iKRON-03

Energy Meter and Multifunction Analyzer

Technical Datasheet

MULTIFUNCTION ANALYZER

CONSUMPTION

RS-485

FEATURES

- The **iKron-03** is an instrument conceived to measure electrical parameters in AC systems, such as energy consumption, current, voltage and others
- Applicable either on low, mid or high voltage, mono-phase, two-phase or three-phase systems, since it is possible to program the potential and/or current transformer ratios and the connection diagrams
- Measurement readings can be obtained locally (through a LED display, with 7 segments and 4 digits) or remotely, using RS-485 or pulse interfaces

APPLICATIONS

- Submetering
- Energy Efficiency
- Energy Cogeneration systems (4-quadrant metering, delivered and received power)
- Automation systems
- Analysis of electrical circuits and equipment
- Analog Instrument substitution
- Any application related to energy and electrical parameters measurements

PRODUCT INFO

ELECTRICAL PARAMETERS – 68

- Includes current, voltage, frequency, energy consumption, energy demand, active, reactive and apparent powers, power factor and other parameters

CONNECTION DIAGRAMS

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

INSTALLATION

- Panel´s Door
- Technical support via e-mail, telephone, WhatsApp and YouTube videos

INTERFACES, READINGS & CONFIGURATIONS

- Man Machine Interface (MMI) composed of displays (LED) and four navigation keys, allowing local reading and configuration
- Software for reading and parameterization: RedeMB (RS-485)
- Modbus-RTU protocol, allowing integration to PLCs, master MMIs, supervisory systems and data concentrators
- Includes pulse output, for remote reading of active or reactive inductive energy, using wired connection to external device inputs (CLPs, mechanical counters, etc.)

iKRON-03

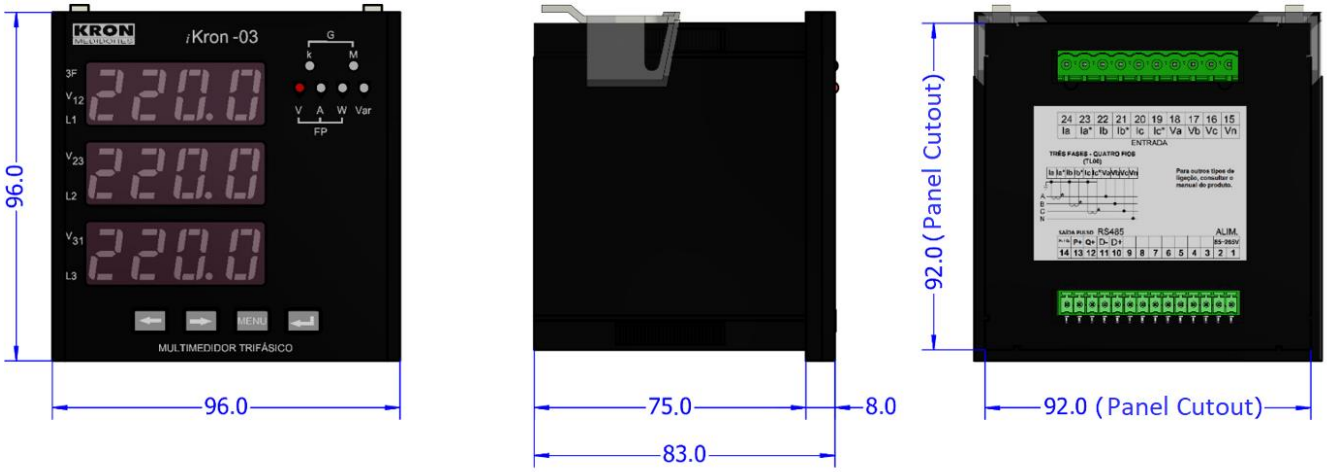
Energy Meter and Multifunction Analyzer

Technical Datasheet

ELECTRICAL GREATNESSES	*Instantaneous*	Voltage (Ph-Ph, Ph-N and 3Ph), Current (Ph, N and 3Ph), Frequency, Active, Reactive and Apparent Power (Ph and 3Ph), Power Factor (Ph and 3Ph)
	Energy	±Active Energy kWh (Consumption and Supply) ±Reactive Energy VARh (Inductive and Capacitive Loads) Active and Apparent Demand (Average and Maximum)
	Maximum and Minimum	Voltage, Current, Powers, Power Factor (Ph e 3Ph) (only for E-01 version, upon consultation)
MEASUREMENTS AND INPUT INFO	*Connection Diagrams*	Three-Phase (Star and Delta), Two-phase and Single-Phase
	Voltage – Working Range	20 to 500Vac (F-F) (1.5 Vmax overload (1s))
	Current – Working Range	20mA to 7,5Aac
	Frequency – Working Range	45 to 65Hz
	Connection	Quick coupling terminal (IP-00)
	Maximum Cable to be Used	2,5mm² for measurement inputs 1,5mm² for power supply and pulse output
	Internal Consumption	<0.5VA
POWER SUPPLY	*Voltage*	86 to 265Vac/Vdc
	Internal Consumption	< 5VA
ACCURACY **at 25°C (77 °F), referred to the full scale**	*Voltage, Current and Powers*	0.5% + 1 digit
	Frequency	0.5% + 1 digit
	Power Factor and Energies	0.5% + 1 digit
COMMUNICATION	*Connection/Protocol*	RS-485 - Modbus RTU
	RS-485 Cabling	Shielded cables, with at least two twisted pairs (2x24 AWG), minimum section of 0.25mm² and characteristic impedance of 120ohms
	Transmission Speed	9600 bps
	Data Format	8N1, 8N2, 8E1 or 8O1 (configurable)
	Addressing	1 to 247 (configurable)
DISPLAY	LED	High-bright red LED Display, 4 digits and 7 segments
PULSE OUTPUT	*Parameters*	Positive Active Energy and Positive Reactive Energy (inductive load)
	Type	Open Collector Voltage Range: 5 to 48Vdc Pulse Width: 90ms | Max. Current: 50mA | Max. Frequency: 10 Hz
CASE	*Material*	Thermoplastic
	Mass	0.5Kg
	Protection Degree	IP-40 for front panel and enclosure
ENVIRONMENTAL CONDITIONS	*Operation Temperature*	-10 to 50°C (14 to 122°F)
	Storage Temperature	-25 to 70°C (-13 to 158°F)
	Relative Air Humidity	Maximum of 85% (without-condensation)
	Temperature Coefficient	50ppm/°C
STANDARDS	*Electrical Parameters*	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

- *For further information. see User Manual*

DIMENSIONS



How to Specify:

JK2002		265			

Communication:

2: RS-485 + Saída de Pulso

Frequency:

1: 60Hz
2: 50Hz

Protection Degree:

0: IP-40 (front panel and enclosure)
1: IP-54 for front panel and IP-40 for enclosure

Version:

0: Standard Model
1: E-01
(TL-17 + Mínimos e Máximos)

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

Standard Model (Example)**:**

JK2002 2 265 2 0 0
iKron 03 {RS-485 + Pulse Outputs} {Frequency 50Hz} {Protection Degree: IP-40} {Standard Version}

Kron Instrumentos Elétricos Ltda.
Rua Alexandre de Gusmão, 278 - São Paulo, SP | Brasil
Phone: 55 (11) 5525-2000 | www.kron.com.br | suporte@kron.com.br | vendas@kron.com.br