SIEMENS

Data sheet 3RR2441-1AA40



CURRENT MONITORING RELAY MOUNTABLE ON CONT. 3RT2, SZ. S00, APPARENT/ACTIVE CURR. MONIT.1.6 - 16A, 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 ONDELAY 0-999.9 S OFF-DELAY 0-999.9 S RECLOSING DELAY 0-999.9MIN SCREW CONNECTION

Seneral technical data:		
product brand name		SIRIUS
Product designation		multi-phase current monitoring
Design of the product		multi-phase current monitoring
Size of contactor can be combined company-specific		S00
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	V	690
Rated value		
Installation altitude at height above sea level	m	2 000
maximum		
Ambient temperature		
during storage	°C	-40 + 80
during operation	°C	-25 +60
Electromagnetic compatibility		IEC 60947-1 / IEC 61000-6-2 / IEC 61000-6-4
EMI immunity acc. to IEC 60947-1		ambience A (industrial sector)
EMC emitted interference acc. to IEC 60947-1		ambience A (industrial sector)
Shock resistance		15g / 11 ms
Vibration resistance		10 55 Hz / 0.35 mm
Surge voltage resistance Rated value	kV	6
Operating apparent output Rated value	V·A	2.5
Operating power Rated value	W	2.5
Equipment marking acc. to DIN 40719 extended		К
according to IEC 204-2 acc. to IEC 750		

Equipment marking acc. to DIN EN 61346-2		K
Mechanical service life (switching cycles) typical		10 000 000
Electrical endurance (switching cycles) at AC-15 at 230 V typical		100 000
Accuracy 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
Stand-by 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 detection DC 		No
• undercurrent detection 1 phase		No
Overcurrent detection DC		No
 Current window recognition DC 		No
• undercurrent detection 3 phases		Yes
Overcurrent detection 1 phase		No
 Voltage window recognition 3 phase 		No
 Voltage window recognition 1 phase 		No
 phase sequence recognition 		Yes
 can be activated or deactivated phase sequence recognition 		Yes
Auto-reset		Yes
External reset		Yes
Manual RESET		Yes
Adjustable response value current		
• 1	Α	1.6 16
• 2	Α	1.6 16
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	Α	1.5
Relative metering precision		
 relating to measured value 	%	5
Type of current for monitoring		AC
Measurable current with AC	Α	1.6 16

Adjustable switching hysteresis for measured current value	Α	0.1 3
Response time maximum	ms	200
Relative repeat accuracy	%	2
Temperature drift per °C	%/°C	0.1
Ampacity		
 for permanent overcurrent maximum permissible 	Α	16
 for overcurrent duration < 1 s maximum permissible 	Α	320

Supply voltage:		
Type of voltage of the supply voltage		DC
Supply voltage 1		
 for DC Rated value 	V	24
• for DC	V	18 30

Auxiliary circuit:		
Circuit principle of the output relay		closed-circuit current / open-circuit current
Operating current at 17 V minimum	mA	5
Number of CO contacts		
• for auxiliary contacts		1
Operating current of the auxiliary contacts		
● at AC-15		
— at 24 V	Α	3
— at 230 V	Α	3
• at DC-13		
— at 24 V	Α	1
— at 125 V	Α	0.2
— at 250 V	Α	0.1

Inputs/ Outputs:

Short-circuit:

Installation/ mounting/ dimensions:		
mounting position		any
Mounting type		direct mounting
Width	mm	45
Height	mm	79
Depth	mm	80
Required spacing with side-by-side mounting		
• forwards	mm	0
Backwards	mm	0
• upwards	mm	0
• downwards	mm	0

mm	0
mm	0
mm	6
mm	0
mm	6
	mm mm mm mm

Connections/ Terminals:		
Type of 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 		Yes
circuit		
Type of connectable conductor cross-section		
• for main contacts		
— solid		1x (0.5 4 mm²)
— finely stranded		
 — with core end processing 		1x (0.5 2.5 mm²)
• for AWG conductors		
— for main contacts		1x (20 12)
— for auxiliary contacts		2x (20 14)
 for auxiliary contacts 		
— solid		1x (0.5 4 mm²), 2x (0.5 2.5 mm²)
— finely stranded		
 — with core end processing 		1x (0.5 2.5 mm²), 2x (0.5 1.5 mm²)
Tightening torque with screw-type terminals	N·m	0.8 1.2

Certificates/ approvals:	
Certificate of suitability	CE / UL / CSA

General Product Approval

Shipping Approval





Manufacturer declartion







Shipping Approval

other





Environmental Confirmations

Confirmation

UL/CSA ratings:

Contact rating of the auxiliary contacts acc. to UL B300 / R300

Safety related data:

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/industrymall

Cax online generator

http://support.automation.siemens.com/WW/CAXorder/default.aspx?lang=en&mlfb=3RR24411AA40

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

http://support.automation.siemens.com/WW/view/en/3RR24411AA40/all

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

http://www.automation.siemens.com/bilddb/index.aspx?attID9=3RR24411AA40&lang=en





