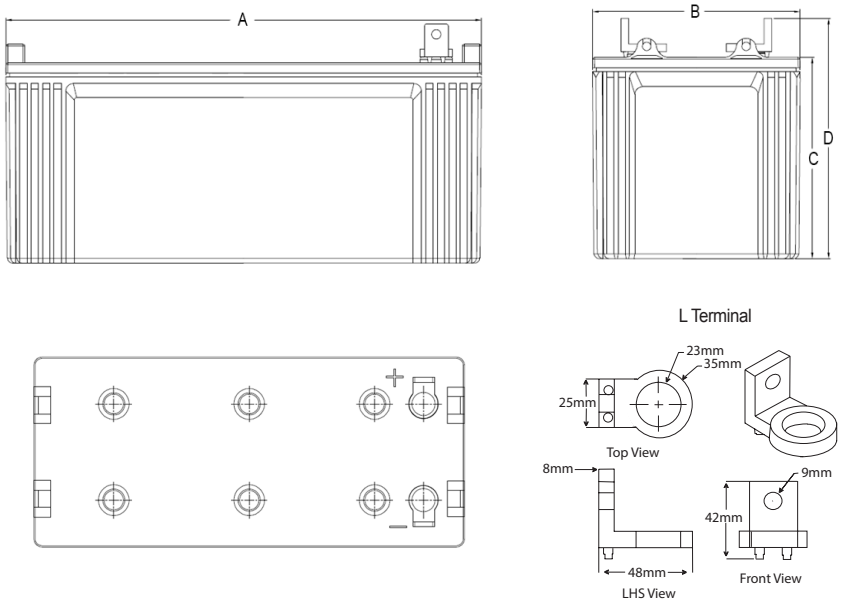
12VRE-1600TF-L

DATA SHEET

Tubular Flooded SOPzS Battery Block

Discover® Tubular Flooded RE Series Batteries provide superior deep cycling performance and reliability for demanding commercial, industrial and residential applications. Discover® Tubular Flooded RE Series Batteries utilize Advanced Tubular Plate Technology to deliver long service life with low maintenance requirements. RE Series 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 RE applications. Discover® Tubular Flooded RE Series batteries provide maximum efficiency per discharge-charge cycle, and proven reliability in remote, high temperature, or unstable power network installations.

Mechanical Drawings



Mechanical Specifications

Industry Reference	12V Tubular Flooded SOPzS	
Length (A)	20.5 in	520 mm
Width (B)	10.9 in	277 mm
Height (C)	8.3 in	212 mm
Total Height (D)*	10.0 in	254 mm
Weight (Wet)	93 lbs	42 kgs
Weight (Dry)	46 lbs	21 kgs
Terminal	M8 L	
Poles	2	
Cell(s)	6	
Container	Polypropylene	

Electrical Specifications

Reference LVD (I10 at 20°C | 68°F)	**20% DOD**	12.3 V
	50% DOD	11.9 V
	80% DOD	11.5 V
Cycle Life	**20% DOD**	3600 cycles
	50% DOD	2000 cycles
	80% DOD	1200 cycles
RINT		5mΩ +/-1.5
Short Circuit (20°C | 68°F)		1350 A
Self Discharge (20°C | 68°F)		4-5% per month
Maximum Operating Temperature		-35°C | -31°F - 50°C | 122°F
Electrolyte (20°C | 68°F)		1.24 S.G.

Electrical Specifications

1.85 VPC at 20°C | 68°F				1.75 VPC at 27°C | 80°F			1.75 VPC at 20°C | 68°F			
240 HR	**120 HR**	**120 HR**	**100 HR**	**20 HR**	**10 HR**	**8 HR**	**5 HR**	**3 HR**	**1 HR**	**1 HR**
138 AH	1.58 KWH	132 AH	128 AH	115 AH	100 AH	97 AH	88 AH	76 AH	0.8 KWH	66 AH

Constant Power Reference in Watts / Cell to 1.92VPC at 20°C | 68°F										
240 HR	**168 HR**	**120 HR**	**100 HR**	**72 HR**	**50 HR**	**48 HR**	**24 HR**	**20 HR**	**12 HR**	**10 HR**
1.1	1.5	2.0	2.4	3.2	4.4	4.6	8.2	9.5	14.3	16.5

Updated April 28, 2015

Benefits & Features

Unparalleled Performance
- Engineered to deliver 80% of rated capacity above 11.5 volts.

Long Cycle Life
- Tubular positive plates and proprietary alloy compositions to provide a 50% DoD cycle life of up to 2500 cycles @ 20°C | 68°F.

Low Total Cost of Ownership
- 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.

Low Maintenance
- Low maintenance designs, clear case jars and available watering systems to ease electrolyte level maintenance.

Complete Battery Solution
- Complete and ready to install systems, filled and charged with all necessary installation accessories (available Dry Charged).

Safe
- Tested and verified for compliance to applicable International Safety Standards. Built-in Ceramic flame arrestors to guard against ignition risks.

