

SIRIUS SC Function Module 3RF2920-0FA08 Basic Load Monitoring

Main Characteristics:

Applicable on 3RF21 and 3RF23.
 No additional space requirements.
 Partial load monitoring for up to 6 loads.
 Network and thyristor monitoring.
 Plug-in control terminal.
 Degree of protection IP 20



General Data:

Standards / Approvals DIN EN 60947-4-3
 UL 508 / CSA
 CE
 CCC

Ambient temperature		
during operation	°C	-25 ... 60
during storage	°C	-55 ... 80
Installation altitude	m	0 ... 1000; derating starting at 1000
Impact resistance in acc. with DIN IEC 68	g/ms	15/11
Vibration performance	g	2
Degree of protection		IP20
Electromagnetic compatibility (EMC)		
Emitted interference		
o Conducted interference voltage IEC 60 947-4-3		Class A for industrial applications
o Radiated, radio-frequency interference voltage IEC 60 947-4-3		Class A for industrial applications
Interference resistance		
o Electrostatic discharge in acc. with IEC 61 000-4-2 (equivalent to severity 3)	kV	Contact discharge 4; air discharge 8; performance criteria 2
o Induced HF fields in acc. with IEC 61 000-4-6	MHz	0.15 ... 80; 140 dBµV; performance criteria 1
o Burst in acc. with IEC 61 000-4-4	kV	2/5.0 kHz; performance criteria 1
o Surge in acc. with IEC 61 000-4-5	kV	Phase-to-ground 2; phase-to-phase 1; performance criteria 2

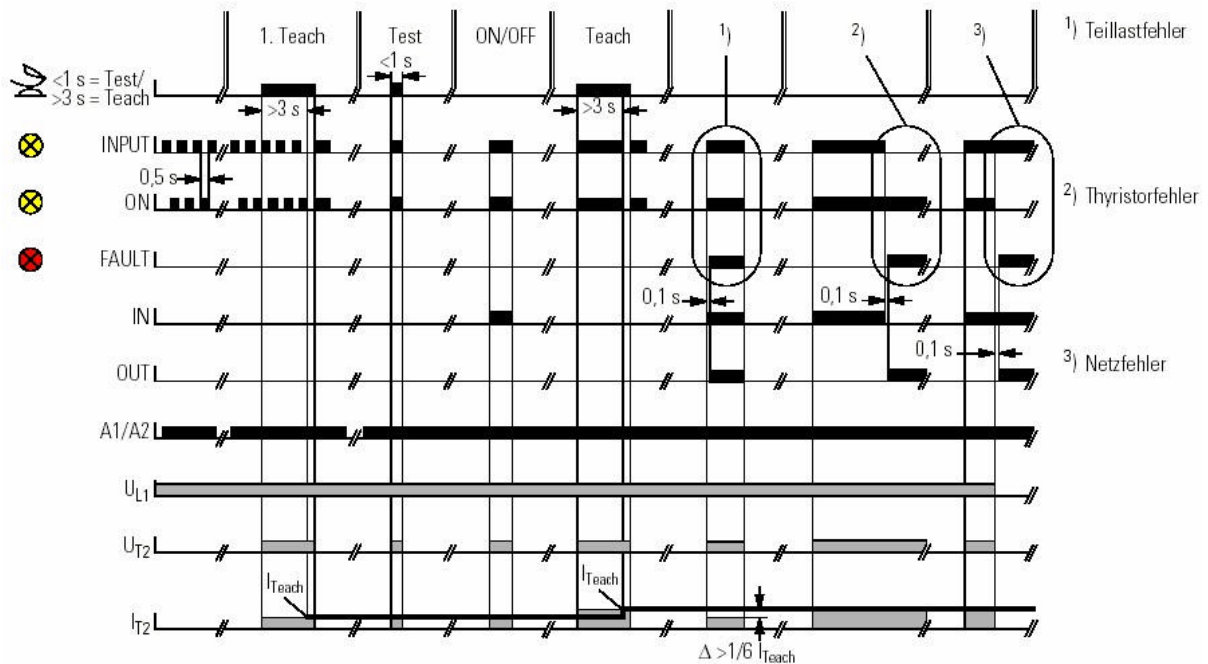
Type		Screw connection
Connection, auxil. / control contacts		
Conductor cross-section	mm ²	0.5 ... 2.5
	AWG	20 ... 12
Stripping length	mm	7
Terminal screw		M 3
o Tightening torque	Nm	0.5 ... 0.6
	lb.in	4.5 ... 5.3
Current transformer hole diameter	mm	7

