

MONITORING RELAY ATTACHABLE TO CONTACTOR
 3RT2. SIZE S0 BASIC,
 ANALOG ADJUSTABLE APPARENT CURRENT
 MONITORING 4 - 40A,
 50-60 HZ,
 2-PHASE SUPPLY 24 V AC/DC 1 CO CONTACT
 MONITORING FOR CURRENT
 OVERSHOOT/UNDERSHOOT PHASE FAILURE,
 WIRE BREAK WITH OR W/O ERROR LOG ON-DELAY 0-60
 S SPURIOUS PEAK SUPPR.0-30 S SWITCHING
 HYSTERESIS 6% SCREW 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
Protection class IP		
<ul style="list-style-type: none"> on the front 		IP20
<ul style="list-style-type: none"> 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
Installation altitude / at a height over sea level / maximum	m	2,000
Ambient temperature		
<ul style="list-style-type: none"> during storage 	°C	-40 ... +80
<ul style="list-style-type: none"> during operating 	°C	-25 ... +60
Electromagnetic compatibility		IEC 60947-1 / IEC 61000-6-2 / IEC 61000-6-4
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	4
Rating / Rated value	W	2.5
Reference code		
<ul style="list-style-type: none"> • according to DIN 40719 extended according to 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
Adjustable response delay time		
<ul style="list-style-type: none"> • when starting 	s	0 ... 60
<ul style="list-style-type: none"> • with lower or upper limit violation 	s	0 ... 30
Standby time / for restart after fault	s	0.3
Phase number		3
Number of monitored phases		2
Product function		
<ul style="list-style-type: none"> • overcurrent monitoring 		Yes
<ul style="list-style-type: none"> • undercurrent monitoring 		Yes
<ul style="list-style-type: none"> • overcurrent and undercurrent monitoring 		Yes
<ul style="list-style-type: none"> • apparent current monitoring 		Yes
<ul style="list-style-type: none"> • active current monitoring 		No
<ul style="list-style-type: none"> • undercurrent recognition DC 		No
<ul style="list-style-type: none"> • undercurrent recognition of 1 phase 		No
<ul style="list-style-type: none"> • overcurrent recognition DC 		No
<ul style="list-style-type: none"> • current window recognition DC 		No
<ul style="list-style-type: none"> • undercurrent recognition of 3 phases 		No
<ul style="list-style-type: none"> • overcurrent recognition of 1 phase 		No
<ul style="list-style-type: none"> • tension window recognition of 3 phases 		No
<ul style="list-style-type: none"> • tension window recognition of 1 phase 		No
<ul style="list-style-type: none"> • phase sequence recognition 		No
<ul style="list-style-type: none"> • can be activated or deactivated / phase sequence recognition 		No
<ul style="list-style-type: none"> • self-reset 		Yes
<ul style="list-style-type: none"> • reset external 		No
<ul style="list-style-type: none"> • 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 / maximum permissible	A	40
• for overcurrent duration < 1 s / maximum permissible	A	800

Supply voltage:

Type of / supply voltage		AC/DC
Supply voltage frequency / 1	Hz	50 ... 60
Supply voltage / 1		
• for 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
Operating current / at 17 V / minimum	mA	5
Number of change-over switches		
• for auxiliary contacts		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:		
mounting position		any
Mounting type		direct mounting
Width	mm	45
Height	mm	87
Depth	mm	91
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		screw-type terminals
• for auxiliary and control current circuit		screw-type 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		
• solid		2x (1 ... 2.5 mm ²), 2x (2.5 ... 10 mm ²)
• finely stranded		
• with conductor end processing		2x (1 ... 2.5 mm ²), 2x (2.5 ... 6 mm ²), 1x 10 mm ²
• for AWG conductors / for main contacts		2 x (16 ... 14), 2x (14 ... 8)
• for auxiliary contacts		
• solid		1x (0.5 ... 4 mm ²), 2x (0.5 ... 2.5 mm ²)

<ul style="list-style-type: none"> finely stranded with conductor end processing for AWG conductors / for auxiliary contacts 		1x (0.5 ... 2.5 mm ²), 2x (0.5 ... 1.5 mm ²) 2x (20 ... 14)
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	
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General Product Approval	EMC	Declaration of Conformity
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CCC



CSA



UL



C-TICK



EG-Konf.

