



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	
Size of contactor can be combined company-specific	S0
Operating apparent output rated value	4 V·A
<ul style="list-style-type: none"> — 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
<ul style="list-style-type: none"> • protection class IP on the front • Protection class IP of the terminal 	IP20 IP20
Shock resistance	15g / 11 ms
Vibration resistance	10 ... 55 Hz / 0.35 mm
Mechanical service life (switching cycles)	
<ul style="list-style-type: none"> • typical 	10 000 000
Electrical endurance (switching cycles)	

• at AC-15 at 230 V typical	100 000
Reference code acc. to DIN EN 81346-2	K
relative repeat accuracy	2 %

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 pick-up 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
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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
• operating current of auxiliary contacts at AC-15 at 24 V	3 A
• Operating current of auxiliary contacts at AC-15 at 230 V	3 A
• operating current of auxiliary contacts at AC-15 at 400 V	3 A
• operating current of auxiliary contacts at DC-13 at 24 V	1 A
• operating current of auxiliary contacts at DC-13 at 125 V	0.2 A

<ul style="list-style-type: none"> operating current of auxiliary contacts at DC-13 at 250 V 	0.1 A
Contact rating of auxiliary contacts according to UL	B300 / R300
Main circuit	
Operating power <ul style="list-style-type: none"> rated value 	2.5 W
Outputs	
Ampacity of the semiconductor output in SIO mode	200 mA
Operating current at 17 V minimum	5 mA
Electromagnetic compatibility	
EMC emitted interference <ul style="list-style-type: none"> acc. to IEC 60947-1 	ambience A (industrial sector)
EMI immunity <ul style="list-style-type: none"> acc. to IEC 60947-1 	ambience A (industrial sector)
Safety related data	
Protection against electrical shock	finger-safe
Connections/ Terminals	
Product function <ul style="list-style-type: none"> removable terminal for main circuit removable terminal for auxiliary and control circuit Type of electrical connection for main current circuit Type of electrical connection for auxiliary and control current circuit 	No Yes screw-type terminals screw-type terminals
Type of connectable conductor cross-sections <ul style="list-style-type: none"> for main contacts <ul style="list-style-type: none"> — solid — finely stranded with core end processing at AWG conductors for main contacts 	2x (1 ... 2.5 mm ²), 2x (2.5 ... 10 mm ²) 2x (1 ... 2.5 mm ²), 2x (2.5 ... 6 mm ²), 1x 10 mm ² 2 x (16 ... 14), 2x (14 ... 8)
Connectable conductor cross-section for main contacts <ul style="list-style-type: none"> single or multi-stranded finely stranded with core end processing 	1 ... 10 mm ² 2.5 ... 10 mm ²
Type of connectable conductor cross-sections <ul style="list-style-type: none"> for auxiliary contacts <ul style="list-style-type: none"> — solid — finely stranded with core end processing at AWG conductors for auxiliary contacts 	1x (0.5 ... 4 mm ²), 2x (0.5 ... 2.5 mm ²) 1x (0.5 ... 2.5 mm ²), 2x (0.5 ... 1.5 mm ²) 2x (20 ... 14)
AWG number as coded connectable conductor cross section	

<ul style="list-style-type: none"> • for main contacts 	16 ... 8
Tightening torque	
<ul style="list-style-type: none"> • with screw-type terminals 	0.8 ... 1.2 N·m

Installation/ mounting/ dimensions




<ul style="list-style-type: none"> • mounting position 	any
Mounting type	direct mounting
Height	87 mm
Width	45 mm
Depth	91 mm
Required spacing	
<ul style="list-style-type: none"> • with side-by-side mounting <ul style="list-style-type: none"> — forwards — Backwards — upwards — downwards — at the side 	0 mm 0 mm 0 mm 0 mm 0 mm
<ul style="list-style-type: none"> • for grounded parts <ul style="list-style-type: none"> — forwards — Backwards — upwards — at the side — downwards 	6 mm 0 mm 6 mm 6 mm 6 mm
<ul style="list-style-type: none"> • for live parts <ul style="list-style-type: none"> — forwards — Backwards — upwards — downwards — at the side 	6 mm 0 mm 6 mm 6 mm 6 mm




Ambient conditions

Installation altitude at height above sea level	
<ul style="list-style-type: none"> • maximum 	2 000 m
Ambient temperature	
<ul style="list-style-type: none"> • during operation 	-25 ... +60 °C
<ul style="list-style-type: none"> • during storage 	-40 ... +80 °C

Certificates/ approvals

General Product Approval				EMC	Declaration of Conformity
 CCC	 CSA	 UL		 RCM	 EG-Konf.

