

CONTACTOR, 690A/AC-1 AC(40...60HZ)/DC OPERATION UC 220-240V AUXILIARY CONTACTS 2NO+2NC 3-POLE, SIZE S12 BAR CONNECTIONS CONVENT. OPERATING MECHANISM



Figure similar

product brand name	SIRIUS
Product designation	power contactor
<b>General technical data</b>	
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
<b>Mechanical service life (switching cycles)</b>	
• 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
<b>Ambient conditions</b>	
<b>Installation altitude at height above sea level maximum</b>	2 000 m
<b>Ambient temperature</b>	
• during operation	-25 ... +60 °C
• during storage	-55 ... +80 °C
<b>Main circuit</b>	
<b>Number of poles for main current circuit</b>	3
<b>Number of NO contacts for main contacts</b>	3
<b>Number of NC contacts for main contacts</b>	0
<b>Operating current</b>	
• at AC-1 at 400 V	
— at ambient temperature 40 °C rated value	690 A
• at AC-1	
— up to 690 V at ambient temperature 40 °C rated value	690 A
— up to 690 V at ambient temperature 60 °C rated value	650 A
— up to 1000 V at ambient temperature 40 °C rated value	250 A
— up to 1000 V at ambient temperature 60 °C rated value	250 A
• at AC-3	
— at 400 V rated value	170 A
— at 690 V rated value	170 A
<b>Connectable conductor cross-section in main circuit at AC-1</b>	
• at 60 °C minimum permissible	370 mm <sup>2</sup>
• at 40 °C minimum permissible	370 mm <sup>2</sup>
<b>Operating current</b>	
• at 1 current path at DC-1	
— at 24 V rated value	500 A

<ul style="list-style-type: none"> <li>— at 110 V rated value</li> </ul>	33 A
<ul style="list-style-type: none"> <li>• with 2 current paths in series 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> </ul>	500 A 500 A
<ul style="list-style-type: none"> <li>• with 3 current paths in series 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> </ul>	500 A 500 A
<b>Operating current</b>	
<ul style="list-style-type: none"> <li>• at 1 current path 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>	500 A 3 A
<ul style="list-style-type: none"> <li>• with 2 current paths in series 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>	500 A 500 A
<ul style="list-style-type: none"> <li>• with 3 current paths in series 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>	500 A 500 A
<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 400 V rated value</li> <li>— at 690 V rated value</li> <li>— at 690 V at 60 °C rated value</li> <li>— at 1000 V at 60 °C rated value</li> </ul> </li> </ul>	245 kW 430 kW 740 kW 740 kW 410 W
<ul style="list-style-type: none"> <li>• at AC-2 at 400 V rated value</li> </ul>	90 kW
<ul style="list-style-type: none"> <li>• at AC-3 <ul style="list-style-type: none"> <li>— at 230 V rated value</li> <li>— at 400 V rated value</li> <li>— at 500 V rated value</li> <li>— at 690 V rated value</li> </ul> </li> </ul>	160 kW 90 kW 110 kW 160 kW
<b>Thermal short-time current limited to 10 s</b>	4 000 A
<b>Power loss [W] at AC-3 at 400 V for rated value of the operating current per conductor</b>	55 W
<b>No-load switching frequency</b>	
<ul style="list-style-type: none"> <li>• at AC</li> </ul>	2 000 1/h
<ul style="list-style-type: none"> <li>• at DC</li> </ul>	2 000 1/h
<b>Operating frequency</b>	
<ul style="list-style-type: none"> <li>• at AC-1 maximum</li> </ul>	700 1/h
<b>Control circuit/ Control</b>	
<b>Type of voltage of the control supply voltage</b>	AC/DC
<b>Control supply voltage at AC</b>	

