

CONTACTOR, AC-3, 7.5KW/400V, 2NO+2NC, 24 V DC, W.
INSERTED VARISTOR 3-POLE, SIZE S0 SPRING-TYPE
TERMINALS AUX. SWITCH PERMANENTLY MOUNTED



Figure similar

product brandname	SIRIUS
Product designation	3RT2 contactor
General technical data	
Size of contactor	S0
Product extension	
• function module for communication	No
• Auxiliary switch	No
Insulation voltage	
• rated value	690 V
Degree of pollution	3
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
• of the terminal	IP20

Shock resistance	
• at rectangular impulse — at DC • with sine pulse — at DC	10g / 5 ms, 7,5g / 10 ms 15g / 5 ms, 10g / 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
Ambient conditions	
Installation altitude at height above sea level maximum	2 000 m
Ambient temperature	
• during operation • during storage	-25 ... +60 °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	690 V
Operating current	
• at AC-1 at 400 V — 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 • at AC-2 at 400 V rated value • at AC-3 — at 400 V rated value — at 500 V rated value — at 690 V rated value	40 A 40 A 35 A 17 A 17 A 17 A 13 A
Connectable conductor cross-section in main circuit at AC-1	
• at 60 °C minimum permissible • at 40 °C minimum permissible	10 mm ² 10 mm ²
Operating current for approx. 200000 operating cycles at AC-4	

• at 400 V rated value	7.7 A
• at 690 V rated value	7.7 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	35 A 4.5 A 1 A 0.4 A 0.25 A 35 A 35 A 5 A 1 A 0.8 A 35 A 35 A 35 A 2.9 A 1.4 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 110 V rated value — at 220 V rated value — at 24 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 110 V rated value — at 220 V rated value — at 24 V rated value — at 440 V rated value — at 600 V rated value	20 A 2.5 A 1 A 0.09 A 0.06 A 15 A 3 A 35 A 0.27 A 0.16 A 35 A 10 A 35 A 0.6 A 0.6 A
Operating power	

• at AC-1 — at 230 V rated value — at 230 V at 60 °C rated value — at 400 V rated value — at 400 V at 60 °C rated value — at 690 V rated value — at 690 V at 60 °C rated value • at AC-2 at 400 V rated value • at AC-3 — at 230 V rated value — at 400 V rated value — at 690 V rated value	13.3 kW 13.3 kW 23 kW 23 kW 40 kW 40 kW 7.5 kW 4 kW 7.5 kW 11 kW
Operating power for approx. 200000 operating cycles at AC-4	
• at 400 V rated value • at 690 V rated value	3.5 kW 6 kW
Thermal short-time current limited to 10 s	150 A
Power loss [W] at AC-3 at 400 V for rated value of the operating current per conductor	0.9 W
No-load switching frequency	
• at DC	1 500 1/h
Operating frequency	
• at AC-1 maximum • at AC-2 maximum • at AC-3 maximum • at AC-4 maximum	1 000 1/h 1 000 1/h 1 000 1/h 300 1/h
Control circuit/ Control	
Type of voltage of the control supply voltage	DC
Control supply voltage at DC	
• rated value	24 V
Operating range factor control supply voltage rated value of magnet coil at DC	0.8 ... 1.1
Design of the surge suppressor	with varistor
Closing power of magnet coil at DC	5.9 W
Holding power of magnet coil at DC	5.9 W
Closing delay	
• at DC	50 ... 170 ms
Opening delay	
• at DC	15 ... 17.5 ms
Arcing time	10 ... 10 ms
Residual current of the electronics for control with signal <0>	

- at AC at 230 V maximum permissible
- at DC at 24 V maximum permissible

6 mA
16 mA

Auxiliary circuit

Number of NC contacts	
• for auxiliary contacts — instantaneous contact	2
Number of NO contacts	
• for auxiliary contacts — instantaneous contact	2
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
• at 500 V rated value	2 A
• at 690 V rated value	1 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	10 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	14 A
• at 600 V rated value	17 A
Yielded mechanical performance [hp]	
• for single-phase AC motor — at 110/120 V rated value — at 230 V rated value	1 hp 3 hp
• for three-phase AC motor	

