimum cross-section acc. to AC-1 rated value 123 A; Use minimum cross-section acc. to AC-1 rated value 96 A; Use minimum cross-section acc. to AC-1 rated value 74 A; Use minimum cross-section acc. to AC-1 rated value 61 A; Use minimum cross-section acc. to AC-1 rated value
power loss [W] at AC-3 at 400 V for rated value of the operational current per conductor	0.5 W
power loss [W] at AC-3e at 400 V for rated value of the operational current per conductor	0.5 W
no-load switching frequency	
<ul style="list-style-type: none"> at AC at DC 	10 000 1/h 10 000 1/h
operating frequency	

• at AC-1 maximum	1 000 1/h
Control circuit/ Control	
type of voltage of the control supply voltage	DC
control supply voltage at DC rated value	48 V
operating range factor control supply voltage rated value of magnet coil at DC	
• initial value	0.8
• full-scale value	1.1
design of the surge suppressor	with diode assemblies
closing power of magnet coil at DC	4 W
holding power of magnet coil at DC	4 W
closing delay	
• at DC	30 ... 100 ms
opening delay	
• at DC	7 ... 13 ms
arcing time	10 ... 15 ms
residual current of the electronics for control with signal <0>	
• at AC at 230 V maximum permissible	0.004 A
Auxiliary circuit	
number of NC contacts for auxiliary contacts instantaneous contact	0
number of NO contacts for auxiliary contacts instantaneous contact	0
operational current at AC-12 maximum	10 A
operational current at AC-15	
• at 230 V rated value	10 A
• at 400 V rated value	3 A
operational current at DC-12	
• 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
operational current at DC-13	
• at 24 V rated value	10 A
• at 48 V rated value	2 A
• at 60 V rated value	2 A
• at 110 V rated value	1 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	
yielded mechanical performance [hp]	
• for single-phase AC motor at 230 V rated value	2 hp
• for 3-phase AC motor at 460/480 V rated value	5 hp
contact rating of auxiliary contacts according to UL	A600 / Q600
Short-circuit protection	
design of the fuse link	
• for short-circuit protection of the main circuit	
— with type of coordination 1 required	gG: 35 A (690 V, 100 kA)
— with type of assignment 2 required	gG: 20A (690V, 100kA)
• for short-circuit protection of the auxiliary switch required	fuse gG: 10 A
Installation/ mounting/ dimensions	
mounting position	+/-180° 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 and snap-on mounting onto 35 mm DIN rail according to DIN EN 50022
height	70 mm
width	45 mm
depth	73 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 • for grounded parts <ul style="list-style-type: none"> — forwards — backwards — upwards — at the side — downwards • for live parts <ul style="list-style-type: none"> — forwards — backwards — upwards — downwards — at the side 	0 mm 0 mm 0 mm 0 mm 0 mm 0 mm 0 mm 0 mm 6 mm 0 mm 0 mm 0 mm 0 mm 0 mm 6 mm

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 	spring-loaded terminals spring-loaded terminals Spring-type terminals Spring-type terminals
type of connectable conductor cross-sections for main contacts	
<ul style="list-style-type: none"> • solid • solid or stranded • finely stranded with core end processing • finely stranded without core end processing 	2x (0.5 ... 4 mm²) 2x (0.5 ... 4 mm²) 2x (0.5 ... 2.5 mm²) 2x (0.5 ... 2.5 mm²)
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 — finely stranded without core end processing • for AWG cables for auxiliary contacts 	2x (0.5 ... 4 mm²) 2x (0.5 ... 4 mm²) 2x (0.5 ... 2.5 mm²) 2x (0.5 ... 2.5 mm²) 2x (20 ... 12)
AWG number as coded connectable conductor cross section for main contacts	20 ... 12

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; with 3RH29 No

Electrical Safety

protection class IP on the front according to IEC 60529	IP20
touch protection on the front according to IEC 60529	finger-safe, for vertical contact from the front

Approvals Certificates

General Product Approval



[Confirmation](#)



EMV	Test Certificates	Marine / Shipping
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[Type Test Certificates/Test Report](#)

