



FEATURES

- The **Mult-K 30Wh** is an energy meter, conceived to measure energy consumption in AC systems – three-phase (star or delta), two-phase and single-phase loads.
- Applicable either on low, mid or high voltage, since it is possible to program the potential and/or current transformer ratios and the connection diagrams. Also available in a configuration intended to directly measure currents up to 120Aac, which does not require external current transformers
- Energy consumption readings can be obtained locally (through an LCD display) or remotely, using RS-485 or pulse outputs for communication

APPLICATIONS

- Submetering
- Automation systems
- Energy Consumption Analysis
- Any application related to energy consumption measurement

PRODUCT INFO

MEASUREMENTS

- Energy Consumption

CONNECTION DIAGRAMS

- Mono-Phase, Two-Phase or Three-Phase systems (configurable)

DIRECT MEASUREMENT – 120 A

- Direct measurement of currents up to 120Aac, without requiring external current transformers

INSTALLATION

- Panel's Background, Side Screws Fastening
- Technical support via e-mail, telephone, WhatsApp and YouTube videos

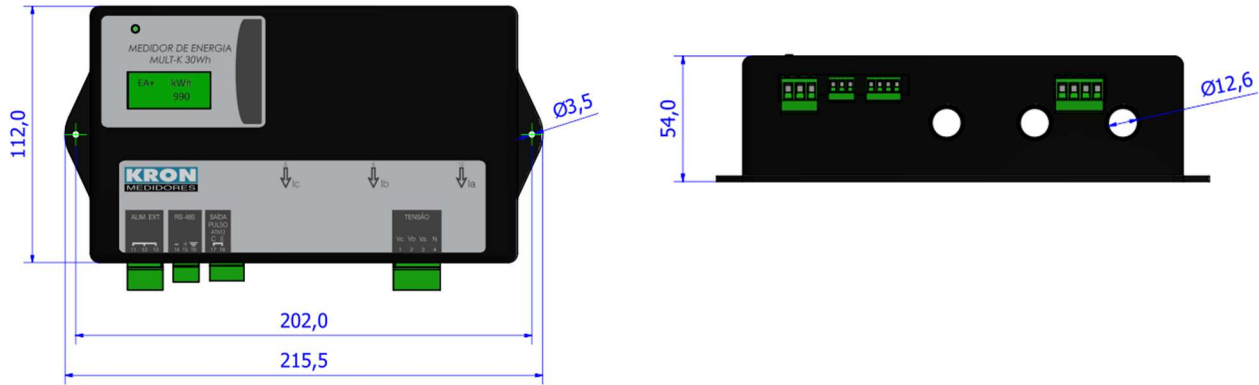
INTERFACES, READINGS & CONFIGURATIONS

- Man Machine Interface (MMI) composed of an LCD display, allowing local reading
- Software for reading and parameterization: RedeMB (RS-485 communication)
- Modbus-RTU (standard) or Metasys-N2 (optional) protocols, allowing integration to PLCs, master MMIs, supervisory systems and data concentrators
- It may include pulse output as an option for remote reading of active energy, using wired connection to external device inputs (PLCs, mechanical counters, etc.)

ELECTRICAL GREATNESSES	<i>Energies</i>	Positive Active Energy – kWh (Energy Consumption)
	<i>Connections Diagrams</i>	Three-Phase (Star or Delta), Two-phase and Single-Phase
	<i>Voltage – Working Range</i>	20 to 500Vac (Ph-Ph) (1.5 Vmax overload (1s))
	<i>Current – Working Range</i>	In 30Aac: 1.5 ~ 120Aac In 5Aac: 50mA ~ 30Aac (recommended for use with external CTs, XXXX/5A)
	<i>Frequency - Working Range</i>	44 ~ 72 Hz
	<i>Connection</i>	Terminal Blocks: Quick coupling terminal (IP-00)
	<i>Maximum Cable to be Used</i>	Current: Orifice for cable passage, max. cable diameter of 12.6 mm Terminal Blocks (Power Supply, Voltage and I/O connections): 2.5mm ²
POWER SUPPLY	<i>Internal Consumption</i>	<0.5VA
	<i>Voltage</i>	85 ~ 265Vac/100 ~ 375Vdc 110/220Vac (80 to 120% of nominal value) 12Vdc (90 to 120% of nominal value) 24Vdc (80 to 120% of nominal value) 48Vdc (80 to 120% of nominal value)
	<i>Internal Consumption</i>	< 10VA
ACCURACY at 25°C (77 °F), referred to the full scale	<i>Energy</i>	0.5%
	<i>Connection/Protocol</i>	RS-485: Modbus RTU METASYS-N2
COMMUNICATION	<i>RS-485 Cabling</i>	Shielded cables, with at least two twisted pairs (2x24 AWG), minimum section of 0.25mm ² and characteristic impedance of 120ohms
	<i>Transmission Speed</i>	Modbus-RTU: 9600, 19200, 38400 or 57600bps (configurable) Metasys-N2: 9600 bps
	<i>Data Format</i>	Modbus-RTU: 8N1, 8N2, 8E1, 8O1 (configurable) Metasys-N2: 8N1
	<i>Adressing</i>	1 to 247 (configurable)
	<i>LCD(green)</i>	8 columns x 2 lines, with backlight
DISPLAY	<i>Parameters</i>	Positive Active Energy (consumption)
	<i>Type</i>	Open Collector Pulse Width: 200ms Max. Current: 1mA Max. Frequency: 1Hz
PULSE OUTPUT	<i>Material</i>	Thermoplastic
	<i>Mass</i>	0.75Kg
	<i>Protection Degree</i>	IP-40
CASE	<i>Operation Temperature</i>	0 to 60°C (32 to 140°F)
	<i>Storage Temperature</i>	-25 to 60°C (-13 to 140°F)
	<i>Relative Air Humidity</i>	Maximum of 90% (without condensation)
	<i>Temperature Coefficient</i>	50ppm/°C
ENVIRONMENTAL CONDITIONS	<i>Electrical Parameters</i>	IEC 61000-4-2 IEC 61000-4-3 IEC 61000-4-4 IEC 61000-4-5 IEC 61000-4-6 IEC 61000-4-8 IEC 61000-4-11 CISPR 11
	<i>Standards</i>	

- For further information, see User Manual

DIMENSIONS



How to Specify:

Z072E15

Current Input

- 2: In = 30Aac (Imax = 120Aac) E-02**
- 3: In = 5Aac (Imax = 30Aac) E-05

Frequency:

- 1: 60Hz**
- 2: 50Hz

Interfaces

- 1: RS-485**
- 3: RS-485 +Pulse Output

Power Supply:

- 1: 120/220Vac**
- 2: Universal Source: 85-265Vac/ 100-375Vdc
- 4: 48Vdc
- 5: 24Vdc
- 6: 12Vdc

MMI

- 0: Display LCD**
- 9: Without MMI

Protocol

- 0: MODBUS-RTU**
- 1: METASYS-N2 (Johnson Controls)

The bold signaled items indicate the standard options, which have higher stock availability

Standard Model: (Example)

Z072E15 2 2 1 1 0 0

Mult-K 30Wh {In = 30A (Imax =120Aac)} {Frequency 50Hz} {RS-485} {Power Supply 110/220Vac} {LCD Display} {Modbus-RTU Protocol}

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For correct utilization of the product, the User Manual must be consulted before its installation or operation.
Some items presented here may be optional, being necessary the correct product specification by their code.

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