

MONITORING RELAY ATTACHABLE TO CONTACTOR
3RT2. SIZE S0 BASIC,
ANALOG ADJUSTABLE APPARENT CURRENT
MONITORING 4 - 40A,
50-60 HZ, 2-PHASE

General technical data:

Product brand name		SIRIUS
Product designation		multi-phase current monitoring
Design of the product		multi-phase current monitoring
Size of the contactor / can be combined / company-specific		S0
Protection class IP • frontal/front side • of the terminal		IP20 IP20
Insulation voltage / for overvoltage category III according to IEC 60664 / with degree of pollution 3 • rated value	V	690
Altitude of installation site / at a height over sea level / maximum	m	2,000
Ambient temperature • during storage • during the operating phase	°C °C	-40 ... 80 -25 ... 60
EMC immunity to interference • according to IEC 60947-1		ambience A (industrial sector)
EMC emitted interference • according to IEC 60947-1		ambience A (industrial sector)
Resistance against shock		15g / 11 ms
Resistance against vibration		10 ... 55 Hz / 0.35 mm
Impulse voltage resistance / rated value	kV	6
Operating apparent output / rated value	V·A	3.5
Service power / rated value	W	2.5
Item designation • according to DIN 40719 extendable after IEC 204-2 / according to IEC 750 • according to DIN EN 61346-2		K K
Mechanical operating cycles as operating time • typical		10,000,000

Electrical operating cycles as operating time / at AC-15 / at 230 V		
• typical		100,000
Adjustable ON delay time		
• when starting	s	0 ... 60
• with lower or upper limit violation	s	0 ... 30
Standby time / for restart after fault	s	0.3
Phase number		2
Number of monitored phases		2
Product function		
• overcurrent monitoring		Yes
• undercurrent monitoring		Yes
• overcurrent and undercurrent monitoring		Yes
• apparent current monitoring		Yes
• active current monitoring		No
• Undercurrent recognition DC		No
• Undercurrent recognition of 1 phase		No
• Overcurrent recognition DC		No
• Current window recognition DC		No
• Undercurrent recognition of 3 phases		No
• Overcurrent recognition of 1 phase		No
• Tension window recognition of 3 phases		No
• Tension window recognition of 1 phase		No
• Phase sequence recognition		No
• can be activated or deactivated / phase sequence recognition		No
• Self-reset		Yes
• Reset external		No
• Manual RESET		Yes
Adjustable response current		
• 1	A	4 ... 40
• 2	A	4 ... 40
Relative metering precision		
• with regard to measuring range limit	%	10
Type of current / for monitoring		AC
Measurable current / for AC	A	4 ... 40
Relative switching hysteresis / for measured current value	%	6.25
Response time / maximum	ms	300
Relative repeat accuracy	%	2
Temperature drift per °C	%/°C	0.1
Current carrying capacity		

- for permanent overcurrent / max. permissible
- for overcurrent duration < 1 a / max. permissible

A	40
A	800

Supply voltage:

Type of voltage / of the supply voltage

AC/DC

Supply voltage frequency / 1

Hz 50 ... 60

Supply voltage / 1

- for DC
- at 50 Hz / for AC
- at 60 Hz / for AC

V	24 ... 240
V	24 ... 240
V	24 ... 240

Stored energy time / supply voltage failure / minimum

ms 10

Auxiliary circuit:

Design of the contact element / of the output relay

closed-circuit current

Operating current / at 17 V / minimum

mA 5

Number of change-over switches

- for auxiliary contact

1

Operating current / of the auxiliary contacts

- at AC-15
 - at 24 V
 - at 230 V
 - at 400 V
- at DC-13
 - at 24 V
 - at 125 V
 - at 250 V

A	3
A	3
A	3
A	1
A	0.2
A	0.1

Inputs/ Outputs:

Short-circuit:

Installation/mounting/dimensions:

built in orientation

any

Type of fixing/fixation

direct mounting

Width

mm 45

Height

mm 109

Depth

mm 93

distance, to be maintained, to the ranks assembly

- forwards
- backwards
- upwards
- downwards

mm	0
mm	0
mm	0
mm	0

• sideways	mm	0
distance, to be maintained, to earthed part		
• forwards	mm	6
• backwards	mm	0
• upwards	mm	6
• downwards	mm	6
• sideways	mm	6
distance, to be maintained, conductive elements		
• forwards	mm	6
• 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 main circuit		No
• removable terminal for auxiliary and control circuit		Yes
Type of the connectable conductor cross-section		
• for main contacts		
• unifilar		1x (1 ... 10 mm ²)
• stranded wire		
• with conductor end processing		1x (1 ... 6 mm ²)
• without conductor final cutting		1x (1 ... 6 mm ²)
• at AWG-conductors / for main contacts		1x (18 ... 8)
• for auxiliary contact		
• solid		0.5 ... 4 mm ² , 2x (0.5 ... 2.5 mm ²)
• stranded wire		
• with wire end processing		2x (0.25 ... 1.5 mm ²)
• without conductor final cutting		2x (0.25 ... 1.5 mm ²)
• for AWG conductors / for auxiliary contacts		2x (24 ... 16)
Tightening torque		
• at screw-type terminals	N·m	0.8 ... 1.2

