



CONTACTOR, AC-3 37 KW/400 V, DC 24 V, 3-POLE, SIZE S3, SCREW CONNECTION

Figure similar

product brand name	SIRIUS
Product designation	power contactor

General technical data:

Size of contactor	S3
Insulation voltage	
• Rated value	1 000 V
Degree of pollution	3
Surge voltage resistance Rated value	6 kV
Mechanical service life (switching cycles)	
• of the 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
Protection class IP	
• on the front	IP00
• of the terminal	IP00
Equipment marking	
• acc. to DIN EN 61346-2	Q
• acc. to DIN EN 81346-2	Q

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 NC contacts for main contacts	0
Number of NO contacts for main contacts	3
Connectable conductor cross-section in main circuit at AC-1	
<ul style="list-style-type: none"> • at 60 °C minimum permissible 	35 mm ²
<ul style="list-style-type: none"> • at 40 °C minimum permissible 	50 mm ²
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 	120 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 	120 A 100 A
<ul style="list-style-type: none"> • at AC-3 <ul style="list-style-type: none"> — at 400 V Rated value — at 690 V Rated value 	80 A 58 A
<ul style="list-style-type: none"> • at AC-4 at 400 V Rated value 	66 A
Operating current for ≥ 200000 operating cycles at AC-4	
<ul style="list-style-type: none"> • at 400 V Rated value 	34 A
<ul style="list-style-type: none"> • at 690 V Rated value 	22 A
Operating current	
<ul style="list-style-type: none"> • with 1 current path at DC-1 <ul style="list-style-type: none"> — at 24 V Rated value — at 110 V Rated value 	100 A 9 A
<ul style="list-style-type: none"> • 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 	100 A 100 A
<ul style="list-style-type: none"> • with 3 current paths in series at DC-1 <ul style="list-style-type: none"> — at 24 V Rated value — at 110 V Rated value 	100 A 100 A
Operating current	
<ul style="list-style-type: none"> • with 1 current path at DC-3 at DC-5 <ul style="list-style-type: none"> — at 24 V Rated value — at 110 V Rated value 	40 A 2.5 A
<ul style="list-style-type: none"> • with 2 current paths in series at DC-3 at DC-5 <ul style="list-style-type: none"> — at 110 V Rated value — at 24 V Rated value 	100 A 100 A
<ul style="list-style-type: none"> • with 3 current paths in series at DC-3 at DC-5 	

— at 110 V Rated value	100 A
— at 24 V Rated value	100 A
Operating power	
• at AC-1	
— at 230 V at 60 °C Rated value	38 kW
— at 690 V at 60 °C Rated value	114 kW
Operating power for ≥ 200000 operating cycles at AC-4	
• at 400 V Rated value	17.9 kW
• at 690 V Rated value	21.1 kW
Thermal short-time current restricted to 10 s	760 A
Active power loss at AC-3 at 400 V for rated value of the operating current per conductor	7.7 W
No-load switching frequency	
• for DC	1 000 1/h
Operating frequency	
• at AC-1 maximum	900 1/h
• at AC-2 maximum	400 1/h
• at AC-3 maximum	1 000 1/h
• at AC-4 maximum	300 1/h

Control circuit/ Control:

Type of voltage of the control supply voltage	DC
Control supply voltage for DC	
• Rated value	24 V
Operating range factor control supply voltage rated value of the magnet coil for DC	0.8 ... 1.1
Closing power of the magnet coil for DC	15 W
Holding power of the magnet coil for DC	15 W
Closing delay	
• for DC	90 ... 230 ms
Arcing time	10 ... 15 ms

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	6 A
• at 400 V Rated value	3 A

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

UL/CSA ratings:

Contact rating of the auxiliary contacts acc. to UL	A600 / Q600
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Short-circuit:

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>fuse gL/gG: 250 A</p> <p>fuse gL/gG: 160 A</p> <p>fuse gL/gG: 10 A</p>

Installation/ mounting/ dimensions:

Mounting type	screw and snap-on mounting onto 35 mm and 75 mm standard mounting rail
<ul style="list-style-type: none"> • Side-by-side mounting 	Yes
Height	146 mm
Width	70 mm
Depth	152 mm
Required spacing	
<ul style="list-style-type: none"> • for grounded parts <ul style="list-style-type: none"> — at the side 	6 mm

