SIEMENS

Data sheet 3RR2242-1FW30



Monitoring relay, can be mounted to Contactor 3RT2, Size S0 standard, digitally adjustable Apparant/active current monitoring 4...40 A, 20...400 Hz, 3-phase Supply 24-240 V AC/DC 1 change-over contact, 1 semiconductor output for alarm and warning Monitoring for Current overshoot and undershoot Phase failure, Cable break Phase sequence Residual current Blocking current Warning and alarm thresholds with or without fault buffer ON delay 0-99 s Noise pulse suppression 0-30 s Pause after fault 0-300 min Screw connection system

product brand name	SIRIUS
product designation	Monitoring relays
design of the product	digitally adjustable, 3-phase current monitoring
product type designation	3RR2
General technical data	
size of contactor can be combined company-specific	SO
operating apparent power rated value	4 VA
insulation voltage for overvoltage category III according to IEC 60664	
 with degree of pollution 3 rated value 	690 V
surge voltage resistance rated value	6 kV
consumed current at 24 V	90 mA
protection class IP	
on the front	IP20
 of the terminal 	IP20
shock resistance	15g / 11 ms
vibration resistance	10 55 Hz / 0.35 mm
mechanical service life (operating cycles) typical	10 000 000
electrical endurance (operating cycles) at AC-15 at 230 V typical	100 000
reference code according to IEC 81346-2	K
relative repeat accuracy	2 %
Substance Prohibitance (Date)	10/01/2009
Supply voltage	
type of voltage of the supply voltage	AC/DC
supply voltage 1 at AC	
● at 50 Hz	24 240 V
● at 60 Hz	24 240 V
supply voltage 1 at DC	24 240 V
supply voltage frequency 1	50 60 Hz
Measuring circuit	
type of current for monitoring	AC
adjustable current response value current	
• 1	4 40 A
• 2	4 40 A
adjustable response delay time	
when starting	0 99 s
 with lower or upper limit violation 	0 30 s
adjustable switching hysteresis for measured current value	0.1 8 A
accuracy of digital display	+/-1 digit
Precision	

temperature drift per °C	0.1 %/°C
Short-circuit protection	
design of the fuse link for short-circuit protection of the	fuse gG: 4 A
auxiliary switch required	
Communication/ Protocol	
protocol is supported IO-Link protocol	No
type of voltage supply via input/output link master	No
Auxiliary circuit	
number of CO contacts	
• for auxiliary contacts	1
operational current of auxiliary contacts at AC-15 • at 24 V	3 A
• at 230 V	3 A
• at 400 V	3 A
operational current of auxiliary contacts at DC-13	
● at 24 V	1 A
• at 125 V	0.2 A
• at 250 V	0.1 A
contact rating of auxiliary contacts according to UL	B300 / R300
Main circuit	2.5.W
operating power rated value ampacity of the semiconductor output at AC-14 at 240 V at 50/60 Hz	2.5 W 20 mA
ampacity of the semiconductor output at DC-13 at 240 V	20 mA
ampacity of the semiconductor output in SIO mode	20 mA
operational current at 17 V minimum	5 mA
Electromagnetic compatibility	
EMC emitted interference according to IEC 60947-1	ambience A (industrial sector)
EMC immunity according to IEC 60947-1	ambience A (industrial sector)
Connections/ Terminals	
was direct as were a want to was a valled to was in all fact was in	Ne
product component removable terminal for main circuit	No
	No Yes
circuit product component removable terminal for auxiliary	
circuit product component removable terminal for auxiliary and control circuit type of electrical connection • for main current circuit	
circuit product component removable terminal for auxiliary and control circuit type of electrical connection • for main current circuit • for auxiliary and control circuit	Yes
circuit product component removable terminal for auxiliary and control circuit type of electrical connection • for main current circuit • for auxiliary and control circuit type of connectable conductor cross-sections	Yes screw-type terminals
circuit product component removable terminal for auxiliary and control circuit type of electrical connection	Yes screw-type terminals screw-type terminals
circuit product component removable terminal for auxiliary and control circuit type of electrical connection	Yes screw-type terminals screw-type terminals 2x (1 2.5 mm²), 2x (2.5 10 mm²)
circuit product component removable terminal for auxiliary and control circuit type of electrical connection	Yes screw-type terminals screw-type terminals
circuit product component removable terminal for auxiliary and control circuit type of electrical connection	Yes screw-type terminals 2x (1 2.5 mm²), 2x (2.5 10 mm²) 2x (1 2.5 mm²), 2x (2.5 6 mm²), 1x 10 mm² 2x (1 2.5 mm²), 2x (14 8)
circuit product component removable terminal for auxiliary and control circuit type of electrical connection • for main current circuit • for auxiliary and control circuit type of connectable conductor cross-sections • for main contacts — solid — finely stranded with core end processing • at AWG cables for main contacts connectable conductor cross-section for main contacts • solid or stranded	Yes screw-type terminals 2x (1 2.5 mm²), 2x (2.5 10 mm²) 2x (1 2.5 mm²), 2x (2.5 6 mm²), 1x 10 mm² 2 x (16 14), 2x (14 8) 1 10 mm²
circuit product component removable terminal for auxiliary and control circuit type of electrical connection	Yes screw-type terminals 2x (1 2.5 mm²), 2x (2.5 10 mm²) 2x (1 2.5 mm²), 2x (2.5 6 mm²), 1x 10 mm² 2x (1 2.5 mm²), 2x (14 8)
circuit product component removable terminal for auxiliary and control circuit type of electrical connection	Yes screw-type terminals 2x (1 2.5 mm²), 2x (2.5 10 mm²) 2x (1 2.5 mm²), 2x (2.5 6 mm²), 1x 10 mm² 2 x (16 14), 2x (14 8) 1 10 mm²
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circuit product component removable terminal for auxiliary and control circuit type of electrical connection	Yes screw-type terminals 2x (1 2.5 mm²), 2x (2.5 10 mm²) 2x (1 2.5 mm²), 2x (2.5 6 mm²), 1x 10 mm² 2x (16 14), 2x (14 8) 1 10 mm² 2.5 10 mm² 1x (0.5 4 mm²), 2x (0.5 2.5 mm²) 1x (0.5 2.5 mm²), 2x (0.5 1.5 mm²) 2x (20 14)
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circuit product component removable terminal for auxiliary and control circuit type of electrical connection	Screw-type terminals 2x (1 2.5 mm²), 2x (2.5 10 mm²) 2x (1 2.5 mm²), 2x (2.5 6 mm²), 1x 10 mm² 2 x (16 14), 2x (14 8) 1 10 mm² 2.5 10 mm² 1x (0.5 4 mm²), 2x (0.5 2.5 mm²) 1x (0.5 2.5 mm²), 2x (0.5 1.5 mm²) 2x (20 14) 16 8 0.8 1.2 N·m
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circuit product component removable terminal for auxiliary and control circuit type of electrical connection	Yes screw-type terminals 2x (1 2.5 mm²), 2x (2.5 10 mm²) 2x (1 2.5 mm²), 2x (2.5 6 mm²), 1x 10 mm² 2 x (16 14), 2x (14 8) 1 10 mm² 2 10 mm² 1x (0.5 4 mm²), 2x (0.5 2.5 mm²) 1x (0.5 2.5 mm²), 2x (0.5 1.5 mm²) 2x (20 14) 16 8 0.8 1.2 N⋅m any direct mounting 87 mm 45 mm