Certificates/approvals:

verification of suitability	CE / UL / CSA
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Further information:

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

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

Global Industry Mall (Online ordering system)

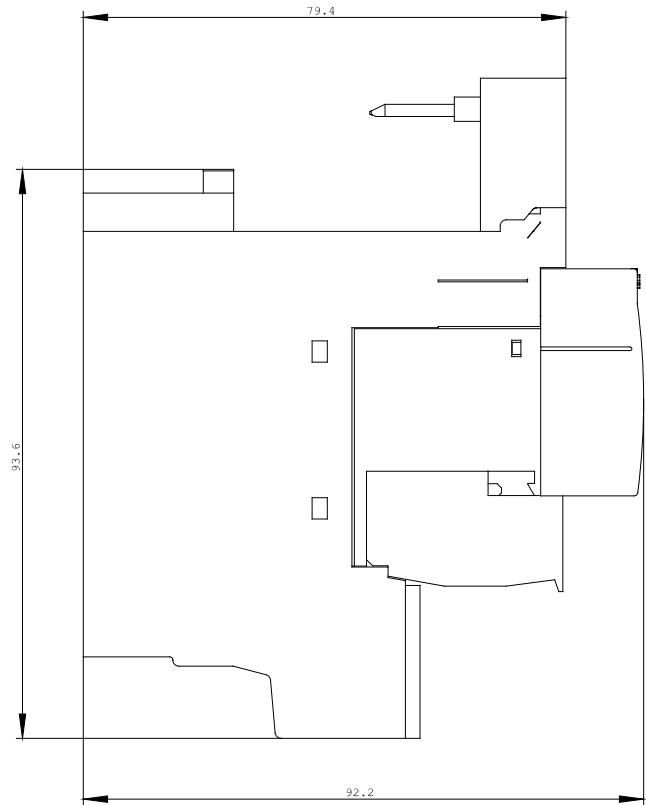
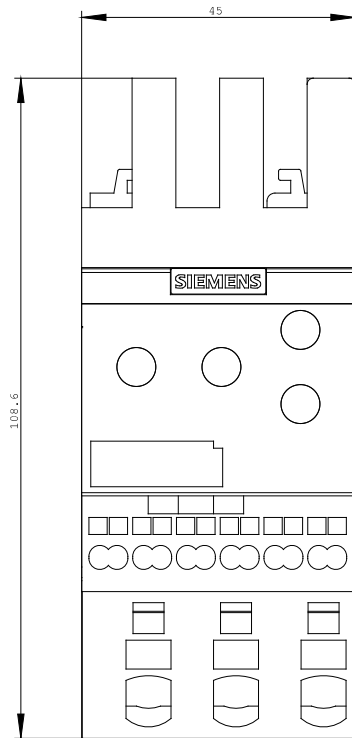
<http://www.siemens.com/industrial-controls/mall>

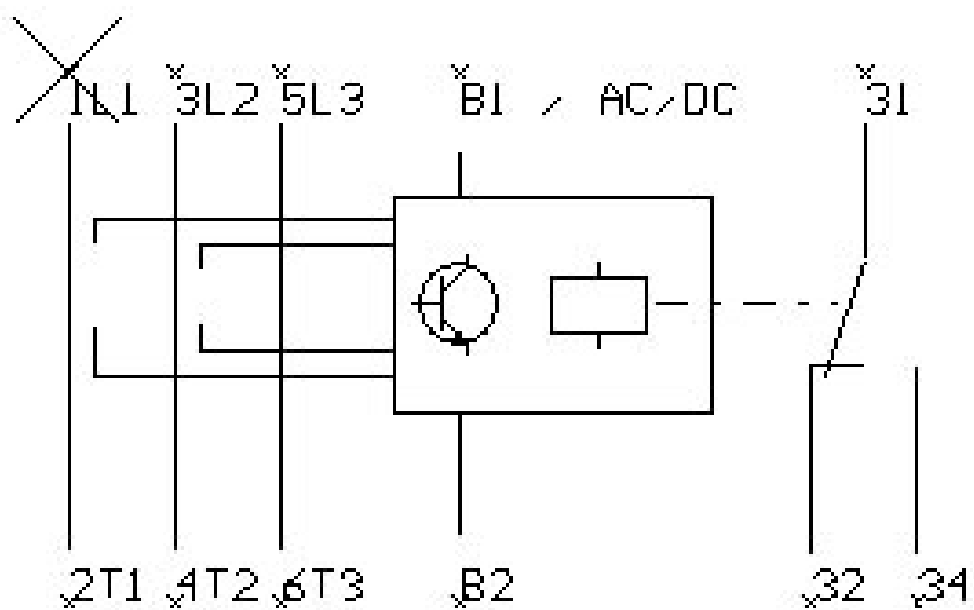
Service&Support (Manuals, Certificates, Characteristics, FAQs,...)

<http://support.automation.siemens.com/WW/view/en/3RR2142-2AW30/all>

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

http://www.automation.siemens.com/bilddb/cax_en.aspx?mlfb=3RR2142-2AW30





last change:

May 10, 2010