

OVERLOAD RELAY 80...100 A FOR MOTOR  
 PROTECTION SIZE S3,  
 CLASS 10 FOR CONTACTOR MOUNTING MAIN CIRCUIT:  
 SCREW CONN. AUX. CIRCUIT: SCREW CONN. MANUAL-  
 AUTOMATIC-RESET

General technical details:		
product brand name		SIRIUS
product designation		thermal overload relay
Protection class IP / on the front		IP20
Insulation voltage / with degree of pollution 3 / rated value	V	1,000
Installation altitude / at a height over sea level / maximum	m	2,000
Ambient temperature		
• during operating	°C	-20 ... +70
• during storage	°C	-55 ... +80
• during transport	°C	-55 ... +80
Relative humidity / during operating phase / maximum	%	100
Resistance against shock		8g / 10 ms
Impulse voltage resistance / rated value	kV	8
Active power loss / total / typical	W	16.5
Item designation		
• according to DIN 40719 extendable after IEC 204-2 / according to IEC 750		F
• according to DIN EN 61346-2		F
Operating current / of the fuse link / rated value	A	200
Trip class		CLASS 10
Type of assignment		2
type of protection		DMT 98 ATEX G 001
Size of overload relay		S3
Size of the contactor / can be combined / company-specific		S3
Protection against electrical shock		finger-safe

Main circuit:		
Number of poles / for main current circuit		3
Operating voltage / at AC-3 / rated value		
• maximum	V	1,000
Service power / at AC-3		

• at 400 V	kW	45
<b>Adjustable response current</b>		
• of the current-dependent overload release	A	80 ... 100

#### 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 mounting</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		
• solid		2x (2.5 ... 16 mm <sup>2</sup> )
• stranded		2x (10 ... 50 mm <sup>2</sup> ), 10 ... 70 mm <sup>2</sup>
• finely stranded		
• 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 conductor end processing		2x (0.5 ... 1.5 mm <sup>2</sup> ), 2x (0.75 ... 2.5 mm <sup>2</sup> )
• for AWG conductors		
• for main contacts		2x (10 ... 1/0), 1x (10 ... 2/0)
• for auxiliary contacts		2x (20 ... 16), 2x (18 ... 14)
<b>Conductor cross section that can be connected</b>		
• for main contacts		
• solid	mm <sup>2</sup>	2.5 ... 6
• stranded	mm <sup>2</sup>	10 ... 70
• stranded wire		
• with conductor end processing	mm <sup>2</sup>	2.5 ... 50
• for auxiliary contact		
• solid	mm <sup>2</sup>	0.5 ... 2.5
• stranded wire		
• with conductor end processing	mm <sup>2</sup>	0.5 ... 2.5

**AWG number / as coded connectable conductor cross-section**

- for main contacts / minimum
- for auxiliary contact

10  
20 ... 14

**Certificates/approvals:****Verification of suitability**

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

**Verification of suitability / ATEX**

Yes

**General Product Approval****For use in hazardous locations****Test Certificates**

CSA

[ROSTEST](#)



UL

[DEKRA EXAM, DMT](#)

[Manufacturer](#)

**Shipping Approval****other**

ABS



DNV



GL



LRS



RMRS

[Manufacturer](#)

**Further information:****Information- and Downloadcenter (Catalogs, Brochures,...)**

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

**Industry Mall (Online ordering system)**

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

**CAX-Online-Generator**

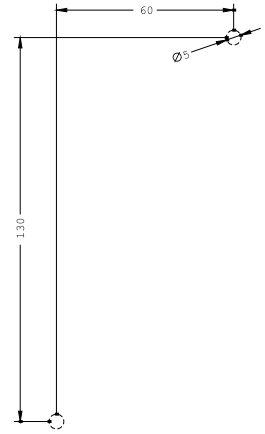
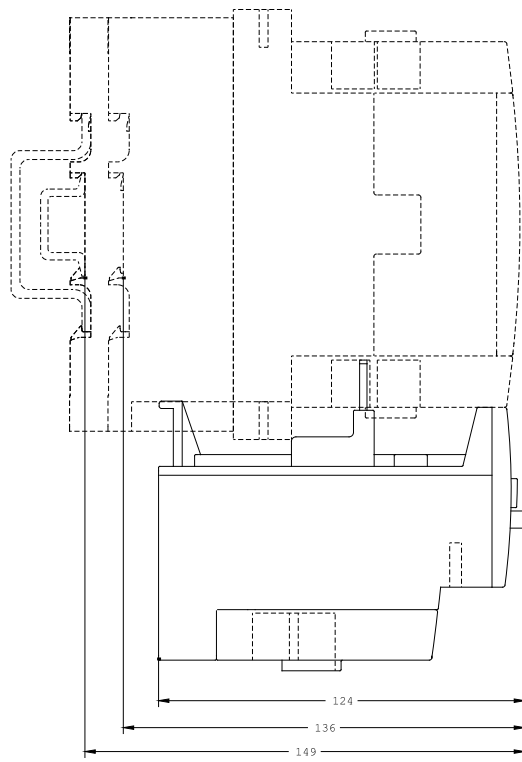
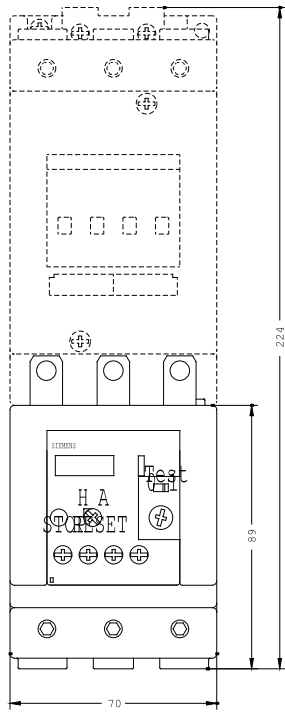
<http://www.siemens.com/cax>

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

<http://support.automation.siemens.com/WW/view/en/3RU1146-4MB0/all>

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

[http://www.automation.siemens.com/bilddb/cax\\_en.aspx?mlfb=3RU1146-4MB0](http://www.automation.siemens.com/bilddb/cax_en.aspx?mlfb=3RU1146-4MB0)



last change:

Mar 5, 2012