

COUPL. CONT., AC3:22KW/400V, 1NO+1NC, 24 V DC, W.
VARISTOR, 3-POLE, SIZE S2, SCREW TERMINALS SUITABLE
FOR 2A PLC OUTPUTS



Figure similar

product brand name	SIRIUS
Product designation	3RT2 contactor

General technical data:

Size of contactor	S2
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
• of the terminal	IP00
Degree of pollution	3
Shock resistance	
• at rectangular impulse	
— at DC	7.7g / 5 ms, 4.5g / 10 ms

<ul style="list-style-type: none"> • with sine pulse <ul style="list-style-type: none"> — at DC 	12g / 5 ms, 7g / 10 ms
Mechanical service life (switching cycles)	
<ul style="list-style-type: none"> • of the contactor typical 	10 000 000
<ul style="list-style-type: none"> • of the contactor with added electronics-compatible auxiliary switch block typical 	5 000 000
<ul style="list-style-type: none"> • 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	
<ul style="list-style-type: none"> • during operation 	-25 ... +60 °C
<ul style="list-style-type: none"> • during storage 	-55 ... +80 °C
Main circuit:	
Number of NO contacts for main contacts	3
Number of NC contacts for main contacts	0
Operating voltage	
<ul style="list-style-type: none"> • at AC-3 Rated value maximum 	690 V
Operating current	
<ul style="list-style-type: none"> • at AC-1 at 400 V <ul style="list-style-type: none"> — at ambient temperature 40 °C Rated value 	70 A
<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 	70 A 60 A
<ul style="list-style-type: none"> • at AC-2 at 400 V Rated value 	51 A
<ul style="list-style-type: none"> • at AC-3 <ul style="list-style-type: none"> — at 400 V Rated value — at 500 V Rated value — at 690 V Rated value 	51 A 50 A 24 A
Connectable conductor cross-section in main circuit at AC-1	
<ul style="list-style-type: none"> • at 60 °C minimum permissible 	16 mm ²
<ul style="list-style-type: none"> • at 40 °C minimum permissible 	25 mm ²
Operating 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 — at 600 V Rated value 	55 A 4.5 A 1 A 0.4 A 0.25 A
<ul style="list-style-type: none"> • with 2 current paths in series at DC-1 	

— at 24 V Rated value	55 A
— at 110 V Rated value	45 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	55 A
— at 110 V Rated value	55 A
— at 220 V Rated value	45 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	35 A
— at 110 V Rated value	2.5 A
— at 220 V Rated value	1 A
— at 440 V Rated value	0.1 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	25 A
— at 220 V Rated value	5 A
— at 24 V Rated value	55 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	55 A
— at 220 V Rated value	25 A
— at 24 V Rated value	55 A
— at 440 V Rated value	0.6 A
— at 600 V Rated value	0.35 A
Operating power	
• at AC-1	
— at 230 V Rated value	26 kW
— at 230 V at 60 °C Rated value	23 kW
— at 400 V Rated value	46 kW
— at 400 V at 60 °C Rated value	39 kW
— at 690 V Rated value	79 kW
— at 690 V at 60 °C Rated value	68 kW
• at AC-2 at 400 V Rated value	22 kW
• at AC-3	
— at 230 V Rated value	15 kW

— at 400 V Rated value	22 kW
— at 500 V Rated value	30 kW
— at 690 V Rated value	22 kW
Thermal short-time current limited to 10 s	420 A
Active power loss at AC-3 at 400 V for rated value of the operating current per conductor	4 W
No-load switching frequency	
• at DC	1 500 1/h
Operating frequency	
• at AC-1 maximum	1 000 1/h
• at AC-2 maximum	600 1/h
• at AC-3 maximum	800 1/h
• at AC-4 maximum	250 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 the magnet coil at DC	0.8 ... 1.2
Design of the surge suppressor	with varistor
Closing power of the magnet coil at DC	21.5 W
Holding power of the magnet coil at DC	1 W
Closing delay	
• at DC	45 ... 60 ms
Opening delay	
• at DC	35 ... 55 ms
Arcing time	10 ... 20 ms
Residual current of the electronics for control with signal <0>	
• at AC at 230 V maximum permissible	20 mA
• at DC at 24 V maximum permissible	20 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

<ul style="list-style-type: none"> • at 500 V Rated value • at 690 V Rated value 	<p>2 A</p> <p>1 A</p>
Operating current at DC-12	
<ul style="list-style-type: none"> • at 24 V Rated value • at 48 V Rated value • at 60 V Rated value • at 110 V Rated value • at 125 V Rated value • at 220 V Rated value • at 600 V Rated value 	<p>10 A</p> <p>6 A</p> <p>6 A</p> <p>3 A</p> <p>2 A</p> <p>1 A</p> <p>0.15 A</p>
Operating current at DC-13	
<ul style="list-style-type: none"> • at 24 V Rated value • at 48 V Rated value • at 60 V Rated value • at 110 V Rated value • at 125 V Rated value • at 220 V Rated value • at 600 V Rated value 	<p>10 A</p> <p>2 A</p> <p>2 A</p> <p>1 A</p> <p>0.9 A</p> <p>0.3 A</p> <p>0.1 A</p>
Contact reliability of the auxiliary contacts	1 faulty switching per 100 million (17 V, 1 mA)

