



Current monitoring relay for IO-Link, can be mounted to Contactor 3RT2, Size S00 Apparant/active current monitoring 1.6-16 A, 20-400 Hz, 3-phase Supply voltage 24 V DC 1 change-over contact
 Monitoring for Current overshoot and undershoot Current asymmetry Phase failure, Cable break Phase sequence, Residual current Blocking current, Switching cycle and Operating hours counter
 Warning and alarm thresholds Auto-reset or manual reset ON delay 0-9999.9 s OFF delay 0-9999.9 s Reclosing delay 0-300 min spring-type connection system

product brand name	SIRIUS
product designation	Monitoring relays
design of the product	digitally adjustable, 3-phase current monitoring, IO-Link
product type designation	3RR2

General technical data	
size of contactor can be combined company-specific	S00
Operating apparent output rated value	2.5 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 	IP20
<ul style="list-style-type: none"> • protection class IP of the terminal 	IP20
<ul style="list-style-type: none"> • shock resistance 	15g / 11 ms
<ul style="list-style-type: none"> • vibration resistance 	10 ... 55 Hz / 0.35 mm
<ul style="list-style-type: none"> • mechanical service life (switching cycles) 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	DC
• supply voltage 1 at DC rated value	24 V
relative negative tolerance of the supply voltage	25 %
relative positive tolerance of the supply voltage	25 %

Measuring circuit

Type of current for monitoring	AC
adjustable pick-up value current	
• 1	1.6 ... 16 A
• 2	1.6 ... 16 A
adjustable response delay time	
• when starting	0 ... 999.9 s
• with lower or upper limit violation	0 ... 999.9 s
adjustable switching hysteresis for measured current value	0.1 ... 3 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	Yes
IO-Link transfer rate	COM2 (38,4 kBaud)
Point-to-point cycle time between master and IO-Link device minimum	10 ms
Type of voltage supply via input/output link master	Yes
Amount of data	
• of the address area of the inputs with cyclical transfer total	4 byte
• of the address area of the outputs with cyclical transfer total	2 byte

Auxiliary circuit

• number of CO contacts for auxiliary contacts	1
operating current of auxiliary contacts at AC-15	
• at 24 V	3 A
• at 230 V	3 A
operating 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
Outputs	
Ampacity of the semiconductor output in SIO mode	200 mA
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
Connections/ Terminals	
• Product function removable terminal for main circuit	No
• product function removable terminal for auxiliary and control circuit	Yes
• type of electrical connection for main current circuit	spring-loaded terminals
• type of electrical connection for auxiliary and control current circuit	spring-loaded terminals
• type of connectable conductor cross-sections for main contacts solid	1x (0.5 ... 4 mm ²)
• type of connectable conductor cross-sections for main contacts finely stranded with core end processing	1x (0.5 ... 2.5 mm ²)
• type of connectable conductor cross-sections for main contacts finely stranded without core end processing	1x (0.5 ... 2.5 mm ²)
• type of connectable conductor cross-sections at AWG conductors for main contacts	1x (20 ... 12)
connectable conductor cross-section for main contacts	
• single or multi-stranded	0.5 ... 4 mm ²
• finely stranded with core end processing	2.5 ... 2.5 mm ²
• finely stranded without core end processing	0.5 ... 2.5 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)

<ul style="list-style-type: none"> • type of connectable conductor cross-sections for auxiliary contacts finely stranded with core end processing 	2x (0.25 ... 1.5 mm ²)
<ul style="list-style-type: none"> • type of connectable conductor cross-sections for auxiliary contacts finely stranded without core end processing 	2x (0.25 ... 1.5 mm ²)
<ul style="list-style-type: none"> • type of connectable conductor cross-sections at AWG conductors for auxiliary contacts 	2x (24 ... 16)
AWG number as coded connectable conductor cross section	
<ul style="list-style-type: none"> • for main contacts 	20 ... 12
<ul style="list-style-type: none"> • tightening torque with screw-type terminals 	0.8 ... 1.2 N·m

Installation/ mounting/ dimensions	
<ul style="list-style-type: none"> • mounting position 	any
<ul style="list-style-type: none"> • mounting type 	direct mounting
height	90 mm
width	45 mm
depth	80 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 0 mm 6 mm 0 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 0 mm 0 mm 6 mm

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

Certificates/ approvals

General Product Approval EMC



CCC



CSA

[Manufacturer Declaration](#)



UL



RCM

Declaration of Conformity Test Certificates Marine / Shipping



EG-Konf.

