## **SIEMENS**

Data sheet 3RR2242-1FA30



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 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	our E
size of contactor can be combined company-specific	S0
operating apparent power rated value	4 VA
insulation voltage for overvoltage category III according to IEC 60664	
<ul> <li>with degree of pollution 3 rated value</li> </ul>	690 V
surge voltage resistance rated value	6 kV
consumed current	
● at 24 V	90 mA
• at 240 V	12 mA
protection class IP	
• on the front	IP20
of the terminal	IP20
shock resistance	15g / 11 ms
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
SVHC substance name	Lead - 7439-92-1 Lead monoxide (lead oxide) - 1317-36-8 2-methyl-1-(4-methylthiophenyl)-2-morpholinopropan-1-one - 71868-10-5 2,2',6,6'-tetrabromo-4,4'-isopropylidenediphenol - 79-94-7
Supply voltage	
type of voltage of the supply voltage	AC/DC
supply voltage 1 at AC	
at 50 Hz rated value	24 V
at 60 Hz rated value	24 V
supply voltage 1 at DC rated value	24 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	
<ul><li>when starting</li></ul>	0 99 s

with lower or upper limit violation	0 30 s
	0.1 8 A
adjustable switching hysteresis for measured current value	
accuracy of digital display	+/-1 digit
Precision	0.4.97/00
temperature drift per °C	0.1 %/°C
Short-circuit protection	
design of the fuse link for short-circuit protection of the auxiliary switch required	fuse gG: 4 A
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	
operating power rated value	2.5 W
ampacity of the semiconductor output at AC-14 at 240 V at	20 mA
50/60 Hz 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	
	ambience A (industrial sector)
EMC emitted interference according to IEC 60947-1	ambience A (industrial sector)
EMC emitted interference according to IEC 60947-1 EMC immunity according to IEC 60947-1	ambience A (industrial sector) ambience A (industrial sector)
EMC emitted interference according to IEC 60947-1 EMC immunity according to IEC 60947-1 Connections/ Terminals	ambience A (industrial sector)
EMC emitted interference according to IEC 60947-1 EMC immunity according to IEC 60947-1 Connections/ Terminals product component removable terminal for main circuit product component removable terminal for auxiliary and	
EMC emitted interference according to IEC 60947-1  EMC immunity according to IEC 60947-1  Connections/ Terminals  product component removable terminal for main circuit product component removable terminal for auxiliary and control circuit	ambience A (industrial sector)  No
EMC emitted interference according to IEC 60947-1  EMC immunity according to IEC 60947-1  Connections/ Terminals  product component removable terminal for main circuit product component removable terminal for auxiliary and control circuit  type of electrical connection	ambience A (industrial sector)  No Yes
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EMC emitted interference according to IEC 60947-1  EMC immunity according to IEC 60947-1  Connections/ Terminals  product component removable terminal for main 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	ambience A (industrial sector)  No Yes  screw-type terminals screw-type terminals 2x (1 2.5 mm²), 2x (2.5 10 mm²)
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<ul><li>with side-by-side mounting</li></ul>	
— forwards	0 mm
— backwards	0 mm
— upwards	0 mm
— downwards	0 mm
— at the side	0 mm
<ul> <li>for grounded parts</li> </ul>	
— 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
mbient conditions	
installation altitude at height above sea level maximum	2 000 m
ambient temperature	
during operation	-25 +60 °C
during storage	-40 +80 °C

Approvals Certificates

General Product Approval







Confirmation





EMV Test Certificates Marine / Shipping



<u>KC</u>

Special Test Certificate

Type Test Certificates/Test Report





Marine / Shipping other Environment







Confirmation

Environmental Confirmations

## Further information

Information on the packaging

https://support.industry.siemens.com/cs/ww/en/view/109813875

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=3RR2242-1FA30

Cax online generator

 $\underline{\text{http://support.automation.siemens.com/WW/CAXorder/default.aspx?lang=en\&mlfb=3RR2242-1FA30}$ 

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

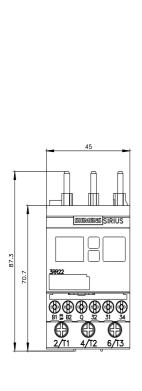
https://support.industry.siemens.com/cs/ww/en/ps/3RR2242-1FA30

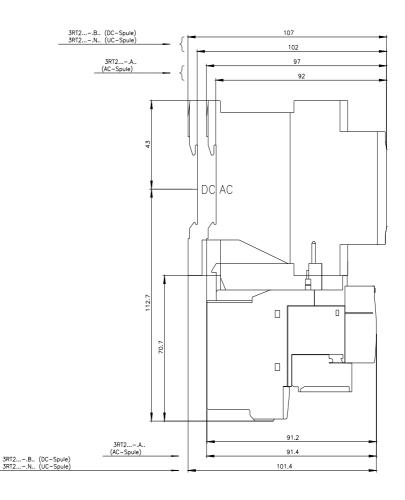
Image database (product images, 2D dimension drawings, 3D models, device circuit diagrams, EPLAN macros, ...)

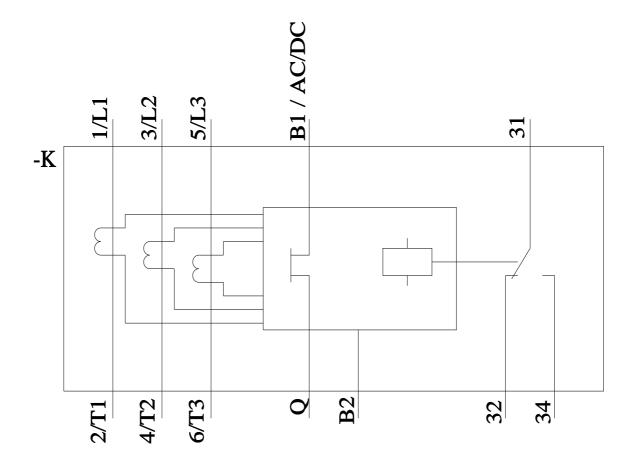
http://www.automation.siemens.com/bilddb/cax\_de.aspx?mlfb=3RR2242-1FA30&lang=en

Characteristic: Derating

https://support.industry.siemens.com/cs/ww/en/ps/3RR2242-1FA30/manual







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