

# UP-OPzV Series

## 1 0PzV 50

1 2 V - B L O C K



GRID



TELECOM



GENSET



UPS



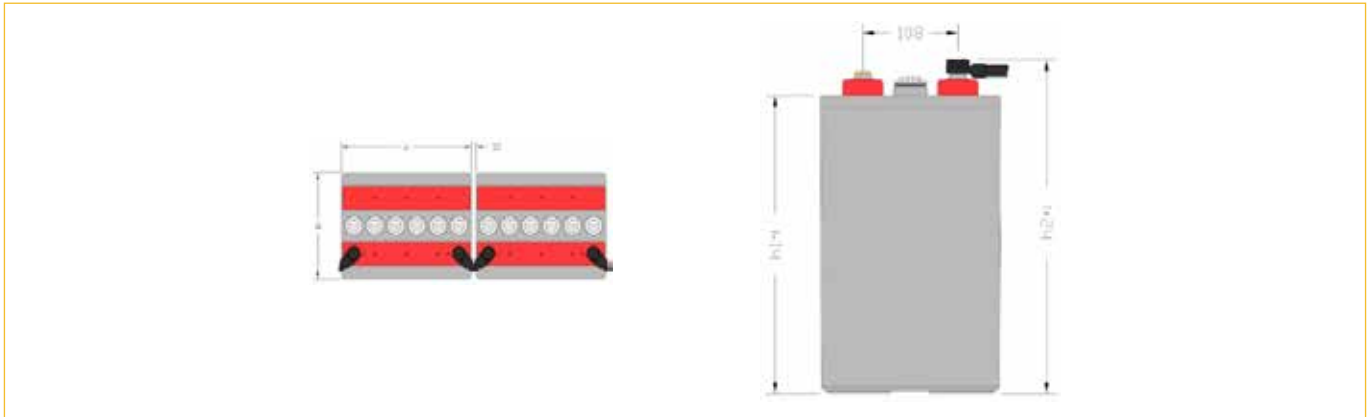
### Main Features

- OPzV batteries are characterized by maintenance-free, long service life, excellent reliable performance even in harsh conditions (high operating temperatures or unstable power network), thus providing a premium, efficient and cost effective energy solution.
- Optimum design, according to DIN international standards, exclusive use of high quality raw materials, robust construction and state of the art manufacturing processes make this OPzV range the ideal solution for stand-by applications requiring high level of safety and reliability.
- Design Life: More than 15 years at 20°C.
- IEC 896-1: 1500 cycles.
- Full Conformity with IEC 896-1, IEC 60896-21 and EN 61427.

### Technical Specifications

Capacity (Ah), C10 (1,8 V/cell, 20°C)	51
Capacity (Ah), C8 (1,75 V/cell, 20°C)	51.2
Number of Plates (+) per Cell	1
Floating Voltage Set Point (V/cell)	2.25
Maximum Initial Charge Current (A)	0.3 C10
Recommended Boost Charge Voltage (V/cell)	2.35
Recommended End of Discharge Voltage (10-hr rate) (V/cell)	1.80
Short Circuit Current (A)	620
Internal Resistance (mOhm)	19.8
Number of Cycles at 60% Depth of Discharge (20°C)	2000
Self-Discharge Rate per Month at 20°C	Approx. 2%
Dimensions in mm (L x W x H1 x H2) H1 = Height to the lid H2 = Height to the pole	272 x 205 x 332 x 371
Weight (kg)	43
Type and Number of Poles	M10 / 2
Operating Temperature / Recommended Temperature	-20°C to 45°C / 10°C to 30°C

Dimensions



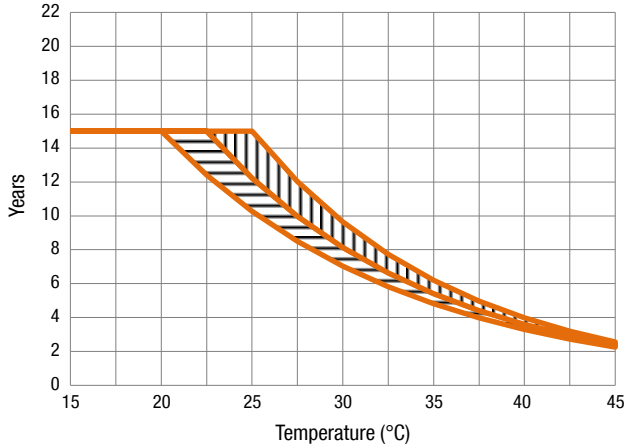
Constant Current Discharge in A (at 20°C)

End Voltage (V/cell)	Discharge Time														
	10 min	15 min	30 min	45 min	1 h	2 h	3 h	4 h	5 h	6 h	7 h	8 h	10 h	12 h	20 h
1.60 V	81.6	72.0	51.9	40.3	33.2	20.1	14.8	11.7	9.8	8.4	7.4	6.6	5.5	4.7	3.0
1.65 V	74.4	66.4	49.8	39.5	32.7	19.9	14.6	11.6	9.7	8.4	7.4	6.6	5.5	4.7	3.0
1.70 V	66.5	60.1	46.4	37.7	31.7	19.6	14.4	11.5	9.6	8.3	7.3	6.5	5.4	4.6	3.0
1.75 V	58.1	53.0	41.9	34.7	29.6	18.9	14.0	11.2	9.4	8.1	7.1	6.4	5.3	4.5	2.9
1.80 V	49.4	45.3	36.6	30.8	26.6	17.5	13.2	10.6	9.0	7.8	6.8	6.1	5.1	4.4	2.8
1.83 V	44.0	40.6	33.1	28.1	24.5	16.3	12.4	10.1	8.5	7.4	6.5	5.9	4.9	4.2	2.7
1.85 V	40.4	37.3	30.7	26.2	22.9	15.4	11.8	9.6	8.1	7.1	6.3	5.6	4.7	4.0	2.6
1.87 V	36.6	34.0	28.1	24.1	21.2	14.4	11.1	9.1	7.7	6.7	5.9	5.3	4.5	3.8	2.5
1.90 V	30.4	29.0	24.2	20.9	18.5	12.8	9.9	8.1	6.9	6.0	5.4	4.8	4.1	3.5	2.3

