

CONTACTOR, AC-3 45 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
maximum permissible voltage for safe isolation	
• between coil and main contacts acc. to EN 60947-1	690 V
Protection class IP	
• on the front	IP00
• of the terminal	IP00
Shock resistance	
• at rectangular impulse	
— at DC	6,8g / 5 ms, 4g / 10 ms
• with sine pulse	
— at DC	10,6g / 5 ms, 6,2g / 10 ms

Mechanical service life (switching cycles)	
<ul style="list-style-type: none"> • of 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 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 	95 A 58 A
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 for approx. 200000 operating cycles at AC-4	
<ul style="list-style-type: none"> • at 400 V rated value 	42 A
<ul style="list-style-type: none"> • at 690 V rated value 	27 A
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 	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"> • at 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 • 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 • with 3 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 	<p>40 A</p> <p>2.5 A</p> <p>100 A</p> <p>100 A</p> <p>100 A</p> <p>100 A</p>
Operating power	
<ul style="list-style-type: none"> • at AC-1 <ul style="list-style-type: none"> — at 230 V at 60 °C rated value — at 400 V 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 <ul style="list-style-type: none"> — at 230 V rated value — at 400 V rated value — at 500 V rated value — at 690 V rated value 	<p>38 kW</p> <p>66 kW</p> <p>114 kW</p> <p>114 kW</p> <p>45 kW</p> <p>22 kW</p> <p>45 kW</p> <p>55 kW</p> <p>55 kW</p>
Operating power for approx. 200000 operating cycles at AC-4	
<ul style="list-style-type: none"> • at 400 V rated value • at 690 V rated value 	<p>22 kW</p> <p>25.4 kW</p>
Thermal short-time current limited to 10 s	
	760 A
Power loss [W] at AC-3 at 400 V for rated value of the operating current per conductor	
	10.8 W
No-load switching frequency	
<ul style="list-style-type: none"> • at DC 	1 000 1/h
Operating frequency	
<ul style="list-style-type: none"> • at AC-1 maximum • at AC-2 maximum • at AC-3 maximum • at AC-4 maximum 	<p>900 1/h</p> <p>350 1/h</p> <p>850 1/h</p> <p>250 1/h</p>
Control circuit/ Control:	
Type of voltage of the control supply voltage	DC
Control supply voltage at DC	
<ul style="list-style-type: none"> • rated value 	24 V
Operating range factor control supply voltage rated value of magnet coil at DC	0.8 ... 1.1

Closing power of magnet coil at DC	15 W
Holding power of magnet coil at DC	15 W
Closing delay <ul style="list-style-type: none"> • at DC 	90 ... 230 ms
Opening delay <ul style="list-style-type: none"> • at DC 	14 ... 20 ms
Arcing time	10 ... 15 ms

Auxiliary circuit:

Number of NC contacts <ul style="list-style-type: none"> • for auxiliary contacts <ul style="list-style-type: none"> — instantaneous contact 	0
Number of NO contacts <ul style="list-style-type: none"> • for auxiliary contacts <ul style="list-style-type: none"> — instantaneous contact 	0
Operating current at AC-12 maximum	10 A
Operating current at AC-15 <ul style="list-style-type: none"> • at 230 V rated value • at 400 V rated value 	6 A 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 	6 A 3 A 1 A
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 	10 A 2 A 1 A 0.3 A
Contact reliability of auxiliary contacts	1 faulty switching per 100 million (17 V, 1 mA)

UL/CSA ratings:

Contact rating of auxiliary contacts according to UL	A600 / Q600
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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 coordination 1 required — with type of assignment 2 required • for short-circuit protection of the auxiliary switch required 	fuse gL/gG: 250 A fuse gL/gG: 160 A fuse gL/gG: 10 A
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Installation/ mounting/ dimensions:

