

OVERLOAD RELAY, 70...90 A, 1NO+1NC,  
SIZE S3, CLASS 10,  
FOR CONTACTOR MOUNTING

**General technical details:**

<b>Product brand name</b>		SIRIUS
<b>Product designation</b>		thermal overload relay
<b>Protection class IP / frontal/front side</b>		IP20
<b>Insulation voltage / with degree of pollution 3 / rated value</b>	V	1,000
<b>Altitude of installation site / at a height over sea level / maximum</b>	m	2,000
<b>Ambient temperature</b>		
• during the operating phase	°C	-20 ... 70
• during storage	°C	-55 ... 80
• during transport	°C	-55 ... 80
<b>Relative humidity / during the operating phase / maximum</b>	%	100
<b>Resistance against shock</b>		8g / 10 ms
<b>Impulse voltage resistance / rated value</b>	kV	8
<b>Real loss power / total / typical</b>	W	16.5
<b>Item designation</b>		
• according to DIN 40719 extendable after IEC 204-2 / according to IEC 750		F
• according to DIN EN 61346-2		F
<b>Operating current / of the fuse link / rated value</b>	A	160
<b>Trip class</b>		CLASS 10
<b>Type of assignment</b>		2
<b>Type of protection</b>		DMT 98 ATEX G 001
<b>Size of overload relay</b>		S3
<b>Size of the contactor / can be combined / company-specific</b>		S3
<b>Protection against electrical shock</b>		finger-safe

**Main circuit:**

<b>Number of poles / for main current circuit</b>		3
<b>Operating voltage / at 3 AC / rated value</b>		
• maximum	V	1,000
<b>Service power / at AC-3</b>		
• at 400 V	kW	45

<b>Adjustable response current</b>		
• of the current-dependent overload release	A	70 ... 90

### Auxiliary circuit:

<b>Contact reliability / of the auxiliary contacts</b>		acceptability for PLC control (17 V, 5 mA)
<b>Number of NC contacts</b>		1
<b>Number of NO contacts</b>		1
<b>Number of change-over switches</b>		0
<b>Operating current / of the auxiliary contacts / at AC-15</b>		
• at 24 V	A	3
• at 110 V	A	3
• at 120 V	A	3
• at 125 V	A	3
• at 230 V	A	2
• at 400 V	A	1
<b>Operating current / of the auxiliary contacts / at DC-13</b>		
• at 24 V	A	1
• at 110 V	A	0.22
• at 125 V	A	0.22
• at 220 V	A	0.11

### Short-circuit:

<b>Design of the fuse link / for short-circuit protection of the auxiliary switch / required</b>		fuse gL/gG: 6 A, quick: 10 A
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### Installation/mounting/dimensions:

<b>built in orientation</b>		with vertical mounting surface +/-135° rotatable, with vertical mounting surface +/- 45° tiltable to the front and back
<b>Type of fixing/fixation</b>		direct mounting
<b>Height</b>	mm	120
<b>Width</b>	mm	70
<b>Depth</b>	mm	140
<b>distance, to be maintained, to the ranks assembly</b>		
• upwards	mm	0
• downwards	mm	0
• forwards	mm	0
• backwards	mm	0
• sideways	mm	0
<b>distance, to be maintained, to earthed part</b>		
• upwards	mm	0
• downwards	mm	0

• forwards	mm	0
• backwards	mm	0
• sideways	mm	6
<b>distance, to be maintained, conductive elements</b>		
• upwards	mm	0
• downwards	mm	0
• forwards	mm	0
• backwards	mm	0
• sideways	mm	6

Connection type:		
<b>Product function</b>		
• removable terminal for auxiliary and control circuit		No
<b>design of the electrical connection</b>		
• for main current circuit		screw-type terminals
• for auxiliary and control current circuit		screw-type terminals
<b>Type of the connectable conductor cross-section</b>		
• for main contacts		
• unifilar		2x (2.5 ... 16 mm <sup>2</sup> )
• stranded wire		2x (10 ... 50 mm <sup>2</sup> ), 10 ... 70 mm <sup>2</sup>
• stranded wire		
• with conductor end processing		2x (2.5 ... 35 mm <sup>2</sup> ), 2.5 ... 50 mm <sup>2</sup>
• for auxiliary contacts		
• solid		2x (0.5 ... 1.5 mm <sup>2</sup> ), 2x (0.75 ... 2.5 mm <sup>2</sup> )
• finely stranded		
• with wire end processing		2x (0.5 ... 1.5 mm <sup>2</sup> ), 2x (0.75 ... 2.5 mm <sup>2</sup> )
• without conductor final cutting		2x (0,5 ... 1,5 mm <sup>2</sup> ), 2x (0,75 ... 2,5 mm <sup>2</sup> )
• at AWG-conductors		
• for main contacts		2x (10 ... 1/0), 1x (10 ... 2/0)
• for auxiliary contacts		2x (18 ... 14)
<b>Conductor cross section that can be connected</b>		
• for main contacts		
• unifilar	mm <sup>2</sup>	2.5 ... 6
• stranded wire	mm <sup>2</sup>	10 ... 70
• stranded wire		
• with conductor end processing	mm <sup>2</sup>	2.5 ... 50
• for auxiliary contact		
• unifilar	mm <sup>2</sup>	0.5 ... 2.5
• stranded wire		
• with conductor end processing	mm <sup>2</sup>	0.5 ... 2.5

