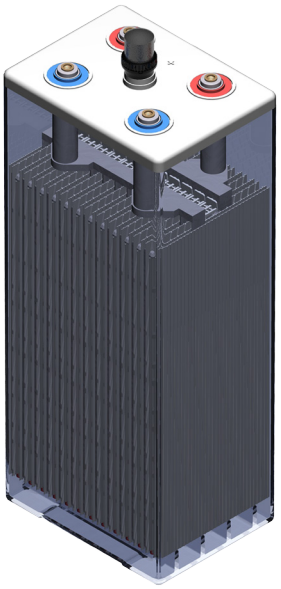
2VRE-3800TF

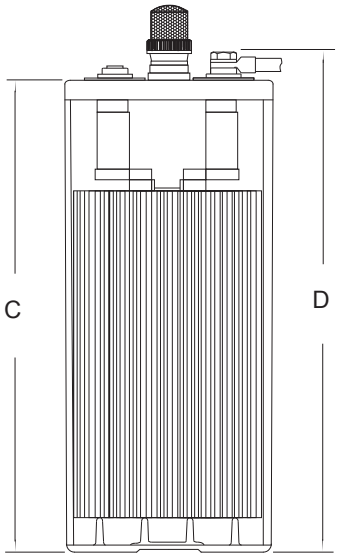
DATA SHEET

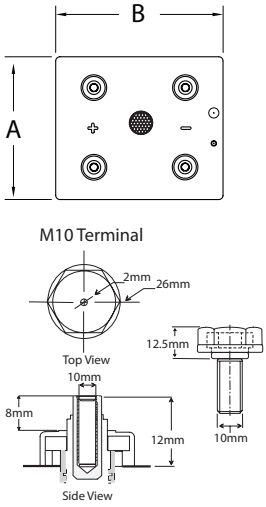
Tubular Flooded OPzS Battery Cell

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 renewable energy 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	2V Tubular Flooded OPzS	
Length (A)	10.8 in	275 mm
Width (B)	8.3 in	210 mm
Height (C)	25.4 in	646 mm
Total Height (D)	26.4 in	671 mm
Weight (Wet)	201 lbs	91 kgs
Weight (Dry)	146 lbs	66 kgs
Terminal	M10	
Poles	4	
Cell(s)	1	
Container	SAN	

Electrical Specifications

Reference LVD (I10 at 20°C | 68°F)	**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
RINT		0.228 mΩ
Short Circuit (20°C | 68°F)		8850 A
Self Discharge (20°C | 68°F)		2-3% 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**
1985 AH	3.82 KWH	1908 AH	1870 AH	1462 AH	1329 AH	1284 AH	1166 AH	988 AH	1.2 KWH	596 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**
14.2	19.2	26.3	30.8	40.5	54.4	56.3	96.9	111.4	162.5	185.0

Updated May 5, 2015

Benefits & Features

Unparalleled Performance
- Engineered to deliver 80% of rated capacity above 1.91 volts.

Long Cycle Life
- 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 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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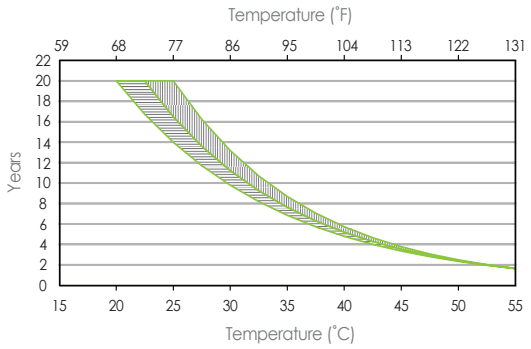
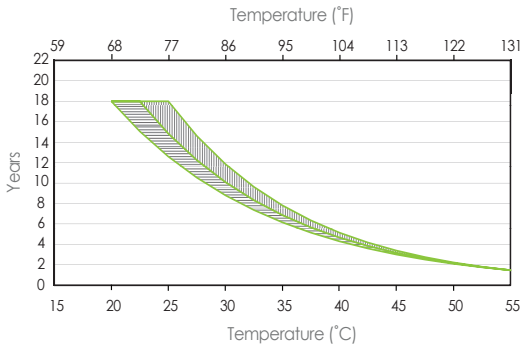
Expected Service Life vs. Operating Temperature