Mounting type <ul style="list-style-type: none"> • Side-by-side mounting 	screw and snap-on mounting onto 35 mm and 75 mm standard mounting rail Yes
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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-sections	
<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 • at AWG conductors for main contacts 	<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> <p>2x (10 ... 1/0)</p>
Type of connectable conductor cross-sections	
<ul style="list-style-type: none"> • for auxiliary contacts <ul style="list-style-type: none"> — solid — finely stranded with core end processing • at AWG conductors for auxiliary contacts 	<p>2x (0.5 ... 1.5 mm²), 2x (0.75 ... 2.5 mm²), max. 2x (0.75 ... 4 mm²)</p> <p>2x (0.5 ... 1.5 mm²), 2x (0.75 ... 2.5 mm²)</p> <p>2x (20 ... 16), 2x (18 ... 14), 1x 12</p>

Certificates/approvals

General Product Approval				Declaration of Conformity	Test Certificates
 CCC	 CSA		 UL	 EG-Konf.	spezielle Prüfbescheinigungen

Test Certificates	Shipping Approval				
Typprüfbescheinigung/Werkszeugnis	sonstig	 ABS	 GL	 LRS	 RINA

Shipping Approval	other		
 RMRS	sonstig	Bestätigungen	Umweltbestätigung

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=3RT10461BB40>

Cax online generator

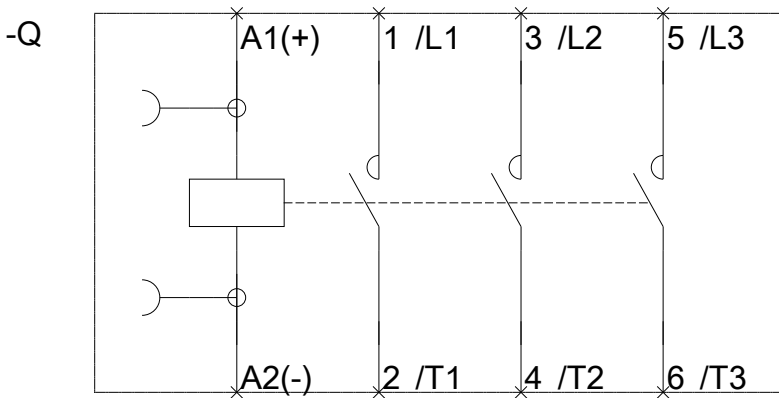
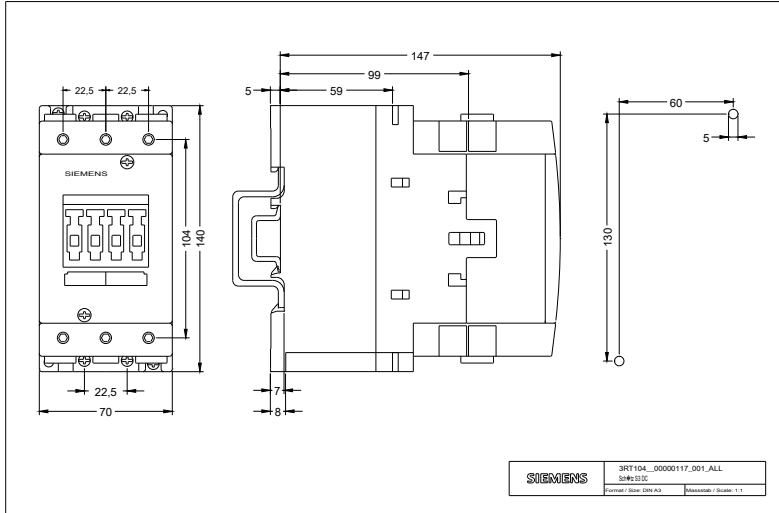
<http://support.automation.siemens.com/WW/CAXorder/default.aspx?lang=en&mlfb=3RT10461BB40>

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

<https://support.industry.siemens.com/cs/ww/en/ps/3RT10461BB40>

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

http://www.automation.siemens.com/bilddb/cax_de.aspx?mlfb=3RT10461BB40&lang=en



last modified:

05.04.2016