[Special Test Certificate](#)




[Miscellaneous](#)
[Confirmation](#)

Railway

Dangerous goods

Environment

[Special Test Certificate](#)
[Transport Information](#)

[Environmental Confirmations](#)

Further information

Information on the packaging

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

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=3RT2517-2FW40>

Cax online generator

<http://support.automation.siemens.com/WW/CAXorder/default.aspx?lang=en&mlfb=3RT2517-2FW40>

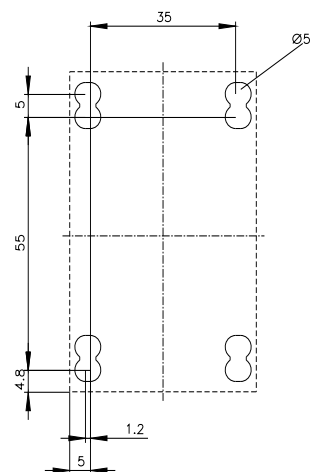
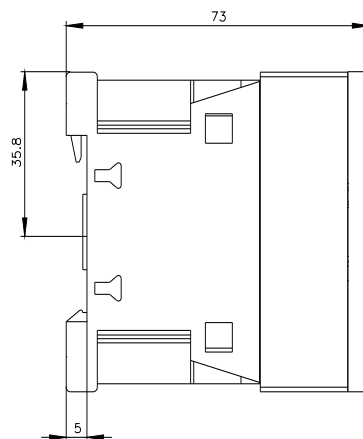
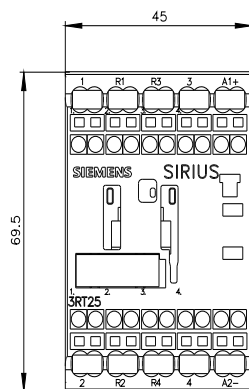
Service&Support (Manuals, Certificates, Characteristics, FAQs,...)

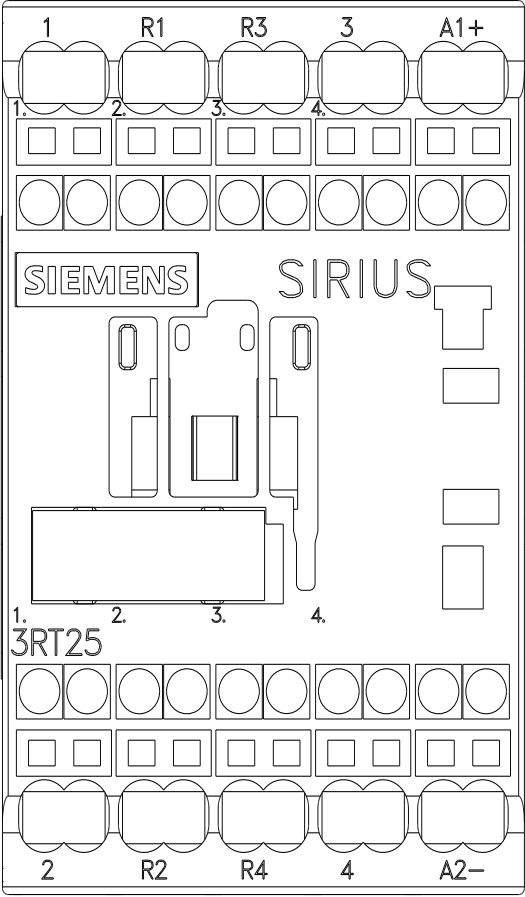
<https://support.industry.siemens.com/cs/ww/en/ps/3RT2517-2FW40>

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

http://www.automation.siemens.com/bilddb/cax_de.aspx?mlfb=3RT2517-2FW40&lang=en
Characteristic: Tripping characteristics, I_t, Let-through current
<https://support.industry.siemens.com/cs/ww/en/ps/3RT2517-2FW40/char>

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

<http://www.automation.siemens.com/bilddb/index.aspx?view=Search&mlfb=3RT2517-2FW40&objecttype=14&gridview=view1>




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