Data sheet

CONTACTOR, AC-3, 11KW/400V, 1NO+1NC, AC(50-60HZ)/DC ACTUAT. AC/DC 200...280V, 3-POLE, SZ S0 SPRING-LOADED TERMINAL REUSABLE PACKAGING; PACKAGE = 40 UNIT(S)



product brand name	SIRIUS
Product designation	3RT2 contactor

S0
No
Yes
690 V
3
6 kV
400 V
IP20
IP20

— at AC	8,3g / 5 ms, 5,3g / 10 ms
— at DC	10g / 5 ms, 7,5g / 10 ms
• with sine pulse	
— at AC	13,5g / 5 ms, 8,3g / 10 ms
— at DC	15g / 5 ms, 10g / 10 ms
Mechanical service life (switching cycles)	
of contactor typical	10 000 000
 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 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	

40 A

40 A

35 A

25 A

25 A

18 A

13 A

10 mm²

10 mm²

On	erating	g current	
VΡ	erauriç	4 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

Connectable conductor cross-section in main circuit at AC-1

• at 60 °C minimum permissible

• at 40 °C minimum permissible

Operating current for approx. 200000 operating cycles at AC-4

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 at 400 V rated value 	9 A
• at 690 V rated value	9 A
Operating current	
• at 1 current path at DC-1	
— at 24 V rated value	35 A
— at 110 V rated value	4.5 A
— at 220 V rated value	1 A
— at 440 V rated value	0.4 A
— at 600 V rated value	0.25 A
• with 2 current paths in series at DC-1	
— at 24 V rated value	35 A
— at 110 V rated value	35 A
— at 220 V rated value	5 A
— at 440 V rated value	1 A
— at 600 V rated value	0.8 A
• with 3 current paths in series at DC-1	
— at 24 V rated value	35 A
— at 110 V rated value	35 A
— at 220 V rated value	35 A
— at 440 V rated value	2.9 A
— at 600 V rated value	1.4 A
Operating current	
• at 1 current path at DC-3 at DC-5	
— at 24 V rated value	20 A
— at 110 V rated value	2.5 A
— at 220 V rated value	1 A
— at 440 V rated value	0.09 A
— at 600 V rated value	0.06 A
• with 2 current paths in series at DC-3 at DC-5	
— at 110 V rated value	15 A
— at 220 V rated value	3 A
— at 24 V rated value	35 A
— at 440 V rated value	0.27 A
— at 600 V rated value	0.16 A
• with 3 current paths in series at DC-3 at DC-5	
— at 110 V rated value	35 A
— at 220 V rated value	10 A
— at 24 V rated value	35 A
— at 440 V rated value	0.6 A
— at 600 V rated value	0.6 A

• at AC-1	
— at 230 V rated value	13.3 kW
— at 230 V at 60 °C rated value	13.3 kW
— at 400 V rated value	23 kW
— at 400 V at 60 °C rated value	23 kW
— at 690 V rated value	40 kW
— at 690 V at 60 °C rated value	40 kW
• at AC-2 at 400 V rated value	11 kW
• at AC-3	
— at 230 V rated value	5.5 kW
— at 400 V rated value	11 kW
— at 690 V rated value	11 kW
Operating power for approx. 200000 operating cycles	
at AC-4	
• at 400 V rated value	4.4 kW
• at 690 V rated value	7.7 kW
Thermal short-time current limited to 10 s	200 A
Power loss [W] at AC-3 at 400 V for rated value of	1.6 W
the operating current per conductor	
No-load switching frequency	5 000 1/h
• at AC	
• at DC	1 500 1/h
Operating frequency • at AC-1 maximum	1 000 1/h
	750 1/h
• at AC-2 maximum	750 1/h
• at AC-3 maximum	250 1/h
at AC-4 maximum	250 1/11
Control circuit/ Control	
Type of voltage of the control supply voltage	AC/DC
Control supply voltage at AC	
• at 50 Hz rated value	230 V
• at 50 Hz rated value	200 280 V
• at 60 Hz rated value	230 V
• at 60 Hz rated value	200 280 V
Control supply voltage at DC	
• rated value	230 V
• rated value	200 280 V
Operating range factor control supply voltage rated	
value of magnet coil at AC	0.7 1.1
• at 50 Hz	0.7 1.1
● at 60 Hz	U.7 1.1

