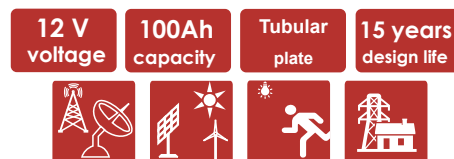


# OPzV 12-100 12V 100Ah



With the robust die cast positive tubular plate design and fumed gelled electrolyte, OPzV 12V series offers excellent deep cycling life and high level reliability with 15 years design life. OPzV 12V series is ideal for use in renewable energy system, telecom and other cyclic/standby harsh environment applications.



## FEATURES AND BENEFITS

- Tubular positive plate and Fumed Silica gel electrolyte with prolonged cycle life
- low density electrolyte with fast charging
- Lead Calcium die cast grid with improved corrosion resistance capability
- Excellent deep discharge recovery capability
- Reliable maintenance-free and leakage-free construction
- Wide operating temperature range from -40°C to 60°C
- Low self-discharge rate and long shelf life (1 year at 25°C)
- 15 years design life at floating condition



## TECHNICAL SPECIFICATIONS

Nominal Voltage (V)	12 (6 cells per unit)
Designed Floating Life (25°C)	15 Years
Nominal Capacity (25°C)	100 Ah @ 10HR-rate (to 1.80Vpc)
Dimension (mm)	407 x 175 x 210 x 235 (L x W x H x TH)
Approx. Weight	37 kg (81.57 lbs)
Terminal Type	Female Copper Insert M8 (torque:10~12N.m)
Internal Resistance	Approx. 0.0078 Ohm (fully charged)
Max. Charge Current	25A
Max. Discharge Current (5S)	600 A
Short Circuit Current	1600 A
Self Discharge	Approx. 2.5% per month @ 20°C
Ambient Temperature	Discharge: -20~60°C Charge: -20~55°C Storage: -20~45°C
Float Charge Voltage	13.3 to 13.5V/block @25°C (-3mV/ cell/°C)
Equalize and Cycle Use Charge Voltage	14.1 to 14.4V/block @25°C
Container Material	ABS (UL94-V0 optional)



### Complied standards

- IEC 60896-21/22
- IEC 61427
- YD/T 799
- JIS C8704
- BS6290 part 4

### Construction

Component	Raw material
Positive plate	Tubular plate
Negative plate	Lead
Container	ABS
Cover	ABS
Separator	PE/PVC
Electrolyte	GEL
Safety valve	Rubber
Terminal	Copper

## BATTERY DISCHARGE TABLE

Constant Current Discharge Characteristics: Amps (25 °C)											
F.V/Time	30MIN	60MIN	2HR	3HR	4HR	5HR	6HR	8HR	10HR	20HR	
1.90V	75	53.5	32.4	24.3	19.5	16.5	14.1	10.6	9.4	4.82	
1.85V	86	60.1	35.6	25.5	20.2	17.5	15.2	11.3	9.9	5.15	
1.80V	95	63.5	38	27.1	21.3	17.8	15.4	12.0	10.0	5.38	
1.75V	100	64.9	39	27.5	21.8	18.1	15.7	12.3	10.2	5.50	

Constant Power Discharge Characteristics: W/cell (25 °C)											
F.V/Time	30MIN	60MIN	2HR	3HR	4HR	5HR	6HR	8HR	10HR	20HR	
1.90V	149	103	61.4	45.1	36.2	31.7	26	20.7	18.4	9.54	
1.85V	168	115	66.4	48.4	38.3	33.8	27.8	21.8	19.2	10.2	
1.80V	184	123	67.3	51.1	40.2	35.4	29.1	23.1	19.4	10.6	
1.75V	192	125	70.2	51.7	40.7	35.5	29.5	23.5	19.9	11.1	

## PARAMETERS FOR SOLAR & WIND APPLICATIONS

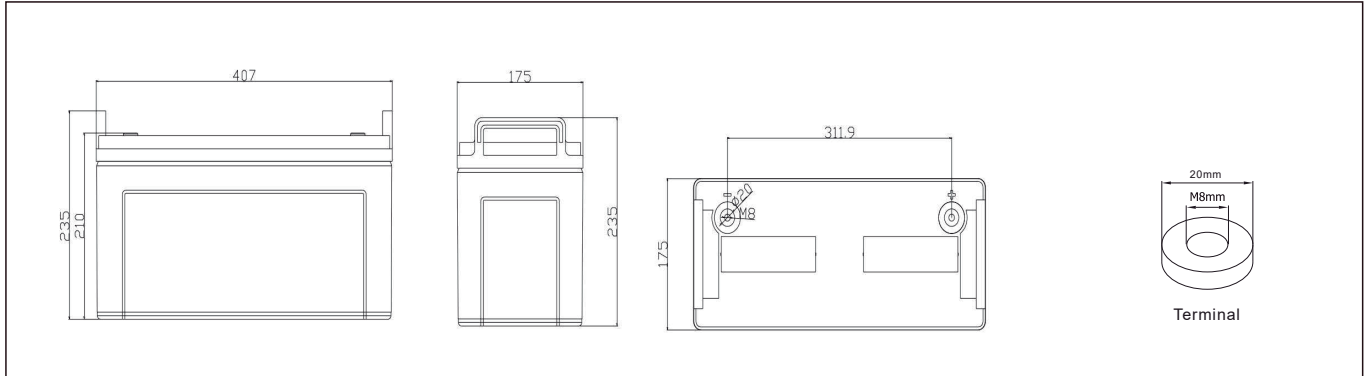
### Long time discharge capacity for Solar & Wind applications

