iskraemeco
BY ELSEWEDY ELECTRIC

IE.5

Single and three phase smart energy meters

Functionalities

- **Modular hardware design.**
- **Modular firmware design.**
- **High integration:** Multi-utility, HAN, LAN, IO's.
- **Support for latest communication technology:** Mobile networks (NB-IoT/2G/3G/4G/LTE-M/LTE-450 MHz, with or without Last Gasp, eSIM, eUICC, antenna coupler); Ethernet, fibre optic cable, power line communications (G3PLC); Local communication (M-Bus, wireless M-Bus, RS485, P1 interface); Service communication - Optical port. Simultaneous support of several communication protocols is possible.

- **Integrated breaker** up to 100A, UC3.
- **Backup power supply:** Replaceable battery with backup time up to 5 years or Supercapacitor with backup time up to 7 days.
- **Integrated IO sets:** Tailor the meter to your specific needs.
- **Customer access** to IO's (2x Relay, P1 port).
- **Upgradeable with IoT EDGE module:** IE.X meters can be enhanced with an IoT EDGE module, expanding their functionality with additional applications, services, and communication capabilities.

Benefits

- **Flexibility:** IE.X smart meters are designed to meet even the most complex customer requirements. They offer functional scalability and an excellent user experience through a modular approach at both the hardware and software levels. This flexibility supports a wide range of applications, from residential to advanced industrial and grid metering systems.
- **Scalability:** The architecture of the eIoT platform extends far beyond traditional electricity metering. It establishes a foundation for a wide range of smart solutions and services, transforming the meter into a multifunctional device. This smart meter not only performs electricity metering but also acts as a grid analyzer, power quality analyzer, lighting controller, and a hub for various additional applications and services.
- **Connectivity:** The IE.X platform enhances data quality, facilitates efficient data exchange and processing, and supports a variety of communication technologies.

IE.X smart meters feature interchangeable communication modules and are capable of supporting multiple communication protocols simultaneously.

- **Security:** IE.X meters fully comply with European and national legislation requirements, ensuring robust security at both physical and logical levels.
- **Sustainability:** The development of the new IE.X meter aligns with the company's "One planet design" strategy, embodying the principles of the circular economy. We have reduced the product's carbon footprint, innovated the materials used, and achieved a reduction in the meter's own energy consumption compared to previous generations.

Technical data

		IE.5-E Direct connected	IE.5-T Direct connected
TYPE OVERVIEW			
	Low voltage	•	•
Connection type	1P2W	•	•
	3P4W		•
	3P3W		•
Communication	WAN	Mobile networks: NB-IoT/LTE-M/2G, 2G/4G, with or without Last Gasp, eUICC, antenna coupler; Power line communications (G3PLC); Ethernet, fibre optic cable, RS485.	
	Customer port	DSMR5 P1 in DLMS I1 compliant; active or passive with RJ12 connector type	
	Multiutility	M-Bus, wM-Bus	
	Local communication	Optical port	
TECHNICAL SPECIFICATIONS			
Nominal voltage Un		230 V	3x230/400 V, 3x230 V, 1x230 V
Voltage range		0.8 – 1.15 Un	
	Base current	Ib	5 A, 10 A	5 A, 10 A
	Maximal current	Imax	85 A, 60 A	85 A, 100 A, 120A
Accuracy class	Active energy	Class 1 (IEC 62053 – 21) or B (EN 50470 – 3, EN 50470 – 1)	
	Reactive energy	Class 2 (IEC 62053 – 23)	
	Apparent energy	Calibrated up to 3 %	
Temperature ranges (IEC 62052 – 11)	Operation	–40 °C … +70 °C	
	Storage	–40 °C … +80 °C	
Ingress protection IEC 60529		IP 54	

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