

### RANGE SUMMARY

The PowerSafe® V Front Terminal range of valve regulated lead acid batteries has been designed specifically for use in applications which 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.

The use of gas recombination technology for lead acid batteries has totally changed the concept of standby power. This technology provides the user with the freedom to use lead acid batteries in a wide range of applications.

#### Features & 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 monoblocs 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 non-hazardous cargo in accordance with the requirements of IMDG (International Maritime code for Dangerous Goods) and ICAO (International Civil Aviation Organisation)
- Manufactured in EnerSys® production facilities certified to ISO 9001:2000

## General Specifications

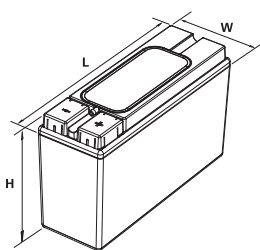
Type	Number of Cells	Nominal Voltage (V)	Nominal Capacity (Ah)		Nominal Dimensions				Overall Height		Typical Weight		Short Circuit Current (A) <sup>(2)</sup>	Internal Resistance (mΩ) <sup>(2)</sup>	Terminals
			10 hr rate to 1.80Vpc @ 20°C	8 hr rate to 1.75Vpc @ 77°F	Length mm	Length in	Width mm	Width in	mm	in	kg	lbs			
12V30F	6	12	31	31	280	11.0	97	3.8	159	6.3	10.8	23.8	1327	9.87	M8 F
12V38F	6	12	38	38	280	11.0	97	3.8	184	7.2	12.5	27.6	1500	8.53	M8 F
12V62F	6	12	62	62	280	11.0	97	3.8	264	10.4	19.7	43.5	2100	5.87	M8 F
12V92F <sup>(1)</sup>	6	12	92	92	395	15.6	105	4.1	264	10.4	28.0	61.7	2500	5.05	M8 F
12V100FC <sup>(1)</sup>	6	12	100	100	395	15.6	108	4.3	287	11.3	30.8	67.9	1900	6.60	M8 F
12V101F <sup>(1)</sup>	6	12	100	101	510	20.8	110	4.3	235	9.3	33.5 <sup>(3)</sup>	73.9 <sup>(3)</sup>	2108 <sup>(3)</sup>	5.92 <sup>(3)</sup>	M8 F
12V105F <sup>(1)</sup>	6	12	105	107	561	22.1	125	4.9	235	9.3	46.0	101.4	2763	4.40	M6 M
12V125F <sup>(1)</sup>	6	12	125	126	561	22.1	105	4.1	316	12.4	51.0	112.4	2845	4.30	M6 M
12V155FS <sup>(1)</sup>	6	12	150	155	561	22.1	125	4.9	283	11.1	57.0	125.6	3714	3.30	M6 M
12V170FS <sup>(1)</sup>	6	12	170	170	561	22.1	125	4.9	283	11.1	50.5	111.3	2950	4.30	M6 M
12V170F <sup>(1)</sup>	6	12	170	170	561	22.1	125	4.9	316	12.4	67.0	147.7	3667	3.40	M6 M
12V190F <sup>(1)</sup>	6	12	190	190	561	22.1	125	22.1	316	12.4	58.2 <sup>(3)</sup>	128.3 <sup>(3)</sup>	3625	3.50	M6 M

Notes:

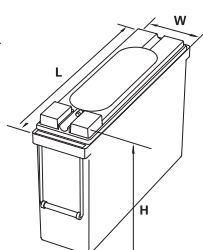
<sup>(1)</sup> With built-in or rope handles

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

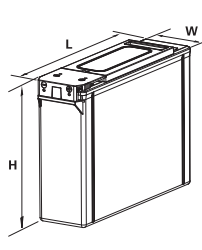
<sup>(3)</sup> Preliminary data. Please check latest information with your EnerSys representative



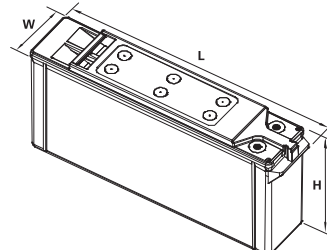
**12V30F, 12V38F & 12V62F**



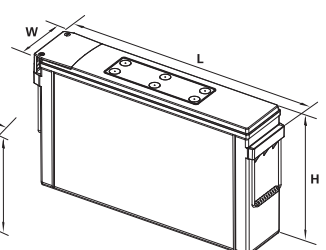
**12V92F**



**12V100FC**



**12V101F**



**12V105F, 12V125F, 12V155FS, 12V170FS, 12V170F & 12V190F**



www.enerSys-emea.com

**EnerSys**  
P.O. Box 14145  
Reading, PA 19612-4145  
USA  
Tel: +1-610-208-1991  
+1-800-538-3627  
Fax: +1-610-372-8613

**EnerSys Europe**  
Zurich, Switzerland

**EnerSys Asia**  
Guangdong, China  
Tel: +86-755-2689 3639

**EnerSys Ltd.**  
Rake Lane,  
Clifton Junction,  
Swinton, Manchester  
M27 8LR, UK  
Tel: +44 (0)161 794 4611  
Fax: +44 (0)161 727 3809

Contact:

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