UL/CSA ratings:

Full-load current (FLA) for three-phase AC motor	
<ul style="list-style-type: none"> • at 480 V Rated value • at 600 V Rated value 	<p>52 A</p> <p>52 A</p>
yielded mechanical performance [hp]	
<ul style="list-style-type: none"> • for single-phase AC motor <ul style="list-style-type: none"> — at 110/120 V Rated value — at 230 V Rated value • for three-phase AC motor <ul style="list-style-type: none"> — at 200/208 V Rated value — at 220/230 V Rated value — at 460/480 V Rated value — at 575/600 V Rated value 	<p>3 hp</p> <p>10 hp</p> <p>15 hp</p> <p>15 hp</p> <p>40 hp</p> <p>50 hp</p>
Contact rating of the auxiliary contacts acc. to UL	A600 / P600

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 assignment 1 required — with type of assignment 2 required • for short-circuit protection of the auxiliary switch required 	<p>gL/gG NH 3NA, DIAZED 5SB, NEOZED 5SE: 160 A</p> <p>gL/gG NH 3NA, DIAZED 5SB, NEOZED 5SE: 80 A</p> <p>fuse gL/gG: 10 A</p>

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
<ul style="list-style-type: none"> • Side-by-side mounting 	Yes
Height	114 mm
Width	55 mm
Depth	130 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 50 mm 6 mm 50 mm 0 mm 0 mm 50 mm 50 mm 6 mm

Connections/ Terminals:

Type of electrical connection	
<ul style="list-style-type: none"> • for main current circuit • for auxiliary and control current circuit 	screw-type terminals screw-type terminals
Type of connectable conductor cross-section	
<ul style="list-style-type: none"> • for main contacts <ul style="list-style-type: none"> — single or multi-stranded — finely stranded with core end processing • for AWG conductors for main contacts 	2x (1 ... 35 mm ²), 1x (1 ... 50 mm ²) 2x (1 ... 25 mm ²), 1x (1 ... 35 mm ²) 2x (18 ... 2), 1x (18 ... 1)
Type of connectable conductor cross-section	
<ul style="list-style-type: none"> • for auxiliary contacts <ul style="list-style-type: none"> — single or multi-stranded — finely stranded with core end processing 	2x (0,5 ... 1,5 mm ²), 2x (0,75 ... 2,5 mm ²) 2x (0.5 ... 1.5 mm ²), 2x (0.75 ... 2.5 mm ²)





- for AWG conductors for auxiliary contacts

2x (20 ... 16), 2x (18 ... 14)

Safety related data:

Proportion of dangerous failures	
<ul style="list-style-type: none"> • with low demand rate acc. to SN 31920 • with high demand rate acc. to SN 31920 	<p>40 %</p> <p>73 %</p>
Product function	
<ul style="list-style-type: none"> • Mirror contact acc. to IEC 60947-4-1 • positively driven operation acc. to IEC 60947-5-1 	<p>Yes</p> <p>No</p>

Certificates/ approvals:

General Product Approval	Declaration of Conformity	other
 <p>CCC</p>	 <p>UL</p>	<p>Bestätigungen</p>
 <p>CSA</p>	 <p>EG-Konf.</p>	

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

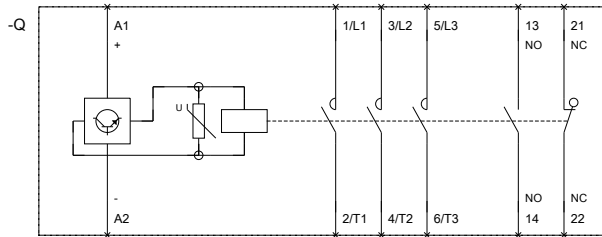
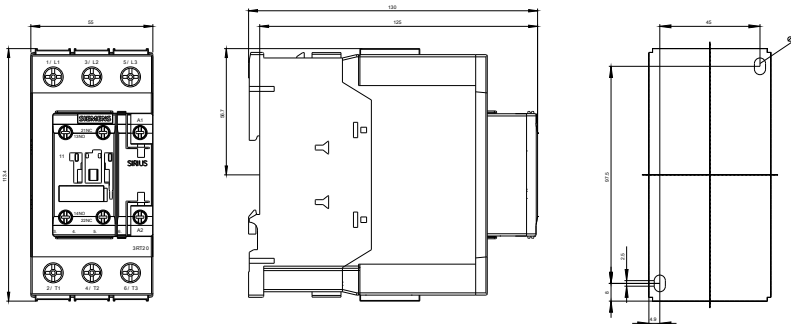
<http://support.automation.siemens.com/WW/CAXorder/default.aspx?lang=en&mlfb=3RT20361KB40>

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

<https://support.industry.siemens.com/cs/ww/en/ps/3RT20361KB40>

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

http://www.automation.siemens.com/bilddb/cax_de.aspx?mlfb=3RT20361KB40&lang=en



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