



## Battery Range Summary

The EnerSys® range of PowerSafe® V 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 the number one choice for high integrity, high specification UPS systems.

PowerSafe V cells and monoblocs deliver superior performance whilst occupying less space than conventional standby power batteries. The use of V-0 rated, flame retardant, ABS plastic for the thick wall containers and lids offers high mechanical strength with excellent safety features.

PowerSafe V batteries are designed using proven gas recombination technology that 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: 46Ah - 518Ah
- Available in 2, 4, 6 and 12 volt blocs
- UL94 V-0 flame retardant case and lid
- Designed for a wide range of applications
- 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
- Containers and lids in flame retardant ABS material, highly resistant to shock and vibration
- Terminals with brass insert for maximum conductivity and with high compression grommet for long life
- Self-regulating pressure relief valves prevent ingress of atmospheric oxygen

## Installation & Operation

- PowerSafe® V cells and blocs are designed for installation in cabinets or on stands. A separate battery room is not necessary
- Cells and blocs can be mounted in vertical or horizontal orientation
- Recommended float charge voltage: 2.280Vpc at 20°C (68°F) or 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
- Designed to meet Telcordia® SR-4228 requirements
- UL recognised component
- Meets criteria for "nonspillable" batteries, excepted from U.S. and international dangerous goods regulations for ground, sea and air transportation. See applicable regulations and special provisions of the US DOT, ICAO, IATA and IMDG
- The management system governing the manufacture of PowerSafe V 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 <sup>(1)</sup>	Bloc/Cell Height	Height Over Connections				Type	Layout
12V45	6	12	46	47	218	164	204	224	17.2	1377	9.01	M6 F	V1
12V55	6	12	56	59	271	164	204	224	21.0	1785	6.90	M6 F	V1
12V70	6	12	68	70	314	164	204	224	24.9	2184	5.60	M6 F	V1
12V80	6	12	79	82	360	164	228	229	28.6	2335	5.28	M6 F	V1
4V105	2	4	103	103	191	202	235	235	15.9	2463	1.69	M8 M	V2
6V105	3	6	103	103	191	202	235	235	20.4	2786	2.21	M8 M	V2
6V130	3	6	132	134	243	206	234	242	26.8	3104	1.99	M8 F	V2
4V155	2	4	154	155	202	202	228	228	23.0	4800	0.80	M8 M	V4
6V155	3	6	154	155	292	202	228	228	33.0	4800	1.20	M8 M	V5
6V170	3	6	173	173	302	175	230	256	34.0	3814	1.62	M8 F	V2
2V200	1	2	200	194	110	208	247	272	12.8	3588	0.58	M8 F	V3
4V230	2	4	231	232	292	202	228	228	32.5	6082	0.68	M8 M	V4
2V275	1	2	275	267	142	208	247	272	16.6	4707	0.44	M8 F	V3
2V310	1	2	308	309	202	202	228	228	23.0	9259	0.22	M8 M	V4
2V320	1	2	320	329	195	208	219	245	22.0	9675	0.22	M8 F	V4
2V400/2	1	2	400	388	195	208	247	272	23.6	5976	0.35	M8 F	V3
2V460/4	1	2	462	464	292	202	228	228	32.5	10929	0.18	M8 M	V4
2V460/6	1	2	462	464	292	202	228	228	33.0	10929	0.18	M8 M	V5
2V500/2	1	2	500	484	238	208	247	272	28.2	6971	0.29	M8 F	V3
2V500/6	1	2	518	516	296	204	240	240	33.4	10770	0.19	M8 F	V5

Notes:

<sup>(1)</sup> In horizontal installation, the width of PowerSafe® V top terminal blocs becomes the height, irrespective of positive and negative polarities.

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

## Terminal Layouts

