

IE.7

Indirect three phase C&I electricity meter



Functionalities

- **Modular hardware design.**
- **Modular firmware design.**
- **High integration:** Multi-utility, HAN, LAN, IO's.
- **Support for latest communication technology:**
 - Cellular: (NB-IoT/2G/3G/4G/LTE-M/LTE-450 MHz)
 - Ethernet / Fiber Optic
 - Dedicated customer channel (P1/RS485/M-Bus and wM-Bus)
- **Integrated yet Flexible I/O board to meet different customer requirements.**
- **RTC backup options: Replaceable battery lasting up to 5years or Supercapacitor lasting up to 7 days**
- **EDGE Computing Support**

Benefits

- **Flexibility:** designed with exceptional flexibility to meet a wide range of application needs. With options for RTC backup, you can choose between a Supercap or a removable battery to best fit your operational requirements. The modular communication design allows easy swapping of communication modules, enabling seamless adaptability to evolving technologies. Additionally, the I/O configuration is highly customizable, offering a variety of input and output options tailored to different use cases and specific customer requirements. This level of design flexibility makes our metering device a versatile solution for diverse applications.
- **Scalability:** engineered with scalability at its core, making it ideal for Commercial and Industrial (C&I) applications. It seamlessly scales to meet diverse power quality and grid monitoring needs, providing extensive features that support both small-scale and large-scale deployments. The meter can be configured with DIN-connected terminals for straightforward installations or with a dedicated variant for transformer monitoring, utilizing external Rogowski coils. This scalable design empowers users with advanced monitoring capabilities across a wide range of C&I environments.
- **Connectivity IE.7** offers robust connectivity options with support for over four communication channels, ensuring adaptability across various applications. It can leverage cellular technologies via exchangeable communication modules or utilize on-board interfaces, including Ethernet, RS485, P1, or M-Bus. This flexible approach provides customers with multiple, reliable communication pathways, enabling seamless integration to specific use cases and operational demands. With this extensive connectivity suite, the meter is equipped to meet the diverse communication needs of any application environment.
- **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.7 CT	IE.7 CT/VT
TYPE OVERVIEW			
Application	Low voltage	•	•
	Medium Voltage		•
Connection type	3P4W	•	•
	3P3W	•	•
Communication	WAN	Mobile networks: NB-IoT/LTE-M/2G, 2G/4G, with or without Last Gasp, eUICC, antenna coupler. Ethernet, fiber 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 U_n		3x240/415 V, 3x230/400 V, 3x63,5/110 V, 3x230 V 3x110 V	3x57.7/100 V 3x240/415 V,
Voltage range		0.8 – 1.15 U_n	
	Base current	I_b	1 A, 5 A
	Maximal current	I_{max}	6 A, 10 A
Accuracy class	Active energy	Class 0.5 (IEC 62953 - 21) or C (EN 50470 - 3, EN 50470 - 1)	
	Reactive energy	Class 1 (IEC 62053 -23)	
	Apparent energy	Calibrated up to 2 %	
Temperature ranges (IEC 62052 - 11)	Operation	-40 °C ... +70 °C	
	Storage	-40 °C ... +80 °C	
Ingress protection IEC 60529		IP 54	