Declaration of Conformity	Test Certificates	Marine / Shipping			
Miscellaneous	Type Test Certificates/Test Report	Special Test Certificate	 ABS	 LRS	 PRS

Marine / Shipping	other				
 RINA	 RMRS	 DNV-GL DNVGL.COM/AF	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=3RR2242-1FA30>

Cax online generator

<http://support.automation.siemens.com/WW/CAXorder/default.aspx?lang=en&mlfb=3RR2242-1FA30>

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

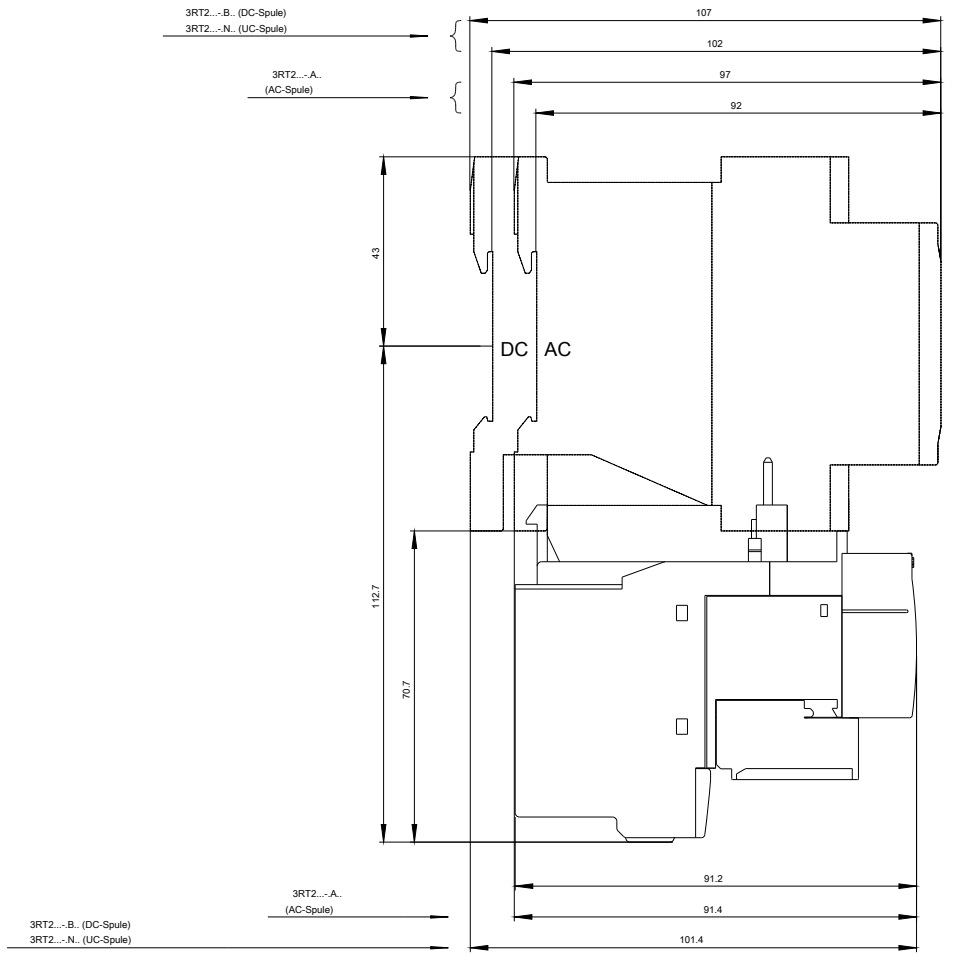
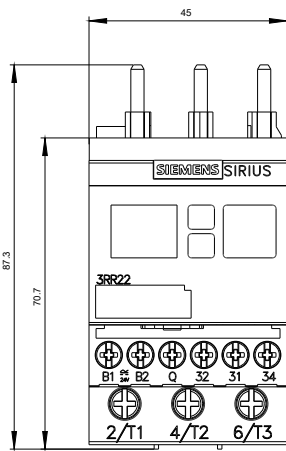
<https://support.industry.siemens.com/cs/ww/en/ps/3RR2242-1FA30>