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

Certified Quality

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

- IEC 61427: Requirements for Photovoltaic Energy Systems
- IEC 60896-11: Requirements for vented lead-acid batteries
- DIN 40736-1: Specifications for RE Series Cells
- DIN 40737-3: Specifications for RE Series Blocks
- EN 50272-2: Safety Requirements for Stationary batteries
- ISO 9001, ISO 14001, BS OHSAS 180:
- Manufacturing and Production facilities.
- ETTS Germany

Contact Us

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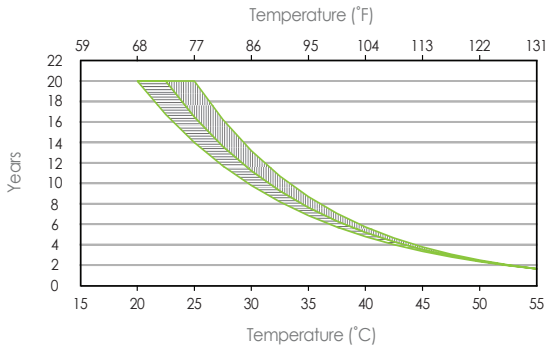
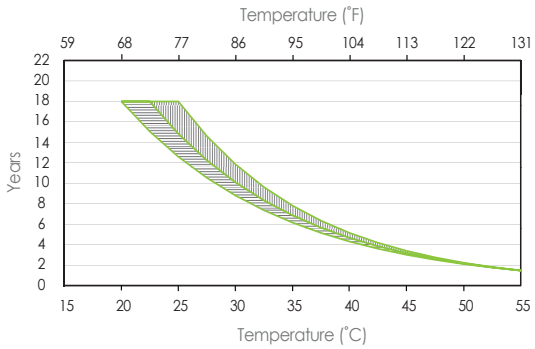
Expected Service Life vs. Operating Temperature

Tubular RE Series Cells

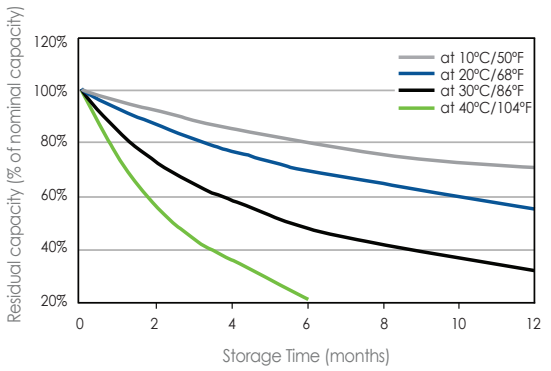


Tubular RE Series Blocks



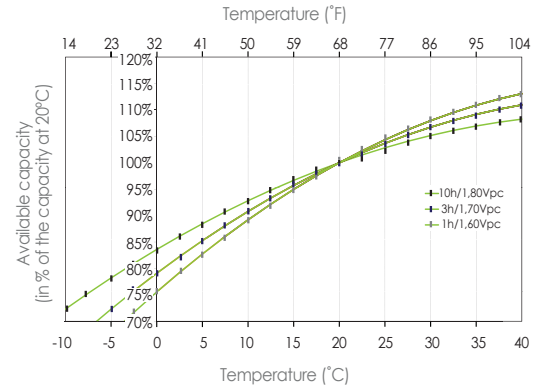
Self-Discharge Characteristics

Tubular RE Series Cells and Blocks



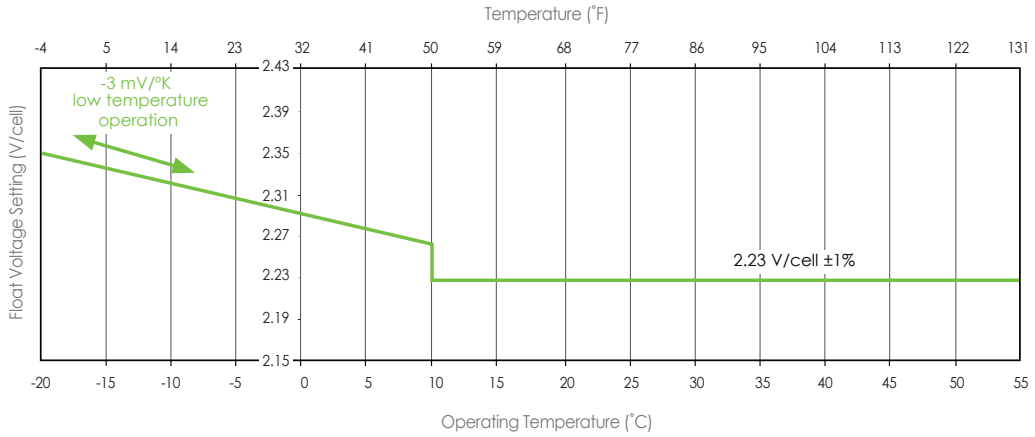
Capacity vs. Temperature

Tubular RE Series Cells and Blocks



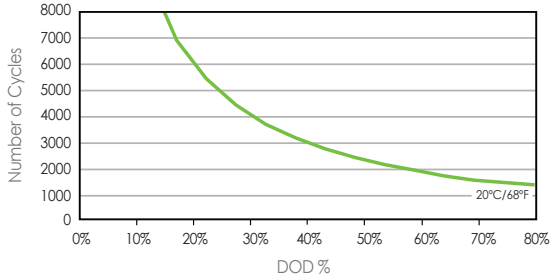
Float Voltage Setting vs. Operating Temperature

Tubular RE Series Cells and Blocks



Number of Cycles vs. DOD

2V Tubular RE Series Cells



6V and 12V Tubular RE Series Blocks