

MONITORING RELAY ATTACHABLE TO CONTACTOR
3RT2. SIZE S0 STANDARD,
DIGITAL ADJUSTABLE APPARENT/ACTIVE CURRENT
MONIT. 4 - 40A,
20-400 HZ, 3-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		IP20
<ul style="list-style-type: none"> • frontal/front side • of the terminal 		IP20
Insulation voltage / for overvoltage category III according to IEC 60664 / with degree of pollution 3		
<ul style="list-style-type: none"> • rated value 	V	690
Altitude of installation site / at a height over sea level / maximum	m	2,000
Ambient temperature		
<ul style="list-style-type: none"> • during storage • during the operating phase 	°C	-40 ... 80
	°C	-25 ... 60
EMC immunity to interference		
<ul style="list-style-type: none"> • according to IEC 60947-1 		ambience A (industrial sector)
EMC emitted interference		
<ul style="list-style-type: none"> • 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		
<ul style="list-style-type: none"> • 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		
<ul style="list-style-type: none"> • typical 		10,000,000

Electrical operating cycles as operating time / at AC-15 / at 230 V • typical		100,000
Precision of digital display		+/-1 digit
Adjustable ON delay time • when starting • with lower or upper limit violation	s s	0 ... 99 0 ... 30
Standby time / for restart after fault	s	0.2
Phase number		3
Number of monitored phases		3
Product function • overcurrent monitoring • undercurrent monitoring • overcurrent and undercurrent monitoring • apparent current monitoring • active current monitoring • Undercurrent recognition DC • Undercurrent recognition of 1 phase • Overcurrent recognition DC • Current window recognition DC • Undercurrent recognition of 3 phases • Overcurrent recognition of 1 phase • Tension window recognition of 3 phases • Tension window recognition of 1 phase • Phase sequence recognition • can be activated or deactivated / phase sequence recognition • Self-reset • Reset external • Manual RESET		Yes Yes Yes Yes Yes No No No No Yes No No No Yes Yes Yes No Yes
Adjustable response current • 1 • 2	A A	4 ... 40 4 ... 40
Factor / as multiple of the current monitoring upper limit • for the adjustable value of a blocking current		2 ... 5
Response value residual current detection / at 50/60 Hz • typical	A	4
Type of current / for monitoring		AC
Measurable current / for AC	A	4 ... 40
Adjustable switching hysteresis for measured current value	A	0.1 ... 8
Response time / maximum	ms	200

Relative repeat accuracy	%	2
Temperature drift per °C	%/°C	0.1
Current carrying capacity		
• for permanent overcurrent / max. permissible	A	40
• for overcurrent duration < 1 a / max. permissible	A	800

Supply voltage:

Type of voltage / of the supply voltage		AC/DC
Supply voltage frequency / 1	Hz	50 ... 60
Supply voltage / 1		
• at DC / rated value	V	24
• at 50 Hz / for AC / rated value	V	24
• at 60 Hz / for AC / rated value	V	24
Stored energy time / supply voltage failure / minimum	ms	10

Auxiliary circuit:

Design of the contact element / of the output relay		closed-circuit current / open-circuit current
Operating current / at 17 V / minimum	mA	5
Number of outputs / as contact-less semiconductor switching element / for reporting function		
• non-delayed		1
Current carrying capacity / of the semiconductor output		
• at DC-13 / at 240 V	mA	20
• at AC-14 / at 240 V / at 50/60 Hz	mA	20
Residual current / of the semiconductor output / max.	mA	0.035
Number of change-over switches		
• for auxiliary contact		1
Operating current / of the auxiliary contacts		
• at AC-15		
• at 24 V	A	3
• at 230 V	A	3
• at 400 V	A	3
• at DC-13		
• at 24 V	A	1
• at 125 V	A	0.2
• at 250 V	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	mm	0
• backwards	mm	0
• upwards	mm	0
• downwards	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
 - without conductor final cutting
- for AWG conductors / for auxiliary contacts

2x (0.25 ... 1.5 mm²)
 2x (0.25 ... 1.5 mm²)
 2x (24 ... 16)

Tightening torque

- at screw-type terminals

N-m 0.8 ... 1.2

Certificates/approvals:

verification of suitability

CE / UL / CSA

Further information:

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

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

Global Industry Mall (Online ordering system)

