



MONITORING RELAY ATTACHABLE TO CONTACTOR
3RT2. SIZE S0 STANDARD,
DIGITAL ADJUSTABLE APPARENT/ACTIVE CURRENT
MONIT. 4 - 40A,
20-400 HZ,
3-PHASE SUPPLY 24-240 V AC/DC 1 CO CONTACT,
1 SEMICOND. FOR ALARM AND WARNING MONITORING
FOR CURRENT OVERSHOOT/UNDERSHOOT PHASE
FAILURE,
WIRE BREAK PHASE SEQUENCE FAULT CURRENT
BLOCKING CURRENT WARNING AND ALARM
THRESHOLDS WITH OR W/O ERROR LOG ON-DELAY 0-
99 S SPURIOUS PEAK SUPPR.0-30 S BREAK AFTER
FAULT 0-300 MIN SPRING-LOADED CONNECTION

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
Insulation voltage / for overvoltage category III according to IEC 60664 / with degree of pollution 3		
• rated value	V	690
Installation altitude / at a height over sea level / maximum	m	2,000
Ambient temperature		
• during storage	°C	-40 ... 80
• during operating	°C	-25 ... 60
Electromagnetic compatibility		IEC 60947-1 / IEC 61000-6-2 / IEC 61000-6-4
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
Rating / 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 <ul style="list-style-type: none"> • typical 		100,000
Precision of digital display		+/-1 digit
Adjustable response delay time <ul style="list-style-type: none"> • 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 <ul style="list-style-type: none"> • 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 <ul style="list-style-type: none"> • 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
Relative metering precision • with regard to measured value	%	5
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 / maximum permissible • for overcurrent duration < 1 s / maximum permissible	A A	40 800

Supply voltage:

Type of voltage / of 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 V V	24 ... 240 24 ... 240 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 / 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 • at AC-14 / at 240 V / at 50/60 Hz	mA mA	20 20
Residual current / of the semiconductor output / maximum	mA	0.035
Number of change-over switches • for auxiliary contacts		1
Operating current / of the auxiliary contacts • at AC-15 • at 24 V • at 230 V	A A	3 3

- at 400 V
- at DC-13
- at 24 V
- at 125 V
- at 250 V

A	3
A	1
A	0.2
A	0.1

Inputs/ Outputs:

Short-circuit:

Installation/mounting/dimensions:

Built in orientation		any
Type of mounting		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 <ul style="list-style-type: none"> • for main contacts <ul style="list-style-type: none"> • solid • finely stranded <ul style="list-style-type: none"> • with conductor end processing • without conductor final cutting • for AWG conductors / for main contacts • for auxiliary contacts <ul style="list-style-type: none"> • solid • finely stranded <ul style="list-style-type: none"> • with conductor end processing • without conductor final cutting • for AWG conductors / for auxiliary contacts 		1x (1 ... 10 mm ²) 1x (1 ... 6 mm ²) 1x (1 ... 6 mm ²) 1x (18 ... 8) 1x (0.5 ... 4 mm ²), 2x (0.5 ... 2.5 mm ²) 2x (0.25 ... 1.5 mm ²) 2x (0.25 ... 1.5 mm ²) 2x (24 ... 16)
Tightening torque <ul style="list-style-type: none"> • with screw-type terminals 	N·m	0.8 ... 1.2

Certificates/approvals:

Verification of suitability

CE / UL / CSA

General Product Approval

Test Certificates



CQC



CSA

[ROSTEST](#)



UL

[Manufacturer](#)

[other](#)

Shipping Approval

other



ABS



DNV



GL



LRS



RMRS

[Manufacturer](#)

UL/CSA ratings:

Contact rating designation / for auxiliary contacts / according to UL

B300 / R300

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:

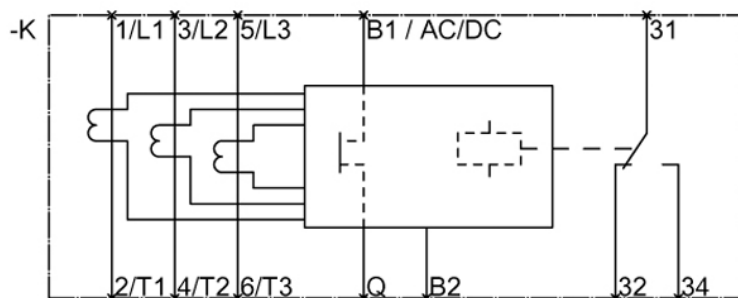
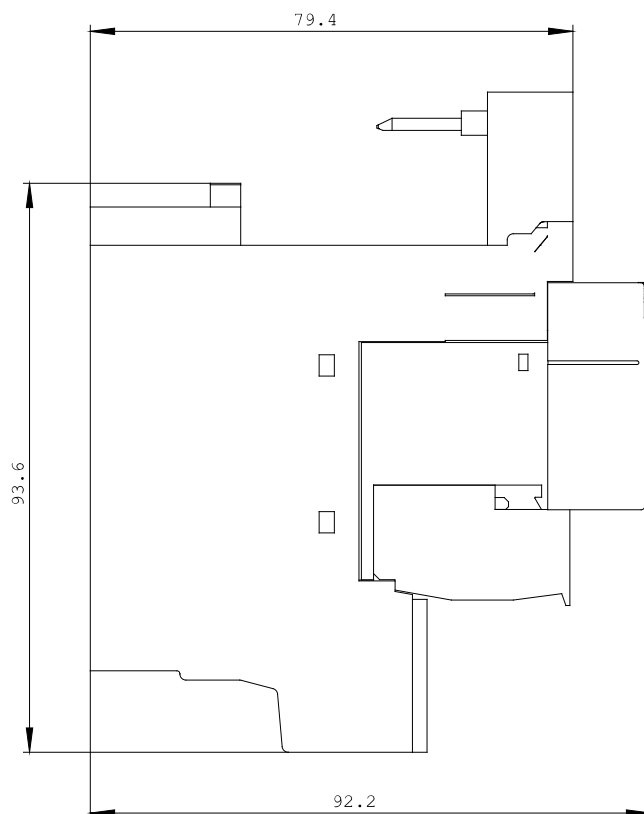
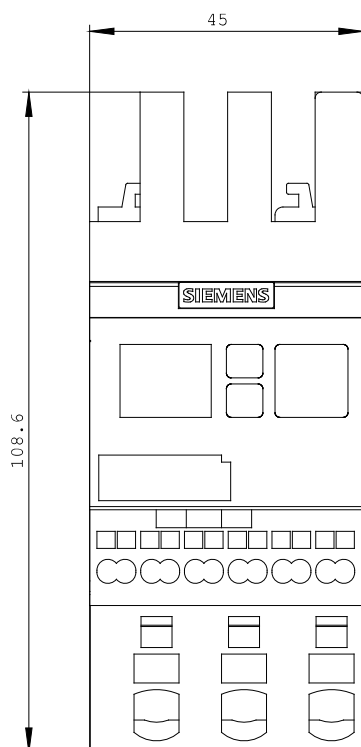
<http://www.siemens.com/cax>

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

<http://support.automation.siemens.com/WW/view/en/3RR2242-2FW30/all>

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

http://www.automation.siemens.com/bilddb/cax_en.aspx?mlfb=3RR2242-2FW30



last change:

Oct 24, 2011