PG12100(12V100Ah)

12 V Voltage | **100 Ah** Capacity | **Tubular** Gel | **20+ years** Design Life

12V TUBULAR GEL SERIES VRLA BATTERY

The OPzV series adopts an Immobilized Gel and Tubular Positive Plate technology. It offers high reliability and stable performance. By using die-casted positive grid and patented active material formula, it exceeds the DIN standard values and offer 20+ years design life in float service. It is very suitable for cyclic use under extreme operating conditions. This series is recommended for telecom outdoor applications, renewable energy systems and other harsh environment applications.

SPECIFICATIONS

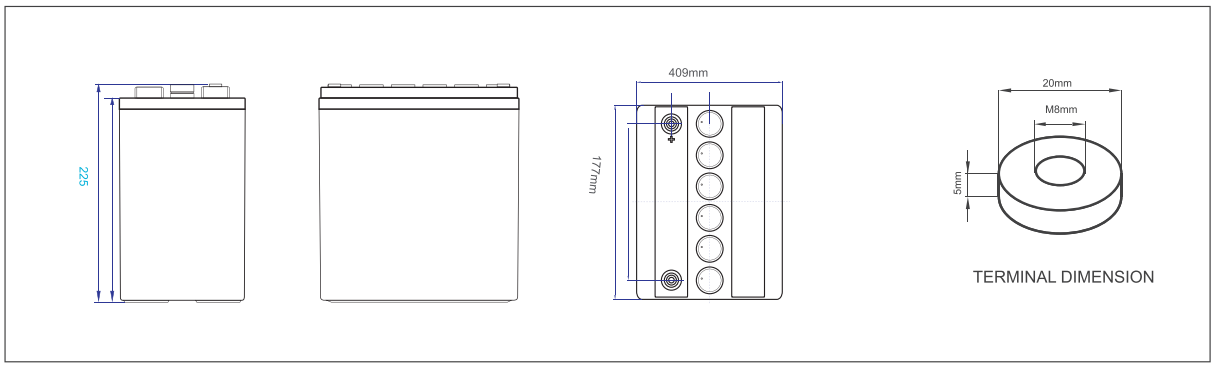
Nominal Voltage (V)	12
Designed Floating Life （20°C)	20+ Years
Nominal Capacity (20°C)	100 Ah @ C_{10} (to 1.80Vpc)
Demensions	409mm×177mm×H210mm
Approx. Weight	36.0 kg (79.20 lbs)
Terminal Type	Female Copper Insert M8 (torque:10~12N.m)
Internal Resistance	Approx. 9.95mOhm (fully charged @ 20°C)
Max. Charge Current	20 A
Max. Discharge Current (5S)	500 A
Short Circuit Current	865 A
Self Discharge	Approx. 2% per month @ 20°C
Ambient Temperature	Discharge: -40~65°C Charge: -30~65°C Storage: -25~45°C
Float Charge Voltage (20~25°C)	13.50-13.75V (-3mV / ℃/ cell)
Equalize Charge Voltage (20~25°C)	14.10-14.40V (-5mV / ℃/ cell)
Container Material	ABS(UL94-V0 optional)

ISO9001 ISO14001

Complied standards

- IEC 60896-21/22
- UL1989
- JIS C8704
- GB/T19639

DIMENSIONS



TERMINAL DIMENSION

BATTERY DISCHARGE TABLE

Constant Current Discharge Characteristics: Amps (20°C)

F.V/Time	10min	15min	30min	1h	2h	3h	5h	8h	10h
1.90V	367	356	33.3	28.0	23.8	20.0	14.8	10.6	8.76
1.87V	500	467	41.2	32.6	26.7	22.1	16.1	11.3	9.25
1.85V	572	524	45.1	35.7	29.4	23.7	17.0	11.8	9.63
1.83V	670	585	49.0	39.4	31.4	25.1	17.5	12.1	9.80
1.80V	750	680	55.0	43.2	33.1	26.3	17.8	12.3	10.0
1.75V	793	746	64.2	47.3	346	27.0	18.2	12.5	10.3
1.70V	862	820	70.6	50.0	36.0	27.5	18.5	12.7	10.5
1.65V	101	92.3	77.0	53.0	37.0	28.0	18.9	12.9	10.7
1.60V	110	101	81.6	54.7	37.6	28.5	19.3	13.1	10.9