<ul style="list-style-type: none"> <li>• at 50 Hz rated value</li> <li>• at 60 Hz rated value</li> </ul>	220 ... 240 V
<b>Control supply voltage at DC</b>	
<ul style="list-style-type: none"> <li>• rated value</li> </ul>	220 ... 240 V
<b>Control supply voltage frequency 1 rated value</b>	50 Hz
<b>Control supply voltage frequency 2 rated value</b>	60 Hz
<b>Operating range factor control supply voltage rated value of magnet coil at AC</b>	
<ul style="list-style-type: none"> <li>• at 50 Hz</li> <li>• at 60 Hz</li> </ul>	0.8 ... 1.1
<b>Operating range factor control supply voltage rated value of magnet coil at DC</b>	0.8 ... 1.1
<b>Design of the surge suppressor</b>	with varistor
<b>Apparent pick-up power of magnet coil at AC</b>	830 V·A
<b>Inductive power factor with closing power of the coil</b>	0.9
<b>Apparent holding power of magnet coil at AC</b>	9.2 V·A
<b>Inductive power factor with the holding power of the coil</b>	0.9
<b>Closing power of magnet coil at DC</b>	920 W
<b>Holding power of magnet coil at DC</b>	10 W
<b>Closing delay</b>	
<ul style="list-style-type: none"> <li>• at AC</li> <li>• at DC</li> </ul>	45 ... 100 ms
<b>Opening delay</b>	
<ul style="list-style-type: none"> <li>• at AC</li> <li>• at DC</li> </ul>	60 ... 100 ms
<b>Arcing time</b>	10 ... 15 ms

#### Auxiliary circuit

<b>Number of NC contacts</b>	
<ul style="list-style-type: none"> <li>• for auxiliary contacts <ul style="list-style-type: none"> <li>— instantaneous contact</li> </ul> </li> </ul>	2
<b>Number of NO contacts</b>	
<ul style="list-style-type: none"> <li>• for auxiliary contacts <ul style="list-style-type: none"> <li>— instantaneous contact</li> </ul> </li> </ul>	2
<b>Operating current at AC-12 maximum</b>	10 A
<b>Operating current at AC-15</b>	
<ul style="list-style-type: none"> <li>• at 230 V rated value</li> <li>• at 400 V rated value</li> </ul>	6 A
	3 A
<b>Operating current at DC-12</b>	
<ul style="list-style-type: none"> <li>• at 60 V rated value</li> <li>• at 110 V rated value</li> <li>• at 220 V rated value</li> </ul>	6 A
	3 A
	1 A

<b>Operating current at DC-13</b>	
• 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

<b>UL/CSA ratings</b>	
<b>Contact rating of auxiliary contacts according to UL</b>	A600 / Q600





<b>Short-circuit protection</b>	
<b>Design of the fuse link</b>	
• for short-circuit protection of the main circuit	
— with type of coordination 1 required	fuse gL/gG: 800 A
— with type of assignment 2 required	fuse gR: 710 A
• for short-circuit protection of the auxiliary switch required	fuse gL/gG: 10 A

<b>Installation/ mounting/ dimensions</b>	
<b>Mounting type</b>	screw fixing
• Side-by-side mounting	Yes
<b>Height</b>	214 mm
<b>Width</b>	160 mm
<b>Depth</b>	225 mm
<b>Required spacing</b>	
• for grounded parts	
— at the side	10 mm

<b>Connections/Terminals</b>	
<b>Type of electrical connection</b>	
• for main current circuit	screw-type terminals
• for auxiliary and control current circuit	screw-type terminals
<b>Type of connectable conductor cross-sections</b>	
• at AWG conductors for main contacts	2/0 ... 500 kcmil
<b>Type of connectable conductor cross-sections</b>	
• for auxiliary contacts	
— solid	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> )
— finely stranded with core end processing	2x (0.5 ... 1.5 mm <sup>2</sup> ), 2x (0.75 ... 2.5 mm <sup>2</sup> )
• at AWG conductors for auxiliary contacts	2x (20 ... 16), 2x (18 ... 14), 1x 12

<b>Certificates/approvals</b>
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General Product Approval				Declaration of Conformity	Test Certificates
 CCC	 CSA	 UL		 EG-Konf.	<a href="#">spezielle Prüfbescheinigungen</a>

Test Certificates	Shipping Approval				other
<a href="#">sonstig</a>	 ABS	 DNV	 GL	 RMRS	<a href="#">Bestätigungen</a>

other
<a href="#">Umweltbestätigung</a> <a href="#">sonstig</a>

#### 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=3RT1476-6AP36>

**Cax online generator**

<http://support.automation.siemens.com/WW/CAXorder/default.aspx?lang=en&mlfb=3RT1476-6AP36>

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

<https://support.industry.siemens.com/cs/ww/en/ps/3RT1476-6AP36>

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

[http://www.automation.siemens.com/bilddb/cax\\_de.aspx?mlfb=3RT1476-6AP36&lang=en](http://www.automation.siemens.com/bilddb/cax_de.aspx?mlfb=3RT1476-6AP36&lang=en)