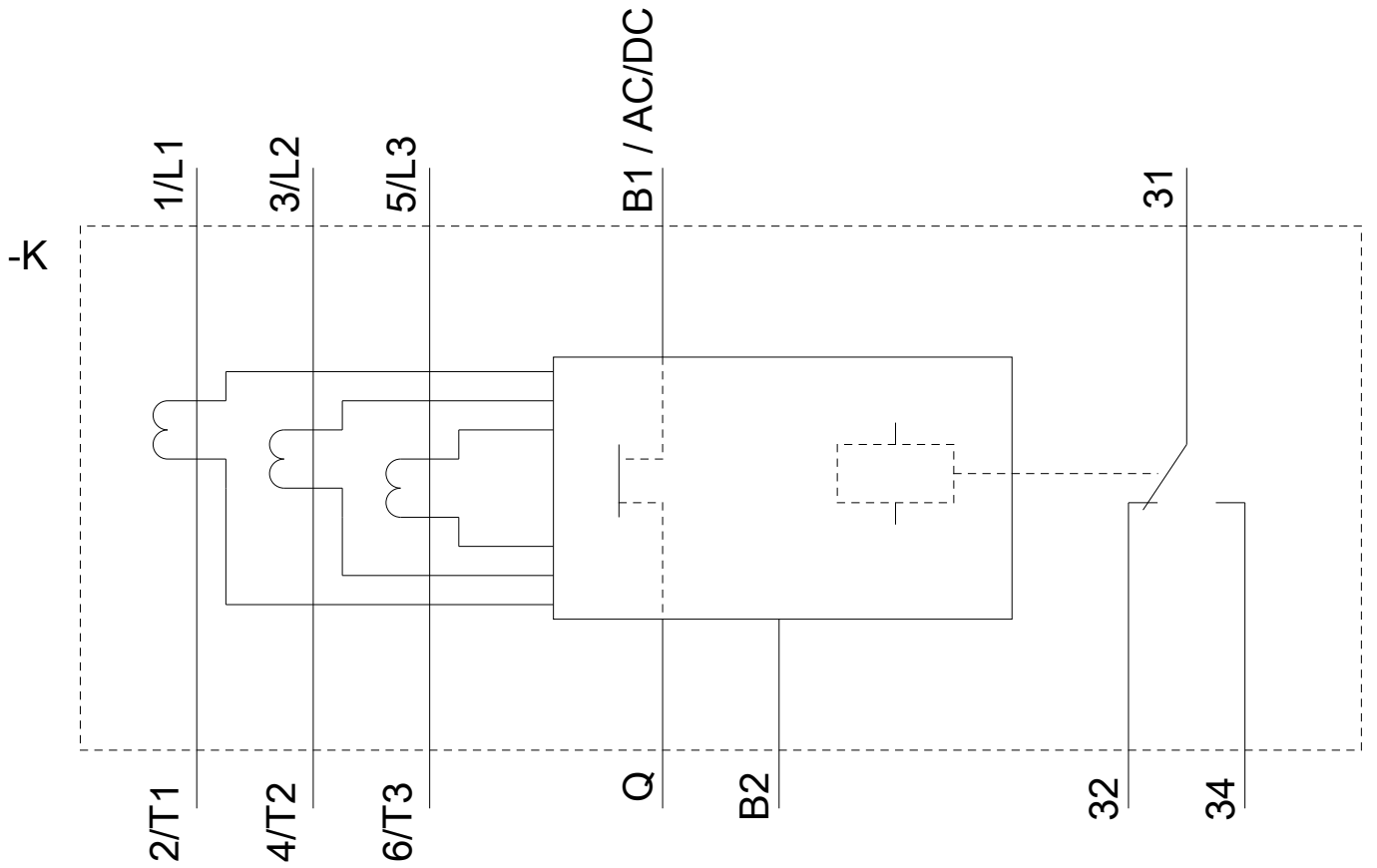
Image database (product images, 2D dimension drawings, 3D models, device circuit diagrams, EPLAN macros, ...)

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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