

Monitoring relay, can be mounted to Contactor 3RT2, Size S2 basic, analog adjustment Apparent current monitoring 8...80 A, 50...60 Hz, 2-phase Supply 24 V AC/DC 1 change-over contact Monitoring for Current overshoot and undershoot Phase failure, Cable break with or without fault buffer ON delay 0-60 s Noise pulse suppression 0-30 s Switching hysteresis 6% spring-type connection system



Product brand name	SIRIUS
Product designation	Monitoring relays
Design of the product	analogically adjustable, 2-phase current monitoring
Product type designation	3RR2

General technical data	
Size of contactor can be combined company-specific	S2
Operating apparent output rated value	4 V·A
Insulation voltage <ul style="list-style-type: none"> • for overvoltage category III according to IEC 60664 — with degree of pollution 3 rated value 	690 V
Surge voltage resistance rated value	6 kV
Protection class IP <ul style="list-style-type: none"> • on the front • of the terminal 	IP20 IP00
Shock resistance	10g / 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)	
<ul style="list-style-type: none"> • at AC-15 at 230 V typical 	100 000
Reference code acc. to DIN 40719 extended according to IEC 204-2 acc. to IEC 750	K
Reference code acc. to DIN EN 81346-2	K
Reference code acc. to DIN EN 61346-2	K
Relative repeat accuracy	2 %

Supply voltage

Type of voltage of the supply voltage	AC/DC
Supply voltage 1 at AC	
<ul style="list-style-type: none"> • at 50 Hz rated value 	24 V
<ul style="list-style-type: none"> • at 60 Hz rated value 	24 V
Supply voltage 1 at DC rated value	24 V
Supply voltage frequency	
<ul style="list-style-type: none"> • 1 	50 ... 60 Hz

Measuring circuit

Type of current for monitoring	AC
Adjustable pick-up value current	
<ul style="list-style-type: none"> • 1 	8 ... 80 A
<ul style="list-style-type: none"> • 2 	8 ... 80 A
Adjustable response delay time	
<ul style="list-style-type: none"> • when starting 	0 ... 60 s
<ul style="list-style-type: none"> • with lower or upper limit violation 	0 ... 30 s

Precision

Temperature drift per °C	0.1 %/°C
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Communication/ Protocol

Protocol is supported	
<ul style="list-style-type: none"> • IO-Link protocol 	No
Type of voltage supply via input/output link master	No

Auxiliary circuit

Number of CO contacts	
<ul style="list-style-type: none"> • for auxiliary contacts 	1
Operating current of auxiliary contacts at AC-15	
<ul style="list-style-type: none"> • at 24 V 	3 A
<ul style="list-style-type: none"> • at 230 V 	3 A
<ul style="list-style-type: none"> • at 400 V 	3 A
Operating current of auxiliary contacts at DC-13	
<ul style="list-style-type: none"> • at 24 V 	1 A
<ul style="list-style-type: none"> • at 125 V 	0.2 A
<ul style="list-style-type: none"> • 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
Outputs	
Operating current at 17 V minimum	5 mA
Electromagnetic compatibility	
EMC emitted interference	
• acc. to IEC 60947-1	ambience A (industrial sector)
EMI immunity	
• acc. to IEC 60947-1	ambience A (industrial sector)
Safety related data	
Protection against electrical shock	finger-safe when touched vertically from front acc. to IEC 60529
Connections/ Terminals	
Product function	
• removable terminal for main circuit	No
• removable terminal for auxiliary and control circuit	Yes
Type of electrical connection	
• for main current circuit	screw-type terminals
• for auxiliary and control current circuit	spring-loaded terminals
Type of connectable conductor cross-sections	
• for main contacts	
— solid	2x (1 ... 35 mm ²), 1x (1 ... 50 mm ²)
— stranded	2x (1 ... 35 mm ²), 1x (1 ... 50 mm ²)
— finely stranded with core end processing	2x (1 ... 25 mm ²), 1x (1 ... 35 mm ²)
• at AWG conductors for main contacts	2x (18 ... 2), 1x (18 ... 1)
Connectable conductor cross-section for main contacts	
• single or multi-stranded	1 ... 50 mm ²
• finely stranded with core end processing	1 ... 35 mm ²
Type of connectable conductor cross-sections	
• for auxiliary contacts	
— solid	1x (0.5 ... 4 mm ²), 2x (0.5 ... 2.5 mm ²)
— finely stranded with core end processing	2x (0.25 ... 1.5 mm ²)
— finely stranded without core end processing	2x (0.25 ... 1.5 mm ²)
• at AWG conductors for auxiliary contacts	2x (24 ... 16)
AWG number as coded connectable conductor cross section	
• for main contacts	18 ... 1

