



OVERLOAD RELAY 3.5...5.0 A FOR MOTOR
PROTECTION SZ S00,
CLASS 10,
STAND-ALONE INSTALLATION MAIN CIRCUIT: SPRING
TERMINAL AUX. CIRCUIT: SPRING TERMINAL MANUAL-
AUTOMATIC-RESET

General technical data:

Product brand name		SIRIUS
product designation		3RU2 thermal overload relay
Protection class IP / on the front		IP20
Insulation voltage / with degree of pollution 3		
• rated value	V	690
Installation altitude / at a height over sea level / maximum	m	2,000
Ambient temperature		
• during transport	°C	-55 ... 80
• during storage	°C	-55 ... 80
• during operating	°C	-40 ... 70
Relative humidity		
• during operating phase	/ %	90
Resistance against shock		8g / 10 ms
Impulse voltage resistance / rated value	kV	6
Active power loss / total / typical	W	6.1
Item designation		
• according to DIN 40719 extendable after IEC 204-2 / according to IEC 750		F
• according to DIN EN 61346-2		F

Trip class		CLASS 10
Type of assignment		2
Size of overload relay		S00
Size of the contactor / can be combined • company-specific		S00

Main circuit:		
Number of poles / for main current circuit		3
Operating voltage / at AC-3 / rated value • maximum	V	690
Operating current / at AC-3 / at 400 V • rated value	A	5
Service power / at AC-3 • at 400 V / rated value • at 500 V / rated value • at 690 V / rated value	kW kW kW	1.5 2.2 4
Adjustable response current • of the current-dependent overload release	A	3.5 ... 5
Operating current / of the fuse link / rated value	A	20

Auxiliary circuit:		
Contact reliability / of the auxiliary contacts		< 1 error per 100 million operating cycles
Number of NC contacts / for auxiliary contacts		1
Number of NO contacts / for auxiliary contacts		1
Number of change-over switches / for auxiliary contacts		0
Operating current / of the auxiliary contacts • at AC-15 • at 24 V • at 110 V • at 120 V • at 125 V • at 230 V • at 400 V • at DC-13 • at 24 V • at 110 V • at 125 V • at 220 V	A A A A A A A A A A A A A	3 3 3 3 2 1 1 0.22 0.22 0.11

Short-circuit:		
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Design of the fuse link / for short-circuit protection of the auxiliary switch / required		fuse gG: 10 A
Installation/mounting/dimensions:		
Built in orientation		vertical
Type of mounting		stand-alone installation
Width	mm	45
Height	mm	87
Depth	mm	73
Distance, to be maintained, to the ranks assembly		
• forwards	mm	0
• backwards	mm	0
• upwards	mm	6
• downwards	mm	6
• sideways	mm	6
Distance, to be maintained, to earthed part		
• forwards	mm	0
• backwards	mm	0
• upwards	mm	6
• downwards	mm	6
• sideways	mm	6
Distance, to be maintained, conductive elements		
• forwards	mm	0
• backwards	mm	0
• upwards	mm	6
• downwards	mm	6
• sideways	mm	6
Connections:		
Design of the electrical connection		
• for main current circuit		spring-loaded terminals
• for auxiliary and control current circuit		spring-loaded terminals
Product function / removable terminal for auxiliary and control circuit		No
Type of the connectable conductor cross-section		
• for main contacts		
• solid		2x (0.5 ... 4 mm ²)
• stranded		2x (0.5 ... 4 mm ²)
• finely stranded		
• with conductor end processing		2 x (0.5 ... 2.5 mm ²)
• without conductor final cutting		2x (0.5 ... 2.5 mm ²)

- for AWG conductors / for main contacts
- for auxiliary contacts
 - solid
 - finely stranded
 - with conductor end processing
 - without conductor final cutting
- for AWG conductors / for auxiliary contacts

1x (20 ... 12)

2x (0.5 ... 2.5 mm²)

2x (0.5 ... 1.5 mm²)

2 x (0.5 ... 1.5 mm²)

2x (20 ... 14)

Certificates/approvals:

Verification of suitability

- ATEX

CE / UL / CSA

No

General Product Approval

For use in
hazardous
locations

Test Certificates



CQC



CSA

[ROSTEST](#)



UL

[DEKRA EXAM,](#)
[DMT](#)

[Manufacturer](#)

