

# Tubular Gel OPzV 48V System

Discover<sup>®</sup> 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**



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## **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)	40.12 in	1019 mm		
Total Height (D)	44.05 in	1119 mm		
Weight	6164.4 lbs	2802 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		
	20% DOD	7000 cycles		
Cycle Life	50% DOD	2950 cycles		
	80% DOD	1900 cycles		
Internal Resistance		0.25 mΩ		
Short Circuit		8500 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)					
2238 AH	2227 AH	2197 AH	1782 AH	1620 AH	1470 AH	1275 AH	784 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 standardsIEC 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**



#### 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 any time without notice or obligation. It is the responsibility of the reader of this information to verify any and all information presented herein.

#### EXPECTED SERVICE LIFE IN RELATION TO OPERATING TEMPERATURE