Tightening torque	
<ul style="list-style-type: none"> • with screw-type terminals 	0.8 ... 1.2 N·m
Installation/ mounting/ dimensions	
Mounting position	any
Mounting type	direct mounting
Height	99 mm
Width	55 mm
Depth	112 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 • for grounded parts <ul style="list-style-type: none"> — forwards — Backwards — upwards — at the side — downwards • for live parts <ul style="list-style-type: none"> — forwards — Backwards — upwards — downwards — at the side 	<ul style="list-style-type: none"> 0 mm 0 mm 0 mm 10 mm 0 mm 10 mm 0 mm 10 mm 10 mm 10 mm 10 mm 10 mm 0 mm 10 mm 10 mm 10 mm 10 mm
Ambient conditions	
Installation altitude at height above sea level	
<ul style="list-style-type: none"> • maximum 	2 000 m
Certificates/ approvals	

General Product Approval	EMC	Declaration of Conformity
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Declaration of Conformity	Test Certificates	Marine / Shipping
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[Miscellaneous](#)

[Type Test Certificates/Test Report](#)

[Special Test Certificate](#)



Marine / Shipping	other
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[Confirmation](#)

Further information

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

www.siemens.com/sirius/catalogs

Industry Mall (Online ordering system)

<https://mall.industry.siemens.com/mall/en/en/Catalog/product?mlfb=3RR2143-3AA30>

Cax online generator

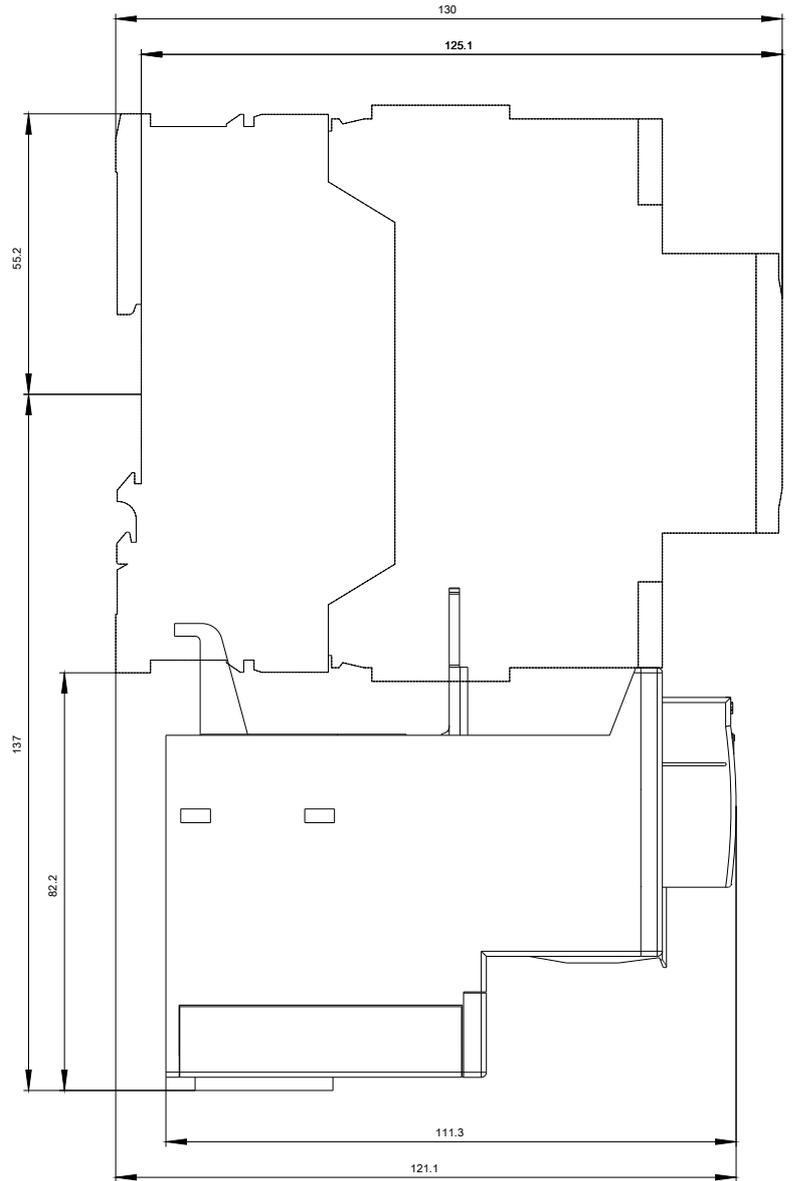
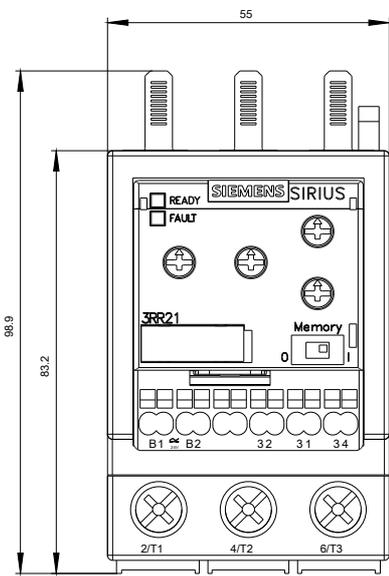
<http://support.automation.siemens.com/WW/CAXorder/default.aspx?lang=en&mlfb=3RR2143-3AA30>

