



Figure similar

CONTACTOR, 690A/AC-1 AC(40...60HZ)/DC  
 OPERATION UC 42-48V AUXILIARY CONTACTS  
 2NO+2NC 3-POLE, SIZE S12 BAR CONNECTIONS  
 CONVENT. OPERATING MECHANISM

product brand name	SIRIUS
Product designation	power contactor

**General technical data:**

<b>Insulation voltage</b>		
<ul style="list-style-type: none"> <li>Rated value</li> </ul>	V	1 000
<b>Degree of pollution</b>		3
<b>Surge voltage resistance Rated value</b>	kV	8
<b>Mechanical service life (switching cycles)</b>		
<ul style="list-style-type: none"> <li>of the contactor typical</li> </ul>		10 000 000
<ul style="list-style-type: none"> <li>of the contactor with added electronics-compatible auxiliary switch block typical</li> </ul>		5 000 000
<ul style="list-style-type: none"> <li>of the contactor with added auxiliary switch block typical</li> </ul>		10 000 000
<b>Thermal short-time current restricted to 10 s</b>	A	4 000
<b>Protection class IP</b>		
<ul style="list-style-type: none"> <li>on the front</li> </ul>		IP00
<ul style="list-style-type: none"> <li>of the terminal</li> </ul>		IP00
<b>Equipment marking</b>		
<ul style="list-style-type: none"> <li>acc. to DIN EN 61346-2</li> </ul>		Q
<ul style="list-style-type: none"> <li>acc. to DIN EN 81346-2</li> </ul>		Q

**Main circuit:**

<b>Number of poles for main current circuit</b>		3
<b>Number of NC contacts for main contacts</b>		0
<b>Number of NO contacts for main contacts</b>		3
<b>Operating current</b>		

<ul style="list-style-type: none"> <li>• at AC-1 <ul style="list-style-type: none"> <li>— at 400 V at ambient temperature 40 °C Rated value</li> <li>— up to 690 V at ambient temperature 40 °C Rated value</li> <li>— up to 690 V at ambient temperature 60 °C Rated value</li> </ul> </li> <li>• at AC-3 <ul style="list-style-type: none"> <li>— at 400 V Rated value</li> <li>— at 690 V Rated value</li> </ul> </li> </ul>	A	690
	A	690
	A	650
	A	170
	A	170
<b>Operating current with 1 current path</b>		
<ul style="list-style-type: none"> <li>• at DC-1 <ul style="list-style-type: none"> <li>— at 24 V Rated value</li> <li>— at 110 V Rated value</li> </ul> </li> <li>• at DC-3 at DC-5 <ul style="list-style-type: none"> <li>— at 24 V Rated value</li> <li>— at 110 V Rated value</li> </ul> </li> </ul>	A	500
	A	33
	A	500
	A	3
<b>Operating current with 2 current paths in series</b>		
<ul style="list-style-type: none"> <li>• at DC-1 <ul style="list-style-type: none"> <li>— at 24 V Rated value</li> <li>— at 110 V Rated value</li> </ul> </li> <li>• at DC-3 at DC-5 <ul style="list-style-type: none"> <li>— at 110 V Rated value</li> <li>— at 24 V Rated value</li> </ul> </li> </ul>	A	500
	A	500
	A	500
	A	500
	A	500
<b>Operating current with 3 current paths in series</b>		
<ul style="list-style-type: none"> <li>• at DC-1 <ul style="list-style-type: none"> <li>— at 24 V Rated value</li> <li>— at 110 V Rated value</li> </ul> </li> <li>• at DC-3 at DC-5 <ul style="list-style-type: none"> <li>— at 110 V Rated value</li> <li>— at 24 V Rated value</li> </ul> </li> </ul>	A	500
	A	500
	A	500
	A	500
	A	500
<b>Operating power</b>		
<ul style="list-style-type: none"> <li>• at AC-1 at 400 V Rated value</li> <li>• at AC-2 at 400 V Rated value</li> </ul>	kW	430
	kW	90
<b>Operating power</b>		
<ul style="list-style-type: none"> <li>• at AC-1 <ul style="list-style-type: none"> <li>— at 230 V at 60 °C Rated value</li> <li>— at 690 V at 60 °C Rated value</li> <li>— at 690 V Rated value</li> </ul> </li> <li>• at AC-3 <ul style="list-style-type: none"> <li>— at 230 V Rated value</li> <li>— at 400 V Rated value</li> </ul> </li> </ul>	kW	245
	kW	740
	kW	740
	kW	160
	kW	90