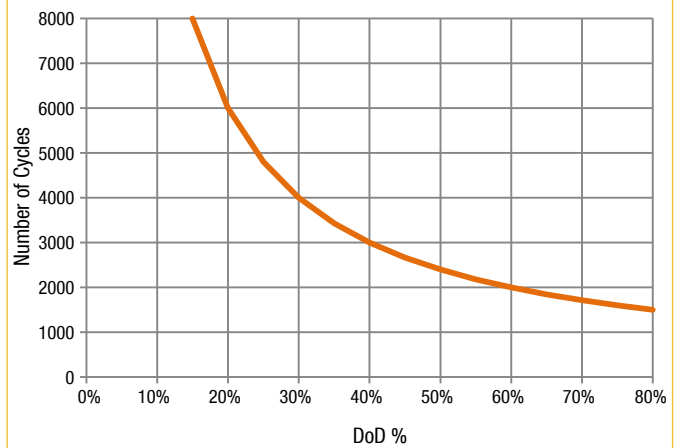
Constant Power Discharge in W/cell (at 20°C)

End Voltage (V/cell)	Discharge Time														
	10 min	15 min	30 min	45 min	1 h	2 h	3 h	4 h	5 h	6 h	7 h	8 h	10 h	12 h	20 h
1.60 V	128.0	114.3	86.1	68.9	57.8	36.2	27.0	21.7	18.2	15.8	13.9	12.5	10.4	8.9	5.8
1.65 V	120.0	107.9	83.2	67.6	57.0	35.9	26.8	21.5	18.1	15.7	13.8	12.4	10.3	8.9	5.7
1.70 V	110.6	100.2	78.6	65.0	55.4	35.4	26.4	21.3	17.9	15.5	13.7	12.3	10.2	8.8	5.7
1.75 V	99.7	90.9	72.5	60.7	52.3	34.3	25.8	20.8	17.5	15.2	13.4	12.1	10.1	8.6	5.6
1.80 V	87.4	80.2	64.9	54.9	47.8	32.0	24.4	19.8	16.8	14.6	12.9	11.6	9.7	8.4	5.4
1.83 V	79.4	73.0	59.6	50.8	44.4	30.1	23.1	18.9	16.0	14.0	12.4	11.2	9.3	8.1	5.3
1.85 V	73.7	68.0	55.8	47.7	41.9	28.6	22.0	18.1	15.4	13.4	11.9	10.7	9.0	7.8	5.1
1.87 V	67.8	62.7	51.8	44.4	39.1	27.0	20.9	17.1	14.6	12.8	11.4	10.2	8.6	7.4	4.9
1.90 V	57.7	54.4	45.3	39.1	34.6	24.1	18.8	15.5	13.3	11.6	10.4	9.4	7.9	6.8	4.5

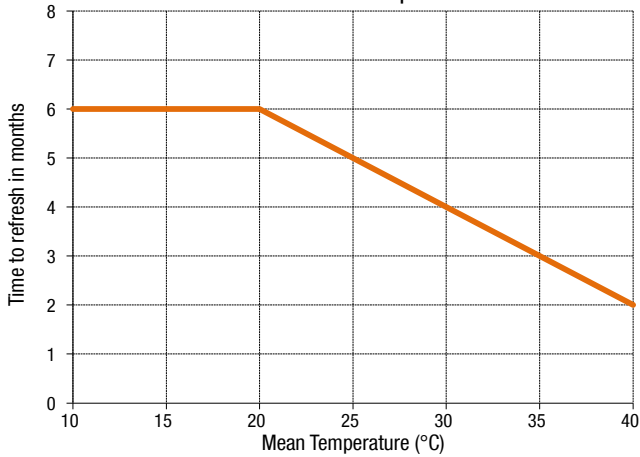
Expected Service Life vs. Operating Temperature



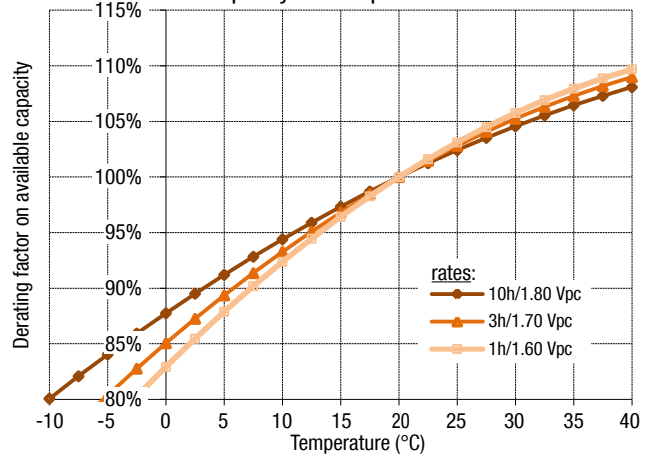
Number of Cycles vs. DOD



Time to Refresh vs. Temperature



Capacity vs. Temperature



Float Voltage Setting vs. Operating Temperature