Test Certificates

[Special Test Certificate](#)

[Type Test Certificates/Test Report](#)

Shipping Approval



ABS



BUREAU VERITAS



DNV



GL



LRS



RINA

Shipping Approval other



RMRS

[Environmental Confirmations](#)

UL/CSA ratings:

Contact rating designation / for auxiliary contacts / according to UL	B300 / R300
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Reliability figures:

Protection against electrical shock	finger-safe
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Further information:

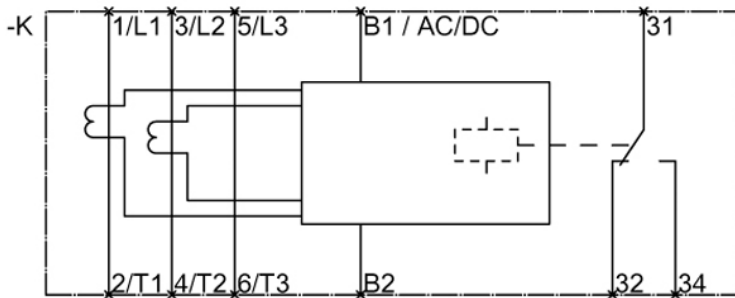
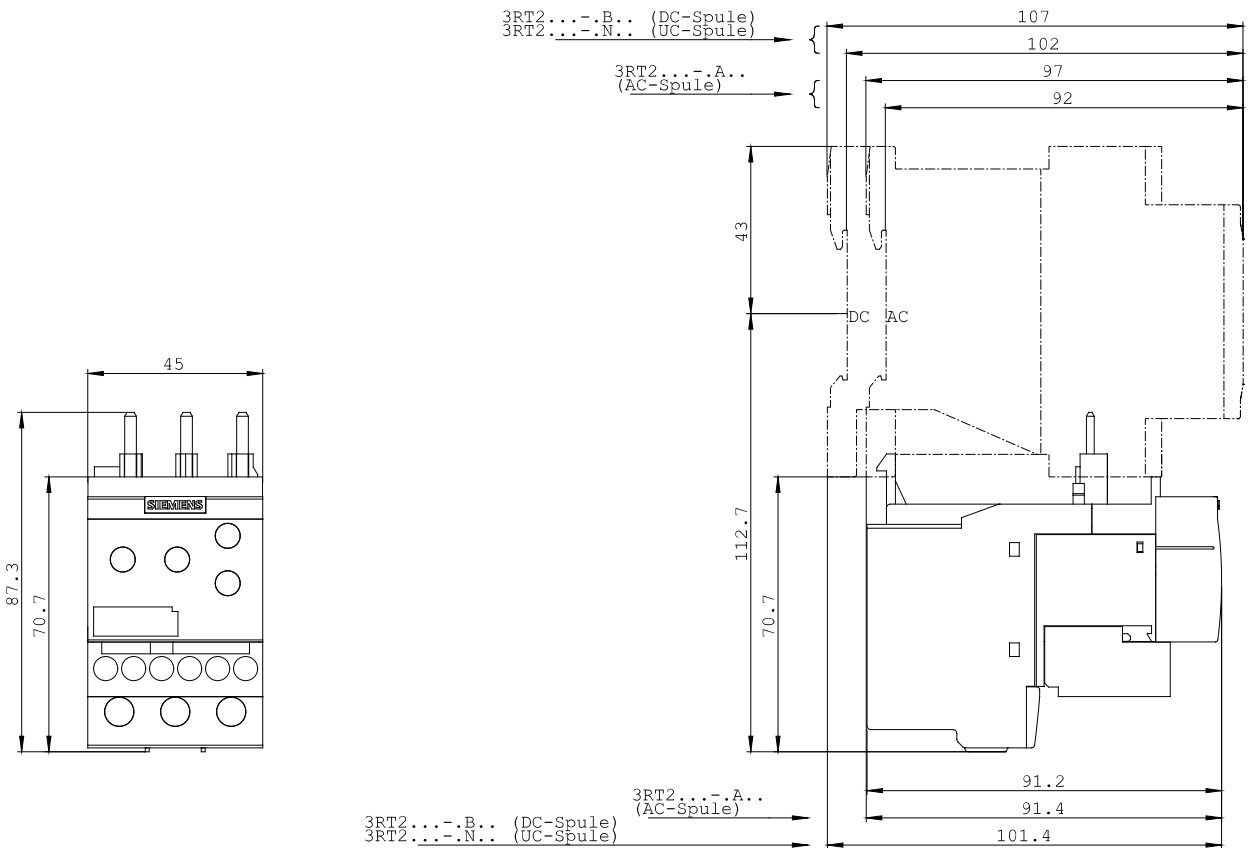
Information- and Downloadcenter (Catalogs, Brochures,...)
<http://www.siemens.com/industrial-controls/catalogs>

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Cax online generator:
<http://www.siemens.com/cax>

Service&Support (Manuals, Certificates, Characteristics, FAQs,...)
<http://support.automation.siemens.com/WW/view/en/3RR2142-1AA30/all>

Image database (product images, 2D dimension drawings, 3D models, device circuit diagrams, ...)
http://www.automation.siemens.com/bilddb/cax_en.aspx?mlfb=3RR2142-1AA30



last change:

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