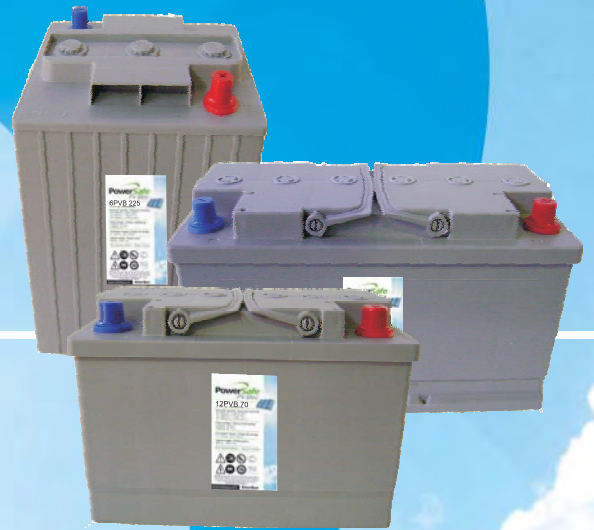


PowerSafe®

Sustainable solutions



PowerSafe® PV Bloc

The PowerSafe® PV Bloc range has been specifically developed for renewable energy applications and in particular solar energy systems.

These bloc batteries are optimised for repeated deep cycling and high reliability. This balanced combination of features makes PV blocs the ideal solution for many of the most demanding applications and particularly for unmanned or remote installations where the highest level of reliability is essential.

The design brings together Valve Regulated Lead Acid (VRLA) technology and grid plates with a special alloy to produce an exceptional combination of benefits.

VRLA technology has been enhanced to withstand the repeated, deep discharge of cells and blocs used for solar energy storage. It avoids the water loss associated with conventional lead acid batteries and therefore eliminates the need for topping-up. The use of a gel electrolyte means there is no free acid inside the cell.

Key Benefits

- Capacities from 70Ah to 225Ah at the 120 hour rate (C120)
- Up to 1410 cycles to 25% depth of discharge
- Maintenance free VRLA technology eliminates periodic water refilling
- No electrolyte stratification (Gel electrolyte)
- No equalization charging required
- New plate technology improves battery design life even under deep discharge conditions
- Low self discharge
- Ensures reliable service, support and quality.

General Specifications

Type	Technology	Nominal Voltage (V)	Number of Terminals	Nominal Capacity (Ah)		Nominal Dimensions						Typical Weight		Short Circuit Current (A)	Internal Resistance (mΩ)
				10 hr rate to 1.80Vpc @20°C	120 hr rate to 1.85Vpc @25°C	Length		Width		Height		kg	lbs		
				mm	in	mm	in	mm	in	mm	in				
12 PVB 70	Flat plate Gel	12	2	57	70	277	10.9	175	6.9	189	7.4	21.0	46.3	1517	8.07
12 PVB 91	Flat plate Gel	12	2	75	91	354	13.9	175	6.9	189	7.4	25.0	55.1	1700	7.29
12 PVB 121	Flat plate Gel	12	2	109	121	344	13.5	172	6.8	276	10.9	38.0	83.7	1865	6.62
6 PVB 225	Flat plate Gel	6	2	195	225	244	9.6	190	7.5	270	10.6	31.0	68.3	2048	3.11

Notes: The electrical values shown in the table relate to performance from a fully charged condition at ambient temperature of +25°C. Height shown is overall height, including connectors and shrouds.

Installation and Operation

- Optional racking offers easy installation and space saving accommodation.

Standards

- Cycle life in accordance with IEC 60896-21/22.
- Low ventilation requirements according to EN 50272-2.
- Manufactured in EnerSys® ISO 9001 and ISO 14001 certified production facilities.