Shipping Approval



ABS



DNV



GL



LRS



PRS



RINA

Shipping Approval

other



RMRS

[Manufacturer](#)

Reliability figures:

Mean time to failure (MTTF) / with high demand rate

a

2,280

Proportion of dangerous failures

- with low demand rate / according to SN 31920
- with high demand rate / according to SN 31920

%

50

%

50

Failure rate (FIT value) / with low demand rate

- according to SN 31920

FIT

50

T1 value / for proof test interval or service life

- according to IEC 61508

a

20

Protection against electrical shock

finger-safe

Further information:

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

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

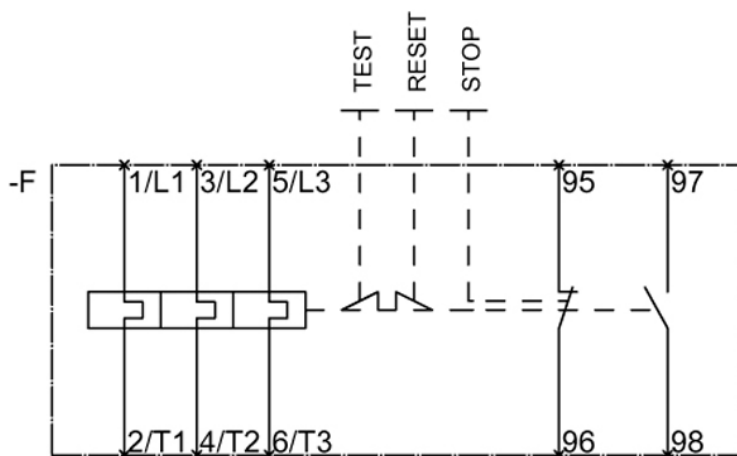
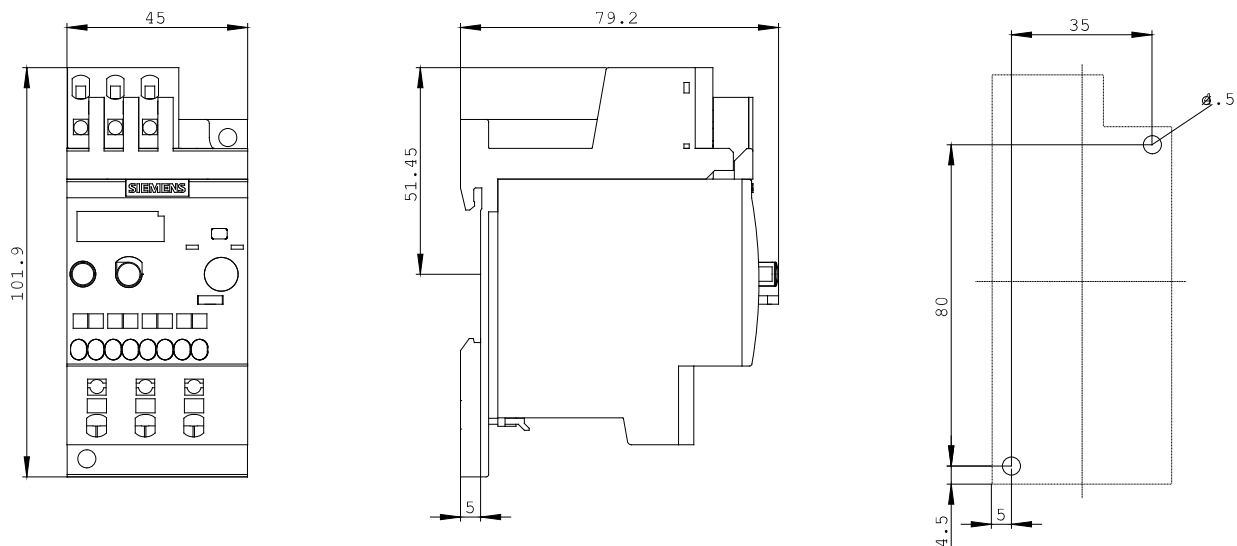
Industry Mall (Online ordering system)

<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/3RU2116-1FC1/all>

Image database (product images, 2D dimension drawings, 3D models, device circuit diagrams, ...)
http://www.automation.siemens.com/bilddb/cax_en.aspx?mlfb=3RU2116-1FC1



last change:

Oct 17, 2011