SIEMENS

Data sheet 3RR2142-2AA30



Monitoring relay, can be mounted to Contactor 3RT2, Size S0 basic, analog adjustment Apparent current monitoring 4...40 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	S0
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 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	
when starting	0 60 s
 with lower or upper limit violation 	0 30 s
Precision	
temperature drift per °C	0.1 %/°C

Short-circuit protection	
design of the fuse link for short-circuit protection of the auxiliary	fuse gG: 4 A
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	
operating power rated value	2.5 W
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	
product component removable terminal for main circuit	No
product component removable terminal for auxiliary and	Yes
control circuit	
type of electrical connection	
for main current circuit	spring-loaded terminals
for auxiliary and control circuit	spring-loaded terminals
type of connectable conductor cross-sections for main contacts	
• solid	1x (1 10 mm²)
finely stranded with core end processing	1x (1 6 mm²)
finely stranded without core end processing	1x (1 6 mm²)
connectable conductor cross-section for main contacts	
• solid or stranded	1 10 mm²
finely stranded with core end processing	1 6 mm²
finely stranded without core end processing	1 6 mm²
type of connectable conductor cross-sections	
• for auxiliary contacts	
— solid	1x (0.5 4 mm²), 2x (0.5 2.5 mm²)
— finely stranded with core end processing	2x (0.25 1.5 mm²)
— finely stranded without core end processing	2x (0.25 1.5 mm²)
for AWG cables for auxiliary contacts	2x (24 16)
AWG number as coded connectable conductor cross section for main contacts	18 8
tightening torque with screw-type terminals	0.8 1.2 N·m
Installation/ mounting/ dimensions	
mounting position	any
fastening method	direct mounting
height	109 mm
width	45 mm
depth	92 mm
required spacing	
with side-by-side mounting	
— 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





Type Test Certificates/Test Report

Special Test Certific-<u>ate</u>





Marine / Shipping

other







Confirmation

Siemens has decided to exit the Russian market (see here).

https://press.siemens.com/global/en/pressrelease/siemens-wind-down-russian-business

Siemens is working on the renewal of the current EAC certificates.

Please contact your local Siemens office on the status of validity of the EAC certification if you intend to import or offer to supply these products to an EAC relevant market (other than the sanctioned EAEU member states Russia or Belarus).

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=3RR2142-2AA30

Cax online generator

http://support.automation.siemens.com/WW/CAXorder/default.aspx?lang=en&mlfb=3RR2142-2AA30

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

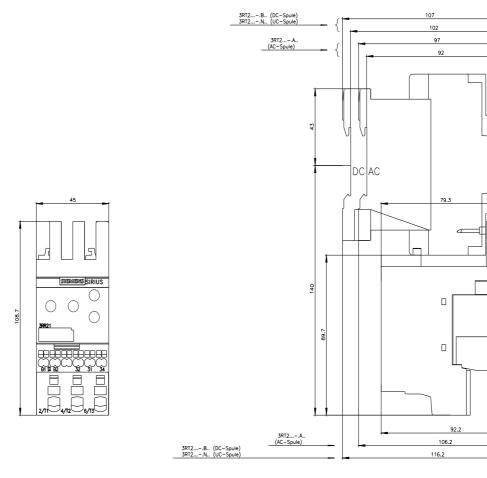
https://support.industry.siemens.com/cs/ww/en/ps/3RR2142-2AA30

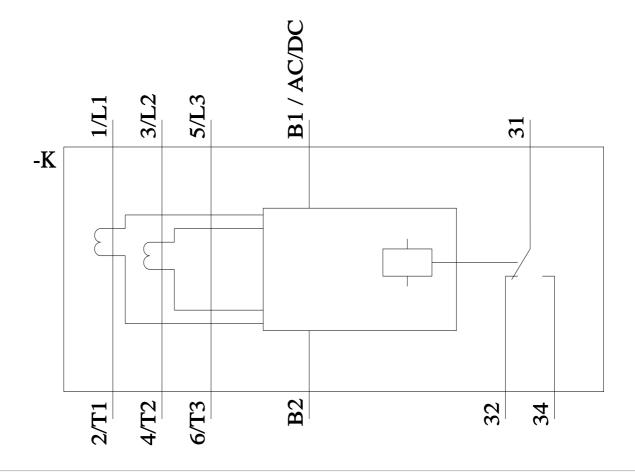
Image database (product images, 2D dimension drawings, 3D models, device circuit diagrams, EPLAN macros, ...)

http://www.automation.siemens.com/bilddb/cax_de.aspx?mlfb=3RR2142-2AA30&lang=en

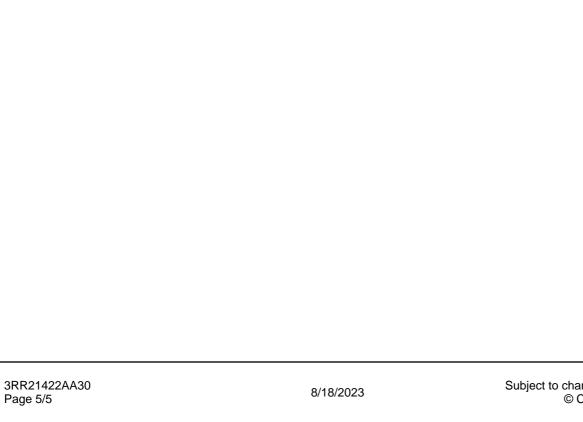
Characteristic: Derating

https://support.industry.siemens.com/cs/ww/en/ps/3RR2142-2AA30/manual





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