— at 500 V Rated value	kW	110
— at 690 V Rated value	kW	160

#### Control circuit/ Control:

<b>Type of voltage of the control supply voltage</b>		AC/DC
<b>Control supply voltage with AC</b>		
• at 50 Hz Rated value	V	42 ... 48
• at 60 Hz Rated value	V	42 ... 48
<b>Control supply voltage for DC</b>		
• Rated value	V	42 ... 48
• Rated value	Hz	40
<b>Control supply voltage frequency 2 Rated value</b>	Hz	60
<b>Operating range factor control supply voltage rated value of the magnet coil with AC</b>		
• at 50 Hz		0.8 ... 1.1
• at 60 Hz		0.8 ... 1.1
<b>Operating range factor control supply voltage rated value of the magnet coil for DC</b>		0.8 ... 1.1
<b>Design of the surge suppressor</b>		with varistor
<b>Apparent pick-up power of the magnet coil with AC</b>	V·A	830
<b>Apparent holding power of the magnet coil with AC</b>	V·A	9.2
<b>Closing power of the magnet coil for DC</b>	W	920
<b>Holding power of the magnet coil for DC</b>	W	10
<b>Inductive power factor</b>		
• with closing power of the coil		0.9
• with the holding power of the coil		0.9

#### Auxiliary circuit:

<b>Number of NC contacts</b>		
• for auxiliary contacts		
— instantaneous contact		2
<b>Number of NO contacts</b>		
• for auxiliary contacts		
— instantaneous contact		2
<b>Operating current at AC-15</b>		
• at 230 V Rated value	A	6
• at 400 V Rated value	A	3
<b>Operating current</b>		
• at DC-12 at 220 V Rated value	A	1
• at DC-13 at 220 V Rated value	A	0.3
<b>Operating current</b>		
• at DC-12		
— at 60 V Rated value	A	6
— at 110 V Rated value	A	3

- at DC-13
  - at 24 V Rated value
  - at 60 V Rated value
  - at 110 V Rated value

A	10
A	2
A	1

#### UL/CSA ratings:

<b>Contact rating of the auxiliary contacts acc. to UL</b>	A600 / Q600
--	-------------

#### Short-circuit:

<b>Design of the fuse link</b>		
<ul style="list-style-type: none"> <li>• for short-circuit protection of the main circuit           <ul style="list-style-type: none"> <li>— with type of assignment 1 required</li> <li>— with type of assignment 2 required</li> </ul> </li> <li>• for short-circuit protection of the auxiliary switch required</li> </ul>		fuse gL/gG: 800 A fuse gL/gG: 710 A fuse gL/gG: 10 A

#### Installation/ mounting/ dimensions:

<b>Mounting type</b>		screw fixing
<ul style="list-style-type: none"> <li>• Side-by-side mounting</li> </ul>		Yes
<b>Height</b>	mm	214
<b>Width</b>	mm	160
<b>Depth</b>	mm	225
<b>Required spacing</b>		
<ul style="list-style-type: none"> <li>• for grounded parts           <ul style="list-style-type: none"> <li>— at the side</li> </ul> </li> </ul>	mm	10

