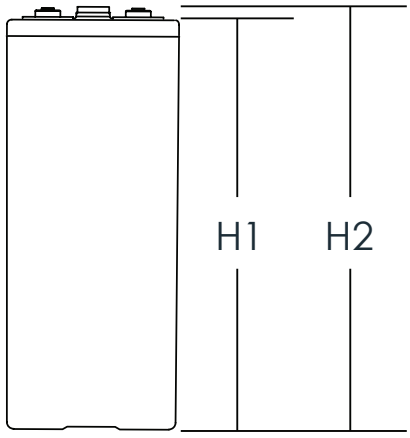
Discover®
Innovative Battery Solutions

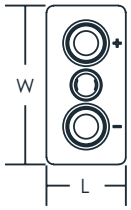
2VRE-800TG
DATASHEET

Tubular Gel OPzV Cell

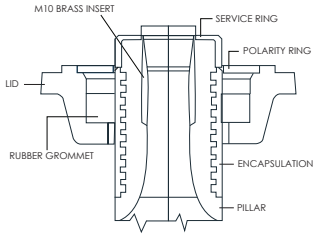
Discover® Tubular Gel RE Batteries provide superior deep cycling performance and reliability for demanding commercial, industrial and residential applications. Discover® Tubular Gel RE Batteries utilize Advanced Tubular Plate Technology to deliver long service life with maintenance-free requirements. Gel RE Batteries provide reliable energy storage for Stationary Backup and Telecom Networks, Road Surface, and Rail Traffic Signaling Systems, Solar, Wind, and Hybrid Off-grid and Grid-tie renewable energy applications. Discover® Tubular Gel RE Batteries provide maximum efficiency per discharge-charge cycle, and proven reliability in remote, high temperature, or unstable power network installations.

MECHANICAL DRAWINGS





Terminal (M10)



MECHANICAL SPECIFICATIONS

Voltage	2	
Industry Reference	Tubular Gel OPzV	
Length (A)	5.0 in	126 mm
Width (B)	8.2 in	208 mm
Height (C)	14.4 in	367 mm
Total Height (D)	15.4 in	392 mm
Weight	49 lbs	22 kgs
Terminal	M10	
Poles	2	
Cell(s)	1	
Container	ABS	

ELECTRICAL SPECIFICATIONS

Reference LVD / I10	**20% DOD**	2.05V
	50% DOD	1.97V
	80% DOD	1.91V
Cycle Life	**20% DOD**	7000 cycles
	50% DOD	2950 cycles
	80% DOD	1900 cycles
Internal Resistance		0.78 mΩ
Short Circuit		2100 A
Self Discharge		2-3% per month
Maximum Operating Temperature		-35°C / -31°F | 50°C / 122°F
Electrolyte		Gel

ELECTRICAL SPECIFICATIONS

240 HR	120 HR	100 HR	20 HR	10 HR	5 HR	3 HR	1 HR
1.85 Volts Per Cell (VPC)			1.75 Volts Per Cell (VPC)				
382 AH	380 AH	376 AH	308 AH	280 AH	253 AH	224 AH	155 AH

NOTE: All Electrical Specifications are based on 20°C / 68°F temperature.

BENEFITS & FEATURES

Engineered to deliver 80% of rated capacity above 1.9 volts.

Tubular positive plates and proprietary alloy compositions to provide a 50% Depth of Discharge cycle life of up to 2950 cycles @ 20°C / 68°F.

Low cost per cycle. Lifetime value maximized especially in hybrid systems where using batteries can dramatically reduce generator run times delivering lower maintenance and fuel costs and less CO2 emissions.

Sealed technology. Gel electrolyte and safety pressure relief valve with integral flame arrestor.

Complete and ready to install systems with all necessary installation accessories. Flame retardant (UL 94-V0) containers available upon request.

Tested and verified for compliance to applicable International Safety Standards.

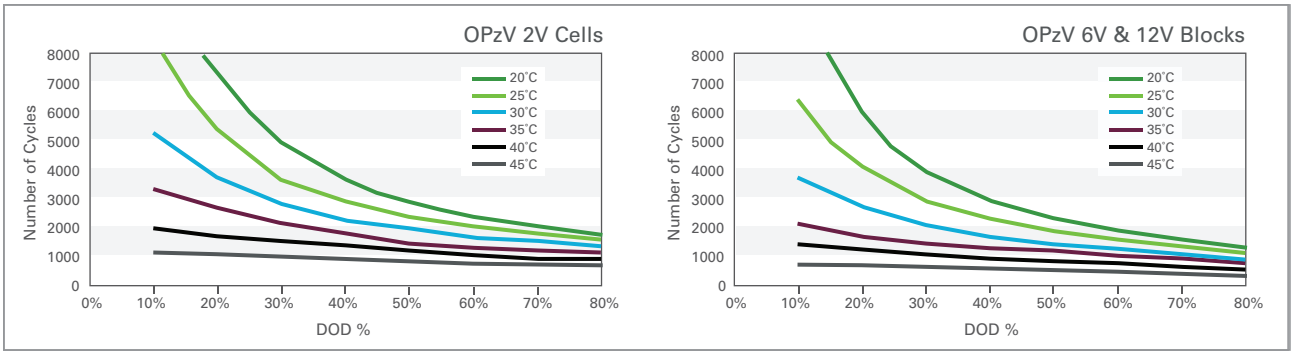
IEC 61427 Compliant. Tested for compliance with the International Electrical Commission requirements for battery performance and life in PV applications.

