

# STATIONARY BATTERIES

## OpzV-Gel



### Tubular Gel Technology For Solar Applications

The tubular gel solar range utilizes proven materials & construction technology tailored for the specific demands of the worldwide solar industry. Performance is greatly enhanced by the inclusion of special materials, techniques and processes developed through extensive r&d and exhaustive testing.

Manufactured to the highest international standards, the range is ideal for reliable use in solar and similar applications.



#### OPERATION

**Nominal Voltage** - 2V

**Float Charge** - 2.23 - 2.30 vpc at 20 - 25°C

**Frequent Use Applications** - Superior cycle life at all depths of discharge

**Design Life** - 15 Years @ 25°C

**Connection** - Cables, bus bar connectors and terminal covers available on request.

**Operating Temperature** - 20 to 50°C

#### CONSTRUCTION

**VRLA** Maintenance free

**Positive plate** Tubular, high tin content for long float and cycle life

**Negative Plate** Flat pasted with frame

**Separator** Microporous Polymer

**Formation** Superior proprietary incaseformation

**Electrolyte** Very high purity Sulfuric acid

**Flame Arrester** Standard

**Terminal** Female insert as standard, proven, reliable, long life sealing method

**Case** High impact resistant ABS flame retardant to UL94V0 on request.

**Venting valve** EPDM rubber, excellent acid resistance for long life

**Specification** Built to comply with IEC 8962, DIN 43534, BS 6290 PM, Eurobat.

**Transport** Approved as non-hazardous cargo for ground, sea and air transportation in accordance with US DOT Regulation 49 and ICAO & IATA Packing Instruction 806.

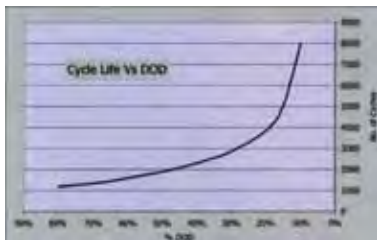
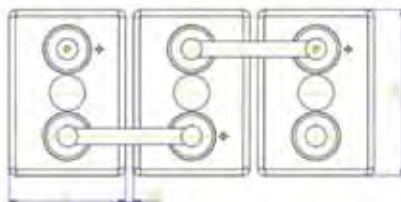
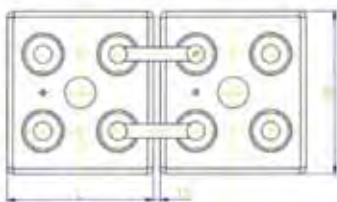
Battery Model	Nominal Voltage	C1 1,67 VPC	C3 1,75 VPC	C5 1,77 VPC	C10 1,80 VPC	C100 1,85 VPC
4 OPzV 200 S	2	139	169	183	206	245
5 OPzV 250 S	2	176	214	231	260	309
6 OPzV 300 S	2	210	255	276	310	369
5 OPzV 350 S	2	244	296	320	360	428
6 OPzV 420 S	2	291	353	383	430	512
7 OPzV 490 S	2	339	411	445	500	595
6 OPzV 600 S	2	413	501	543	610	726
8 OPzV 800 S	2	548	666	721	810	964
10 OPzV 1000 S	2	687	834	903	1015	1208

Battery Model	Dimensions (mm)			Total Height	Approx. Weight Kg	Terminal Pairs	Internal Resistance mOhms	Terminal 18 Nm Torque
	Length	Width	Height					
4 OPzV 200 S	105	208	360	395	19	1	1,1	M10
5 OPzV 250 S	126	208	360	395	22,5	1	0,9	M10
6 OPzV 300 S	147	208	360	395	28	1	0,8	M10
5 OPzV 350 S	126	208	475	510	31	1	0,7	M10
6 OPzV 420 S	147	208	475	510	36	1	0,6	M10
7 OPzV 490 S	168	208	475	510	42	1	0,5	M10
6 OPzV 600 S	147	208	650	685	50	1	0,45	M10
8 OPzV 800 S	215	193	650	685	68	2	0,35	M10
10 OPzV 1000 S	215	235	650	685	82	2	0,26	M10
12 OPzV 1200	215	275	662	697	93	2	0,26	M10
12 OPzV 1500	215	275	813	848	115	2	0,23	M10
16 OPzV 2000	215	399	788	823	155	3	0,17	M10
20 OPzV 2500	215	487	786	821	200	4	0,14	M10
24 OPzV 3000	215	576	788	823	235	4	0,12	M10

## CHARGING

The maximum applied charging current should be 20% of 020. In cyclic applications the maximum applied charging voltage should be 2.4 vpc.  
 For: • Daily discharge less than 0.4 x 0100. Use 2.30 2.35 at 20 Degrees C  
 • Daily discharge more than 0.4 x 0100. Use 2.35 2.40 at 20 Degrees C

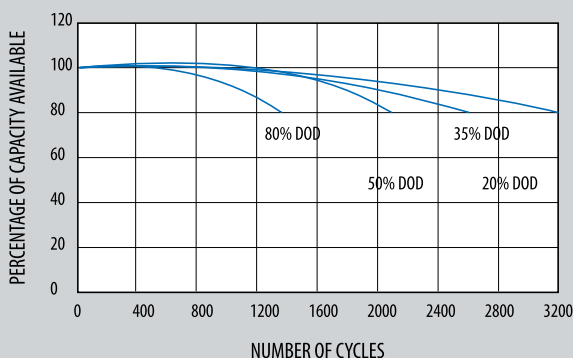
Charging Voltage is adjusted 5 mVfC



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**The Quality & Management system governing the manufacture of this product is ISO 9001:2000 and ISO 14001:2004 certified.**

## LIFE-CYCLE OF A TUBULAR + DEEP CYCLE BATTERY IN COMPARISON TO THE DEPTH OF DISCHARGE = DOD



DOD	No. of cycle (DIN)	Life span (year)
80	1250	4.2
70	1450	4.8
60	1700	5.7
50	2050	6.8
35	2600	8.7
20	3200	10.7

ALL THE SELECTED BATTERIES ARE DEVELOPED FOR SOLAR APPLICATIONS (= CHARGING & DISCHARGING)

### Open lead-acid batteries

#### Semi-traction batteries

Open lead-acid batteries, flat plates, ca. 600 cycles (DIN).

#### Deep-cycle batteries

Open lead-acid batteries, flat plates, USA Traction Monobloc, ca. 1200 cycles (DIN) - 750 (SAE).

#### Traction batteries

Open lead-acid batteries, pos. tubular plates, ca. 1250 cycles (DIN).

### Maintenance free batteries

#### AGM batteries

Valve regulated lead acid batteries, Absorbed Glass Mat Technology (=AGM). Can be used in any position. For lighter cyclical applications, ca. 300 cycles.

#### GEL batteries

For durable cyclical use. Only in straight position. Longest battery life, highest cycles and the best for cyclical use. Ca. 550 cycles.

### Attention !

The battery life depends on the use / discharge of the battery (DOD = Depth of Discharge: see table, the way of charging etc.

It's recommended to recharge the battery as fast as possible after use, the life span indicated is the average with an 80%-discharge.

Open lead-acid: max. 2,65V/cell, charging current = Ah/5H : 6

AGM: 2,35V/cell - 2,40V/cell max., charging current = Ah/5H : 6

GEL: 2,35V/cell - 2,40V/cell max., charging current = Ah/5H : 6