



2NO+2NC CONTACTOR, AC3: 5.5KW DC 110V 50HZ, 120V 60HZ
4-POLE, 2NO+2NC, SZ: S00, SCREW TERMINAL

product brand name	SIRIUS
Product designation	3RT2 contactor
General technical data:	
Size of contactor	S00
Product expansion	
• function module for communication	No
• Auxiliary switch	Yes
Insulation voltage	
• Rated value	690 V
Surge voltage resistance Rated value	6 kV
maximum permissible voltage for safe isolation between coil and main contacts acc. to EN 60947-1	400 V
Protection class IP	
• on the front	IP20
Degree of pollution	3
Shock resistance	
• at rectangular impulse	
— at AC	7,3g / 5 ms, 4,7g / 10 ms
• with sine pulse	
— at AC	11,4g / 5 ms, 7,3g / 10 ms
Mechanical service life (switching cycles)	
• of the contactor typical	30 000 000
• of the contactor with added electronics-compatible auxiliary switch block typical	5 000 000

- of the contactor with added auxiliary switch block typical

10 000 000

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

Main circuit:

Number of NO contacts for main contacts	2
Number of NC contacts for main contacts	2
Operating current	
• at AC-1 up to 690 V	
— at ambient temperature 40 °C Rated value	22 A
— at ambient temperature 60 °C Rated value	20 A
• at AC-2 at AC-3 at 400 V	
— per NO contact Rated value	12 A
— per NC contact Rated value	9 A
Connectable conductor cross-section in main circuit at AC-1	
• at 60 °C minimum permissible	2.5 mm ²
• at 40 °C minimum permissible	4 mm ²
Operating current	
• with 1 current path at DC-1	
— at 24 V Rated value	20 A
— at 110 V Rated value	2.1 A
— at 220 V Rated value	0.8 A
— at 440 V Rated value	0.6 A
• with 2 current paths in series at DC-1	
— at 24 V Rated value	20 A
— at 110 V Rated value	12 A
— at 220 V Rated value	1.6 A
— at 440 V Rated value	0.8 A
Operating current	
• with 1 current path at DC-3 at DC-5	
— at 24 V per NC contact Rated value	20 A
— at 24 V per NO contact Rated value	20 A
— at 110 V per NC contact Rated value	0.075 A
— at 110 V per NO contact Rated value	0.15 A
— at 220 V per NC contact Rated value	0.375 A
— at 220 V per NO contact Rated value	0.75 A

• with 2 current paths in series at DC-3 at DC-5 — at 110 V per NC contact Rated value — at 110 V per NO contact Rated value — at 24 V per NC contact Rated value — at 24 V per NO contact Rated value	0.175 A 0.35 A 20 A 20 A
Operating power	
• at AC-1 — at 230 V Rated value — at 400 V Rated value • at AC-2 at AC-3 — 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	7.5 kW 13 kW 2.2 kW 3 kW 4 kW 5.5 kW
Active power loss at AC-3 at 400 V for rated value of the operating current per conductor	1.2 W
No-load switching frequency	
• 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	AC
Control supply voltage at AC	
• at 50 Hz Rated value • at 60 Hz Rated value	110 V 120 V
Operating range factor control supply voltage rated value of the magnet coil at AC	
• at 50 Hz • at 60 Hz	0.8 ... 1.1 0.85 ... 1.1
Apparent pick-up power of the magnet coil at AC	43 V·A
• at 50 Hz	43 V·A
Inductive power factor with closing power of the coil	0.8
• at 50 Hz	0.8
Apparent holding power of the magnet coil at AC	6.5 V·A
• at 50 Hz	6.5 V·A
Inductive power factor with the holding power of the coil	0.25
• at 60 Hz	0.25
Closing delay	
• at AC	8 ... 33 ms
Opening delay	

• at AC	4 ... 15 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
Operating current at AC-12 maximum	10 A
Operating current at AC-15	
• at 230 V Rated value	10 A
• at 400 V Rated value	3 A
Operating 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
Operating 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 the 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 110/120 V Rated value	0.5 hp
— at 230 V Rated value	2 hp
Contact rating of the auxiliary contacts acc. to UL	A600 / Q600

Short-circuit:

Design of the fuse link	
• for short-circuit protection of the main circuit	
— with type of assignment 1 required	gL/gG LV HRC 3NA, DIAZED 5SB, NEOZED 5SE: 35 A

- with type of assignment 2 required
- for short-circuit protection of the auxiliary switch required

gL/gG LV HRC 3NA, DIAZED 5SB, NEOZED 5SE: 20 A
fuse gL/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
Mounting type	screw and snap-on mounting onto 35 mm standard mounting rail according to DIN EN 50022
• Side-by-side mounting	Yes
Height	57.5 mm
Width	45 mm
Depth	73 mm
Required spacing	
• with side-by-side mounting	
— forwards	0 mm
— Backwards	0 mm
— upwards	0 mm
— downwards	0 mm
— at the side	0 mm
• for grounded parts	
— forwards	0 mm
— Backwards	0 mm
— upwards	0 mm
— at the side	6 mm
— downwards	0 mm
• for live parts	
— forwards	0 mm
— Backwards	0 mm
— upwards	0 mm
— downwards	0 mm
— at the side	6 mm

Connections/ Terminals:

