**DATASHEET** 

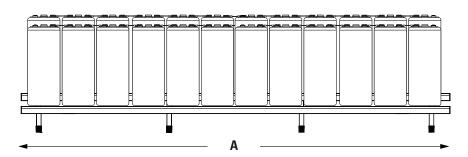


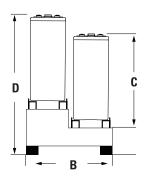
## **Innovative Battery Solutions**

# **Tubular Gel OPzV 48V System**

Discover® Tubular OPzV 48V Systems provide superior deep cycling performance and reliability for demanding commercial, industrial and residential applications. Whether it's for solar application as an investment, or as power source for critical operations, Discover has a reliable power solution.

#### **MECHANICAL DRAWINGS**





#### MECHANICAL SPECIFICATIONS

Voltage	48			
Industry Reference	Tubular Gel OPzV			
Length (A)	106.30 in	2700 mm		
Width (B)	22.83 in	580 mm		
Height (C)	34.21 in	869 mm		
Total Height (D)	38.15 in	969 mm		
Weight	4540.8 lbs	2064 kgs		
Cell(s)	24			
Cell Container	ABS			
Rack	Steel			

#### **ELECTRICAL SPECIFICATIONS**

	20% DOD	49.20V					
Reference LVD / I10	50% DOD	47.28V					
	80% DOD	45.84V					
Cycle Life	20% DOD	7000 cycles					
	<b>50% DOD</b> 2950 cycles						
	80% DOD	1900 cycles					
Internal Resistance		0.33 mΩ					
Short Circuit		6050 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)					
1643 AH	1635 AH	1610 AH	1265 AH	1150 AH	1039 AH	899 AH	554 AH

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

#### **BENEFITS & FEATURES**

Engineered to deliver 80% of rated capacity above 1.90 Volts.

Low cost per cycle. provide the Lowest Total Cost of Ownership amongst lead acid technologies. Further savings can be achieved in Hybrid systems through diesel abatement and peak shaving.

Complete System. Available in 24V and 48V configurations and ready to install (connectors and battery rack included). Flame retardant (UL 94-V0) containers available upon request.

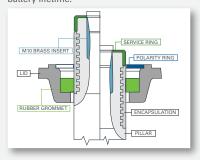
Tubular positive plates and proprietary alloy compositions to provide a 50% Depth of Discharge cycle life of up to 2950 cycles @ 20°C / 68°F.



Sealed technology. Gel electrolyte and safety pressure relief valve with integral flame arrestor. Battery containers are made of Acrylonitrile Butadiene Styrene (ABS).



Sliding Pole Terminals. Designed to accommodate natural grid growth occurrence throughout battery lifetime.



#### **CERTIFIED QUALITY**

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

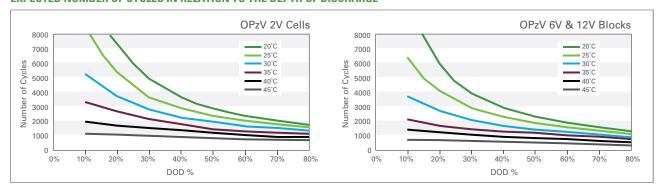
- ISO 9001/14001 and OSHA 18001 standards
- IEC 60896-21: Requirements for Photovoltaic Energy
- IEC 60896-22: Requirements for Valve Regulated Lead Acid batteries
- IEC 61427: Standard for photovoltaic energy systems
- DIN 40742: Standard for stationary tubular plate cells
- EN 50272-1 / 50272-2: Safety Requirements for stationary batteries
- UN 2800 (US DOT Compliance)
- Eurobat "Long Life" classification



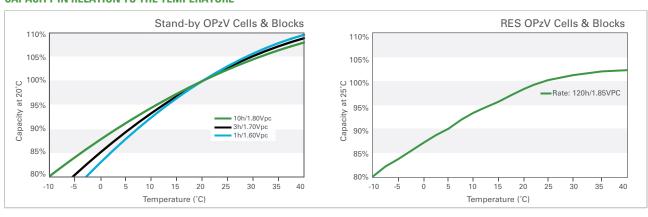




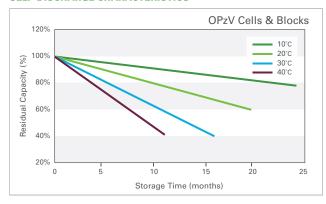
#### **EXPECTED NUMBER OF CYCLES IN RELATION TO THE DEPTH OF DISCHARGE**



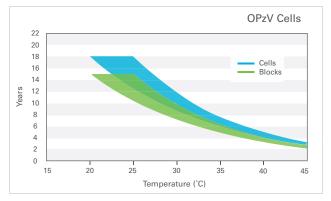
### **CAPACITY IN RELATION TO THE TEMPERATURE**



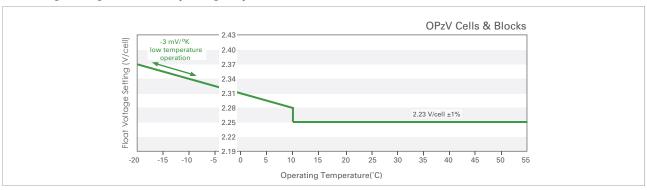
#### **SELF-DISCHARGE CHARACTERISTICS**



# EXPECTED SERVICE LIFE IN RELATION TO OPERATING TEMPERATURE



## Float Voltage Setting in Relation to Operating Temperature



Discover® attempts to ensure the correctness of the product description and data contained herein. We reserve the right to change designs, specifications and pricing at one tites without notice or a policytion. It is the respecificity the reserve of this information to useful to interpret the product of the reserve the reserve that the right to change designs, specifications and pricing at