

MULTIS M-18

Digital multifunction power meter

three-phases - via CT up to 9999 A dimensions 96 x 96 mm



MULTIS M-18

Function

The **MULTIS M-18** is a panel mounted digital meter displaying multi-measurement and energy values directly on its large backlit LCD display. It is designed for utilisation on three-phase or single-phase networks with connection via CT and is suitable for applications of up to 9999 A. The product can be configured by the user via the keypad and the display.

Advantages

Easy to use

Thanks to its large backlit LCD display and its multiple viewing screens with direct pushbutton access, MULTIS M-18 provide clear readings and are easy to use. They directly display a number of multi-measurement and metering values.

Advanced functionalities

The MULTIS M-18 offers input/output functions as standard and has a pulse output or RS485 MODBUS communication output.

The solution for

- > Industry
- > Infrastructure



Strong points

- > Large backlit LCD display
- > Direct display of multimeasurement and metering values
- > RS485 MODBUS communication
- > Inputs/Output for control/command

Conformity to standards

- > IEC 62053-22 class 0.5S
- > IEC 62053-23 class 2



Functions

Multi-measurement

- Currents
 - instantaneous: I1, I2, I3, In
- Voltages & frequency
 - instantaneous: V1, V2, V3, U12, U23, U31, F
- Power
 - instantaneous: 3P, ΣP , 3Q, ΣQ , 3S, ΣS
- Power factors
 - instantaneous: 3PF, Σ

Metering

- Active energy: $\pm$ kWh
- Reactive energy: $\pm$ kvarh

Harmonic analysis

- Currents: thd I1, thd I2, thd I3
- Voltage: thd V1, thd V2, thd V3
- Rate 2-31 harmonic analysis of current and voltage

Communications

- RS485 with MODBUS protocol

Inputs

- Remote status device

Output

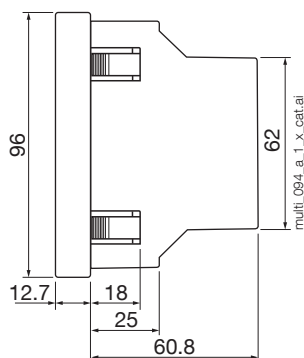
- Remote command of device

Front panel



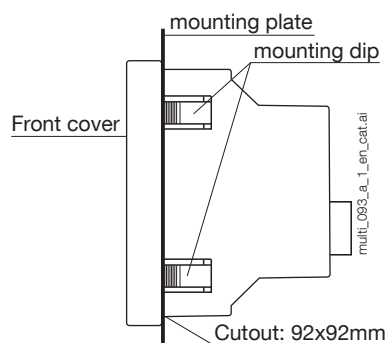
1. M: Direct access key for each phase power factor, voltage, energies
2. VI THD: Direct access key for voltage, current
3. PF F: Direct display power factor, frequency
4. P: Direct display active power, reactive power and apparent power
5. E: Direct display active energy (total/+/-), reactive energy (total/+/-),

Case



Type	Panel mounting
Dimensions W x H x D	96 x 96 x 60.8 mm

Mounting



Type	Panel mounting
Cutout size	92 x 92 mm
Front degree of protection	51(indoor)
Insulation class voltage	II
Terminal block type	plug-in
Voltage and other connection cross-section	0.2 ... 2.5 mm ²
Current connection cross-section	1.5 ... 2.5 mm ²
Max tightening torque	0.4 Nm
Mechanical environment	M1
Electromagnetic environment	E2
Degree of pollution	2
Installation category	CAT III

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Electrical characteristics

Current measurement (TRMS)

Via CT primary	9 999 A
Via CT secondary	5/1 A
Input consumption	0.6 VA
Accuracy	0.2%
Permanent overload	6 A
Intermittent overload	20 I _n for 0.01 s

Voltage measurements (TRMS)

Direct measurement between phases	50 ... 500 VAC
Direct measurement between phase and neutral	50 ... 345 VAC
Input consumption	≤ 0.1 VA
Measurement updating period	1 s
Accuracy	0.2%
Permanent overload	120% I _n

Power measurement

Accuracy	0.5%
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Frequency measurement

Measurement range	45 ... 65 Hz
Accuracy	0.2 %

Energy accuracy

Active (according to IEC 62053-22)	Class 0.5S
Reactive (according to IEC 62053-23)	Class 2

Auxiliary power supply

AC tolerance	85 ... 275 VAC
DC tolerance	120 ... 380 VDC
Frequency	50 / 60 Hz
Consumption	<2W/10 VA

Inputs

Number	2
Type	Phototransistors

Communication

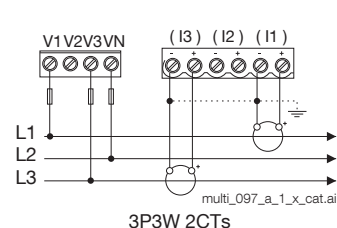
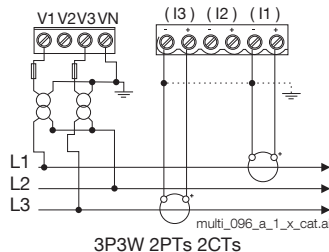
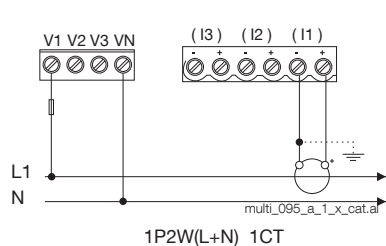
Link	RS485
Type	2 ... 3 half duplex wires
Protocol	MODBUS RTU
MODBUS® speed	1400 ... 38400 bauds

Operating conditions

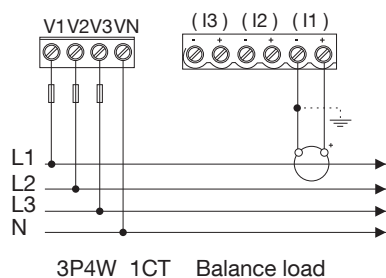
Operating temperature	- 25 ... + 55 °C
Storage temperature	- 40 ... + 70 °C
Relative humidity	95 %
Altitude	2000 m

Connection

Wires - Low voltage



Wires - High voltage



References

Basic device		MULTIS L50
		Reference
MULTIS M-18		192J 9060
Accessories		
Description of accessories	To be ordered in multiples of	Reference
Fuse holder for the protection of voltage inputs (type RM) 3 poles	4	5601 0018
Fuse holder for the protection of the auxiliary supply (type RM) 1 pole + neutral	6	5601 0017
gG 10x38 0.5 A fuses	10	6012 0000

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