

3021-XX

Data Acquisition and Transmission Device

Data Acquisition and Transmission Device is designed for data acquisition, processing, storage, and transmission of commercial metering data via communication interfaces to the upper-level AMI/AMR system. It also provides time synchronization, timekeeping, and control of specific functions of metering devices.

Application Area

The DCU is intended for use in residential, commercial, and industrial facilities, including wholesale and retail energy markets and utility infrastructure.

Key Features

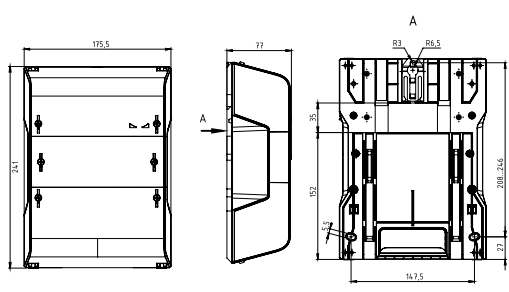
- **Communication Interfaces:**
For metering devices: PLC, Radio, RS-485, Optical port
For head-end systems:
 - Dual GSM (2G/3G/4G)
 - Ethernet (up to 100 Mbps)
 - Wi-Fi IEEE 802.11 b/g (2.4 GHz)
- **Bidirectional Communication:** Enables both data collection and remote control of metering devices and connected equipment.
- **Data Buffering:** Stores meter readings and event logs during communication outages with automatic transmission upon reconnection. Continuous logging with a data retention period of 1 year or more.
- **Automatic Recovery:** The unit automatically restores communication and transmits buffered data without loss.
- **Data Security:** Authentication control, secure communication channels, and logging of unauthorized access attempts.
- **Flexible Configuration:** Adjustable polling parameters, communication channels, and operational scenarios tailored to site requirements.
- **Monitoring and Event Logging:** Recording of alarms, communication failures, device errors, and other critical events.
- **Scalability:** Supports connection of a large number of metering devices and operation in distributed networks.
- **Standalone Operation:** Operates independently without постоянное connection to the server thanks to built-in logic and memory.



Execution options

Model	Interfaces to Metering Devices	Supported Meter Types	Interfaces to Head-End System	Number of Connected Devices
3021-01	SRD (up to 2), PLC, RS-485 (up to 2)	Electricity meters	GSM (up to 2), Wi-Fi, Ethernet	up to 1000
3021-02			GSM (up to 2), Ethernet	
3021-03			GSM (up to 2), Wi-Fi	
3021-04			GSM, Wi-Fi, Ethernet	
3021-05			GSM, Ethernet	
3021-06			GSM, Wi-Fi	

Parameter Value

	Length (L)	mm	241
	Width (W)	mm	175,5
	Height (H)	mm	77
	Weight	kg	1,9

Technical Specifications

Start-up time, max	minutes	minimum 15
Backup retention (clock, data, calendar)	years	minimum 10
Supply voltage (AC, 50 Hz)	V	184.0 to 264.5
Current consumption	A	0,2
Operating conditions: – Ambient temperature – Relative humidity	°C %	-40 to +70 98 at +35 °C
Reference ambient temperature	°C	+15 to +25
Service life	years	10
Mean time between failures (MTBF)	hours	minimum 100 000
Ingress protection rating	—	IP51