



## Battery Range Summary

The PowerSafe® V Front Terminal range of valve regulated lead acid batteries has been designed specifically for use in applications that demand the highest levels of security and reliability. With proven compliance to the most rigorous international standards, PowerSafe V batteries are recognised worldwide as a premium solution for Telecom applications. The reputation of PowerSafe V batteries for long service life, together with excellent high rate performance, also makes it ideal for high integrity, high specification UPS systems.

PowerSafe V batteries deliver superior performance while occupying less space than conventional standby power batteries. A range of compact designs, suitable for 19", 23" and ETSI 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 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

- Capacity range: 31Ah - 190Ah
- Front terminal connections for fast and easy installation and maintenance
- Suitable for 19", 23" and ETSI racking
- UL94 V-0 flame retardant case and lid
- High reliability
- Proven long service life



## Construction

- Positive plates designed to prolong service life and enhance corrosion resistance
- Separators in low resistance microporous glass fibre. The electrolyte is absorbed within this material, preventing acid spills in case of accidental damage
- Case and lid in flame retardant ABS material, highly resistant to shocks and vibrations
- Terminal with brass insert for maximum conductivity and with high compression grommet for long life
- Self-regulating pressure relief valve prevents ingress of atmospheric oxygen
- Flame arrestors built into each bloc for increased operational safety

## Installation & Operation

- Monoblocs are designed for installation 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 20°C (68°F)  
2.265Vpc at 25°C (77°F)
- Six months shelf life at 20°C
- Reduced maintenance:  
no water addition required

## Standards

- In compliance with the requirements of the international IEC 60896-21/22 standard
- Classified as "Long Life" according to the Eurobat Guide 1999
- Designed to meet Telcordia® SR-4228 requirements
- Recognised by UL (UL Standard 1989)
- Approved to be shipped as nonhazardous cargo in accordance with the requirements of IMDG (International Maritime code for Dangerous Goods) and ICAO (International Civil Aviation Organisation)
- The management system governing the manufacture of PowerSafe V-FT products is ISO 9001 certified

## General Specifications

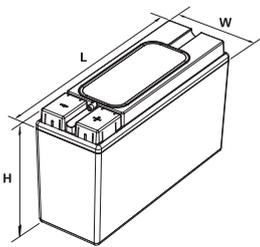
Battery Type	Number of Cells	Nominal Voltage (V)	Nominal Capacity (Ah)		Nominal Dimensions (mm)			Typical Weight (kg)	Short Circuit Current (A) <sup>(2)</sup>	Internal Resistance (mΩ) <sup>(2)</sup>	Terminals
			10 hr rate to 1.80Vpc @ 20°C	8 hr rate to 1.75Vpc @ 77°F	Length	Width	Overall Height				
12V30F	6	12	31	31	280	97	159	10.8	1327	9.87	M8 F
12V38F	6	12	38	38	280	97	184	12.5	1500	8.53	M8 F
12V62F	6	12	62	62	280	97	264	19.2	2080	5.98	M8 F
12V92F <sup>(1)</sup>	6	12	92	92	395	105	264	27.6	2410	5.19	M8 F
12V100FC <sup>(1)</sup>	6	12	100	100	395	108	287	31.0	1930	6.46	M8 F
12V101F <sup>(1)</sup>	6	12	100	101	510	110	235	33.5	2108	5.92	M8 F
12V125F <sup>(1)</sup>	6	12	125	126	561	105	316	44.5	2355	5.30	M6 M
12V155FS <sup>(1)</sup>	6	12	150	155	561	125	283	48.5	3325	3.80	M6 M
12V170FS <sup>(1)</sup>	6	12	170	170	561	125	283	50.8	3360	3.75	M6 M
12V190F <sup>(1)</sup>	6	12	190	190	561	125	316	57.3	3625	3.50	M6 M

Notes:

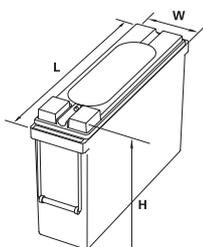
<sup>(1)</sup> With built-in or rope handles

<sup>(2)</sup> Figures obtained via IEC method

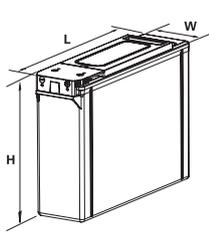
## Outline Drawings



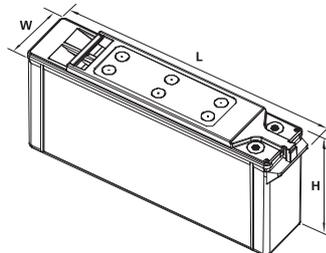
12V30F, 12V38F  
& 12V62F



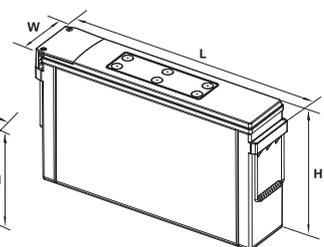
12V92F



12V100FC



12V101F



12V125F, 12V155FS,  
12V170FS & 12V190F

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