

## Battery Range Summary

The EnerSys® range of PowerSafe® OPzV batteries is suitable for a broad range of applications including telecommunications, power generating stations and distribution systems, railway, airport and seaport signalling, computing, emergency lighting, automation and measuring systems.

The PowerSafe OPzV range of valve regulated lead-acid batteries uses a proven combination of gel and tubular technologies to offer a very high level of reliability. These single cells benefit from an optimised plate design that gives capacities in excess of DIN standard values. In addition, PowerSafe OPzV batteries offer both an excellent float life and a high cycle life for a truly flexible solution.



### Features & Benefits

- Proven tubular VRLA gel technology
- Extensive capacity range: 215Ah to 3170Ah
- C<sub>10</sub> capacities exceed DIN standard values
- 20 year design life at 20°C
- Excellent deep discharge recovery and cyclability
- Classic industry-standard design (DIN)
- Superior operational safety with fully insulated connectors, immobilised electrolyte and one way pressure relief valve with an integral flame arrestor
- Flexible installation: vertical or horizontal orientation
- 12 month storage life at 20°C
- Very low maintenance: no water addition

## Construction

- Positive electrode - tubular plate with lead-tin-calcium alloy
- Negative electrode - flat plate with lead-calcium alloy grid
- Separator - low resistance microporous material
- ABS containers and lids with high resistance to shocks and vibrations (UL94 V-0 rated flame retardant ABS available as an option)
- Electrolyte - sulphuric acid, immobilised as a gel
- Proven, high integrity pillar seal design to prevent electrolyte leakage
- Terminal design - M10 terminals with brass insert
- Pressure relief valve - one way valve with integral flame arrestor for increased operational safety

- Connectors – fully insulated, solid copper inter-cell connectors allow voltage measurements (flexible connectors also available)

## Installation & Operation

- Recommended float charge voltage: 2.25Vpc (20°C)
- Permissible operating temperature range: -10°C to +45°C
- Cells can be installed horizontally to minimize use of floor space
- Optional racking offers easy installation and space saving accommodation
- Long shelf life: 12 months at 20°C - 6 months at 30°C

## Standards

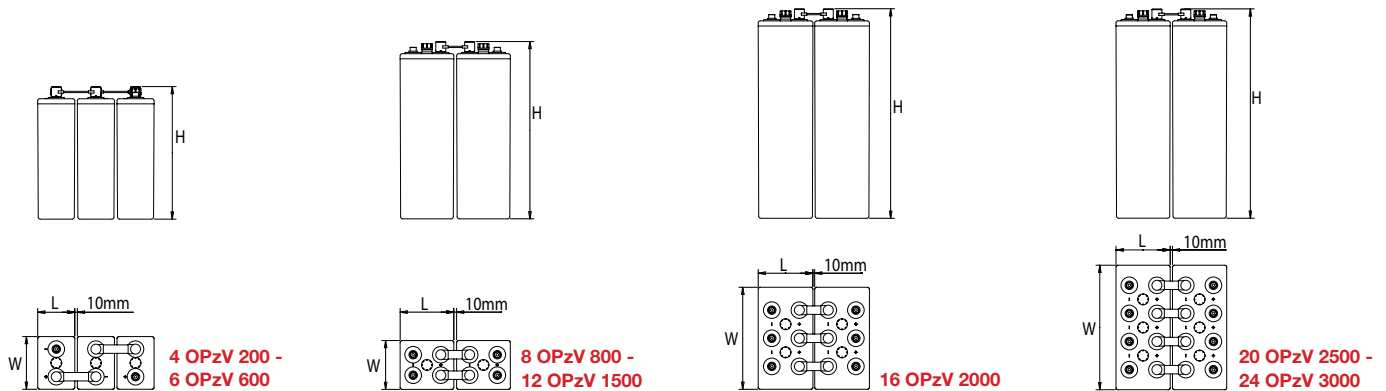
- Tested according to international standard IEC 60896-21 and compliant to defined requirements of IEC 60896-22
- Conforms to DIN 40742 standard (valve regulated OPzV single cells)
- Proof against deep discharge according to DIN 43539 Part 5
- Classified as “Very Long Life” (> 12 years) according to the Eurobat guide 2015
- Batteries must be installed in accordance with IEC 62485-2 and national/local regulations
- The management systems governing the manufacture of PowerSafe® OPzV batteries are ISO 9001, ISO 14001 and ISO 45001 certified

## General Specifications

Battery Type	Nominal Voltage (V)	Terminal Pairs	Nominal Capacity (Ah)		Nominal Dimensions (mm)			Typical Weight (Kg)	Short Circuit Current (A)	Internal Resistance (mΩ)
			10 hr rate to 1.80Vpc @ 20°C	8 hr rate to 1.75Vpc @ 25°C	Length	Width	Overall Height			
4 OPzV 200	2	1	215	215	103	206	403	19.5	2195	0.95
5 OPzV 250	2	1	265	265	124	206	403	23.5	2737	0.76
6 OPzV 300	2	1	320	320	145	206	403	28.0	3175	0.66
5 OPzV 350	2	1	385	385	124	206	520	31.0	3410	0.61
6 OPzV 420	2	1	465	465	145	206	520	36.5	4043	0.51
7 OPzV 490	2	1	540	540	166	206	520	42.0	4607	0.45
6 OPzV 600	2	1	705	705	145	206	695	50.0	3796	0.55
8 OPzV 800	2	2	940	940	210	191	695	68.0	5200	0.40
10 OPzV 1000	2	2	1170	1170	210	233	695	82.0	6460	0.32
12 OPzV 1200	2	2	1410	1410	210	275	695	97.0	7675	0.27
12 OPzV 1500	2	2	1600	1600	210	275	845	120.0	7510	0.28
16 OPzV 2000	2	3	2110	2110	212	397	820	165.0	10048	0.21
20 OPzV 2500	2	4	2640	2640	212	487	820	200.0	12606	0.17
24 OPzV 3000	2	4	3170	3170	212	576	820	240.0	14964	0.14

Notes: The electrical values shown in the table relate to loadings from a fully charged condition at ambient temperature of +20°C. Height shown is overall height, including connectors and shrouds.

## Typical Outline Drawings



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