— forwards	0 mm			
— backwards	0 mm			
— upwards	0 mm			
— downwards	0 mm			
— at the side	0 mm			
for grounded parts				
— forwards	6 mm			
— backwards	0 mm			
— upwards	6 mm			
— at the side	6 mm			
— downwards	6 mm			
for live parts				
— forwards	6 mm			
— backwards	0 mm			
— upwards	6 mm			
— downwards	6 mm			
— at the side	6 mm			
Ambient conditions				
installation altitude at height above sea level maximum	2 000 m			
ambient temperature				
 during operation 	-25 +60 °C			
 during storage 	-40 +80 °C			
Certificates/ approvals				
General Product Approval		EMC		



Confirmation









Declaration of Conformity

Test Certificates

Marine / Shipping





Special Test Certificate

Type Test Certificates/Test Report





Marine / Shipping

other









Confirmation

Further information

Information- and Downloadcenter (Catalogs, Brochures,...)

https://www.siemens.com/ic10

Industry Mall (Online ordering system)

https://mall.industry.siemens.com/mall/en/en/Catalog/product?mlfb=3RR2242-1FW30

Cax online generator

 $\underline{\text{http://support.automation.siemens.com/WW/CAXorder/default.aspx?lang=en\&mlfb=3RR2242-1FW30}$

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

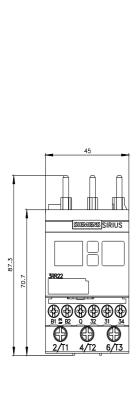
https://support.industry.siemens.com/cs/ww/en/ps/3RR2242-1FW30

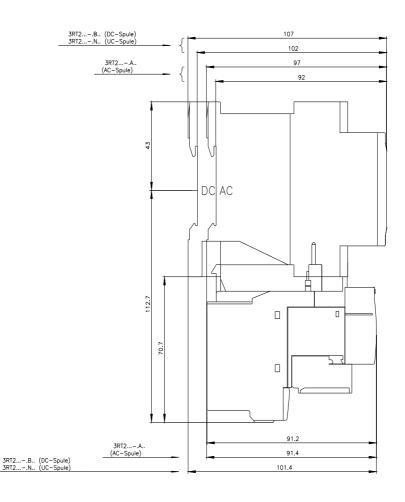
Image database (product images, 2D dimension drawings, 3D models, device circuit diagrams, EPLAN macros, ...)

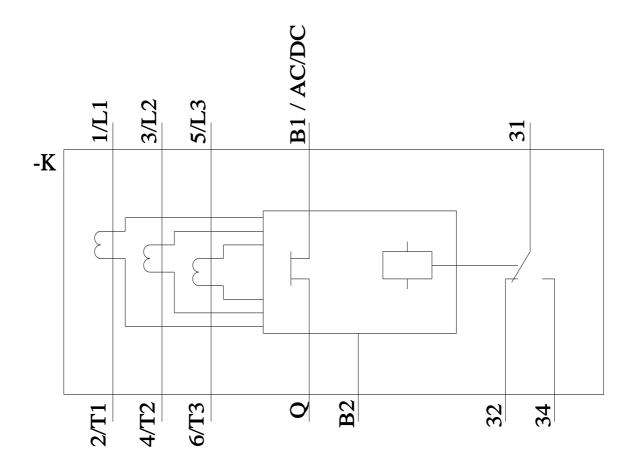
http://www.automation.siemens.com/bilddb/cax_de.aspx?mlfb=3RR2242-1FW30&lang=en

Characteristic: Derating

https://support.industry.siemens.com/cs/ww/en/ps/3RR2242-1FW30/manual







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