

CONTACTOR, AC-3 30 KW/400 V, AC 110V 50HZ/120V 60HZ 3-POLE, SIZE S3, SCREW CONNECTION

product brand name	SIRIUS
Product designation	power contactor

General technical data:

Size of contactor	S3
Insulation voltage <ul style="list-style-type: none"> • rated value 	1 000 V
Degree of pollution	3
Surge voltage resistance rated value	6 kV
maximum permissible voltage for safe isolation <ul style="list-style-type: none"> • between coil and main contacts acc. to EN 60947-1 	690 V
Protection class IP <ul style="list-style-type: none"> • on the front • of the terminal 	IP00 IP00
Shock resistance <ul style="list-style-type: none"> • at rectangular impulse <ul style="list-style-type: none"> — at AC • with sine pulse <ul style="list-style-type: none"> — at AC 	6,8g / 5 ms, 4g / 10 ms 10,6g / 5 ms, 6,2g / 10 ms
Mechanical service life (switching cycles) <ul style="list-style-type: none"> • of contactor typical • of the contactor with added electronics-compatible auxiliary switch block typical • of the contactor with added auxiliary switch block typical 	10 000 000 5 000 000 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 • during storage 	-25 ... +60 °C -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 • 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 • at AC-3 <ul style="list-style-type: none"> — at 400 V rated value — at 690 V rated value 	<p>100 A</p> <p>100 A</p> <p>90 A</p> <p>65 A</p> <p>47 A</p>
Connectable conductor cross-section in main circuit at AC-1 <ul style="list-style-type: none"> • at 60 °C minimum permissible • at 40 °C minimum permissible 	<p>35 mm²</p> <p>35 mm²</p>
Operating current 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>28 A</p> <p>20 A</p>
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 • 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 • 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 	<p>90 A</p> <p>4.5 A</p> <p>90 A</p> <p>90 A</p> <p>90 A</p> <p>90 A</p>
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>90 A</p> <p>90 A</p> <p>90 A</p> <p>90 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 	<p>34 kW</p> <p>59 kW</p> <p>102 kW</p> <p>102 kW</p>

<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 	18.5 kW 30 kW 37 kW 45 kW
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 	15.1 kW 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 • at AC-2 maximum • at AC-3 maximum • at AC-4 maximum 	1 000 1/h 400 1/h 1 000 1/h 300 1/h

Control circuit/ Control:	
Type of voltage of the control supply voltage	AC
Control supply voltage at AC	
<ul style="list-style-type: none"> • at 50 Hz rated value • at 60 Hz rated value • rated value 	110 V 120 V 50 Hz
Control supply voltage frequency 2 rated value	60 Hz
Operating range factor control supply voltage rated value of magnet coil at AC	
<ul style="list-style-type: none"> • at 50 Hz • at 60 Hz 	0.8 ... 1.1 0.8 ... 1.1
Apparent pick-up power of magnet coil at AC	232 V·A
Inductive power factor with closing power of the coil	0.55
Apparent holding power of magnet coil at AC	20 V·A
Inductive power factor with the holding power of the coil	0.28
Closing delay	
<ul style="list-style-type: none"> • at AC 	16 ... 57 ms
Opening delay	
<ul style="list-style-type: none"> • at AC 	10 ... 19 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: 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	
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- for main current circuit
- for auxiliary and control current circuit

screw-type terminals
screw-type terminals

Type of connectable conductor cross-sections

- for main contacts
 - 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 mm²)
2x (10 ... 50 mm²)
2x (2,5 ... 16 mm²)
2x (2.5 ... 35 mm²)
2x (10 ... 35 mm²)

2x (10 ... 1/0)

Type of connectable conductor cross-sections

- for auxiliary contacts
 - solid
 - finely stranded with core end processing
- at 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

Declaration of Conformity

Test Certificates



[spezielle Prüfbescheinigungen](#)
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Shipping Approval

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Further information

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

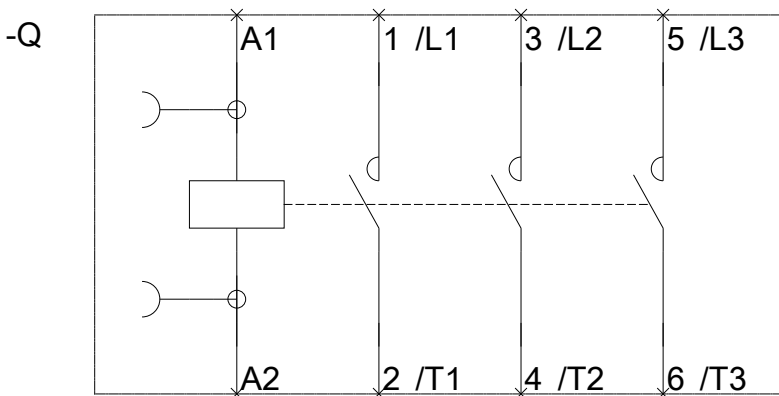
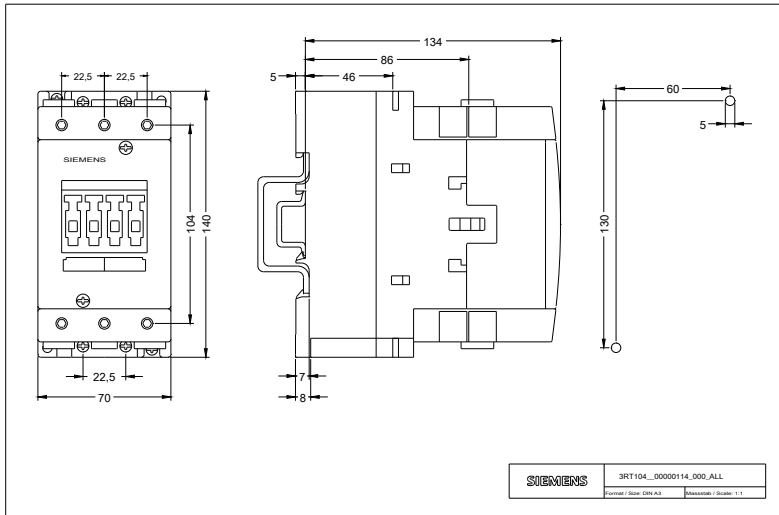
<http://www.siemens.com/industrial-controls/catalogs>

Industry Mall (Online ordering system)

<https://mall.industry.siemens.com/mall/en/en/Catalog/product?mlfb=3RT10441AK60>

Cax online generator

<http://support.automation.siemens.com/WW/CAXorder/default.aspx?lang=en&mlfb=3RT10441AK60>



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