Type of electrical connection	
• for main current circuit	screw-type terminals
• for auxiliary and control current circuit	screw-type terminals
Type of connectable conductor cross-section	
• for main contacts	
— solid	2x (0.5 ... 1.5 mm²), 2x (0.75 ... 2.5 mm²), 2x 4 mm²
— single or multi-stranded	2x (0,5 ... 1,5 mm²), 2x (0,75 ... 2,5 mm²), 2x 4 mm²
— finely stranded with core end processing	2x (0.5 ... 1.5 mm²), 2x (0.75 ... 2.5 mm²)

• for AWG conductors for main contacts	2x (20 ... 16), 2x (18 ... 14), 2x 12
Type of connectable conductor cross-section	
• for auxiliary contacts — solid — single or multi-stranded — finely stranded with core end processing • for AWG conductors for auxiliary contacts	2x (0.5 ... 1.5 mm ²), 2x (0.75 ... 2.5 mm ²), 2x 4 mm ² 2x (0,5 ... 1,5 mm ²), 2x (0,75 ... 2,5 mm ²), 2x 4 mm ² 2x (0.5 ... 1.5 mm ²), 2x (0.75 ... 2.5 mm ²) 2x (20 ... 16), 2x (18 ... 14), 2x 12
Safety related data:	
B10 value with high demand rate acc. to SN 31920	1 000 000
Proportion of dangerous failures	
• with low demand rate acc. to SN 31920 • with high demand rate acc. to SN 31920	40 % 73 %
Product function	
• Mirror contact acc. to IEC 60947-4-1 • positively driven operation acc. to IEC 60947-5-1	Yes; with 3RH29 No
T1 value for proof test interval or service life acc. to IEC 61508	20 y
Certificates/ approvals:	

General Product Approval	Functional Safety/Safety of Machinery	Declaration of Conformity
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Test Certificates	Shipping Approval
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Further information

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

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

Industry Mall (Online ordering system)

<http://www.siemens.com/industrymall>

Cax online generator

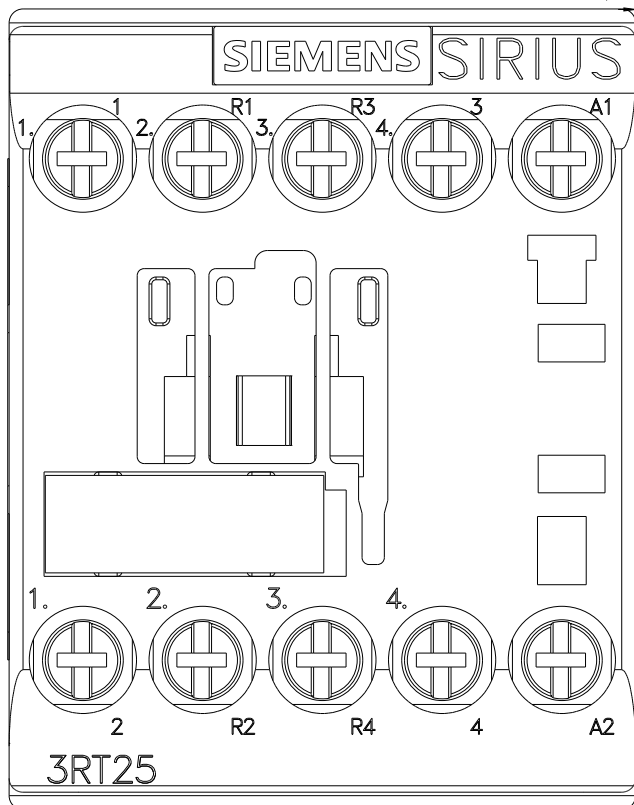
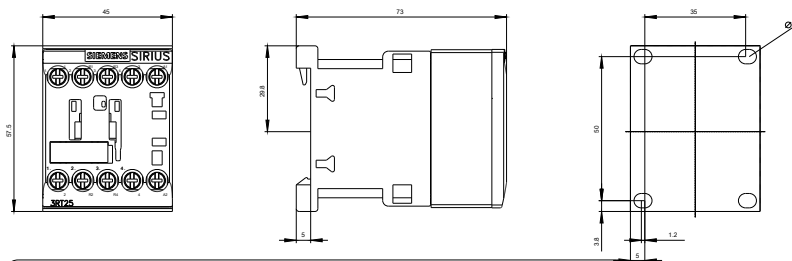
<http://support.automation.siemens.com/WW/CAXorder/default.aspx?lang=en&mlfb=3RT25171AK60>

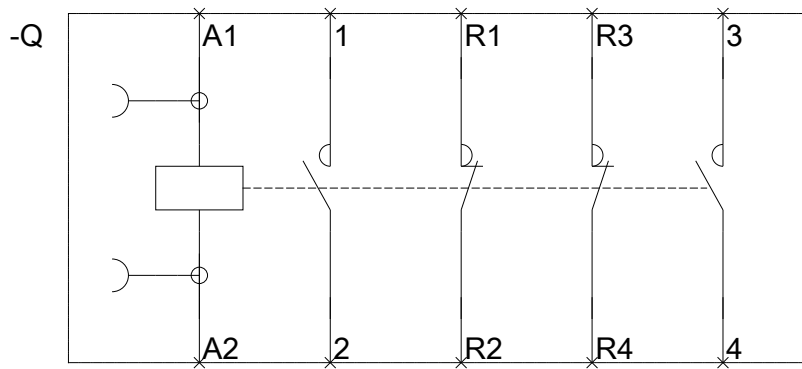
Service&Support (Manuals, Certificates, Characteristics, FAQs,...)

<https://support.industry.siemens.com/cs/ww/en/ps/3RT25171AK60>

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

http://www.automation.siemens.com/bilddb/cax_de.aspx?mlfb=3RT25171AK60&lang=en





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