SIEMENS

Data sheet 3RR2241-2FW30

Monitoring relay, can be mounted to Contactor 3RT2, Size S00 standard, digitally adjustable Apparant/active current monitoring 1.6-16 A, 20-400 Hz, 3-phase Supply 24-240 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 spring-type 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	S00
Operating apparent output rated value	4 V·A
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
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 (switching cycles)	
• typical	10 000 000

Electrical endurance (switching cycles)	
• 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	
• at 50 Hz	24 ... 240 V
• at 60 Hz	24 ... 240 V
Supply voltage 1 at DC	24 ... 240 V
Supply voltage frequency	
• 1	50 ... 60 Hz

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 ... 99 s
• with lower or upper limit violation	0 ... 30 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

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
• at 230 V	3 A
• at 400 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

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
• removable terminal for auxiliary and control circuit	Yes
Type of electrical connection	
• for main current circuit	spring-loaded terminals
• for auxiliary and control current circuit	spring-loaded terminals
Type of connectable conductor cross-sections	
• for main contacts	
— solid	1x (0.5 ... 4 mm²)
— finely stranded with core end processing	1x (0.5 ... 2.5 mm²)
— finely stranded without core end processing	1x (0.5 ... 2.5 mm²)
• at AWG conductors for main contacts	1x (20 ... 12)
Connectable conductor cross-section for main contacts	
• single or multi-stranded	0.5 ... 4 mm²
• finely stranded with core end processing	2.5 ... 2.5 mm²
• finely stranded without core end processing	0.5 ... 2.5 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)

• at AWG conductors for auxiliary contacts	2x (24 ... 16)
AWG number as coded connectable conductor cross section	
• for main contacts	20 ... 12
Tightening torque	
• with screw-type terminals	0.8 ... 1.2 N·m

Installation/ mounting/ dimensions

Mounting position	any
Mounting type	direct mounting
Height	90 mm
Width	45 mm
Depth	80 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	0 mm
— at the side	6 mm
— downwards	0 mm
• for live parts	
— forwards	6 mm
— Backwards	0 mm
— upwards	0 mm
— downwards	0 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	Declaration of Conformity
CCC	CSA	UL	EAC	C-Tick	EG-Konf.

Test Certificates		Marine / Shipping			
Type Test Certificates/Test Report	Special Test Certificate	ABS	BUREAU VERITAS	LRS	PRS

Marine / Shipping			other
RINA	RMRS		Confirmation

Further information

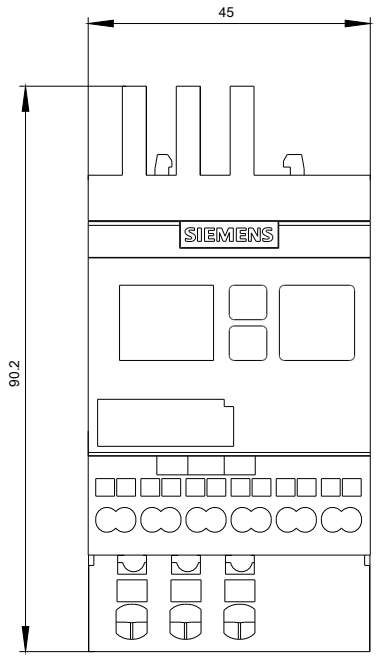
Information- and Downloadcenter (Catalogs, Brochures,…)
http://www.siemens.com/industrial-controls/catalogs

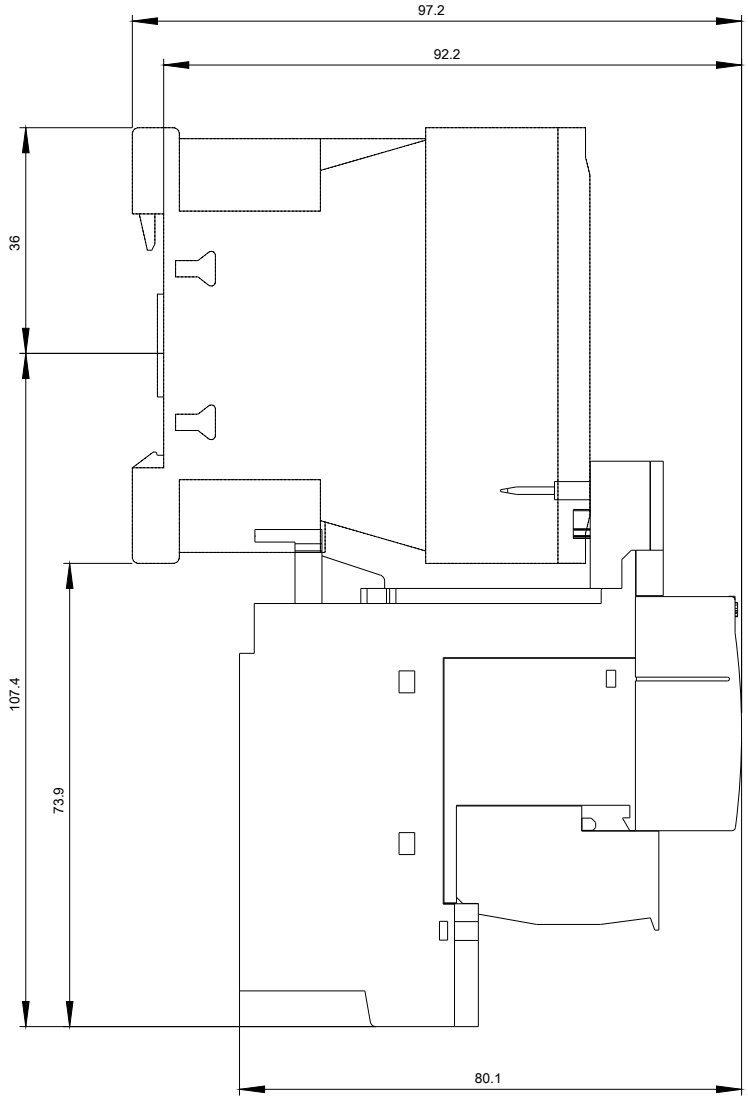
Industry Mall (Online ordering system)
https://mall.industry.siemens.com/mall/en/en/Catalog/product?mlfb=3RR2241-2FW30