Construction

Positive electrode: flat plate with lead calcium tin grid

Negative electrode: lead calcium grid

Separators: low resistance microporous material

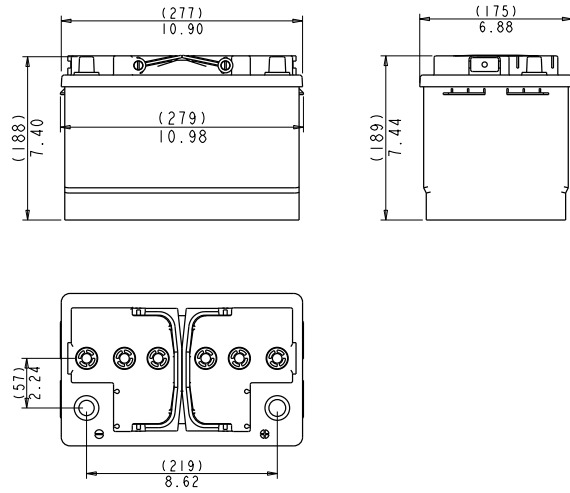
Container and lid: polypropylene

Electrolyte: sulphuric acid immobilised as a gel

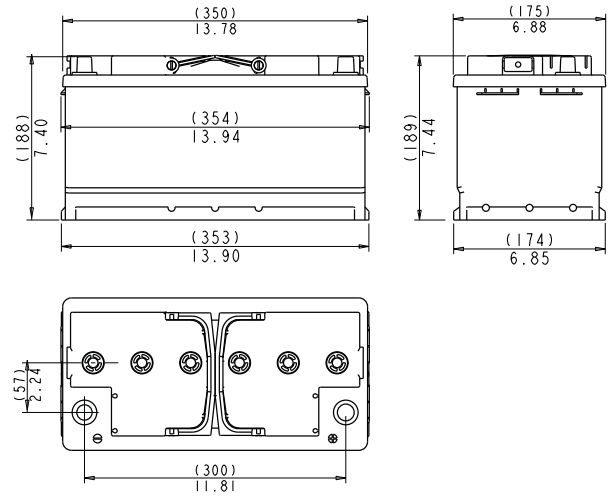
Terminals: automotive type

Pressure relief valve: one way valve with flame arrestor

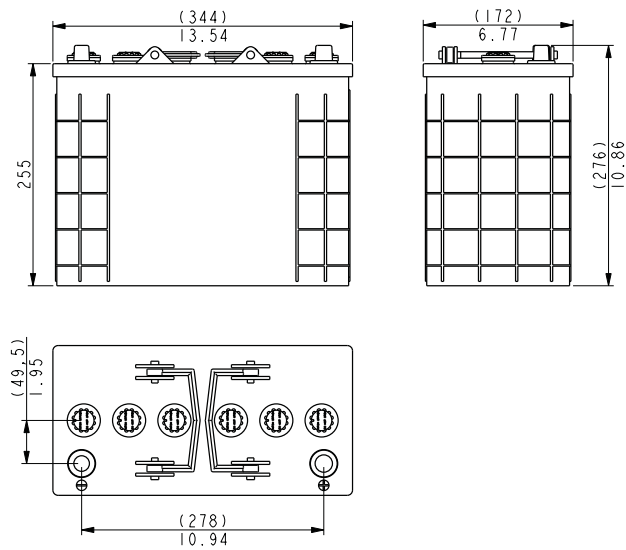
12 PVB 70



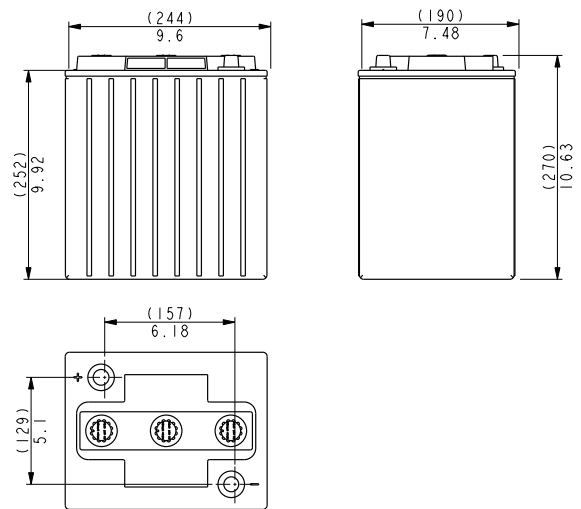
12 PVB 91



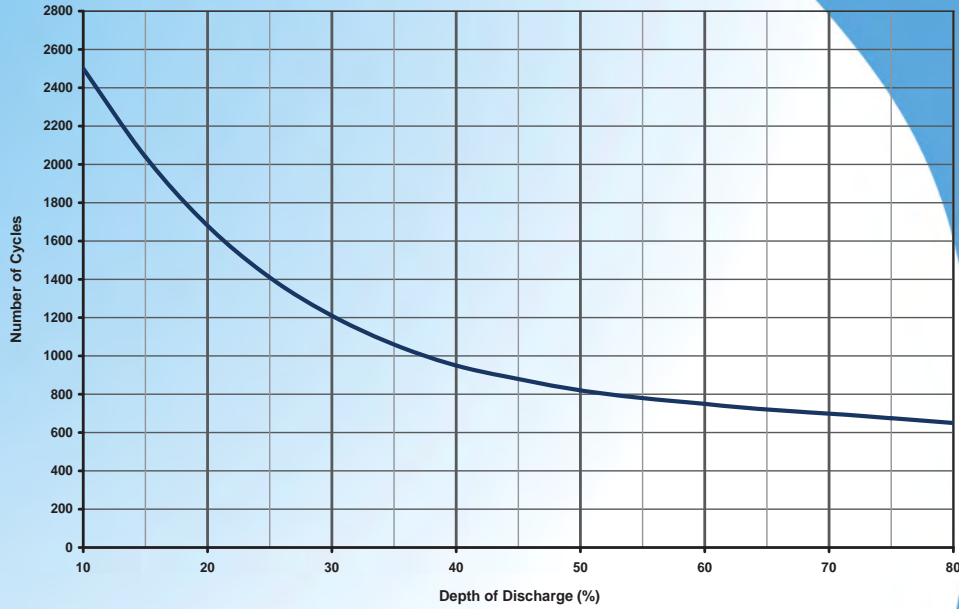
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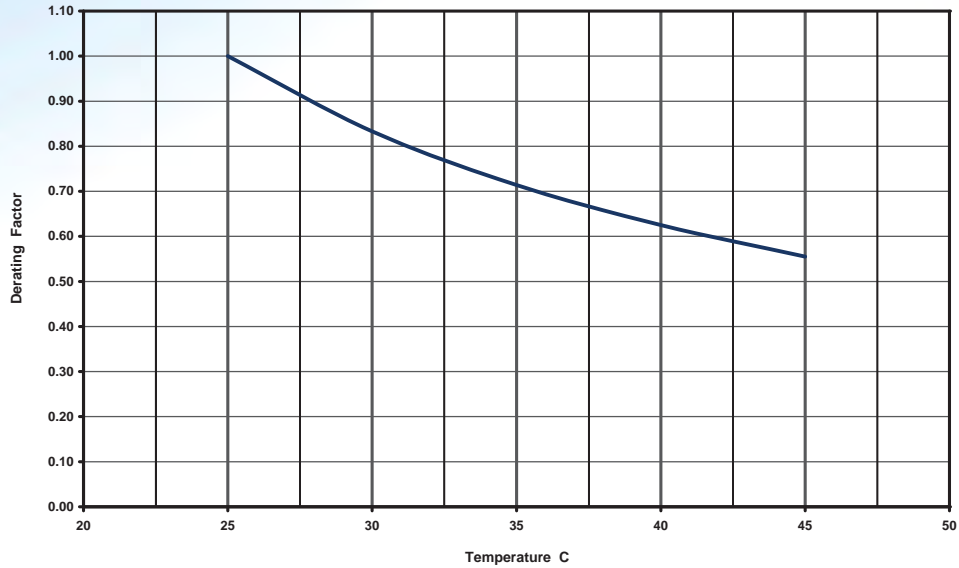
6 PVB 225



PowerSafe® PV Bloc Renewable Energy Applications
Number of Cycles vs Depth of Discharge (25°C)



Batteries for renewable energy applications
Derating factor for number of cycles vs average cell temperature



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Global & Americas Headquarters

EnerSys
P.O. Box 14145
Reading
Pennsylvania 19612-4145
USA
Tel. +1-610-208-1991
Fax +1 610-372-8457

Regional Headquarters

EnerSys Europe (EMEA)
Löwenstrasse 32
8001 Zürich
Switzerland
www.enersys-emea.com

EnerSys Asia
152 Beach Road
Gateway East Building
Level 11
189721 Singapore
Tel: +65 6508 1780
Fax +65 6292 4380

Please refer to the website address for details of your nearest EnerSys office: www.enersys-emea.com

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