VIP/ER GEN 3 is an autonomous energy routing & conditioning platform that scavenges power from multiple sources and delivers it back as clean, reliable power in any form needed.

**DESIGN FEATURES**
- Intelligent Energy Router
- 98% Efficient Regulated Conversion
- Independent of a Battery Source (multiple battery options)
- Routes power through:
  - **(4) Bi-directional Smart Ports**
    - Regulated & Unregulated Output Power
    - AC, DC, Solar & Battery Input Power
    - MPPT Solar Charging
  - **(2) Expansion Module Bays**
  - **(1) Energy Manager Port**
    - Real Time Analytics Display
    - Redundant Safety Layers
    - USB Fast Charging Port
    - Modular & Scalable
    - Small and Lightweight
    - Durable Ruggedized Design
    - Passively Cooled (No Fans/ Filters)

**SAFETY FEATURES**
- Protection Against System:
  - Overvoltage
  - Under-voltage
  - Over Current
  - Short Circuit
- Real-Time Software Monitoring and System Warnings

**SPECIFICATIONS**
- Dims: 3.6 in x 1.3 in x 9.3 in
- Weight: ~2.5 lbs. (1.1 kg)
- Rugged Aluminum Housing
- Black Mil-Spec Anodized
- Tan Powder Coat (Optional)
- Designed to meet IP68
- Designed to meet MIL-STD 810G

**COMMUNICATION**
- CANBUS

**BUILDING BLOCKS**
Compatible with:
- Smart Cables & Adapters
- Expansion Modules
- Energy Managers
- Energy Storage

*Building Blocks Sold Separately

**ORDER PART NO.**
- VIR-VP-X2P4-00-B-000 Black Color Housing
- VIR-VP-X2P4-00-T-000 Tan Color Housing
USER INTERFACE CAPABILITIES

1 STATUS DISPLAY
- 1.5in OLED Screen
- Black Out Mode for Night Ops
- Impact Resistance
- No Back Lighting
- Solid State - Low Power
- Viewing Angle > 160°
- Customizable Screens

2 EXPANSION MODULE BAYS (2 EA)
- High Capacity Contact Pads
- Bidirectional
- Voltage - Input / Output
  - 10-36V DC (500W Regulated)
  - 10-50V, 60 Amp (Unregulated)
- CANBUS

3 THERMAL HEAT FINS
- Dissipate heat from Internal Solid State components.
- Passively Cooled, No Fans or Filters.

4 USB FAST CHARGING PORT
- Voltage - Output
  - 5V DC (3.5 Amps)
- USB Charger (Phones / Devices)

5 STATUS BUTTON
- Solid State Piezo Switch
- Long lifetime: > 20 million actuations

6 ENERGY MANAGER CONNECTOR
- Bidirectional
- Voltage - Input / Output
  - 10-36V DC
  - 60 Amp
Smart Ports 1A & 1B are tied together. One can output Regulated Power while the second one outputs Battery (Unregulated) Power when operated simultaneously. Same is the case for Smart Ports 2A & 2B.

**MARKINGS & IDENTIFICATION**

The outer housing of VIP/ER Gen 3 is marked permanently with the following information. Size, color, and location of these markings may vary.

**INFORMATION**

- Identifiers of Ports, Module Bays, and Status Button.
- Product Name
- Serial Number