CELLWATCH FRONTIER

Battery Monitoring

BATTERY MONITORING UNIT

01

APPLICATIONS: Cellwatch Frontier is ideal for applications that require:

- Automated daily monitoring of utility substation batteries for NERC PRC-005-06 compliance
- Reliable oversight of switchgear, generator-start, and backup systems
- Telecom battery monitoring at cell towers and distributed sites
- Integration with SCADA, NMS, or site management systems via DNP3, SNMP, or Modbus

02

KEY FEATURES:

- Monitors 1.2 to 16-volt batteries for both short and long-duration loads
- Tracks ohmic values, voltage, current, temperature, and AC ripple
- Supports electrolyte level and ground fault detection inputs
- Manages up to 64 DCMs, 64 FEDs, 16 CTs, and 64 TPs for large installations
- Provides up to 256 measurement points
- Built-in relay outputs, LED alarms, web server, and SCADA notifications
- Native DNP3 integration for utility SCADA
- Modular design with rack, wall, or panel mounting options
- Components designed with 30-year MTBF ratings for long service life

03

WHAT SETS CELLWATCH FRONTIER APART?

- Specifically engineered for utility substations with NERC compliance in mind
- The only battery monitoring system with native DNP3, simplifying SCADA integration
- Reduces truck rolls and site visits, lowering operating costs
- Provides complete daily battery testing without reducing capacity or life
- Scales across utility, telecom, and enterprise sites with a single flexible platform

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04 **NERC-COMPLIANT BATTERY MONITORING: Cellwatch Frontier** Cellwatch Frontier automates daily battery monitoring to meet NERC PRC-005-06 requirements. With native DNP3 integration and proven long-life reliability, Frontier delivers the confidence utilities need to keep substations compliant and power systems protected.



Wall-Mount Frontier 70-150V DC (721035)



05 **CELLWATCH FRONTIER:** Direct Current optimized battery monitoring system for NERC-Compliant operations.

Product Codes	
721033	Frontier Wall Mount, 100-240V AC
721035	Frontier Wall Mount, 70-150 Volts DC
721037	Frontier, Wall Mount 20-70 Volts DC
721040	Frontier Dual Port, Rack Mount 100-240 Volts AC
721041	Frontier Dual Port, Rack Mount 70-150 Volts DC
721042	Frontier, Rack Mount 20-70 Volts DC - Dual Port

06

Technical Specifications	
Power Supply	
AC Input	100 - 240 VAC @ 50 - 60 Hz, 10 W
(Alternative) DC Input	Option 1: 20 - 70 VDC, 10 W Option 2: 70 - 150 VDC, 20 W Option 3: 100 - 240 VDC, 20 W
Permitted Mains Supply	10%
Transient Overvoltage	Category 2
Fuse Rating	250 V 1A Slo-Blo
Environment	
Operating Temperature	0 - 65 °C
Relative Humidity	5 - 90% non-condensing
Maximum Altitude	3,000 m (~10,000 ft)
Pollution	Degree 2
Dimensions	
Wall Mount Model	1.6 lbs / 0.73 kg
Rack Mount Model (1U)	2.2 lbs / 1.00 kg
Weight	
Wall Mount Model	1.6 lbs / 0.73 kg
Rack Mount Model	2.2 lbs / 1.00 kg
Fiber Optics	
Optical Cable	Acrylic
Outside diameter	2.2 mm
Wavelength	400 mm - 700 mm
Range	150 mm - 50 m (6 in - 150 ft)
Digital Inputs	
Isolated Digital Inputs	4

06 Technical Specifications

Relay Outputs	
Quantity	4
Type	Dry Contact (NO/NC) 30VDC 5A
Capacity	
Max. Number of Measurement Points	256
Max. Number of DCMs	64
Temperature Probe	
Quantity	4
Temperature Sensor Range	2 - 80 °C +/- 1 °C
Current Transducer	
Quantity	2 (Wall Mount) 4 (Rack Mount)
Float Only Range	5A
Supported Directional / Bi-Directional Ranged (+/-)	50A, 100A, 300A, 600A, 1000A
Fiber Optics	
Ethernet Ports (RJ45)	1 on Wall Mount or Rack Mount units Option: 2 ports on Rack Mount only
Rate	10 / 100 Mbps