Capacity	C <sub>24</sub> (Ah)	C <sub>48</sub> (Ah)	C <sub>72</sub> (Ah)	C <sub>100</sub> (Ah)	C <sub>120</sub> (Ah)
OPZV12-100	108	118	125	133	135
Final Voltage	1.85V				

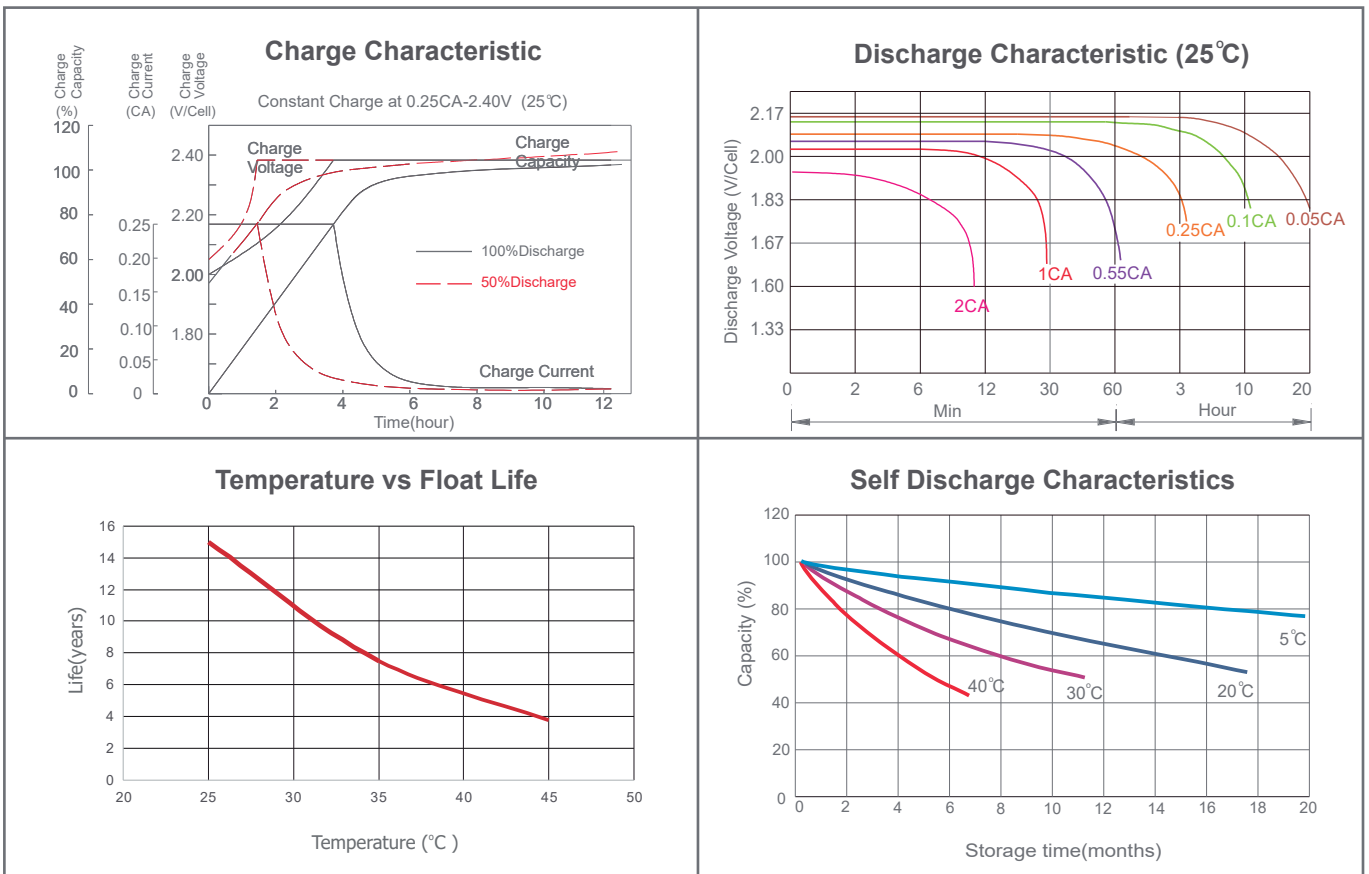
### Solar & Wind applications parameters settings

Over voltage disconnect:	2.45±0.01V/cell @ 25°C
Regulation/equalize voltage:	2.40±0.01V/cell @ 25°C
Array reconnection voltage:	2.25±0.005V/cell @ 25°C
Float voltage setting:	2.23±0.005V/cell @ 25°C
Low voltage alarm voltage:	1.92±0.005V/cell @ 25°C
Low voltage disconnect:	1.88±0.005V/cell @ 25°C
Load reconnect voltage:	2.09±0.01V/cell @ 25°C
Temp. compensate coefficient:	-5mV/cell/°C

## BATTERY DIMENSIONS



## CHARACTERISTICS



## FINAL VOLTAGE SETTINGS RECOMMENDED ACCORDING TO THE DISCHARGE CURRENT

Discharge Current I (A)	$I \leq 0.08C$	$0.08C \leq I < 0.2C$	$0.2C \leq I < 0.6C$	$0.6C \leq I < 1.0C$	$I \geq 1.0C$
Final of Voltage	$\geq 1.85V_{pc}$	$\geq 1.80V_{pc}$	$\geq 1.75V_{pc}$	$\geq 1.70V_{pc}$	$\geq 1.60V_{pc}$

