



MONITORING RELAY ATTACHABLE TO CONTACTOR
3RT2. SIZE S0 BASIC,
ANALOG ADJUSTABLE APPARENT CURRENT
MONITORING 4 - 40A,
50-60 HZ,
2-PHASE SUPPLY 24-240 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
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
Adjustable response delay time <ul style="list-style-type: none"> • when starting • with lower or upper limit violation 	s s	0 ... 60 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 • 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 No No No No No No No No No No No Yes No Yes
Adjustable response current <ul style="list-style-type: none"> • 1 • 2 	A A	4 ... 40 4 ... 40
Relative metering precision		

• with regard to measuring range limit	%	5
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 voltage / of supply voltage		AC/DC
Supply voltage frequency / 1	Hz	50 ... 60
Supply voltage / 1		
• for DC	V	24 ... 240
• at 50 Hz / for AC	V	24 ... 240
• at 60 Hz / for AC	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 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:		
Built in orientation		any
Type of mounting		direct mounting

Width	mm	45
Height	mm	88
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		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)
• finely stranded		
• with conductor end processing		1x (0.5 ... 2.5 mm ²), 2x (0.5 ... 1.5 mm ²)
• for AWG conductors / for auxiliary contacts		2x (20 ... 14)

Tightening torque

- 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

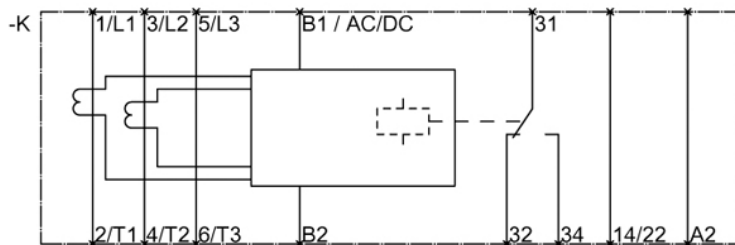
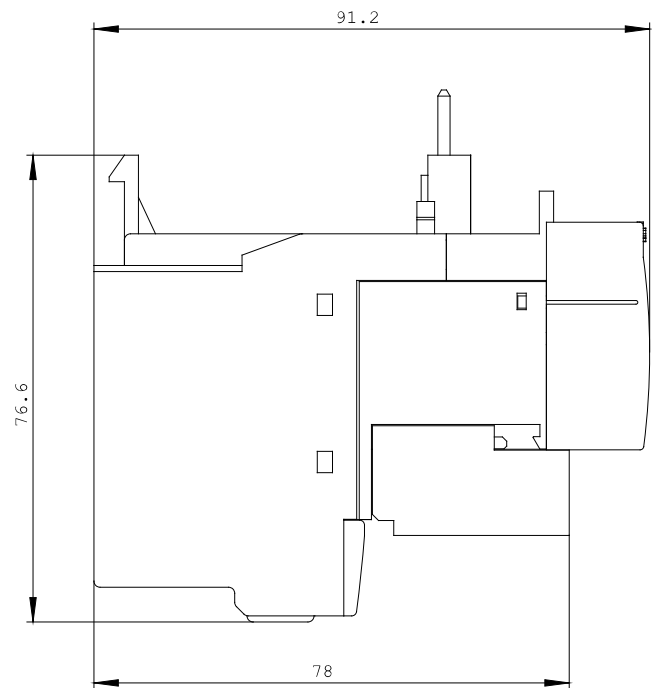
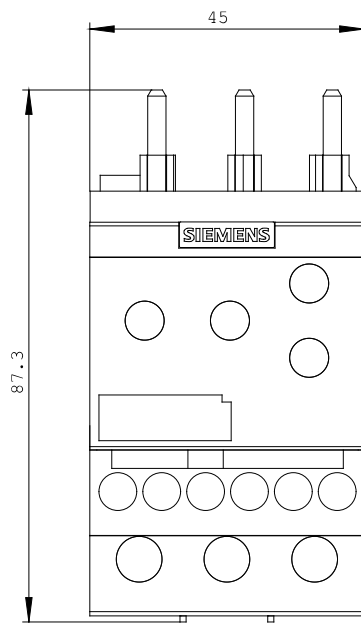


RMRS

[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/3RR2142-1AW30/all>**Image database (product images, 2D dimension drawings, 3D models, device circuit diagrams, ...)**http://www.automation.siemens.com/bilddb/cax_en.aspx?mlfb=3RR2142-1AW30



last change:

Oct 24, 2011