[Miscellaneous](#)

[Type Test Certificates/Test Report](#)

[Special Test Certificate](#)



ABS



LRS

Marine / Shipping other



PRS



RINA



RMRS



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=3RR2441-2AA40>

Cax online generator

<http://support.automation.siemens.com/WW/CAXorder/default.aspx?lang=en&mlfb=3RR2441-2AA40>

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

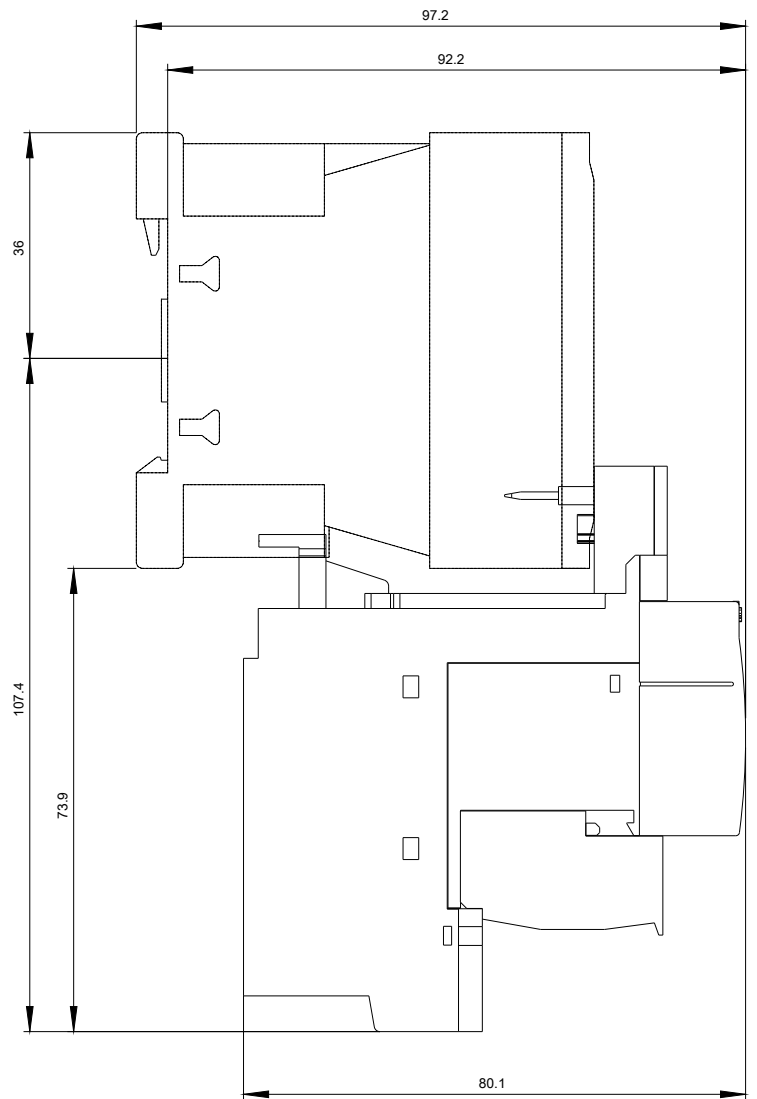
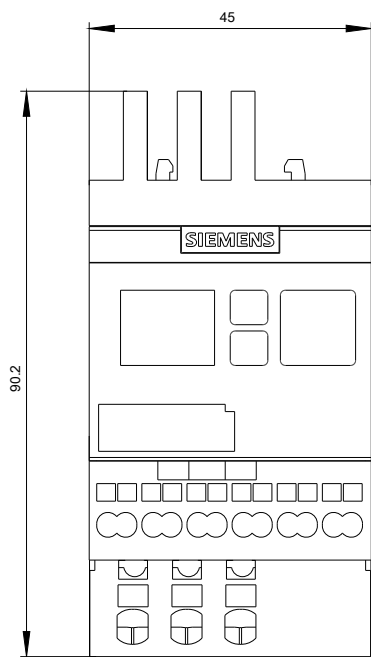
<https://support.industry.siemens.com/cs/ww/en/ps/3RR2441-2AA40>

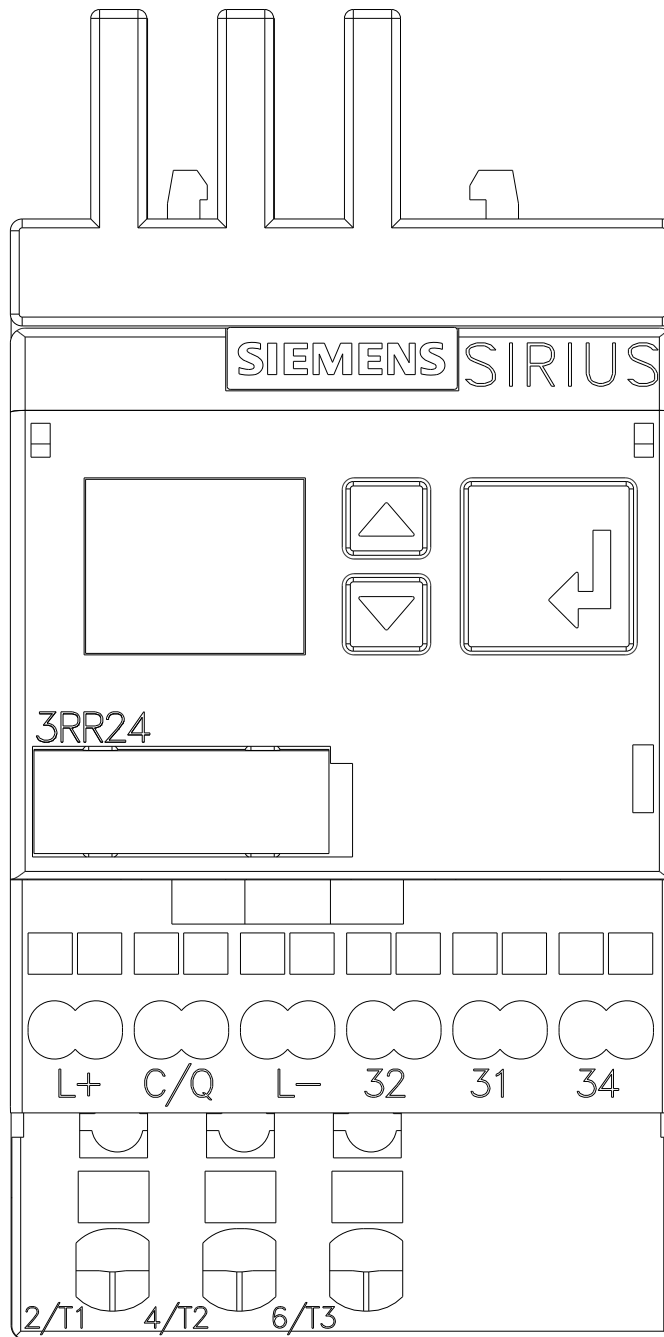
Image database (product images, 2D dimension drawings, 3D models, device circuit diagrams, EPLAN macros, ...)

