Lineage Pluto Plus Controller

Lineage Pluto Plus Controller is our Microprocessor based controller designed to meet the needs of the most advanced power systems. Building on the Lineage Pluto platform, the Pluto Plus delivers state-of-the art performance by combining sophisticated control, monitoring, and remote network access with a single integrated unit. The controller has been designed to simplify plant administrative and surveillance routines as well as reduce operating, provisioning, and personnel expenses.

Configuration of the **Pluto Plus** can be performed via menu based front panel display, a local terminal or remote modem, or through a local or remote network connection utilizing standard web browsers or network protocols. In addition to its standard integrated monitoring capabilities, this controller offers extensive external monitoring, distribution control, and peripheral monitoring designed for various inputs and transducers.

The Pluto Plus, with integrated network access, allows for advanced network supervision using standard network management protocols and available network management software. The Network management software can be used to meet power system engineering, operations and maintenance needs. Via the World Wide Web, users gain access to live data and information logged into centralized server from each monitored system controller across the power network.

Applications

- EP48015 Power System
- EP4806 Series Power System
- EP4848 System
- e-I²PMS (Intelligent Integrated Power Management System)

Key Features

Remote & local Access and Features

- Integrated 10/100Base-T Ethernet Network capability
  - SNMP V2C
  - T1.317
  - Future Options (Currently Not Available)
    - Telnet for remote command line Interface
    - SMTP for email
    - DHCP for network plug-n-play
    - HTTP for standard and custom webpages for standard browsers
- Future Options-GPRS Modem port for Remote Monitoring (Optional)
- RS232 Craft port for local or remote Via Modem connections
- RS485 Port up to 2 Nos. for MODBUS devices monitoring & Control
- EasyView2, Windows-based software, for configuration and reporting through local terminal or Modem connections
- Multiple password-protected security levels: User, Super-User, Administrator for all access

Standard System Features

- Monitoring and control of up to 24 RS485 serial connected serial switch mode rectifiers (Future 48 Nos)
- Plug & Play Design, Replaceable type without system shutdown
- Standard and custom User Defined system alarms
  - Alarm cut-off
  - Alarm test
  - Multiple-level alarm severity: Critical, Major, Minor, Warning, and record-only
- Standard rectifier management features
  - Automatic rectifier restart
  - Adaptive Rectifier Management (ARM)/Energy Efficiency
  - Remote rectifier (on/off) control
  - Automatic rectifier sequence control
  - N + X redundancy check
- Alarm Input interface up to 6Nos. - Auxiliary inputs
- Alarm Output up to 10 office alarms relays (60VDC @.3A)
- Local viewing and configuration of system parameters, alarm thresholds, and user-definable alarm inputs and relays
- Integrated LCD display with tri colour backlit LED and Keypad
- 4 built-in Status LEDs
- Advanced Battery monitoring and control functions
- Slope thermal compensation mode voltage control
- Recharge current limit control
- Up to 3 Thermal probe monitoring for battery
- Optional Ambient Temperature Sensor
- Battery discharge testing and reserve time prediction
- DC Energy metering up to 4 Channel
- DC Distribution monitoring
  - Monitoring of 24 load distribution MCBs/Fuses (expandable up to 72 Nos)
  - Monitoring of up to 5 Shunts (configurable 4 load shunts 1 Battery shunts)
  - Monitoring of up to 3 battery Fuses/MCBs
  - Optional 4th Battery Fuse/MCB monitoring by means of Auxiliary fuse
  - Monitor and control up to 2 contactors (Configurable 1 LVBD , 1LVLD)
- Display of AC and DC parameters
- Alarm Test Feature
- Cumulative Run Time history for Grid and Genset, battery, air-conditioner, DC FCU etc…
- GENSET ON/OFF Control input based on DoD/Bus Voltage
- Emergency Power Off (EPO) feature for emergency battery disconnect
- Factory Defaults settings
- System Statistics – Time / Date stamped
- Alarm History – Time / Date stamped, up to 500 events
- Data logging up to 10,000 Events, FIFO Method
- Dedicated Processor Halt/Control Fail signal/Alarm

