



## Power P40-24

### 24 Volt Stationary Battery Module

The P40-24 is a high-performance, 24-volt battery, built on Valence's patented Lithium Iron Magnesium Phosphate chemistry platform. Designed for high-power, short-duration discharges, this technology combines the power of lithium and the safety of phosphate, in a lightweight, versatile, building block.

#### Overview

The P40-24 is ideal for mission-critical, standby power applications. The module's inherent reliability, long cycle life, and zero maintenance offers end-users the assurance of 24/7 system uptime, while delivering significant cost-of-ownership savings.

The U-Charge<sup>®</sup> Battery Management System (BMS) integrates seamlessly with the P40-24 applications. Utilizing Valence's Command and Control Logic, the battery system is managed locally and real-time system information can be monitored worldwide.

#### Features

- ⊕ Unparalleled Reliability for Critical Applications
- ⊕ Industry Leading Cycle Life
- ⊕ High Power Density
- ⊕ String Voltage 24 - 700 V
- ⊕ High Charge/Discharge Capability
- ⊕ Internal Battery Temperature Monitoring
- ⊕ Wide Operating Temperature Range
- ⊕ Intra-Module Balancing
- ⊕ Fully Integrates with U-Charge<sup>®</sup> BMS
- ⊕ Flame Retardant Housing
- ⊕ Extremely Small Footprint
- ⊕ Maintenance Free
- ⊕ No Hydrogen or Oxide Explosive Gas Release

Specifications		P40-24
Nominal Voltage		25.6 V
Nominal Capacity		40Ah
Charge Voltage	Recommended	29.2 V
Charge Voltage	Float	27.6 V
Charge Current	Recommended Continuous	40 A
Charge Current	Max Continuous	160 A*
Discharge Voltage	Minimum	18.4 V
Discharge Current	Max 10 seconds	700 A*
Discharge Current	Max Continuous	240 A*
Specific Power	(10 seconds)	> 800 W/kg
Power Density	(10 seconds)	> 1200 W/L
Weight		16.5 kg
Terminals	Female-Threaded	M8 x 1.25
Exterior Dimensions	(L x W x H)	256 x 165 x 260 mm

All Values at 23°C Ambient

\*Consult Valence for Duty Cycle Capabilities

Common specifications	
Operating Temperature	Charging 0°C - 45 °C Discharging -10°C - 50 °C
Storage Temperature	-40°C to +50°C
Operating Humidity	5% to 95%, non-condensing
Water/Dust Resistance	*IP56
Shock and Vibration	*IEC 62133, *DIN VG96 924
Certifications	*FCC Class B, CE, *IEC 62133 (cells only) *UL 1642 (cells only)
Shipping Classification	*UN 3480, Class 9

\*Certifications and Approvals Pending

## Accessories

The Battery Management System maintains all battery to battery charge/discharge controls and provides the communication gateway for the CANbus interface.

- ⊕ U-BMS-HV operates at 100V - 450V
- ⊕ U-BMS-LV operates at 10V - 150V
- ⊕ U-BMS-SHV operates at 350V - 700V



## For further information:

Please refer to the U-BMS datasheet or visit [www.valence.com](http://www.valence.com)

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