



## U-Charge® XP

### Battery Management System (BMS)

Valence Technology delivers safe lithium iron magnesium phosphate (LiFeMgP04) energy storage solutions in standard BCI lead-acid battery sizes for a wide variety of applications.

#### Overview

The U-Charge® Energy Storage and Management Systems are a family of 12V and 18V battery modules and accessories. The U-Charge Battery Modules offer twice the run-time and nearly half the weight of similar sized lead-acid batteries. They are built with Valence LFMP technology that offers outstanding intrinsic safety and excellent float and cycle life resulting in low cost of ownership. Thousands of U-Charge systems have been deployed since 2006 across numerous motive and energy storage applications.

Valence has a family of battery management systems for use with U-Charge XP battery modules. The BMS's provide many system integration options.

#### Features

- + Monitoring, temperature, voltage, current & state-of-charge status
- + One single U-BMS can manage multiple battery modules
- + CANbus communications for control and management
- + Digital and analog I/O
- + Battery-to-battery balance control
- + Drive train pre-charge control
- + Control of up to 4 contactors
- + System ground isolation verification
- + Sleep mode when key signal 'OFF'
- + New Super High Voltage (SHV) unit

Specifications		
Model	Part No	Max. Batteries in Series / Voltage Range
U-BMS-LV	1004444	1 to 10 packs in series / 10V to 150V
U-BMS-HV	1004441	10 to 30 packs in series / 100V to 450V
U-BMS-SHV	1004438	27 to 47 packs in series / 350V to 700V
Dimension incl. mounting tabs and protrusion of connectors (LxWxH)		188 x 157 x 42mm
Weight		0.55kg
External communication		CAN 2.0b, 125, 250, 500 Kbit/s, standard frames
Communications to battery modules		RS-485 w/Valence protocol
External control signals		Control signal for line, pre-charge & charger contactors
Monitoring parameters		State-of-charge, error codes, system pack balance
Isolation		Chassis to battery insulation measurement
Operating humidity		5% - 95%, non-condensing
Mechanical enclosure		IP56, UL 94V-0 (4x) 5 mm mounting holes
Certifications		FCC Class B, CE

#### Corporate Headquarters

12303 Technology Blvd.  
Suite 950  
Austin,  
Texas 78727

Tel (888) VALENCE or +1 (512) 527-2900  
Fax +1 (512) 527-2910  
Email sales@valence.com

#### EMEA Sales

Unit 63 Mallusk Enterprise Park  
Mallusk Co. Antrim  
Northern Ireland  
BT36 4GN

Tel +44(0) 28 9084 5400  
Fax +44(0) 28 9083 8912  
Email sales@valence.com

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