# **SIEMENS**

#### Data sheet

#### 3RR2441-2AA40

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/OPER. 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 SPRING-LOADED CONNECTION

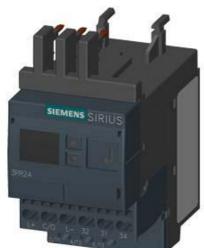


Figure similar

Figure similar		
General 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	V	690
according to IEC 60664 with degree of pollution 3 Rated value		
Installation altitude at height above sea level	m	2 000
maximum		
Ambient temperature		
during storage	°C	-40 +80
<ul> <li>during operation</li> </ul>	°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 according to IEC 204-2 acc. to IEC 750		К

Equipment marking acc. to DIN EN 61346-2	_	Κ
Mechanical service life (switching cycles) typical	_	10 000 000
Electrical endurance (switching cycles) at AC-15 at	-	100 000
230 V typical		
Accuracy of digital display	_	+/-1 digit
Adjustable response delay time	_	
• when starting	s	0 999.9
<ul> <li>with lower or upper limit violation</li> </ul>	s	0 999.9
Stand-by time for restart after fault	S	0.2
Phase number		3
Number of monitored phases		3
Product function		
<ul> <li>Overcurrent monitoring</li> </ul>		Yes
<ul> <li>Undercurrent monitoring</li> </ul>		Yes
<ul> <li>Overcurrent and undercurrent monitoring</li> </ul>		Yes
<ul> <li>Apparent current monitoring</li> </ul>		Yes
<ul> <li>active current monitoring</li> </ul>		Yes
<ul> <li>undercurrent detection DC</li> </ul>		No
<ul> <li>undercurrent detection 1 phase</li> </ul>		No
Overcurrent detection DC		No
<ul> <li>Current window recognition DC</li> </ul>		No
<ul> <li>undercurrent detection 3 phases</li> </ul>		Yes
<ul> <li>Overcurrent detection 1 phase</li> </ul>		No
<ul> <li>Voltage window recognition 3 phase</li> </ul>		No
<ul> <li>Voltage window recognition 1 phase</li> </ul>		No
<ul> <li>phase sequence recognition</li> </ul>		Yes
<ul> <li>can be activated or deactivated phase sequence recognition</li> </ul>		Yes
Auto-reset		Yes
External reset		Yes
<ul> <li>Manual RESET</li> </ul>		Yes
Adjustable response value current	-	
• 1	А	1.6 16
• 2	А	1.6 16
Factor as multiple of the current monitoring upper		25
limit for the adjustable value of a blocking current		
Response value residual current detection at 50/60	А	1.5
Hz typical		
Relative metering precision		
relating to measured value	%	5
Type of current for monitoring		AC
Measurable current with AC	A	1.6 16

Adjustable switching hysteresis for measured current value	A	0.1 3
Response time maximum	ms	200
Relative repeat accuracy	%	2
Temperature drift per °C	%/°C	0.1
Ampacity		
<ul> <li>for permanent overcurrent maximum permissible</li> </ul>	A	16
<ul> <li>for overcurrent duration &lt; 1 s maximum permissible</li> </ul>	A	320
Supply voltage:		
Type of voltage of the supply voltage		DC
Supply voltage 1		
<ul> <li>for DC Rated value</li> </ul>	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		
<ul> <li>for auxiliary contacts</li> </ul>		1
Operating current of the auxiliary contacts		
• at AC-15		
— at 24 V	А	3
— at 230 V	А	3
• at DC-13		
— at 24 V	А	1
— at 125 V	А	0.2
— at 250 V	А	0.1

## Inputs/ Outputs:

### Short-circuit:

Installation/ mounting/ dimensions:			
mounting position		any	
Mounting type		direct mounting	
Width	mm	45	
Height	mm	90	
Depth	mm	80	
Required spacing with side-by-side mounting			
• forwards	mm	0	
Backwards	mm	0	
• upwards	mm	0	
• downwards	mm	0	

• at the side	mm	0
Required spacing for grounded parts		
• forwards	mm	6
Backwards	mm	0
• upwards	mm	0
downwards	mm	0
• at the side	mm	6
Required spacing for live parts		
• forwards	mm	6
Backwards	mm	0
• upwards	mm	0
• downwards	mm	0
• at the side	mm	6

Connections/ Terminals:		
Type of electrical connection		
• for main current circuit		spring-loaded terminals
<ul> <li>for auxiliary and control current circuit</li> </ul>		spring-loaded terminals
Product function		
<ul> <li>removable terminal for main circuit</li> </ul>		No
<ul> <li>removable terminal for auxiliary and control circuit</li> </ul>		Yes
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)
- without core end processing		1x (0.5 2.5 mm²)
<ul> <li>for AWG conductors</li> </ul>		
— for main contacts		1x (20 12)
— for auxiliary contacts		2x (24 16)
<ul> <li>for auxiliary contacts</li> </ul>		
— solid		1x (0.5 4 mm²), 2x (0.5 2.5 mm²)
— finely stranded		
— with core end processing		2x (0.25 1.5 mm²)
- without core end processing		2x (0.25 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	EHC		JÅ DNV DNV
Shipping Approval	other			
RINA RMRS	Environmental Confirmations	Confirmation		
IL/CSA ratings: Contact rating of the auxiliary conta		B300 / R	300	
afety related data:		D00071(		
Protection against electrical shock		finger-sat	fe	
urther information Information- and Downloadcenter ( http://www.siemens.com/industrial-contr Industry Mall (Online ordering syste http://www.siemens.com/industrymall	ols/catalogs			
Cax online generator http://support.automation.siemens.com/	WW/CAXorder/default.aspx	?lang=en&mlfb=3RR2	4412AA40	
Service&Support (Manuals, Certific http://support.automation.siemens.com/	ates, Characteristics, FA WW/view/en/3RR24412AA	<b>Qs,)</b> 40/all		
Image database (product images, 2 http://www.automation.siemens.com/bile			ircuit diagrams, EP	LAN macros,)

