

CONTACTOR, 250KW/400V/AC-3 AC(40...60HZ)/DC OPERATION
 UC 110-127V AUXILIARY CONTACTS 2NO+2NC 3-POLE, SIZE
 S12 BAR CONNECTIONS CONVENT. OPERATING MECHANISM
 SCREW TERMINAL



Figure similar

product brand name	SIRIUS
Product designation	power contactor
General technical data:	
Size of contactor	S12
Insulation voltage	
• rated value	1 000 V
Degree of pollution	3
Surge voltage resistance rated value	8 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	8,5g / 5 ms, 4,2g / 10 ms
— at DC	8,5g / 5 ms, 4,2g / 10 ms
• with sine pulse	

— at AC	13,4g / 5 ms, 6,5g / 10 ms
— at DC	13,4g / 5 ms, 6,5g / 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:	
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 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	610 A
• at AC-1 up to 690 V	
— at ambient temperature 40 °C rated value	610 A
— at ambient temperature 60 °C rated value	550 A
• at AC-3	
— at 400 V rated value	500 A
— at 690 V rated value	450 A
Connectable conductor cross-section in main circuit at AC-1	
• at 60 °C minimum permissible	370 mm ²
• at 40 °C minimum permissible	370 mm ²
Operating current for approx. 200000 operating cycles at AC-4	
• at 400 V rated value	175 A
• at 690 V rated value	150 A
Operating current	
• at 1 current path at DC-1	
— at 24 V rated value	400 A
— at 110 V rated value	33 A
• with 2 current paths in series at DC-1	
— at 24 V rated value	400 A
— at 110 V rated value	400 A
• with 3 current paths in series at DC-1	

— at 24 V rated value	400 A
— at 110 V rated value	400 A
Operating current	
• at 1 current path at DC-3 at DC-5	
— at 24 V rated value	400 A
— at 110 V rated value	3 A
• with 2 current paths in series at DC-3 at DC-5	
— at 110 V rated value	400 A
— at 24 V rated value	400 A
• with 3 current paths in series at DC-3 at DC-5	
— at 110 V rated value	400 A
— at 24 V rated value	400 A
Operating power	
• at AC-1	
— at 230 V at 60 °C rated value	151 kW
— at 400 V rated value	362 kW
— at 690 V rated value	624 kW
— at 690 V at 60 °C rated value	624 kW
• at AC-2 at 400 V rated value	291 kW
• at AC-3	
— at 230 V rated value	164 kW
— at 400 V rated value	291 kW
— at 500 V rated value	363 kW
— at 690 V rated value	453 kW
Operating power for approx. 200000 operating cycles at AC-4	
• at 400 V rated value	98 kW
• at 690 V rated value	148 kW
Thermal short-time current limited to 10 s	4 000 A
Power loss [W] at AC-3 at 400 V for rated value of the operating current per conductor	55 W
No-load switching frequency	
• at AC	2 000 1/h
• at DC	2 000 1/h
Operating frequency	
• at AC-1 maximum	500 1/h
• at AC-2 maximum	170 1/h
• at AC-3 maximum	420 1/h
• at AC-4 maximum	130 1/h
Control circuit/ Control:	
Type of voltage of the control supply voltage	AC/DC
Control supply voltage at AC	

<ul style="list-style-type: none"> • at 50 Hz rated value • at 60 Hz rated value 	110 ... 127 V
Control supply voltage at DC	
<ul style="list-style-type: none"> • rated value 	110 ... 127 V
Control supply voltage frequency 1 rated value	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
Operating range factor control supply voltage rated value of magnet coil at DC	0.8 ... 1.1
Design of the surge suppressor	with varistor
Apparent pick-up power of magnet coil at AC	830 V·A
Inductive power factor with closing power of the coil	0.9
Apparent holding power of magnet coil at AC	9.2 V·A
Inductive power factor with the holding power of the coil	0.9
Closing power of magnet coil at DC	920 W
Holding power of magnet coil at DC	10 W
Closing delay	
<ul style="list-style-type: none"> • at AC • at DC 	45 ... 100 ms
Opening delay	
<ul style="list-style-type: none"> • at AC • at DC 	60 ... 100 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 	<p>10 A</p> <p>2 A</p> <p>1 A</p> <p>0.3 A</p>

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 	<p>fuse gL/gG: 630 A</p> <p>fuse gL/gG: 500 A</p> <p>fuse gL/gG: 10 A</p>

Installation/ mounting/ dimensions:	
Mounting type	screw fixing
<ul style="list-style-type: none"> • Side-by-side mounting 	Yes
Height	214 mm
Width	160 mm
Depth	225 mm
Required spacing	
<ul style="list-style-type: none"> • for grounded parts <ul style="list-style-type: none"> — at the side 	10 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"> • at AWG conductors for main contacts 	2/0 ... 500 kcmil
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	 DNV	 GL	 RMRS

other
sonstig Umweltbestätigung Bestätigungen

Further information

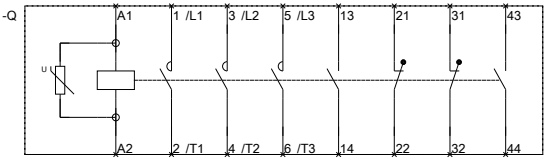
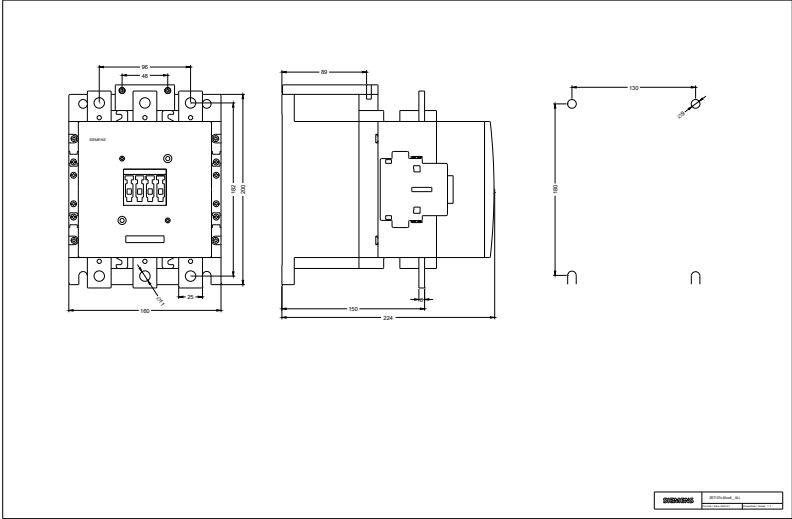
Information- and Downloadcenter (Catalogs, Brochures,...)
<http://www.siemens.com/industrial-controls/catalogs>

Industry Mall (Online ordering system)
<https://mall.industry.siemens.com/mall/en/en/Catalog/product?mlfb=3RT10766AF36>

Cax online generator
<http://support.automation.siemens.com/WW/CAXorder/default.aspx?lang=en&mlfb=3RT10766AF36>

Service&Support (Manuals, Certificates, Characteristics, FAQs,...)
<https://support.industry.siemens.com/cs/ww/en/ps/3RT10766AF36>

Image database (product images, 2D dimension drawings, 3D models, device circuit diagrams, EPLAN macros, ...)
http://www.automation.siemens.com/bilddb/cax_de.aspx?mlfb=3RT10766AF36&lang=en



last modified:

12.05.2016

3RT106-A.6.01_4_IEC.DXF
3RT107-A.6.01_4_IEC.DXF