

Intelligent Integrated Power Management System For Outdoor Telecom Sites (e-I²PMS™ ODR)

Introduction

The e-I²PMS™ ODR is a standalone IP55 outdoor enclosure with AC, DC Power distribution and management system with built-in intelligence to optimize the usage of mains and DG which will have substantial reduction in OPEX. The product is highly efficient and easily serviceable. It works on 3 ϕ /2 ϕ /1 ϕ input depending up on the line conditions. It also provides the regulated power to Air-conditioner through Static Voltage Regulator. The input phases are balanced in such way that the neutral current is always minimal for any given condition. Apart from these features like Auto Mains Failure (AMF), Power plant monitoring, AC and DC energy metering and battery management facility provides the system a complete power solution to the user. The system not only provides common analog/digital inputs and outputs, but also does the DG control, fuel level monitoring, Temperature & Humidity Monitoring. Optional features such as Access control, Inventory data management, air-conditioner control, free cooling operations which will be added advantage for optimize the site running cost. The information and alarms, from a specific site, can be monitored and controlled remotely through GPRS. Moreover, the I²PMS™ can communicate with Lineage or 3rd party intelligent equipment via its serial port through MODBUS. The e-I²PMS™ is a monitoring and control unit designed for global use, achieving high telecom standards, and providing great flexibility and expandability.

Features

- IP55 Outdoor cabinet with $\Delta T < 10^{\circ}C$
- Operating Temperature $-10^{\circ}C$ to $50^{\circ}C$
- 48V DC power 12kW/18kW/24kW options
- Maximum Mains power utilization using Lineage Power® ASLI™ technology, works from **3 ϕ** or **2 ϕ** or even **1 ϕ** input
- 3 ϕ /1 ϕ DG interface with DG battery charger
- Integrated AC Distribution Panel for various loads (can be customized)
- System Level Surge Protection - Class C (20kA, 8/20 μ s, 1.5kV Up)
- Up to 4 operator Load distribution (customizable)
- Display of Mains and DG parameters
- GPRS modem for remote transmission of data to remote server
- Event Log for last 1000 events with date & time stamp
- RS232 port for programming the controller parameters
- Integrated Aviation lamp Timer, Fire/smoke Alarm
- IP65 Cable Glands for Cable Entry Holes
- Single Compact Cabinet 0.7m (W) x 0.7m (D) x 2.0m (H)
- DC DG interface hardware for integration in the DC bus
- SVR options: 4kVA /8kVA with wide input voltage (90Vac to 300Vac)
- Fire extinguisher mounting provision
- Optional Space for accommodating Battery (4 x 12V/100Ah) in case SVR not opted

Optional features

- Enhanced Surge Protection at Entry Level - Class B (25kA, 10/350 μ s, 1.5kV Up) in IP55 Enclosure
- Remote Locking system with Mechanical key override
- Fuel Level monitoring
- Inventory management using RF ID tags
- Video monitoring system using Camera (Pictures Only)
- Door access via NOC command
- Web based data monitoring
- Email and SMS alert for alarm

Applications

- Outdoor Telecom Sites



Benefits:

- Lower OPEX cost
- Suitable for poor grid conditions
- Suitable for Outdoor sites
- Optimized DG operation

e-I²PMS™ ODR

Measurements

- Mains
 - ✓ 3Ø Voltage, Current, Power, Energy consumption and Run hours
- DG
 - ✓ 3Ø /1Ø Voltage, Current, Power, Energy consumption and Run hours
 - ✓ Fuel indicator
- Battery
 - ✓ Voltage, battery current and run hours
- Temperature
- Battery SOH, SOC parameter

- Door access control
- RF tag readers

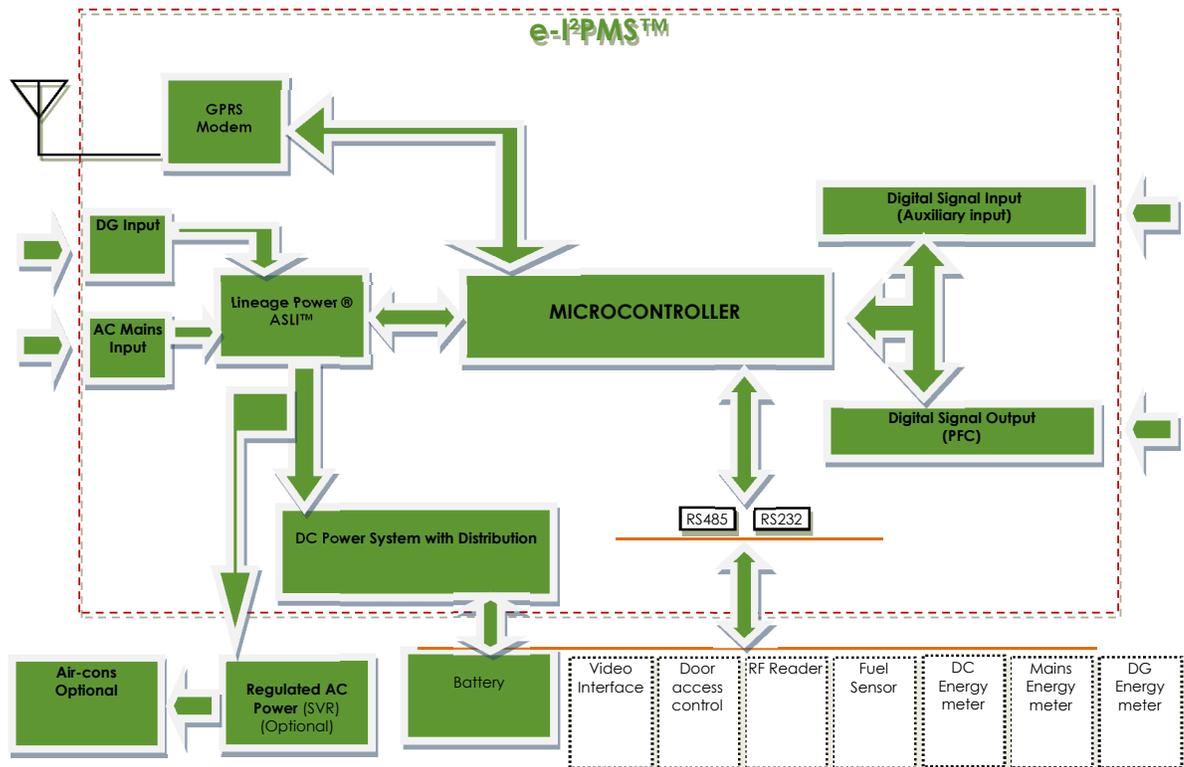
Reports

- Energy consumption
 - ✓ AC Mains, DG, Operator wise DC energy
- Run Hours, Daily/Monthly
 - ✓ AC Mains, DG, Battery, Air-conditioner, Free cooling unit
- Real time fuel consumption
- Battery charge and discharge cycle hour counter and depth of discharge
- Alarm management and report
- Routine maintenance alerts and reports
- Inventory management report

Monitoring and control

- DG ON/OFF Monitoring
- Cabinet and DG canopy temperature setting
- Real-time monitoring of DG Fuel levels

Simplified Layout Diagram



With our wide range of product offerings along with extensive application notes, development tools, pre and post-sales support including technical support, Lineage Power can provide a total solution to your current and future powering needs.

For further information please write to us: Sales@lineagepowersystems.com

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