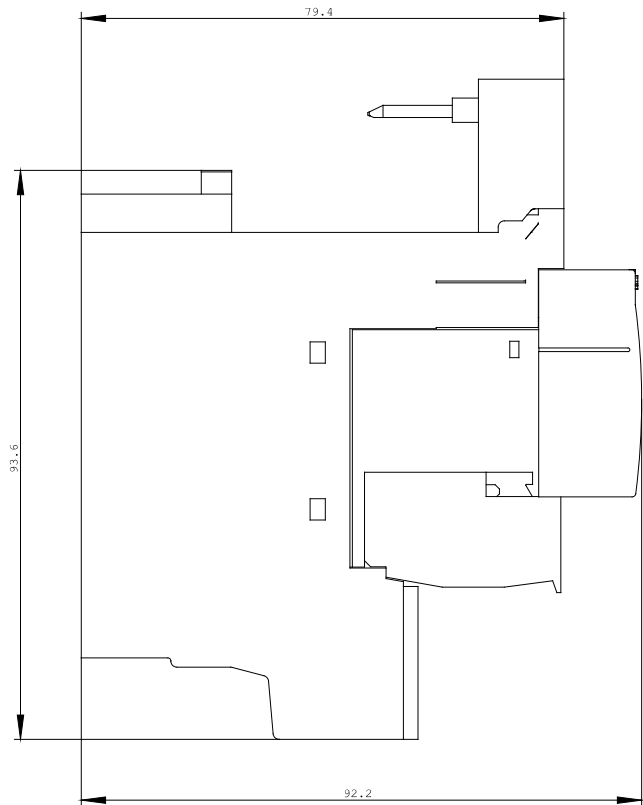
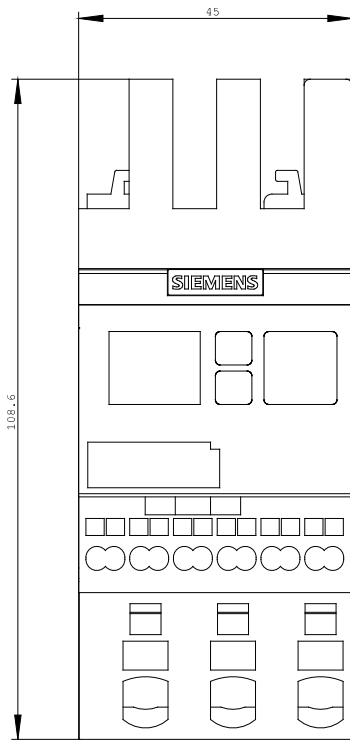
<http://www.siemens.com/industrial-controls/mall>

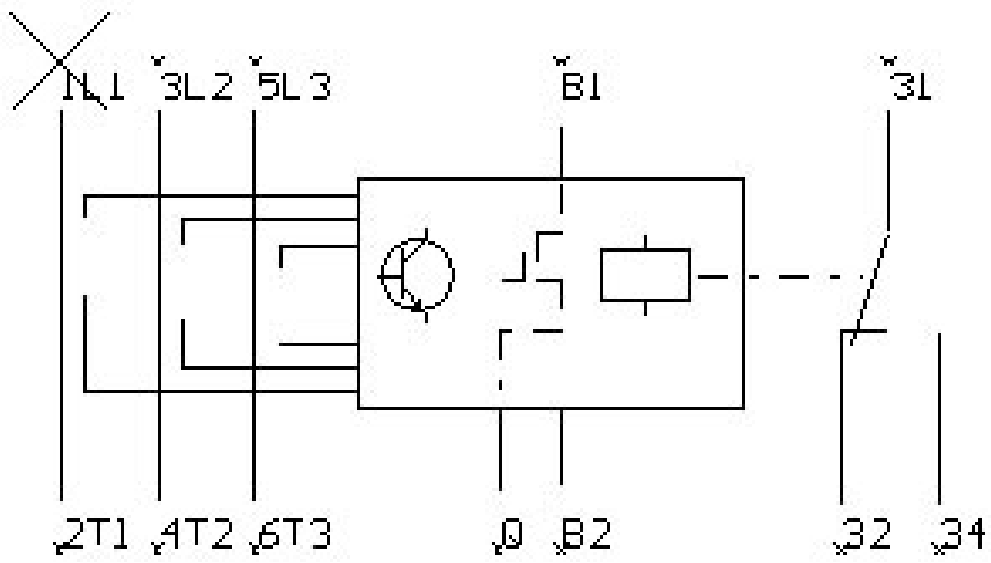
Service&Support (Manuals, Certificates, Characteristics, FAQs,...)

<http://support.automation.siemens.com/WW/view/en/3RR2242-2FA30/all>

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

http://www.automation.siemens.com/bilddb/cax_en.aspx?mlfb=3RR2242-2FA30





last change:

May 10, 2010