CERTIFIED QUALITY

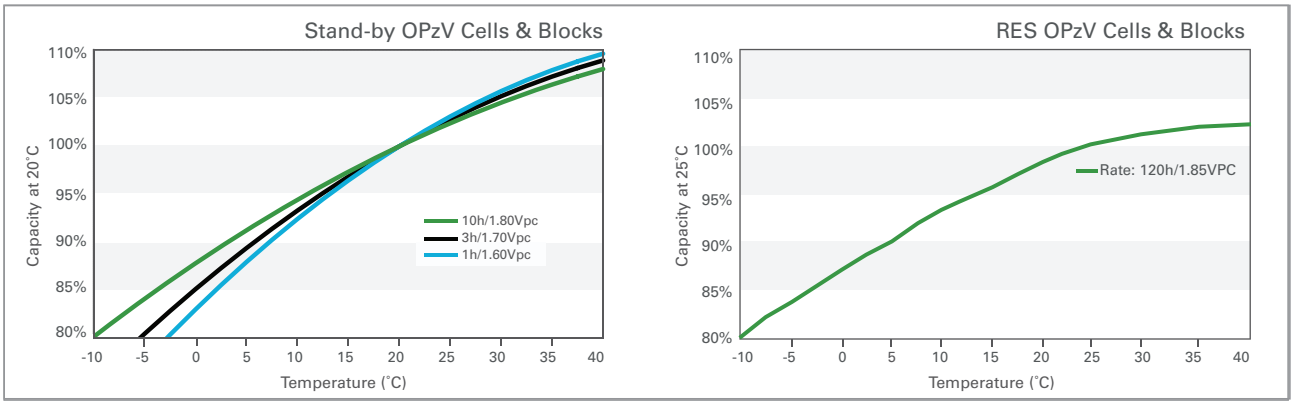
Discover and its facilities and products are certified to multiple standards and compliance:

- IEC 60896-21: Requirements for Photovoltaic Energy
- IEC 60896-22: Requirements for Valve-Regulated lead-acid batteries
- DIN 40742: Specifications for Tubular Gel RE Cells
- DIN 40744: Specifications for Tubular Gel RE Blocks
- EN 50272-2: Safety Requirements for stationary batteries
- ISO 9001, ISO 14001, BS OHSAS 18001: Manufacturing and Production facilities.
- ETTS Germany

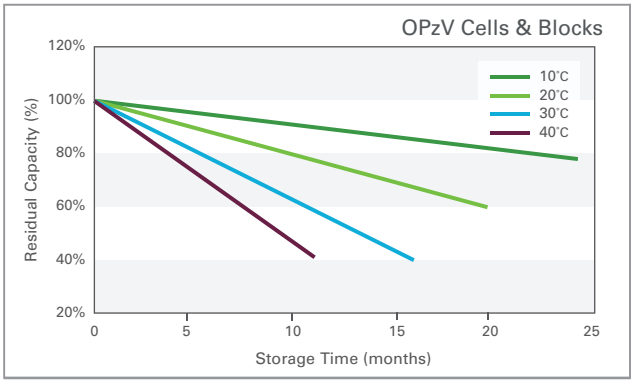
Expected Number of Cycles in Relation to the Depth of Discharge



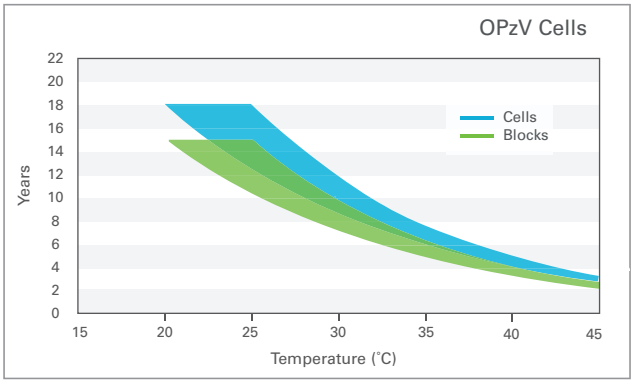
Capacity in Relation to the Temperature



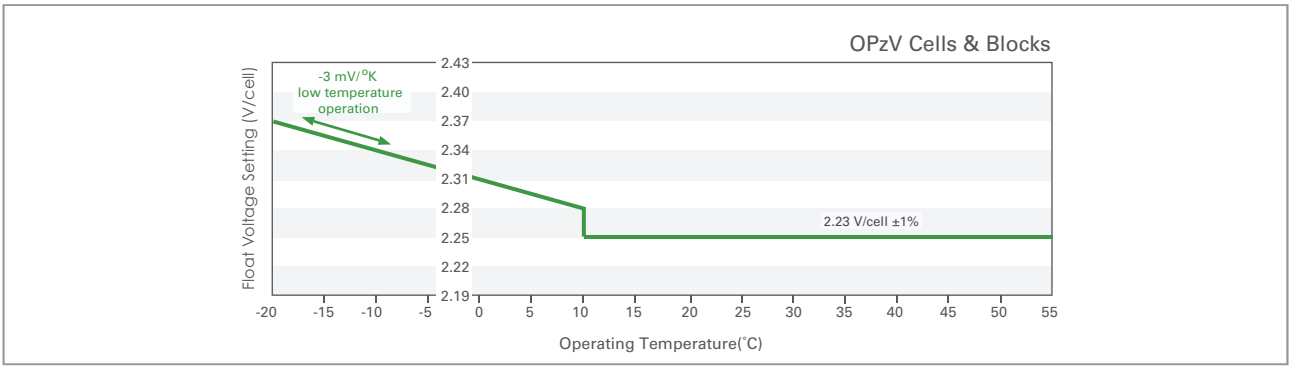
Self-discharge Characteristics



Expected Service Life in Relation to Operating Temperature



Float Voltage Setting in Relation to Operating Temperature



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