

Contactor, AC-1, 140 A / 400 V, 24 V DC, 3-pole, Size S3, screw terminal, without box terminals Lateral auxiliary switch block left + right, 2 NO + 2 NC



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; IP20 on the front with cover / box terminal
• of the terminal	IP00
Shock resistance at rectangular impulse	
• at DC	6,8g / 5 ms, 4g / 10 ms
Shock resistance with sine pulse	

<ul style="list-style-type: none"> • 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	
<ul style="list-style-type: none"> • 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 poles for main current circuit	3
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 	140 A
<ul style="list-style-type: none"> • at AC-1 <ul style="list-style-type: none"> — up to 690 V at ambient temperature 40 °C rated value — up to 690 V at ambient temperature 60 °C rated value 	140 A 130 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 	44 A 44 A
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 	35 mm ² 50 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 	130 A 12 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 	130 A 130 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 	130 A 130 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 24 V rated value — at 110 V rated value • 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 	<p>6 A</p> <p>1.25 A</p> <p>130 A</p> <p>130 A</p> <p>130 A</p> <p>130 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>50 kW</p> <p>86 kW</p> <p>148 kW</p> <p>148 kW</p> <p>22 kW</p> <p>12.7 kW</p> <p>22 kW</p> <p>29.9 kW</p> <p>38.2 kW</p>
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	12.5 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 	650 1/h
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	
<ul style="list-style-type: none"> • initial value • Full-scale value 	<p>0.8</p> <p>1.1</p>
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 	2
Number of NO contacts	
<ul style="list-style-type: none"> • for auxiliary contacts <ul style="list-style-type: none"> — instantaneous contact 	2
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
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 gR: 250 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	90 mm
Depth	152 mm
Required spacing	
<ul style="list-style-type: none"> • for grounded parts 	

— 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">• at AWG conductors for main contacts	7 ... 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
 CCC	 UL	 EG-Konf.
 CSA		Type Examination Certificate

Test Certificates	Marine / Shipping	other
Special Test Certificate	 ABS	Confirmation
	 RINA	Miscellaneous
	 RMRS	

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=3RT1446-6BB46>

Cax online generator

<http://support.automation.siemens.com/WW/CAXorder/default.aspx?lang=en&mlfb=3RT1446-6BB46>

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

<https://support.industry.siemens.com/cs/ww/en/ps/3RT1446-6BB46>

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

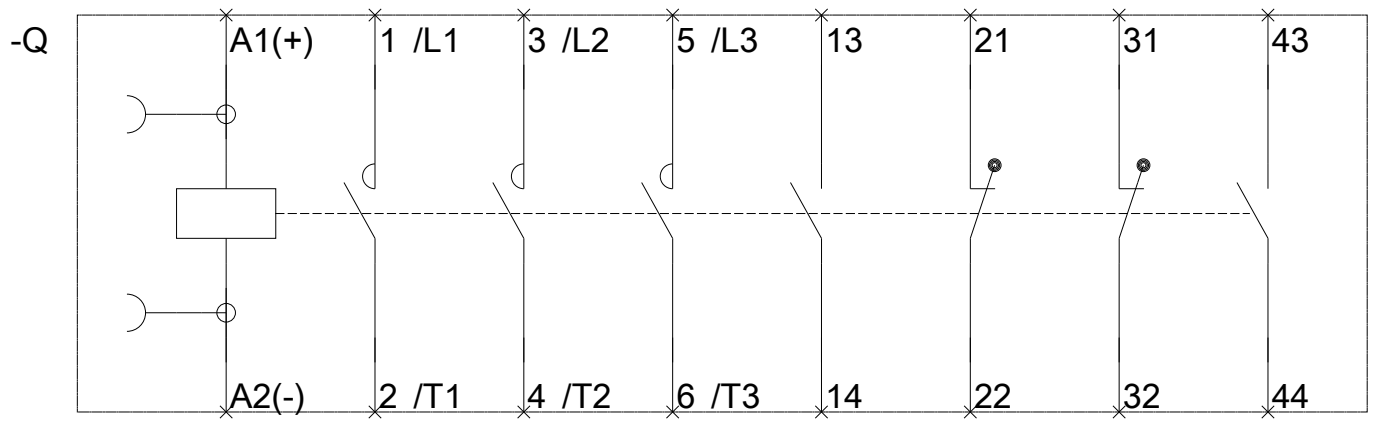
http://www.automation.siemens.com/bilddb/cax_de.aspx?mlfb=3RT1446-6BB46&lang=en

Characteristic: Tripping characteristics, I²t, Let-through current

<https://support.industry.siemens.com/cs/ww/en/ps/3RT1446-6BB46/char>

Further characteristics (e.g. electrical endurance, switching frequency)

<http://www.automation.siemens.com/bilddb/index.aspx?view=Search&mlfb=3RT1446-6BB46&objecttype=14&gridview=view1>



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