Constant Power Discharge Characteristics: W/cell (20°C)

F.V/Time	10min	15min	30min	1h	2h	3h	5h	8h	10h
1.90V	706	690	650	55.1	470	398	296	21.2	17.7
1.87V	945	886	793	630	522	432	31.9	22.5	18.5
1.85V	107	987	856	680	566	464	336	23.3	19.1
1.83V	123	108	915	742	601	483	340	23.8	19.3
1.80V	136	124	101	805	625	50.0	34.2	23.9	19.5
1.75V	142	134	117	866	642	507	346	24.0	19.8
1.70V	153	146	126	903	660	510	350	24.2	20.0
1.65V	175	161	136	950	669	512	353	24.3	20.2
1.60V	187	173	141	962	677	514	356	24.5	20.4

PARAMETERS FOR SOLAR & WIND APPLICATIONS

Long time discharge capacity for Solar & Wind applications

Capacity	C_{20} (Ah)	C_{24} (Ah)	C_{48} (Ah)	C_{72} (Ah)	C_{100} (Ah)	C_{120} (Ah)	C_{240} (Ah)
OPzV12-100	108	113	122	126	128	129	132
Final Voltage	1.80V	1.85V					

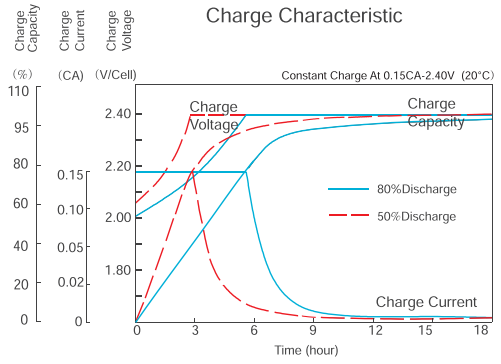
Solar & Wind applications parameters settings

Over voltage disconnect:	2.45±0.01V/cell @ 20～25°C
Regulation/equalize voltage:	2.40±0.01V/cell @ 20～25°C
Array roconnection voltage:	2.25±0.005V/cell @ 20～25°C
Float voltage setting:	2.27±0.005V/cell @ 20～25°C
Low voltage alarm voltage:	1.95±0.005V/cell @ 20～25°C
Low voltage disconnect:	1.90±0.005V/cell @ 20～25°C
Load reconnect voltage:	2.09±0.01V/cell @ 20～25°C
Temp. compensate coefficienty:	-5mV/cell/°C

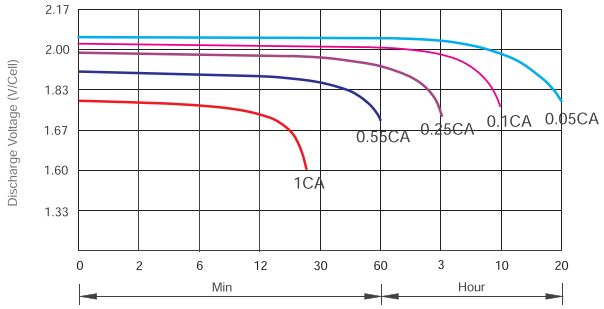
epcom POWER LINE

PG12100(12V100Ah)