Connections/ Terminals:

Type of electrical connection	
<ul style="list-style-type: none"> • for main current circuit • for auxiliary and control current circuit 	<p>screw-type terminals</p> <p>screw-type terminals</p>
Type of connectable conductor cross-section	
<ul style="list-style-type: none"> • for main contacts <ul style="list-style-type: none"> — solid — stranded — single or multi-stranded — finely stranded with core end processing — finely stranded without core end processing 	<p>2x (2.5 ... 16 mm²)</p> <p>2x (10 ... 50 mm²)</p> <p>2x (2,5 ... 16 mm²)</p> <p>2x (2.5 ... 35 mm²)</p> <p>2x (10 ... 35 mm²)</p>

- for AWG conductors for main contacts

2x (10 ... 1/0)

Type of connectable conductor cross-section

- for auxiliary contacts
 - solid
 - finely stranded with core end processing
- for AWG conductors for auxiliary contacts

2x (0.5 ... 1.5 mm²), 2x (0.75 ... 2.5 mm²), max. 2x (0.75 ... 4 mm²)
 2x (0.5 ... 1.5 mm²), 2x (0.75 ... 2.5 mm²)
 2x (20 ... 16), 2x (18 ... 14), 1x 12

Certificates/ approvals:

General Product Approval

Functional Safety/Safety of Machinery

Declaration of Conformity



[Type Examination](#)



Test Certificates

Shipping Approval

[Special Test Certificate](#)

[Type Test Certificates/Test Report](#)

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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

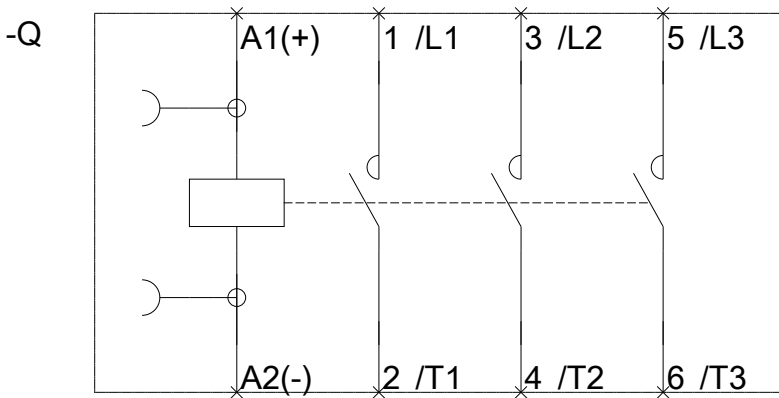
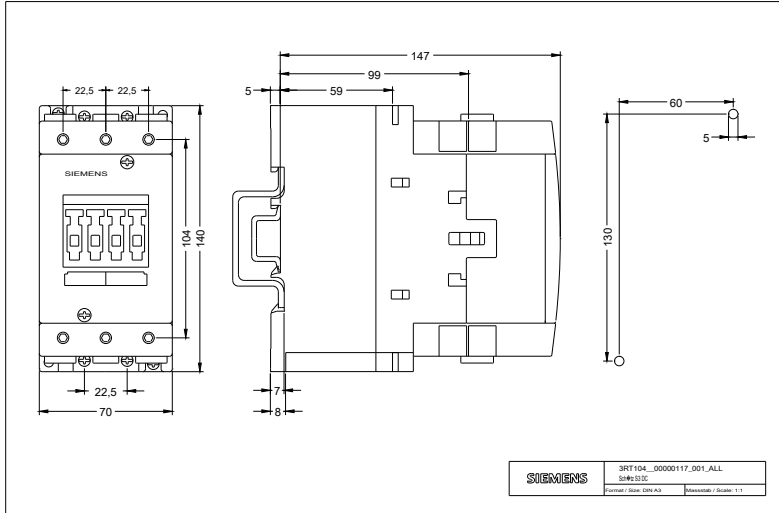
<http://support.automation.siemens.com/WW/CAXorder/default.aspx?lang=en&mlfb=3RT10451BB40>

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

<https://support.industry.siemens.com/cs/ww/en/ps/3RT10451BB40>

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

http://www.automation.siemens.com/bilddb/cax_de.aspx?mlfb=3RT10451BB40&lang=en



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