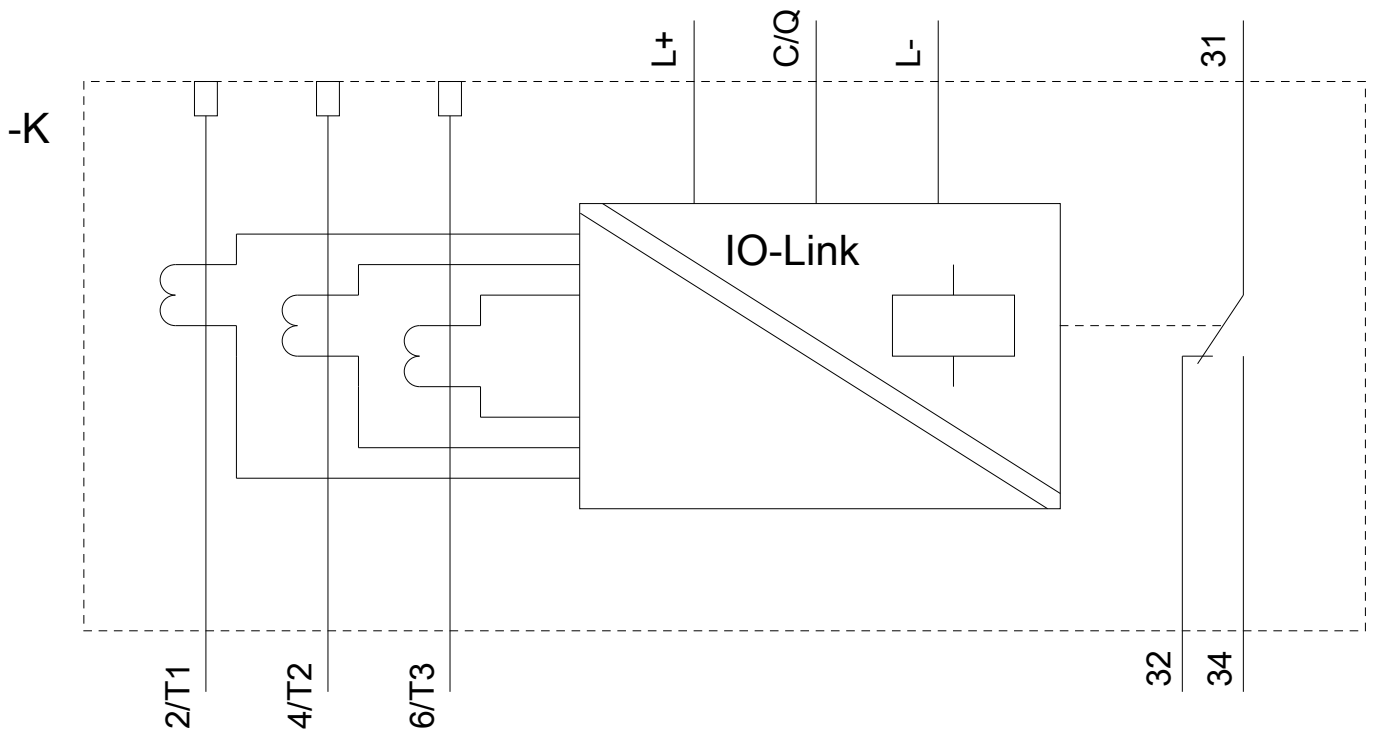
http://www.automation.siemens.com/bilddb/cax_de.aspx?mlfb=3RR2441-2AA40&lang=en

Characteristic: Derating

<https://support.industry.siemens.com/cs/ww/en/ps/3RR2441-2AA40/manual>







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