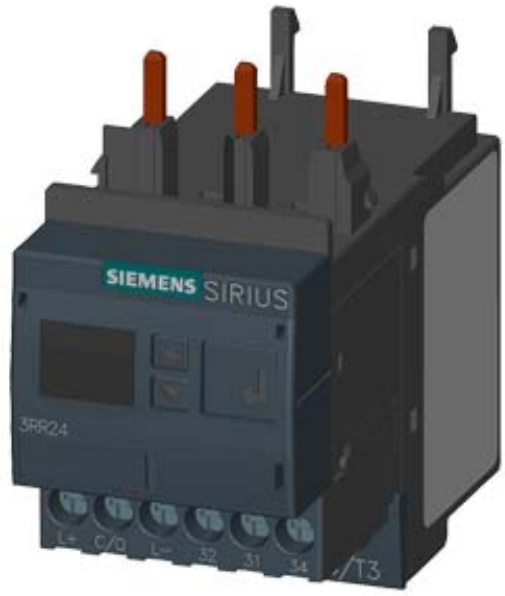
SIEMENS

Product data sheet 3RR2442-1AA40



CURRENT MONITORING RELAY MOUNTABLE ON CONT. 3RT2,
SZ. S0,
APPARENT/ACTIVE CURR. MONIT. 4 - 40A,
20-400 HZ, 3-PH., SUPPLY 24 V DC,
1 CO CONTACT,
MONITORING F. CURRENT OVER-/UNDERSHOOT,
CURRENT ASYMMETRY,
PHASE FAILURE / WIRE BREAK,
PHASE SEQUENCE, FAULT CURRENT,
BLOCKING CURRENT,
SWITCHING CYCLE/OP. HOURS COUNTER,
WARNING/ALARM THRESHOLDS,
AUTO OR MANUAL RESET ON-DELAY 0-999.9 S OFF-DELAY 0-999.9 S RECLOSING DELAY 0-999.9MIN
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		
• on the front		IP20
• of the terminal		IP20
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	2.5
Rating / Rated value	W	2.5
Reference code		
• according to DIN 40719 extended according to IEC 204-2 / according to IEC 750		K
• according to DIN EN 61346-2		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
Precision of digital display		+/-1 digit
Adjustable response delay time		
• when starting	s	0 … 999.9
• with lower or upper limit violation	s	0 … 999.9
Standby time / for restart after fault	s	0.2
Phase number		3
Number of monitored phases		3
Product function		
• overcurrent monitoring		Yes
• undercurrent monitoring		Yes
• overcurrent and undercurrent monitoring		Yes
• apparent current monitoring		Yes
• active current monitoring		Yes
• undercurrent recognition DC		No
• undercurrent recognition of 1 phase		No
• overcurrent recognition DC		No
• current window recognition DC		No
• undercurrent recognition of 3 phases		Yes
• overcurrent recognition of 1 phase		No
• tension window recognition of 3 phases		No
• tension window recognition of 1 phase		No
• phase sequence recognition		Yes
• can be activated or deactivated / phase sequence recognition		Yes
• self-reset		Yes
• reset external		Yes
• manual RESET		Yes

Adjustable response current		
• 1	A	4 … 40
• 2	A	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	A	40
• for overcurrent duration < 1 s / maximum permissible	A	800

Supply voltage:

Type of / supply voltage		DC
Supply voltage / 1		
• for DC / rated value	V	24
• for DC	V	18 … 30

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 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 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
• sidewards	mm	0
Distance, to be maintained, to earthed part		
• forwards	mm	6
• backwards	mm	0
• upwards	mm	6
• downwards	mm	6
• sidewards	mm	6
Distance, to be maintained, conductive elements		
• forwards	mm	6
• backwards	mm	0
• upwards	mm	6
• downwards	mm	6
• sidewards	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 mm²), 2x (2.5 ... 10 mm²)
• finely stranded		
• with conductor end processing		2x (1 ... 2.5 mm²), 2x (2.5 ... 6 mm²), 1x 10 mm²
• for AWG conductors / for main contacts		2 x (16 ... 14), 2x (14 ... 8)

• for auxiliary contacts		
• solid		1x (0.5 ... 4 mm²), 2x (0.5 ... 2.5 mm²)
• finely stranded		
• with conductor end processing		1x (0.5 ... 2.5 mm²), 2x (0.5 ... 1.5 mm²)
• 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

CCC CSA EAC Manufacturer declartion UL

Shipping Approval	**other**

DNV RINA RMRS Environmental Confirmations

UL/CSA ratings:

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

Reliability figures:

Protection against electrical shock		finger-safe

Further information:

