



# PowerSafe®

V Front Terminal

Telecommunications

## Battery Range Summary

**NOW UPGRADED TO  
TPPL TECHNOLOGY**  
(Thin Plate Pure Lead)



The PowerSafe® V Front Terminal range of Valve Regulated Lead Acid (VRLA) batteries has been designed specifically for use in applications that demand the highest levels of security and reliability. The new PowerSafe V Front Terminal platform now features proprietary Thin Plate Pure Lead (TPPL) technology which provides extended shelf life, lower corrosion and gas evolution. Designed to meet the most rigorous international standards, PowerSafe V Front Terminal batteries are recognized worldwide as a premium solution for Telecom applications.

PowerSafe V Front Terminal batteries deliver superior performance while occupying less space than conventional standby power batteries. A range of compact designs, suitable for 19" and 23" racking, provides users with the benefit of increased energy density. With all electrical connections at the front, installation and inspection are both quicker and easier.

PowerSafe V Front Terminal batteries are designed using proven gas recombination technology which removes the need for regular water addition by controlling the evolution of hydrogen and oxygen during charging. Oxygen evolved at the positive plates diffuses through microporous separators to the negative plates, and, by a series of chemical reactions within the cell, recombines to form water. Each cell incorporates its own safety valve that allows the controlled release of gas when pressure builds up within the cell.

### Features and Benefits

- Reliable TPPL technology
- Capacity range 30-190Ah
- Front terminal connections for fast and easy installation and maintenance
- Suitable for 19" and 23" racking
- UL94 V-0 flame retardant case and lid
- One year shelf life

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RESERVE  
POWER

US-VFT-RS-AB January 2016

## Construction

- Positive plates designed to prolong service life and enhance corrosion resistance
- Separators in low resistance microporous glass fiber. The electrolyte is absorbed within this material, preventing acid spills in case of accidental damage
- Container and cover in flame retardant (ABS) UL94 V-0 material, highly resistant to shock and vibration
- Terminal with brass insert for maximum conductivity and with high compression grommet for long life
- Self-regulating one way pressure relief valves prevent ingress of atmospheric oxygen
- Flame arrestors built into each bloc for increased operational safety

## Installation and Operation

- Designed for safer installation and easy maintenance in cabinets or on stands, close to the point of use. A separate battery room is not necessary
- It is recommended that PowerSafe® V Front Terminal batteries are installed on their base
- Recommended float charge voltage:  
2.280Vpc at 68°F (20°C)  
2.265Vpc at 77°F (25°C)
- Reduced maintenance:  
no water addition required

## Standards

- Designed to meet Telcordia® SR-4228 requirements
- UL recognized component
- UL File Numbers MH15470 and MH18697
- Approved as non-hazardous cargo for ground, sea and air transportation in accordance with US DOT Regulation 49 and ICAO and IATA Packing Instruction 806. Please see our SDS for complete details at [www.enersys.com](http://www.enersys.com)
- The management system governing the manufacture of this product is ISO 9001-2008 certified

