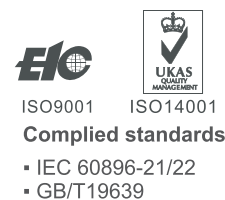
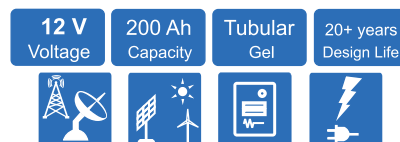


12V TUBULAR GEL SERIES VRLA BATTERY

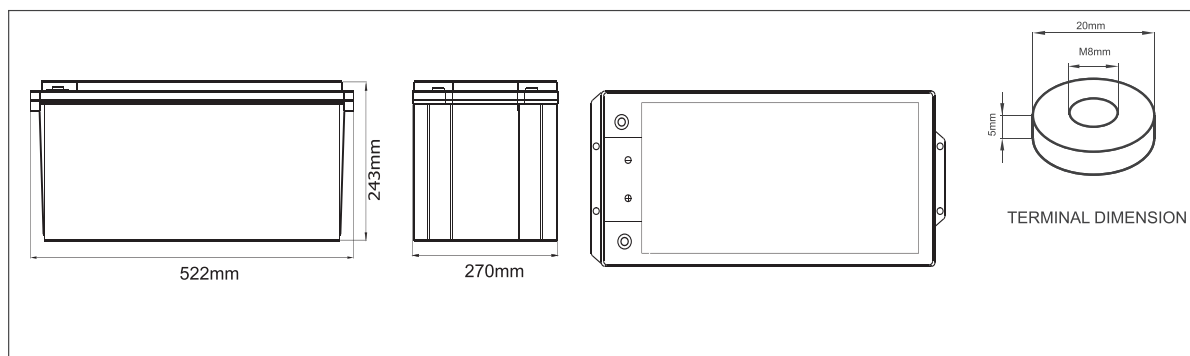
The OPzV series adopts an Immobilized Gel and Tubular Positive Plate technology. It offers high reliability and stable performance. By using die-casted positive grid and patented active material formula, it exceeds the DIN standard values and offer 20+ years design life in float service. It is very suitable 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)	200 Ah @ C ₁₀ (to 1.80Vpc)
Dimensions	L522mm×W270mm×H243mm
Approx. Weight	72.0 kg (159 lbs)
Terminal Type	Female Copper Insert M8 (torque:10~12N.m)
Internal Resistance	Approx. 4.2 mOhm (fully charged @ 20°C)
Max. Charge Current	40 A
Max. Discharge Current (5S)	1000 A
Short Circuit Current	2400 A
Self Discharge	Approx. 2% per month @ 20°C
Ambient Temperature	Discharge: -40~65°C Charge: -35~65°C Storage: -35~65°C
Float Charge Voltage (20~25°C)	13.50-13.75V (-3mV / °C/ cell)
Equalize Charge Voltage (20~25°C)	14.10-14.40V (-5mV / °C/ cell)
Container Material	ABS(UL94-V0 optional)



DIMENSIONS



BATTERY DISCHARGE TABLE

Constant Current Discharge Characteristics: Amps (20°C)

F.V/Time	10 min	15 min	30min	1h	2h	3h	4h	5h	8h	10h	20h
1.90V	187	181	149	107	64.7	46.3	38.9	32.0	22.1	19.1	10.6
1.85V	247	227	181	116	73.0	52.7	43.3	35.0	24.2	20.6	11.1
1.80V	271	247	191	119	74.9	55.3	45.3	36.5	25.8	21.0	11.2
1.75V	296	278	205	126	77.2	56.8	46.4	37.3	26.3	21.4	11.4
1.70V	321	306	214	130	78.6	57.5	46.9	37.7	26.5	21.8	11.6

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

F.V/Time	10 min	15 min	30min	1h	2h	3h	4h	5h	8h	10h	20h
1.90V	343	337	269	201	132	103	85.1	74.4	47.3	38.6	21.4
1.85V	437	402	310	223	144	109	89.5	77.9	50.8	41.4	23.1
1.80V	473	431	327	227	145	110	91.3	79.9	51.7	42.2	23.5
1.75V	500	472	342	234	146	111	92.8	81.8	53.6	43.3	24.4
1.70V	529	503	354	240	149	112	94.4	84.0	54.4	45.6	25.0