Operating range factor control supply voltage rated value of magnet coil at DC	0.7 1.1
Design of the surge suppressor	with varistor
Apparent pick-up power of magnet coil at AC	
● at 50 Hz	12.7 V·A
● at 60 Hz	14.7 V·A
Inductive power factor with closing power of the coil	
● at 50 Hz	0.98
● at 60 Hz	0.98
Apparent holding power of magnet coil at AC	
● at 50 Hz	3.9 V·A
● at 60 Hz	4.3 V·A
Inductive power factor with the holding power of the	
coil	
● at 50 Hz	0.51
● at 60 Hz	0.56
Closing power of magnet coil at DC	14.3 W
Holding power of magnet coil at DC	1.9 W
Closing delay	
• at AC	60 80 ms
● at DC	50 75 ms
Opening delay	
● at AC	35 45 ms
• at DC	40 50 ms
Arcing time	10 10 ms
Residual current of the electronics for control with signal <0>	
 at AC at 230 V maximum permissible 	7 mA
• at DC at 24 V maximum permissible	16 mA
Auxiliary circuit	
Number of NC contacts	
• for auxiliary contacts	
— instantaneous contact	1
Number of NO contacts	
• for auxiliary contacts	
— instantaneous contact	1
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

• 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	21 A
• at 600 V rated value	22 A
Yielded mechanical performance [hp]	
 for single-phase AC motor 	
— at 110/120 V rated value	2 hp
— at 230 V rated value	3 hp
• for three-phase AC motor	
— at 200/208 V rated value	5 hp
— at 220/230 V rated value	7.5 hp
— at 460/480 V rated value	15 hp
— at 575/600 V rated value	20 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: 100 A gL/gG LV HRC 3NA, DIAZED 5SB, NEOZED 5SE: 35 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	102 mm
Width	45 mm
Depth	107 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	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 mm²)
— single or multi-stranded	2x (1 10 mm²)
— finely stranded with core end processing	2x (1 6 mm²)
 finely stranded without core end processing 	2x (1 6 mm²)
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 mm²)
 finely stranded with core end processing 	2x (0.5 1.5 mm²)
 finely stranded without core end 	2x (0.5 2.5 mm²)
processing	
 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
T1 value for proof test interval or service life acc. to IEC 61508	20 y

Certificates/approvals

General Product Approval

EMC

Functional Safety/Safety of Machinery





KTL





Baumusterbescheini gung

Declaration	of
Conformity	

Test Certificates **Shipping Approval**



EG-Konf.

<u>spezielle</u> <u>Prüfbescheinigunge</u>

n









GL

Shipping Approval

other









Bestätigungen

Umweltbestätigung

other



Further information

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

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

Industry Mall (Online ordering system)

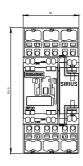
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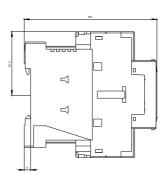
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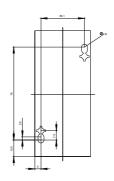
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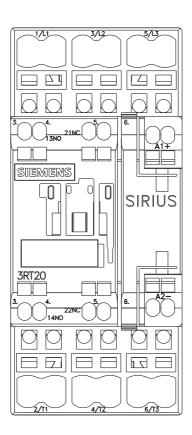
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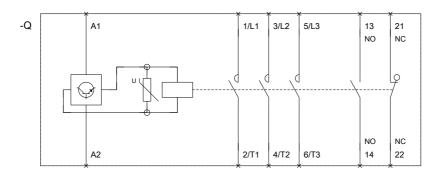
Image database (product images, 2D dimension drawings, 3D models, device circuit diagrams, EPLAN macros, ...) http://www.automation.siemens.com/bilddb/cax_de.aspx?mlfb=3RT2026-2NP30-Z X95&lang=en











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