#### Connections/ Terminals:

<b>Type of electrical connection</b>		
<ul style="list-style-type: none"> <li>• for main current circuit</li> <li>• for auxiliary and control current circuit</li> </ul>		screw-type terminals screw-type terminals
<b>Type of connectable conductor cross-section</b>		
<ul style="list-style-type: none"> <li>• for AWG conductors for main contacts</li> <li>• for auxiliary contacts           <ul style="list-style-type: none"> <li>— solid</li> <li>— finely stranded with core end processing</li> </ul> </li> <li>• for AWG conductors for auxiliary contacts</li> </ul>		2/0 ... 500 kcmil  2x (0.5 ... 1.5 mm <sup>2</sup> ), 2x (0.75 ... 2.5 mm <sup>2</sup> ), max. 2x (0.75 ... 4 mm <sup>2</sup> )  2x (0.5 ... 1.5 mm <sup>2</sup> ), 2x (0.75 ... 2.5 mm <sup>2</sup> )  2x (20 ... 16), 2x (18 ... 14), 1x 12

#### Mechanical data:

<b>Size of contactor</b>		S12
--------------------------	--	-----

#### Ambient conditions:

<b>Installation altitude at height above sea level maximum</b>	m	2 000
<b>Ambient temperature</b>		
<ul style="list-style-type: none"> <li>• during operation</li> </ul>	°C	-25 ... +60





• during storage

°C

-55 ... +80

### Certificates/ approvals:

General Product Approval	Functional Safety/Safety of Machinery	Declaration of Conformity
 CCC	 UL	 EG-Konf.
 CSA		<a href="#">Type Examination</a>

Test Certificates	Shipping Approval	other
<a href="#">Special Test Certificate</a>	 ABS	<a href="#">Environmental Confirmations</a>
	 DNV	
	 GL	
	 RMRS	

other
<a href="#">Confirmation</a> <a href="#">other</a>

### Further information

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

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

**Industry Mall (Online ordering system)**

<http://www.siemens.com/industrymall>

**Cax online generator**

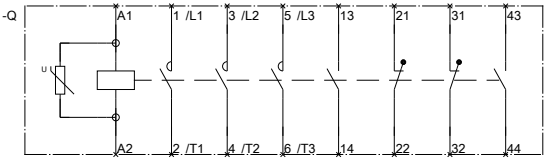
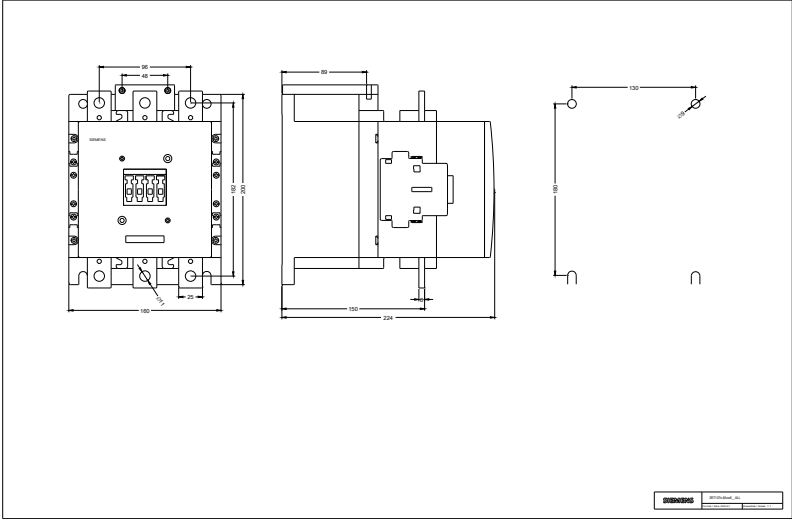
<http://support.automation.siemens.com/WW/CAXorder/default.aspx?lang=en&mlfb=3RT14766AD36>

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

<http://support.automation.siemens.com/WW/view/en/3RT14766AD36/all>

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

[http://www.automation.siemens.com/bilddb/cax\\_de.aspx?mlfb=3RT14766AD36&lang=en](http://www.automation.siemens.com/bilddb/cax_de.aspx?mlfb=3RT14766AD36&lang=en)



last modified:

11.03.2015

3RT106-A.6.01\_4\_IEC.DXF  
3RT107-A.6.01\_4\_IEC.DXF