## General Specifications

Type	Number of Cells	Nominal Voltage (V)	Nominal Capacity (Ah)		Nominal Dimensions			Electrolyte (1.300 S.G.)				Pure Acid (H <sub>2</sub> SO <sub>4</sub> ) Acid				Lead Weight									
			8hr. Rate 1.75Vpc @ 77°F	10hr. Rate 1.80Vpc @ 20°C	Length [in] [mm]	Width [in] [mm]	Height [in] [mm]	Typical Weight [lbs] [kg]	Short Circuit Current (A)	Internal Resistance** mOhms	Terminals	Volume (per bloc) gal	Volume (per bloc) L	Weight (per bloc) lbs	Weight (per bloc) Kg	Volume (per bloc) gal	Volume (per bloc) L	Weight (per bloc) lbs	Weight (per bloc) Kg						
12V30F <sup>†</sup>	6	12	31	31	11.0	280	3.8	97	6.3	159	23.8	10.8	1327	9.87	M8 F	0.37	1.41	3.96	1.80	0.16	0.60	1.68	0.76	16.8	7.61
12V38F <sup>†</sup>	6	12	38	38	11.0	280	3.8	97	7.2	184	27.6	12.5	1500	8.53	M8 F	0.48	1.81	5.10	2.31	0.20	0.77	2.17	0.98	19.8	8.99
12V62F	6	12	62	62	11.0	280	3.8	97	10.4	264	42.3	19.2	2080	5.98	M8 F	0.77	2.91	8.20	3.72	0.33	1.23	3.48	1.58	29.6	13.4
12V92F <sup>*</sup>	6	12	92	92	15.6	395	4.1	105	10.4	264	60.8	27.6	2410	5.19	M8 F	1.12	4.25	12.0	5.44	0.48	1.81	5.09	2.31	43.3	19.7
12V100FC <sup>*</sup>	6	12	100	100	15.6	395	4.3	108	11.3	287	68.3	31.0	1930	6.46	M8 F	1.34	5.06	14.3	6.48	0.57	2.15	6.07	2.75	46.6	21.1
12V101F <sup>*</sup>	6	12	101	100	20.1	510	4.3	110	9.3	235	73.9	33.5	2108	5.92	M8 F	1.19	4.52	12.8	5.79	0.47	1.76	4.98	2.26	50.0	22.7
12V125F <sup>*</sup>	6	12	126	125	22.1	561	4.1	105	12.4	316	98.1	44.5	2355	5.30	M6 M	1.98	7.48	21.1	9.57	0.89	3.37	9.50	4.31	62.7	28.5
12V155FS <sup>*</sup>	6	12	155	150	22.1	561	4.9	125	11.1	283	106.9	48.5	3325	3.80	M6 M	2.16	8.16	23.0	10.4	0.92	3.47	9.79	4.44	70.4	31.9
12V170FS <sup>*</sup>	6	12	170	170	22.1	561	4.9	125	11.1	283	112.0	50.8	3360	3.75	M6 M	2.12	8.01	22.6	10.3	0.90	3.40	9.61	4.36	77.3	35.1
12V190F <sup>*</sup>	6	12	190	190	22.1	561	4.9	125	12.4	316	126.3	57.3	3625	3.50	M6 M	2.42	9.17	25.9	11.7	1.03	3.90	11.0	4.99	89.4	40.6

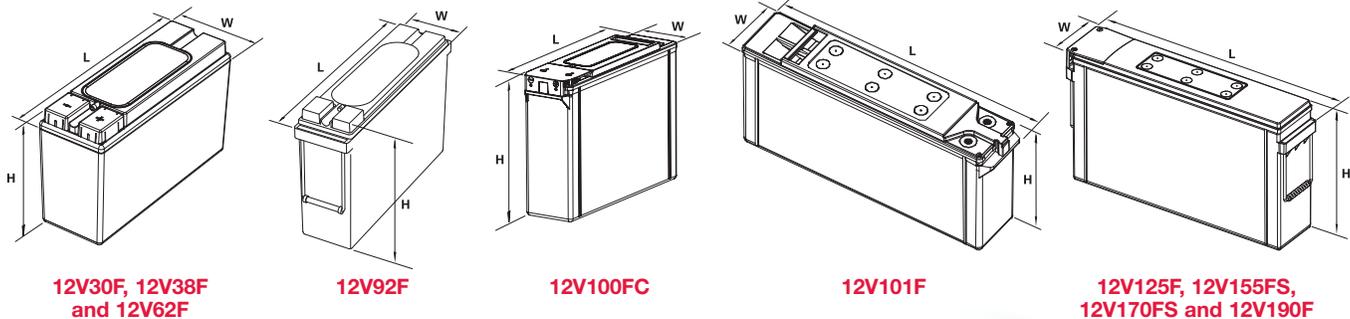
Notes:

\* With built-in or rope handles

\*\* Resistance values are for reference only and not intended to represent an Ohmic Value or Baseline measurement

<sup>†</sup> 12V30F and 12V38F are PbCa

## Outline Drawings



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US-VFT-RS-AB January 2016