Specifications –Pluggable Version	
Input Voltage Ranges (power)	-48 volts: from -36Vdc to -60Vdc
Input Power	10.0 watts (Power increases depending up on additional circuitry)
Input Power Connections	(HDR11) 14-pin connector
Front Panel LCD user interface	128X 64 dot LCD; Severity sensitive backlit LCD;
	Four status LEDs; (BD, AC, DC, DG)
System Configuration Methods	Front panel LCD display and menu keys; (P7) DB9 for RS232 asynchronous port – T1.317 or EasyView or Modem; (P1) 15 Pin Connector – Display Connection (P3) RJ11 for RS485 port - Rectifier communication (HDR5) 10-pin connector, PBUS Internal device communication (HDR2) 6 Pin Connector –Internal Programming (HDR3) 10 Pin Connector –External GPRS Options (HDR4) 10 Pin Connector – Internal Programming
External Interface	(P8) RJ11 for RS485 port - MODBUS (P4) RJ11 for RS485 port - MODBUS –Optional RJ11 for CANBUS- External device communication (Future Option) (P2) RJ 45 for Integrated 10/100Base-T Ethernet port (P5) 40 Pin Connector- GPRS Module Connector-Optional (P6) 10 Pin - SIM Card Holder (optional) (J2) USB Connector-(Future Option)
Maximum Number Of Power Units /Rectifiers	24Nos (48 Nos future Options)
Low-Voltage Disconnects	Manages 5 contactors (load/Battery)
Voltage, Current & Temperature Monitoring	(HDR9) 20 Pin Connector – 5 Shunts (Battery /Load current Monitoring) (HDR8) 16 Pin Connector- Up to 3 Battery Voltage Measurement, Up to 3 x10K temperature probes for battery (HDR7) 16 Pin connector- Binary input, Fuse , controller halt monitoring
Alarm and Control Inputs	(HDR6) 24-pin connector for 6 alarm inputs with Common Isolated Ground;
Alarm Contact Outputs	(HDR1) 26 Pin Connector - 2 Contactor Drive 10 User configurable Outputs; Wire size: 28 AWG stranded or solid
Alarm Contact Ratings	60 VDC, 0.5A
Voltage Measurement Accuracy	±1% for DC,
Resolution	0.1Vdc
Plant Current Measurement Accuracy	±1% of full scale
Resolution	1A dc
Temperature Measurement Accuracy	±2°C
Resolution	0.1°C
Environmental	
Operating Temperature Range	-25 to +65°C (-5 to 149°F)
Storage Temperature Range	-40 to 85°C (-40 to 185°F)
Altitude	-50 to 4,000 meters*Note 1
Humidity	10% to 95% non-condensing
Audible Noise	< 55 dBA
Dimensions	Panel Mount Suitable for 19"/23" Rack system

*Note 1: For altitudes above 1500meters, de-rate the temperature by 0.656 °C per 100 meters.

Note: As a result of continuous product improvement, all specifications are subject to change without prior notice. All performance parameters are valid at Nominal input (230Vac) and nominal output (48Vdc) conditions unless otherwise specified.

Applicable Standards Reference Only (System level)	
EMI	
EMC	IEC 61000-4-5, Level 1 (Surge immunity limits)
	IEC 61000-4-6, Level 3 (RF Conducted susceptibility immunity limits)
	IEC 61000-4-3, Level 3 (Radiated Electromagnetic Field immunity limits)
	IEC 61000-4-4, Level 4 (EFT/ Burst immunity limits)
	IEC 61000-4-2, Level 4 (ESD Immunity limits)
Environment	RoHS compliant

Ordering Information		
Product	Description	Comcode
Pluto Plus Controller – Indonesia Version	Pluto Plus Controller Main board	
	Distribution Alarm Expansion Board	

Country of Sale	
South Asia	India, Sri Lanka
SE Asia	Indonesia, Malaysia, Vietnam, Laos,
Africa	Nigeria, Kenya, Tanzania, Ghana
NA	-
CALA	-
European	-

Contact Us

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