Tubular RE Series Cells

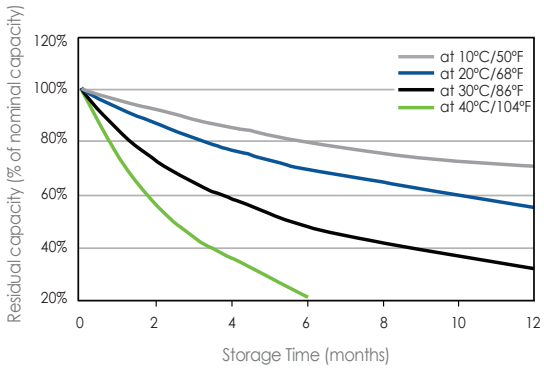


Tubular RE Series Blocks



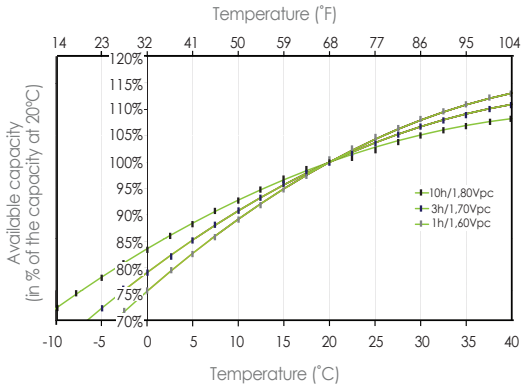
Self-Discharge Characteristics

Tubular RE Series Cells and Blocks



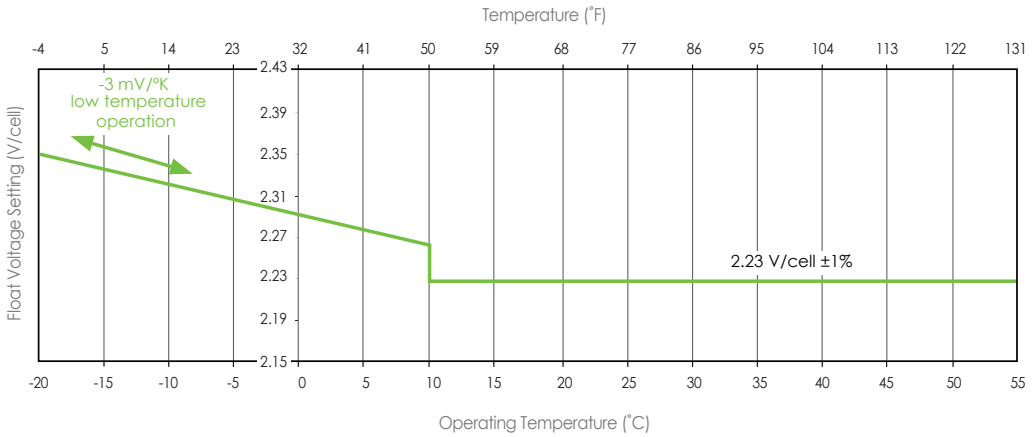
Capacity vs. Temperature

Tubular RE Series Cells and Blocks



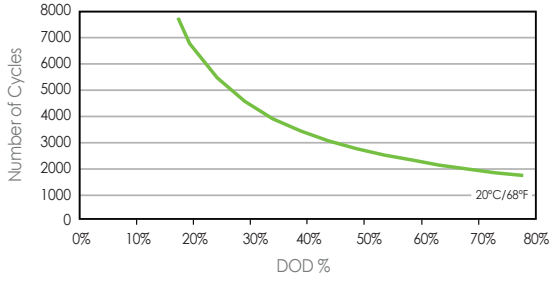
Float Voltage Setting vs. Operating Temperature

Tubular RE Series Cells and Blocks



Number of Cycles vs. DOD

2V Tubular RE Series Cells



6V and 12V Tubular RE Series Blocks