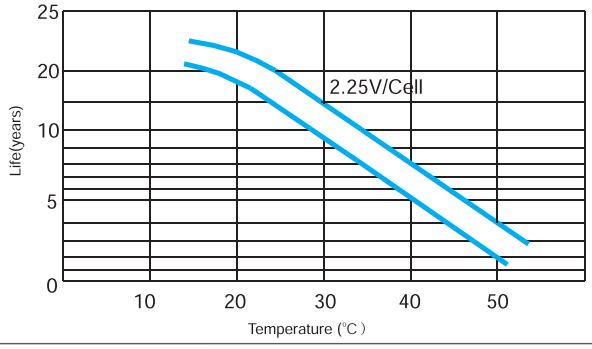
Charge Characteristic



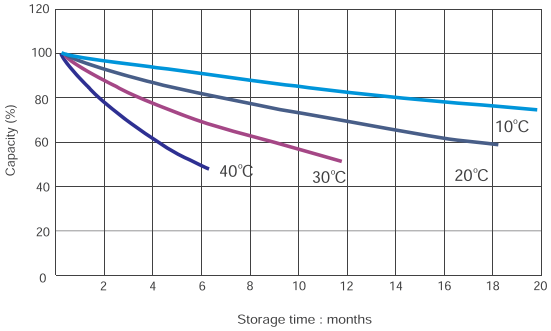
Discharge Characteristic (20°C)



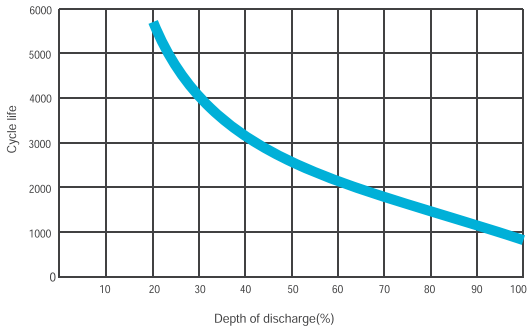
Temperature vs Float Life



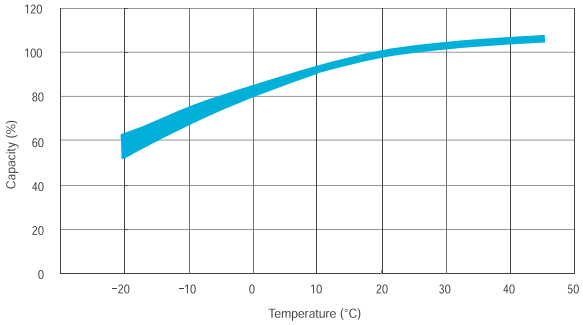
Self Discharge Characteristics



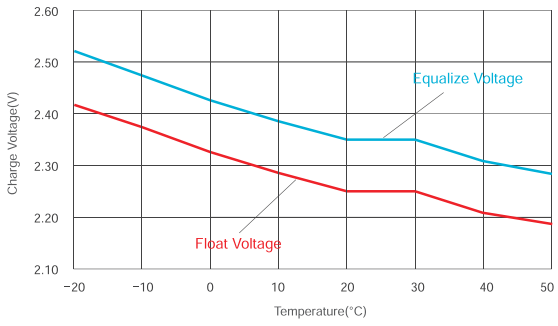
Cycle Life vs Depth of Discharge



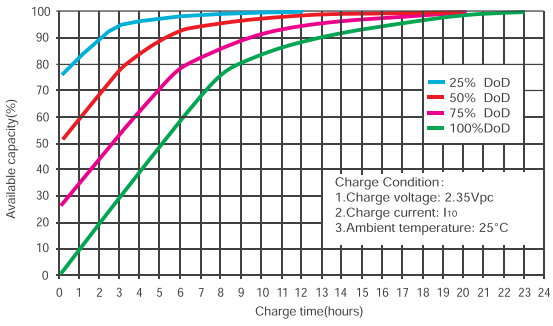
Capacity vs Temperature



Charge Voltage Capacity vs Temperature



Charge Capacity vs Time



FINAL VOLTAGE SETTINGS RECOMMENDED ACCORDING TO THE DISCHARGE CURRENT

Discharge Current I (A)	I < 0.05C	0.05C ≤ I < 0.08C	0.08C ≤ I < 0.2C	0.2C ≤ I < 0.6C	0.6C ≤ I < 1.0C	1C≤I ≤ 2C
Final of Voltage	≥1.90 Vpc	≥1.85 Vpc	≥1.80 Vpc	≥1.75 Vpc	≥1.7 Vpc	≥1.6 Vpc