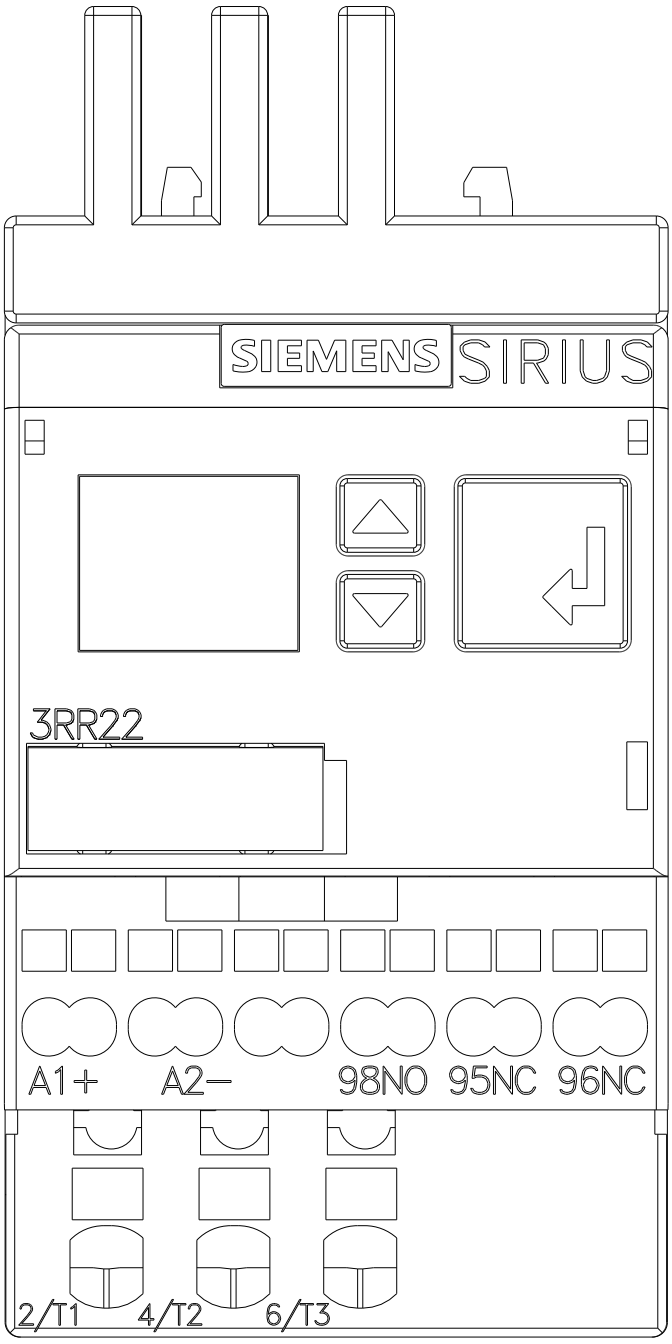
Cax online generator
http://support.automation.siemens.com/WW/CAXorder/default.aspx?lang=en&mlfb=3RR2241-2FW30

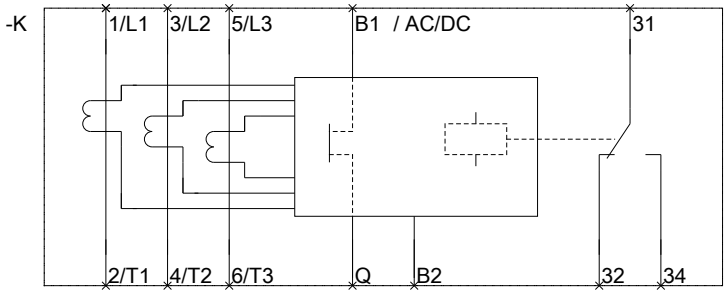
Service&Support (Manuals, Certificates, Characteristics, FAQs,...)
https://support.industry.siemens.com/cs/ww/en/ps/3RR2241-2FW30

Image database (product images, 2D dimension drawings, 3D models, device circuit diagrams, EPLAN macros, ...)
http://www.automation.siemens.com/bilddb/cax_de.aspx?mlfb=3RR2241-2FW30&lang=en









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