

CONTACTOR, AC-3 30 KW/400 V, AC 230V 50/60HZ 3-POLE, SIZE S3, SCREW CONNECTION



Figure similar

product brandname	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 AC	6,8g / 5 ms, 4g / 10 ms
Shock resistance with sine pulse	

• at AC	10,6g / 5 ms, 6,2g / 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	
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 current	
• at AC-1 at 400 V	
— at ambient temperature 40 °C rated value	100 A
• at AC-1	
— up to 690 V at ambient temperature 40 °C rated value	100 A
— up to 690 V at ambient temperature 60 °C rated value	90 A
— up to 1000 V at ambient temperature 40 °C rated value	50 A
— up to 1000 V at ambient temperature 60 °C rated value	40 A
• at AC-3	
— at 400 V rated value	65 A
— at 690 V rated value	47 A
— at 1000 V rated value	25 A
Connectable conductor cross-section in main circuit at AC-1	
• at 60 °C minimum permissible	35 mm²
• at 40 °C minimum permissible	35 mm²
Operating current for approx. 200000 operating cycles at AC-4	
• at 400 V rated value	28 A
• at 690 V rated value	20 A
Operating current	
• at 1 current path at DC-1	
— at 24 V rated value	90 A

<ul style="list-style-type: none"> — at 110 V rated value 	4.5 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 	90 A 90 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 	90 A 90 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 	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 24 V rated value — at 110 V rated value 	90 A 90 A
<ul style="list-style-type: none"> • with 3 current paths in series at DC-3 at DC-5 <ul style="list-style-type: none"> — at 24 V rated value — at 110 V rated value 	90 A 90 A
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 1000 V at 60 °C rated value 	34 kW 59 kW 102 kW 102 kW 66 W
<ul style="list-style-type: none"> • at AC-2 at 400 V rated value 	30 kW
<ul style="list-style-type: none"> • 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 — at 1000 V rated value 	18.5 kW 30 kW 37 kW 45 kW 30 W
Operating power for approx. 200000 operating cycles at AC-4	
<ul style="list-style-type: none"> • at 400 V rated value 	15.1 kW
<ul style="list-style-type: none"> • at 690 V rated value 	18.6 kW
Thermal short-time current limited to 10 s	600 A
Power loss [W] at AC-3 at 400 V for rated value of the operating current per conductor	4.6 W
No-load switching frequency	
<ul style="list-style-type: none"> • at AC 	5 000 1/h
Operating frequency	
<ul style="list-style-type: none"> • at AC-1 maximum 	1 000 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	AC
Control supply voltage at AC	
• at 50 Hz rated value	230 V
• at 60 Hz rated value	230 V
Operating range factor control supply voltage rated value of magnet coil at AC	
• at 50 Hz	0.8 ... 1.1
• at 60 Hz	0.85 ... 1.1
Apparent pick-up power of magnet coil at AC	247 V·A
Inductive power factor with closing power of the coil	0.62
Apparent holding power of magnet coil at AC	25 V·A
Inductive power factor with the holding power of the coil	0.27
Closing delay	
• at AC	16 ... 57 ms
Opening delay	
• at AC	10 ... 19 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	
• at 60 V rated value	6 A
• at 110 V rated value	3 A
• at 220 V rated value	1 A
Operating current at DC-13	
• at 24 V rated value	10 A
• at 60 V rated value	2 A
• at 110 V rated value	1 A
• at 220 V rated value	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
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: 125 A fuse gL/gG: 10 A
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	139 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 	screw-type terminals screw-type terminals
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 	2x (2.5 ... 16 mm ²) 2x (10 ... 50 mm ²) 2x (2,5 ... 16 mm ²) 2x (2.5 ... 35 mm ²) 2x (10 ... 35 mm ²) 2x (10 ... 1/0)
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 	2x (0.5 ... 1.5 mm ²), 2x (0.75 ... 2.5 mm ²), max. 2x (0.75 ... 4 mm ²) 2x (0.5 ... 1.5 mm ²), 2x (0.75 ... 2.5 mm ²) 2x (20 ... 16), 2x (18 ... 14), 1x 12
Certificates/approvals	

General Product Approval	Functional Safety/Safety of Machinery	Declaration of Conformity
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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=3RT1044-1AL20>