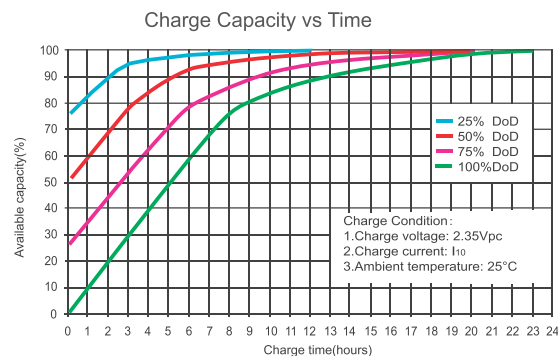
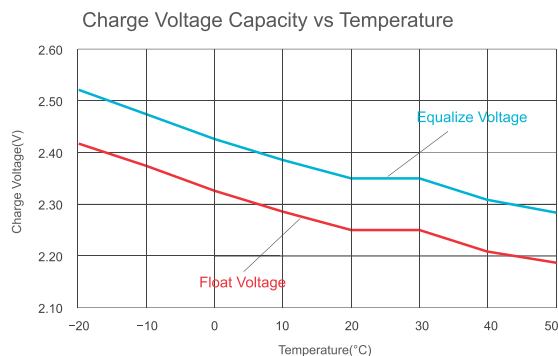
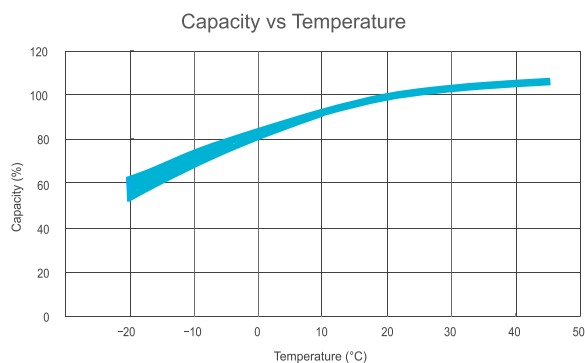
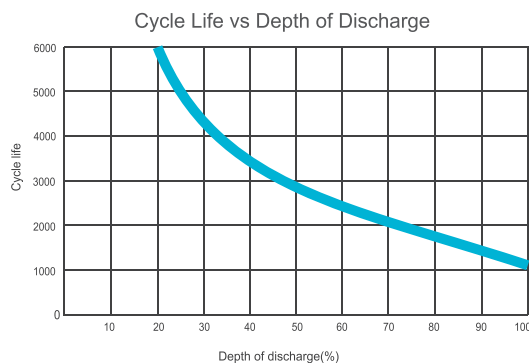
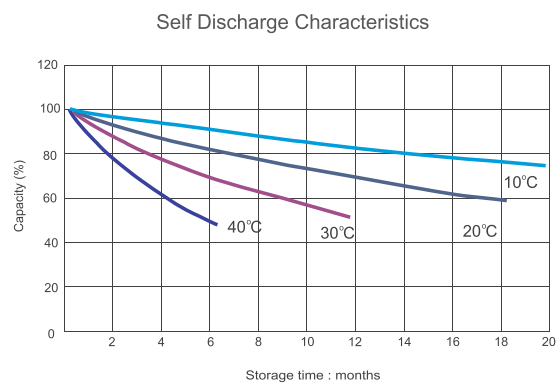
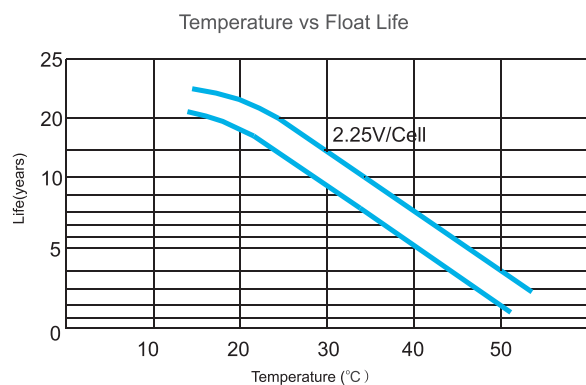
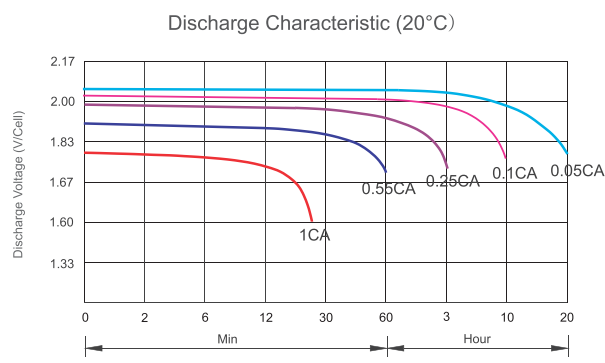
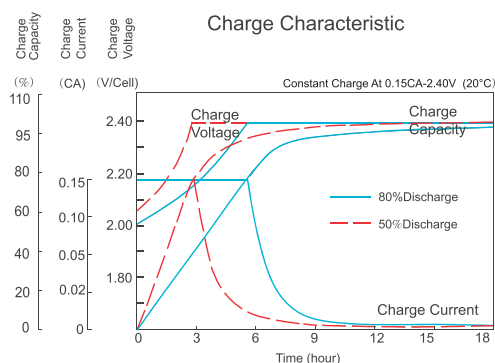
PARAMETERS FOR SOLAR & WIND APPLICATIONS

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)
OPzV12-220	220	230	248	256	260	263	270
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 reconnection 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 coefficient:	-5mV/cell/°C



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