

RANGE SUMMARY

The PowerSafe® VX battery range comprises front and top access terminal models suitable for installation in cabinets or equipment racks and on stands. The unique combination of pure lead and thick plate technologies, together with the selection of high grade materials, give PowerSafe VX battery products a design life of 10 years.

EnerSys® has earned an international reputation for quality and reliability based on more than 100 years experience in the manufacture of batteries, and is at the forefront of new product design to meet customers' increasing technical requirements.

The revolutionary PowerSafe VX battery series has taken sealed lead acid batteries into a new era. Originally designed for the rigorous telecommunications market, the PowerSafe VX battery range, with its unique design, is also suitable for other high rate applications such as utilities, UPS systems and railroad signalling.

Features & Benefits

- Pure lead and thick plate technology
- Designed for applications in extreme environments
- 10 year design life at 104°F/40°C
- Fully wired 24VDC & 48VDC 23" NCR NEBS™ certified relay racks are available
- 19" & 23" SpaceSaver™ relay racks are available
- Low total cost of ownership
- UL94 V-0 flame retardant container and lid (halogen free)
- Lifting handles for easy installation
- Wide operating temperature range:
-20°F to +122°F (-30°C to +50°C)
- Cadmium free



Construction

- Positive plates - thick pure lead grids are designed to enhance corrosion resistance and prolong life
- Negative plates - positive to negative ratio is designed to ensure optimum recombination efficiency
- Separators - the electrolyte is completely absorbed within a low-resistance, microporous, Absorbant Glass-fiber Material (AGM), preventing acid spills in case of accidental damage
- Containers, lids and covers - molded from halogen-free, polycarbonate ABS UL94-V0 material, to ensure resistance to very high temperatures, shocks and vibrations
- Flame arrestors – built into the manifold of 8VX100F and 12VX100F. All other models have individual cell flame arrestors built into the lid
- Terminals - Threaded stainless steel front access M6 studs for all PowerSafe® front terminal VX series batteries (10 mm wrench). 6VX105 & 6VX155 have top access copper alloy M8 studs (13 mm wrench). Top and front access terminations provide maximum conductivity. Retorque connectors at 80% of installation torque.
- Inter-bloc connectors - heavy straight-bar design to minimize voltage loss and to withstand high currents

- Post seals - high quality and integrity materials allow for longer life. Compression grommet is designed for long life
- Self-sealing relief valves - low pressure non-return valve prevents ingress of atmospheric oxygen
- Terminal insulating covers or lid covers - fitted as standard

Operation & Installation

- The PowerSafe VX range of batteries is designed for installation in cabinets or on stands
- 4VX105 and 6VX105 battery models can be mounted on their base or on their side with the plates in a vertical orientation, as shown in the diagram below
- The 6VX155 battery can be mounted in any orientation except inverted
- It is recommended that 8VX100F, 12VX100F and 12VX105FS front terminal batteries be installed on their base
- Up to one year shelf life @77°F (25°C)
- Recommended float charge voltage average 2.280Vpc at 68°F/20°C 2.265Vpc at 77°F/25°C
- Reduced maintenance: no water addition required
- Operating temperature
On Charge: -4°F (-20°C) to 122°F (50°C)
Off Charge: -20°F (-30°C) to 113°F (45°C)

- Maximum AC ripple voltage 0.5% RMS or 1.5% P.P.
- Temperature Compensated Charger Recommended
- Only water should be used to clean cover and container

Standards

- Meets criteria for “non-spillable” batteries. Properly packaged and identified non-spillable batteries are exempt from U.S. and international dangerous goods regulations for ground, sea and air transportation. See applicable regulations and special provisions of the US DOT (U.S. Department of Transportation), ICAO (International Civil Aviation Organization), IATA (The Air Transport Association) and IMDG (International Maritime Code for Dangerous Goods)
- The management systems governing the manufacture of this product are ISO™ 9001:2000 and ISO™ 14001:2004 certified
- Complies with Telcordia® SR-4228, Network Equipment Building System (NEBS™) Criteria Levels

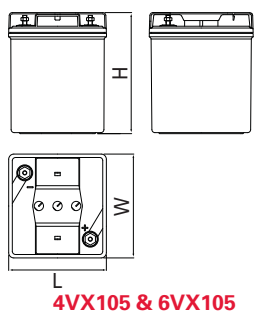
Telcordia® Values

PowerSafe® VX Battery Type	CLEI	CPR
8VX100F	PWHYAHNPAA	208390
12VX100F	PWHYAHPPAA	208392
12VX105FS	PWHYANUPRA	213662

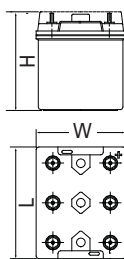
General Specifications

PowerSafe® VX Battery	Capacity (Ah)		Nominal Dimensions						Typical Weight		Short Circuit Current (A)	Internal Resistance (mΩ)	Installation Torque	
	10 hr rate to 1.80Vpc @ 20°C	8 hr rate to 1.75Vpc @ 77°F	Length mm	Length in	Width mm	Width in	Overall Height mm	Overall Height in	kg	lbs			in-lbs	Nm
4VX105 ¹	103	103	191	7.5	202	8.0	235	9.3	16.5	36.4	2740	1.51	44	5
6VX105 ²	103	103	191	7.5	202	8.0	235	9.3	22.0	48.5	2740	2.26	44	5
6VX155 ²	154	155	292	11.5	202	7.9	228	9.0	33.0	72.8	4800	1.2	44	5
8VX100F ³	100	100	384	15.1	125	4.9	228	9.0	32.0	70.5	3636	2.2	44	5
12VX100F ⁴	100	100	558	22.0	125	4.9	228	9.0	47.5	104.7	3636	3.3	44	5
12VX105FS ⁴	105	105	561	22.1	125	4.9	228	9.0	40.5	90.4	2455	5.1	80	9

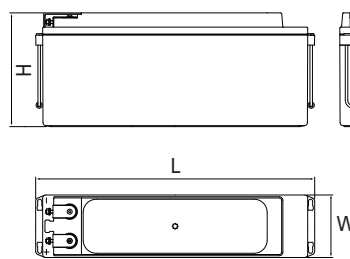
¹2 cells, 4V; ²3 cells, 6V; ³4 cells, 8V; ⁴6 cells, 12V



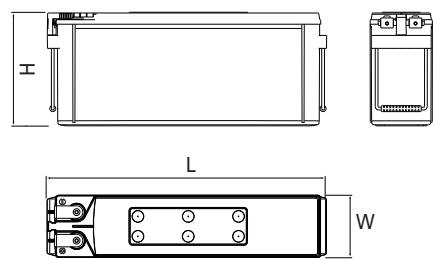
4VX105 & 6VX105



6VX155



8VX100F & 12VX100F



12VX105FS



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
Löwenstrasse 32
8001 Zurich, Switzerland

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

Distributed by:

Printed in USA

© 2010 EnerSys. All rights reserved.
Trademarks and logos are the property of EnerSys and its affiliates, except ISO™, NEBS™, SpaceSaver™ and Telcordia®, which are not the property of EnerSys.