

■ Datasheet: Mains analyser MF9



■ SCHRACK-INFO

- Three-phase line 80...500V (phase-phase)
- Connection on dedicated CT, programmable external CT ratio
- Active energy class 1
- Pulse output and RS485 communication by ModBus RTU/TCP protocol
- Phase sequence correction, diagnostic

■ Technical datas

Display

Display	LCD backlit
Measuring display	4 lines – 4 digits, size 9 mm
Energy count	8 digits, size 6 mm
Accuracy (+ 1 digit)	Active energy: class 1
	Reactive energy: class 1
	Voltage: class 0,5
	Current: class 0,5
	Power: class 1
	Reactive power: class 1
	Apparent power: class 1
	Frequency: $\pm 0,1$ Hz
	THD: class 2
Programming	4 front keys, access protected by password

Programmable parameters

Parameters	Customized display page
	Connection (1+N or 3+N)
	Average power /current delay time
	Start time (run hour meter)
	RS485 communication
	Impulse output
	CT - ratio

Input

Input	Single-phase, three phase network 4-wire
Rated voltage U_n	400V (three-phase, phase-phase)
Max. input voltage	80 500V (three-phase, phase-phase)
	50 290V (single-phase)
Rated current	5A – only with current transformer
Max. current I_{max}	1.2 I_n
Overload	20 x $I_n/0.5s$
Rated frequency	50Hz - 60 Hz (automatic selection)
Frequency tolerance:	45 65 Hz
Harmonic contents:	up to 40. harmonic
Peak factor:	Current 2 - Voltage 1,5
Starting time (energy count):	< 5s
Rated burden:	Voltage: < 0,2VA (phase - neutral to the voltage rating)
	Current: < 0,4VA (for phase to the max. current 6A)

Auxiliary supply

Auxiliary supply:	Taken from measurement (Phase L1 - N)
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Insulation

Installation category:	III
Pollution degree:	2
Insulation voltage rating:	300 V (Phase - Neutraleiter)
Impulse withstand resistance:	Considered circuits: 6 kV, 1,2/50 μs , 0,5 J, 3 kV alternating voltage r.m.s 50Hz 1 min
	Measure inputs: 6 kV, 1,2/50 μs , 0,5 J, 3 kV alternating voltage r.m.s 50Hz 1 min
	All circuits and earth: 4 kV alternating voltage r.m.s 50Hz 1 min

Elektromagnetic compatibility

Emission according to:	EN 61326-1 class B, IEC 61326-1 class B
Immunity according to:	EN 61326-1, IEC 61326-1

Environmental conditions

Reference temperature:	23 °C + 2 °C
Operation temperature:	-5 bis 55 °C
Max. temperature range (storage, transport)	-25 bis 70 °C
Max. powerloss	≤ 5W

Housing

Front frame	96 x 96 mm
Depth	62 mm
Panel cut-out flush mounting	92 x 92 mm
Housing material	Polycarbonate (self-extinguishing)
Degree of protection	IP 54 (front) – IP 20 (terminals)

Terminal capacity

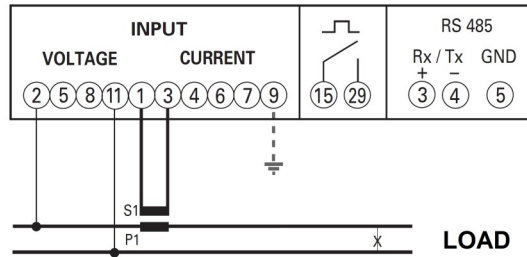
Terminal type	Screw terminals
Voltage input:	Rigid wire 0.05mm ² - 4 mm ²
	Flexible wire 0.05mm ² - 2.5 mm ²
	Torque: 0.6 Nm
Current input:	Rigid wire 0.05mm ² - 6 mm ²
	Flexible wire 0.05mm ² - 4 mm ²
	Torque: 1 Nm
Outputs:	Rigid wire 0.05mm ² - 4 mm ²
	Flexible wire 0.05mm ² - 2.5 mm ²
	Torque: 0.6 Nm

1-phase operation, cold state start
 2-phase operation, cold state start
 3-phase operation, cold state start

Wiring diagram

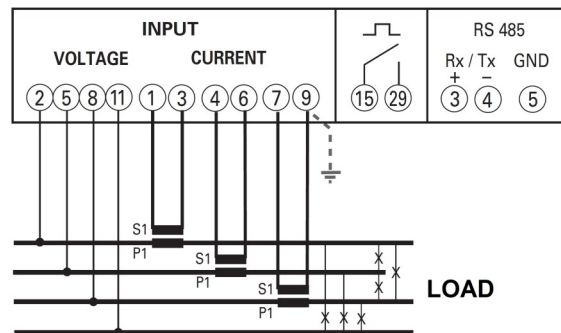
1N1E

Einphasenanschluss
Single phase network



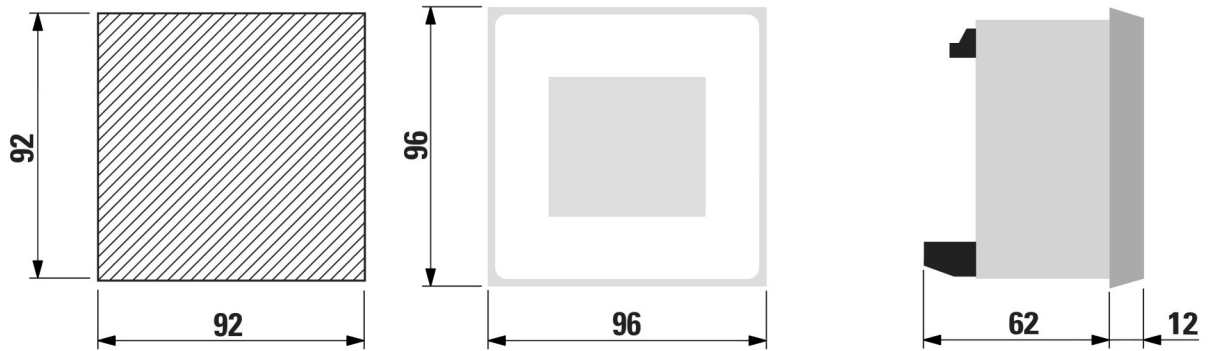
3N3E

4-Leiter unglm. Belastung
Three-phase 4-wires network, 3 Systems



1A gG  **Max. 27V 50mA**

▀ Dimensions



▀ Articles

Mains analyser MF9

Description	order no.
Netzanalysator MF9, 96x96mm, with RS 485 connection	MGF37900--