#### **INNOVATIVE SOLUTIONS FOR THE POWER INDUSTRY**

# **PROMIS<sup>™</sup> Portable Robust** Microgrid Integrated Storage System

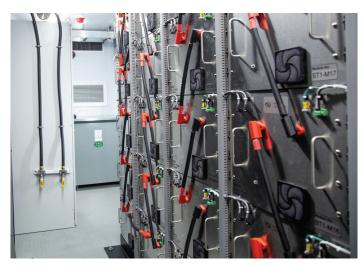
## **PROMIS** is a portable energy storage system primarily designed for emergency energy supply to single- and three-phase customers.

PROMIS is designed for frequent relocation and fast interconnection at a new site using a standard generator terminal box with Cam-lok™ plugs. PROMIS offers a clean replacement for emergency (portable) diesel generators and can operate in grid-connected mode for grid support functions.

PROMIS' platform is equipped with integrated microgrid technology and an on-board controller that provides comprehensive sets of autonomous controls, optimization schemes, and supervisory capability for ease of remote operator access and integration back to the Dispatch Center for overall grid coordination.



**PICTURED:** PROMIS trailer



**PICTURED:** PROMIS interior

## **Features and Benefits**

#### Improved Safety and Environmentally Friendly

Reliable, fire-resistant, and safe battery-cell technology

ANTA CHNOLOGY

- Non-walkable and modular design compliant with UL 9540
- Explosion- and fire-resistant battery cabinets (NEMA rated)
- Additional fire-suppression systems designed to meet the NFPA 855 fire-protection standard
- Sound-attenuated containerized enclosure
- Vibration, tension, and impact detection sensors.

#### Mature Technology

- UL-certified Battery Management System (BMS)
- Lithium iron-phosphate (LiFePO4) battery cells
- High full-cycle charge rate (>4,000 cycles).

#### Portability

- Containerized solution with no transportation permit required per most Departments of Transportation (DOT)
- Installed on a flat-bed trailer for easy transport
- Anti-vibration and shock-absorbent design.

#### **Plug-and-Play Interconnection**

- Compliant with IEEE 1547-2018 interconnection requirements using standard switches
- Includes a visible load-break disconnect switch, faultinterruption circuit breaker, and synchronizing devices
- Contains an isolation transformer for interconnection with fuse and circuit breaker overcurrent protection.

### **CONTACT US:**







#### Mobile. Clean. Quiet.

## An Ideal Replacement for Emergency Diesel Generators

#### **Outage Management and Maintenance Support**

PROMIS replaces traditional forms of backup generation units (e.g., diesel generators) for supplying customers during service interruptions due to outage or maintenance.

#### **Peak Load and Demand Change Management**

PROMIS provides peak-shaving capabilities during periods of high demand or high electricity prices to relieve loading on a utility's assets and to achieve global cost reduction.

### Voltage Control

PROMIS mitigates and improves commonly experienced voltage issues to enhance customers' power quality on the distribution system through corrective actions.

Power Conversion System (PCS) and Intertie	100 kVA Single-phase	250 kVA Three-phase	500 kVA Three-Phase
Rated power output at 86 °F (30 °C) and nominal voltage	100 kW, up to 1 MWh for 20' container	250 kW, up to 1 MWh for 20' container	500 kW, up to 1 MWh for 20' container
Interconnection voltage	120 / 240 V	480 V U.S. standard listing; 600 V C	anadian standard listing
AC output	Single / split phase (isolated)	<ul><li>Three-phase, four-wire ungrour</li><li>Grounded (standalone)</li></ul>	nded, isolated (grid connected)
AC current (nominal)	312 A	<ul> <li>300 A (480 V)</li> <li>240 A (600 V)</li> </ul>	<ul> <li>600 A (480 V)</li> <li>480 A (600 V)</li> </ul>
Grid frequency	57 - 63 Hz	57 - 63 Hz	57 - 63 Hz
Current harmonic distortion	<3%	<3%	<3%
Protection	<ul> <li>Circuit breaker with manual (visible) disconnect switch for grid side</li> <li>Type SEL-751 protection relay for interconnection</li> </ul>		
Communications	<ul> <li>ModBus/DNP3 (TCP): third-party SCADA interface (secure)</li> <li>LTE cellular (asset monitoring)</li> </ul>		
Standards compliance	IEEE 1547, UL 1741, UL 1973, UL 9540 and UL 9540A (cell/module), NFPA 855		

#### **Container and Trailer**

Onboard standby auxiliary power	120 / 240 V UPS (6.8 kVA, 10 kWh)	
Auxiliary power consumption	5 kW maximum	
Trailer / container dimensions L x W x H in ft	22' x 8' x 11'8" Container only 20' x 8' x 8.6'	
Weight lbs (kg)	>25,000 (11,340)	
Fully integrated HVAC	9,200 BTU/hr unit with thermostat control (quantity two primary and backup)	
Fire-suppression system	Fire suppression, smoke / gas detector	
NEMA rating / IP class	NEMA 3R / IP54	
Elevation (operating) in ft (m)	<8,202 (<2,500)	
Ambient operating temperature	-40 °F to +104 °F (-40 °C to +40 °C)	

#### Battery System

Cell technology	Lithium iron-phosphate (LiFePO4)
Voltage range (dc)	670 - 1,200 Vdc
Recommended charge / discharge current	0.5 C/1.0 C

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