Main Circuit:

Type		3RF2920-0FA08
Current detection		
Rated operating current I _e	A	20
• Measuring range	A	4 ... 22
Number of partial loads		6

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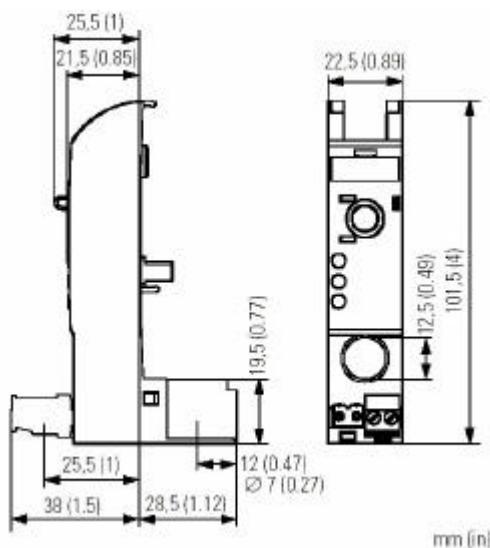
Functional Diagram



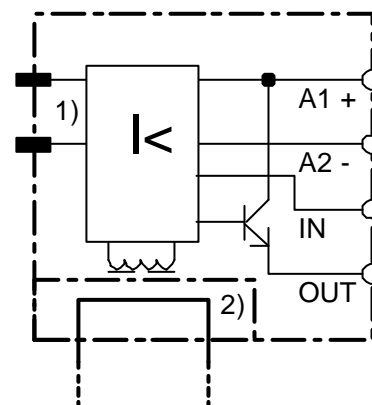
Control Circuit:

Type		3RF2900-0FA08
Operating type		DC operation
Rated control supply voltage U_s	V	24
Rated operating voltage max.	V	30
Rated operating current	mA	15
Threshold voltage	V	15
• At threshold current	mA	2
Drop-out voltage	V	5

Dimension Drawing:



Equipment Circuit Diagram:

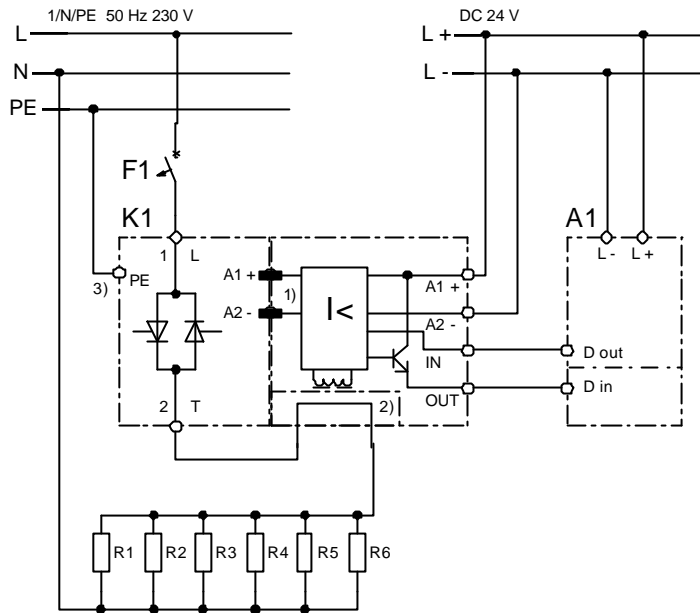


3RF2920-0FA08
 $U_s = 24\text{ V DC}$

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Sample Circuit Diagram:

- A1 Control (PLC)
 F1 Main circuit miniature circuit-breaker
 K1 3RF23 solid-state contactor with plug-on load monitoring module¹
 R1-6 Load resistances²



¹ Internal connection to the solid-state relay / contactor.

² Bar-type current transformer