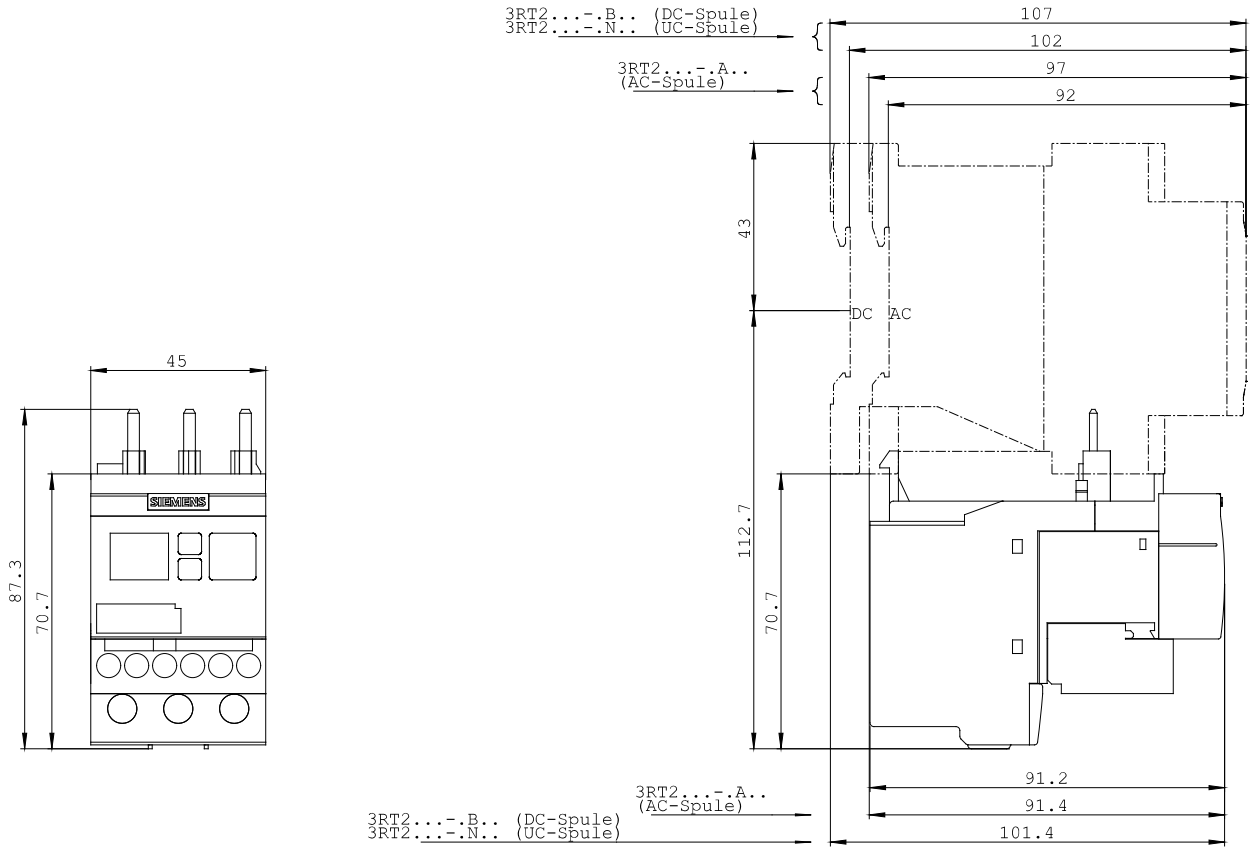
Information- and Downloadcenter (Catalogs, Brochures,…)
http://www.siemens.com/industrial-controls/catalogs

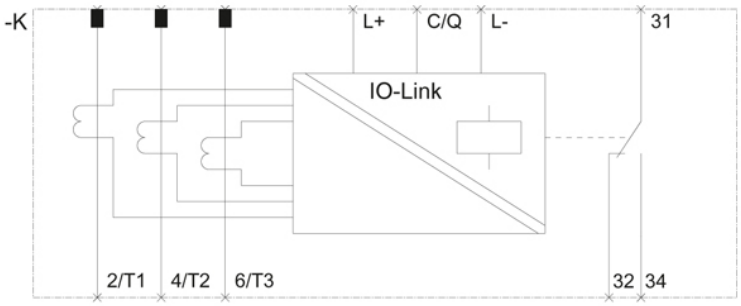
Industry Mall (Online ordering system)
http://www.siemens.com/industrial-controls/mall

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

Service&Support (Manuals, Certificates, Characteristics, FAQs,...)
http://support.automation.siemens.com/WW/view/en/3RR2442-1AA40/all

Image database (product images, 2D dimension drawings, 3D models, device circuit diagrams, ...)
http://www.automation.siemens.com/bilddb/cax_en.aspx?mlfb=3RR2442-1AA40





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