- without conductor final cutting

mm <sup>2</sup>	0.5 ... 2.5
<b>AWG number / as coded connectable conductor cross-section</b>	
• for main contacts / minimum	10
• for auxiliary contact	18 ... 14

### Certificates/approvals:

verification of suitability

CSA / UL / CC / GL / LRS / BV / DNV / RMRS / RINA / PRS / ABS

verification of suitability / ATEX

Yes

### Further information:

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

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

**Global Industry Mall (Online ordering system)**

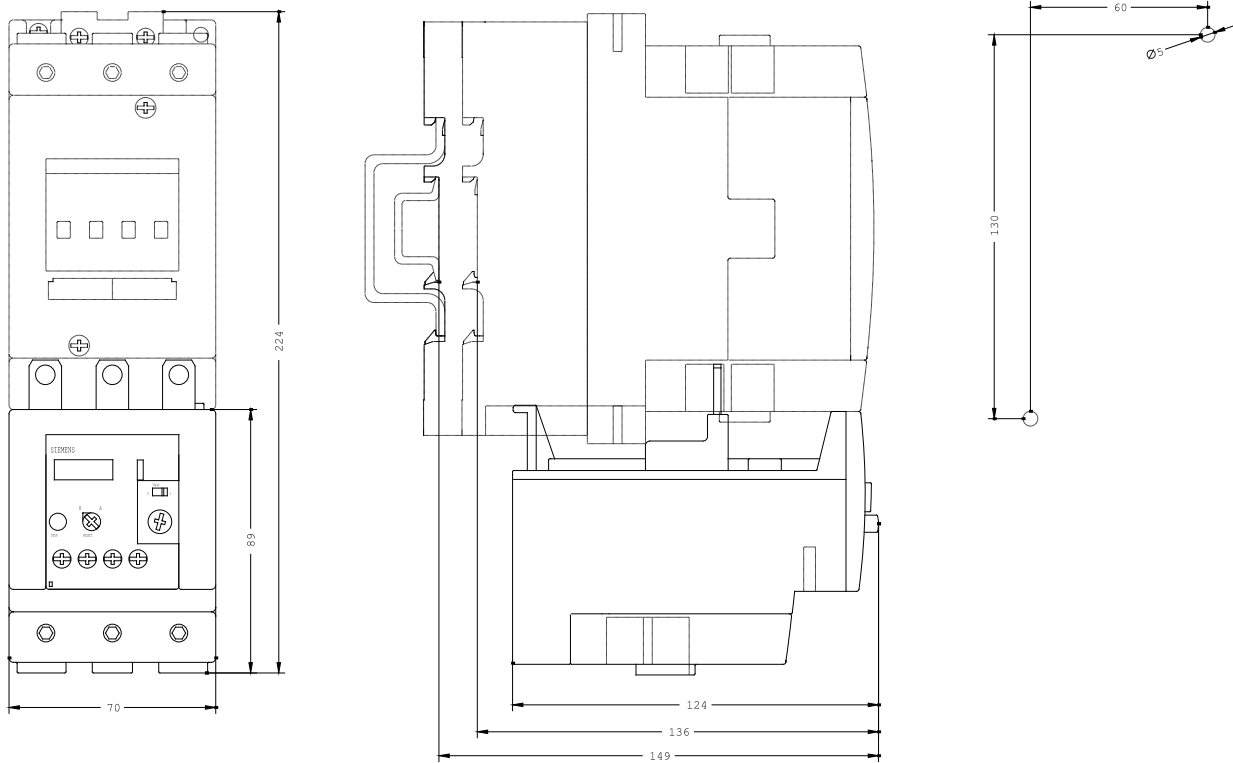
<http://www.siemens.com/industrial-controls/mall>

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

<http://support.automation.siemens.com/WW/view/en/3RU1146-4LB0/all>

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

[http://www.automation.siemens.com/bilddb/cax\\_en.aspx?mlfb=3RU1146-4LB0](http://www.automation.siemens.com/bilddb/cax_en.aspx?mlfb=3RU1146-4LB0)



last change:

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