Case Study

Market: Backup
Solution: Uninterruptable Power Supply
Product: P40-24 (40Ah, 25.6 V) Valence Power Module
Lithium Iron Magnesium Phosphate
Intelligent power battery module systems

Features & Benefits:

Module:
- High cycle life, long float life
- Low total cost of ownership
- No ventilation required
- Extremely Safe Lithium Ion chemistry
- Robust mechanical design
- Flame retardant plastics to UL94-V0
- LED battery status indicator

Power Series Battery Pack:
- Scalable in series from 25.6 to 700 VDC
- Scalable in parallel for longer runtimes
- Optional CANbus Monitoring Kit
- Intelligent Battery Management System
- Automatic cell balancing
- Automatic protection from over-charge or over-discharge conditions

Technical Specifications:

Building Block: P40-24 Power Module
Voltage: 25.6 VDC nominal
Pulse Current for 1 minute at 23°C: 600A
Weight (approx.): 16.5 kg/ 36.3 lbs.
Dimension incl. terminals LxWxH: 10.08” x 6.5” x 10.24”

A global technology developer of uninterruptable power supplies (UPS) requested an energy storage system to backup their power supply for mission critical applications. They wanted a system that was more reliable than lead acid and with less maintenance. They also preferred to have a more efficient static solution over that of a more wasteful rotary UPS.

Valence provided a solution that allows the UPS equipment to be dependably used for over a decade with limited maintenance. In this case, each 480 VDC UPS battery cabinet is able to support a 275 kVA load for 1 minute of backup utilizing only 20 standard U-Charge P40-24 modules. Three cabinets in parallel meet the 1 minute rating of a 750 or 825 KVA load. Since they are half the weight of VRLA battery cabinets, the Valence solution allows for an easy floor installation.