Cax online generator

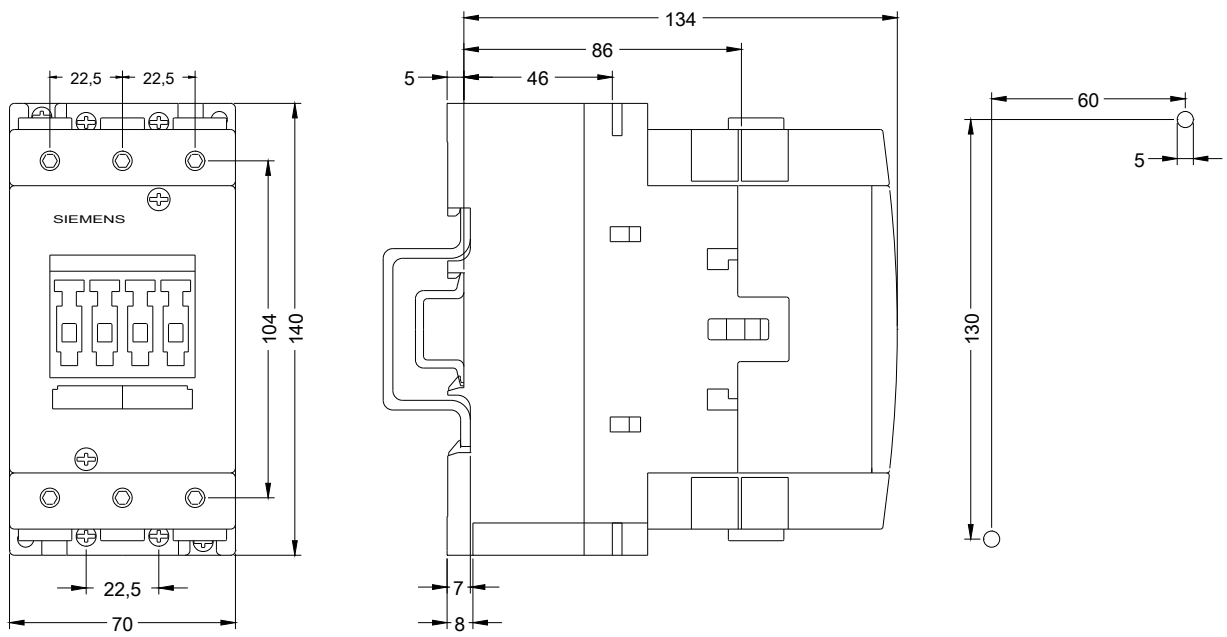
<http://support.automation.siemens.com/WW/CAXorder/default.aspx?lang=en&mlfb=3RT1044-1AL20>

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

<https://support.industry.siemens.com/cs/ww/en/ps/3RT1044-1AL20>

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

http://www.automation.siemens.com/bilddb/cax_de.aspx?mlfb=3RT1044-1AL20&lang=en

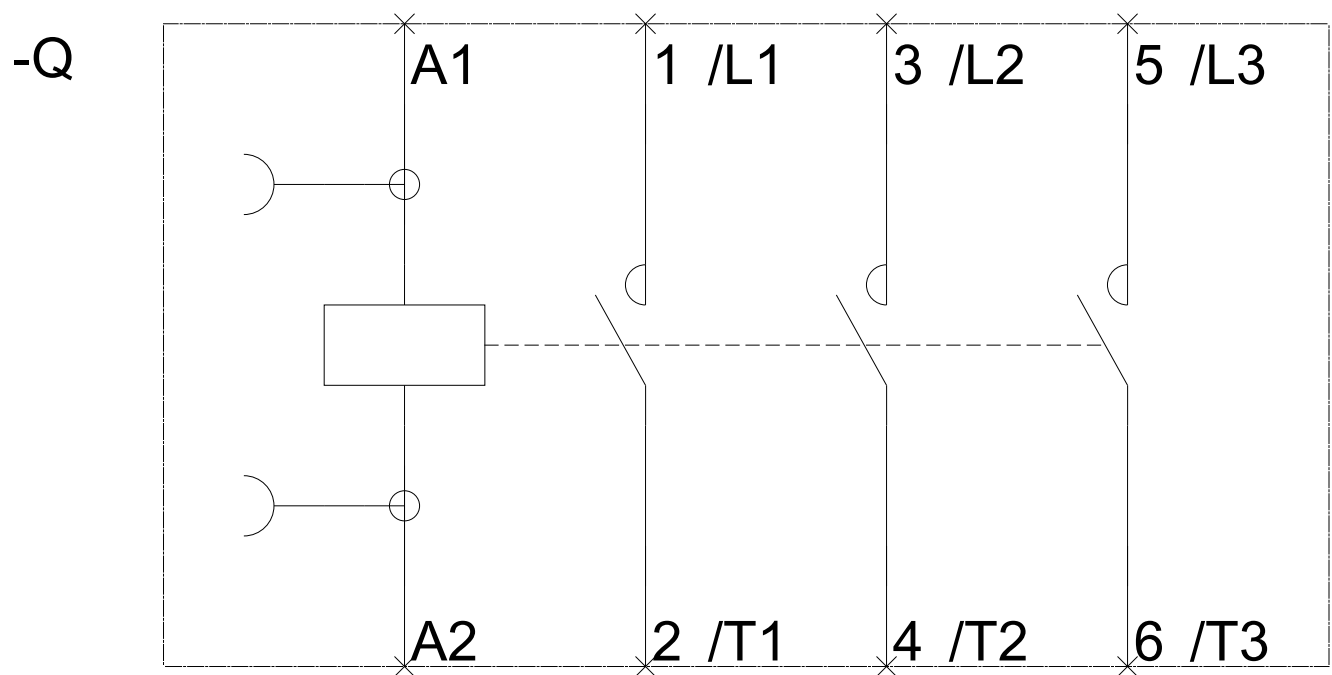


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Maßstab / Scale: 1:1



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