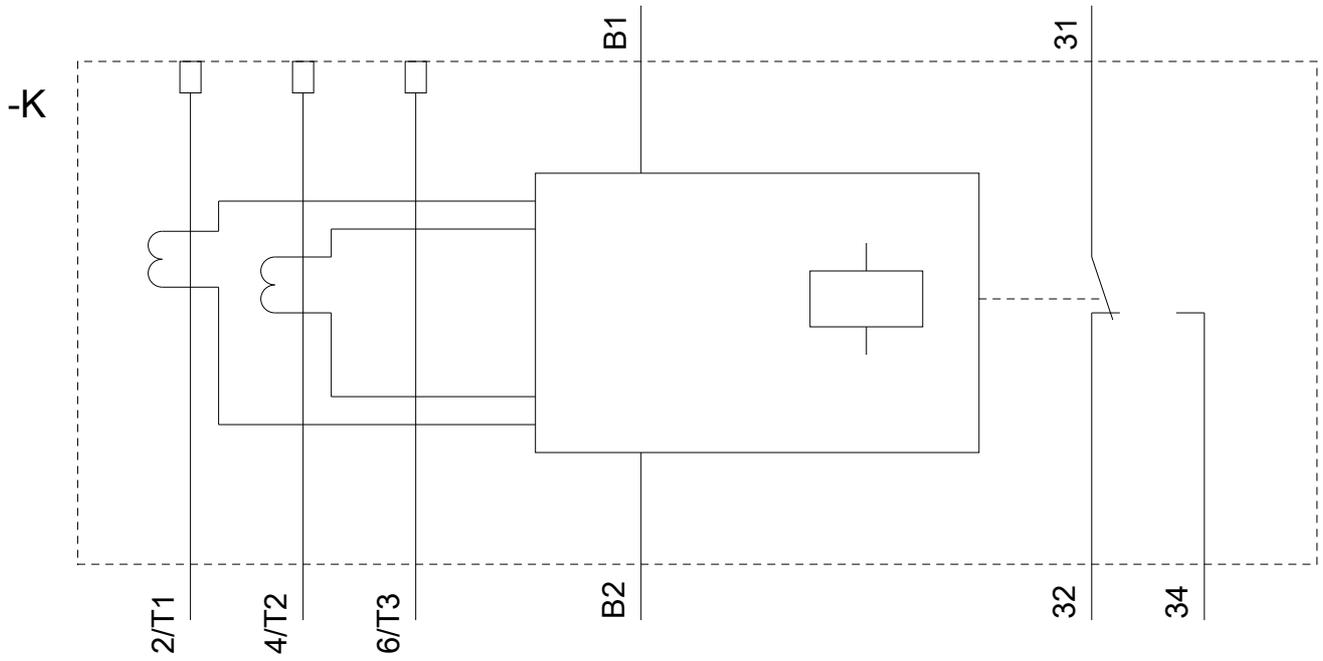
Service&Support (Manuals, Certificates, Characteristics, FAQs,...)

<https://support.industry.siemens.com/cs/ww/en/ps/3RR2143-3AA30>

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

http://www.automation.siemens.com/bilddb/cax_de.aspx?mlfb=3RR2143-3AA30&lang=en





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