— at 200/208 V rated value	3 hp
— at 220/230 V rated value	5 hp
— at 460/480 V rated value	10 hp
— at 575/600 V rated value	15 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 — with type of assignment 2 required • for short-circuit protection of the auxiliary switch required	gL/gG LV HRC 3NA, DIAZED 5SB, NEOZED 5SE: 63 A gL/gG LV HRC 3NA, DIAZED 5SB, NEOZED 5SE: 25 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 • Side-by-side mounting	screw and snap-on mounting onto 35 mm standard mounting rail according to DIN EN 50022 Yes
Height	102 mm
Width	45 mm
Depth	154 mm
Required spacing • with side-by-side mounting — forwards — Backwards — upwards — downwards — at the side • for grounded parts — forwards — Backwards — upwards — at the side — downwards • for live parts — 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	
• for main current circuit	spring-loaded terminals
• for auxiliary and control current circuit	spring-loaded terminals
Type of connectable conductor cross-sections	
• for main contacts	
— solid	2x (1 ... 10 mm ²)
— single or multi-stranded	2x (1 ... 10 mm ²)
— finely stranded with core end processing	2x (1 ... 6 mm ²)
— finely stranded without core end processing	2x (1 ... 6 mm ²)
• at AWG conductors for main contacts	2x (18 ... 8)
Type of connectable conductor cross-sections	
• for auxiliary contacts	
— single or multi-stranded	2x (0,5 ... 2,5 mm ²)
— finely stranded with core end processing	2x (0,5 ... 1,5 mm ²)
— finely stranded without core end processing	2x (0,5 ... 2,5 mm ²)
• at AWG conductors for auxiliary contacts	2x (20 ... 14)

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	40 %
• with high demand rate acc. to SN 31920	73 %
Failure rate [FIT]	
• with low demand rate acc. to SN 31920	100 FIT
Product function	
• Mirror contact acc. to IEC 60947-4-1	Yes
• positively driven operation acc. to IEC 60947-5-1	No
T1 value for proof test interval or service life acc. to IEC 61508	
	20 y
Protection against electrical shock	
	finger-safe

Certificates/approvals

General Product Approval	Declaration of Conformity
--------------------------	---------------------------



[KTL](#)



Test Certificates	Shipping Approval
-------------------	-------------------

[spezielle
Prüfbescheinigunge
n](#)



Shipping Approval	other
-------------------	-------



[Umweltbestätigung](#)

[Bestätigungen](#)



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=3RT2025-2DB44-3MA0>

Cax online generator

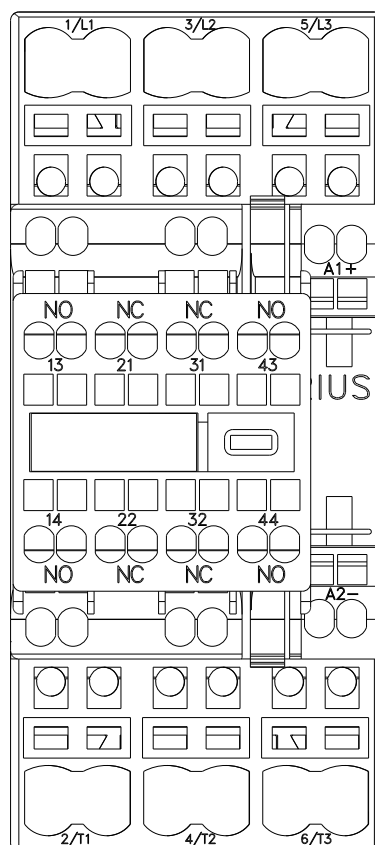
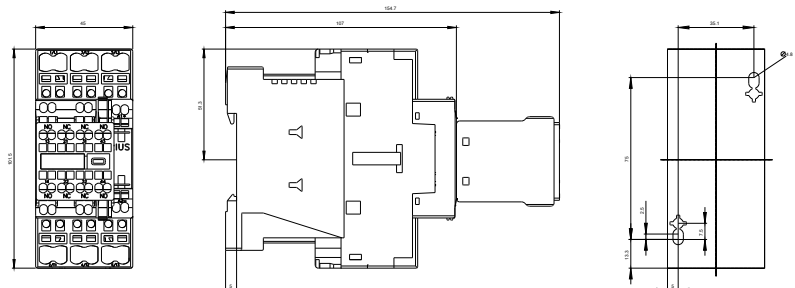
<http://support.automation.siemens.com/WW/CAXorder/default.aspx?lang=en&mlfb=3RT2025-2DB44-3MA0>

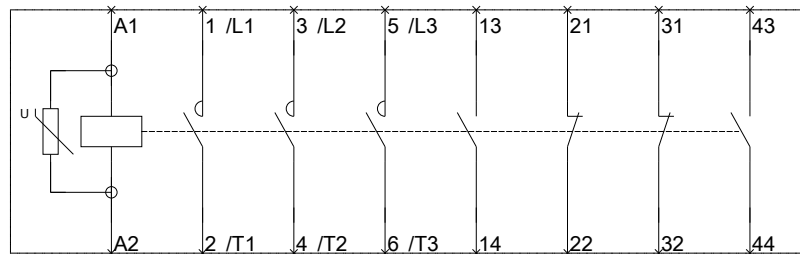
Service&Support (Manuals, Certificates, Characteristics, FAQs,...)

<https://support.industry.siemens.com/cs/ww/en/ps/3RT2025-2DB44-3MA0>

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

http://www.automation.siemens.com/bilddb/cax_de.aspx?mlfb=3RT2025-2DB44-3MA0&lang=en





last modified:

10/19/2016