

SOLAR SERIES VRLA GEL BATTERY

The Solar series is designed for frequent cyclic charge and discharge applications under extreme environments. By combining the newly developed Nano Gel electrolyte with high density paste, the Solar series offers high recharge efficiency at very low charge current. The acid stratification is highly reduced by adding Nano Gel. This series is suit for energy storage for renewable energies such as PV, wind turbine power systems and CATV.

12V Voltage	55AH Capacity	GEL tech	10 years design life

TECHNICAL SPECIFICATIONS

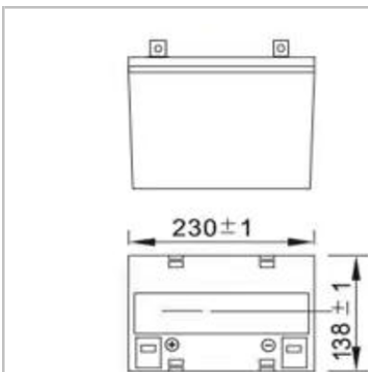
Nominal Voltage (V)	12
Nominal Capacity(25°C)	55h @ 10HR-rate (to 1.80Vpc)
Dimension(mm)	L230 × W138 × H211 × TH232
Approx.Weight	15.6kg
Internal Resistance	Approx.4.6mΩ
Max.Charge Current	7.5A
Max.Discharge Current (5S)	550A
Short Circuit Current	975A
Self Discharge	Approx. 2.5% per month @ 20°C
Ambient Temperature	Discharge:-25~60°C Charge: -25~50°C Storage: -25~45°C
Float Charge Voltage	13.50~13.80V@25°C(-3mv/Cell/°C)
Equalize and cycle Use Charge Voltage	14.20~14.70V @25 C
Designed Floating Life (25 C)	10Years
Container Material	ABS(UL94-V0 Optional)



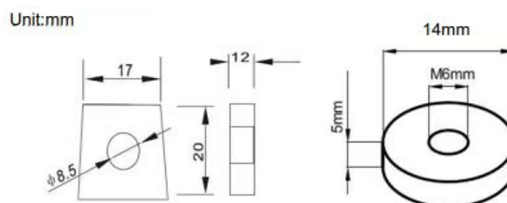
Complied standards

- IEC 60896-21/22
- GB/T19638
- IEC61427
- JIS C8704
- BS6290 part 4

BATTERY DIMENSIONS



TERMINAL DIMENSION



BATTERY DISCHARGE TABLE

Constant Current Discharge Characteristics: Amps (25°C)								
F.V/Time	30min	1h	3h	4h	5h	8h	10h	20h
9.60V	63.0	33.0	14.1	11.0	9.1	6.4	5.8	3.1
10.20V	60.0	31.0	13.8	10.7	8.9	6.3	5.7	3.0
10.50V	56.0	30.0	13.4	10.6	8.8	6.2	5.6	3.0
10.80V	52.0	29.0	13.1	10.4	8.6	6.1	5.5	3.0
11.10V	46.0	28.1	12.7	10.1	8.4	5.9	5.3	2.9

Constant Power Discharge Characteristics: Watts (25°C)								
F.V/Time	30min	1h	3h	4h	5h	8h	10h	20h
9.60V	490.2	259.2	115.8	91.2	76.2	54.0	49.0	26.4
10.20V	489.0	255.0	114.0	90.0	75.0	53.4	48.6	26.0
10.50V	469.8	253.2	113.4	90.0	74.4	52.8	48.2	25.8
10.80V	436.2	246.0	112.2	88.8	73.8	52.2	47.6	25.3
11.10V	393.0	240.0	109.2	88.2	73.2	51.0	46.0	24.7

PARAMETERS FOR SOLAR & WIND APPLICATIONS

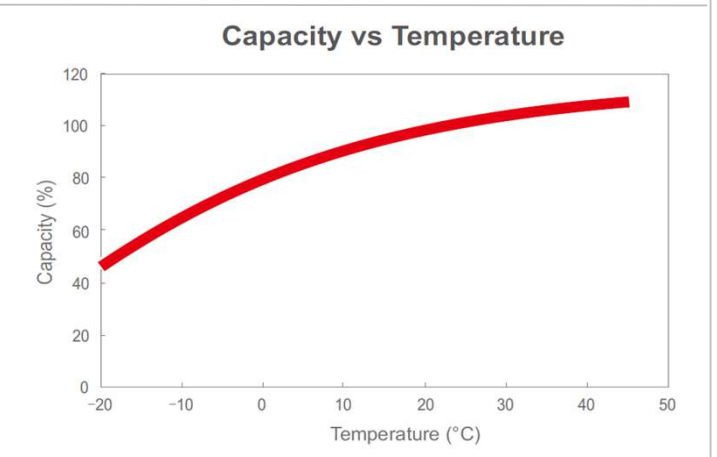
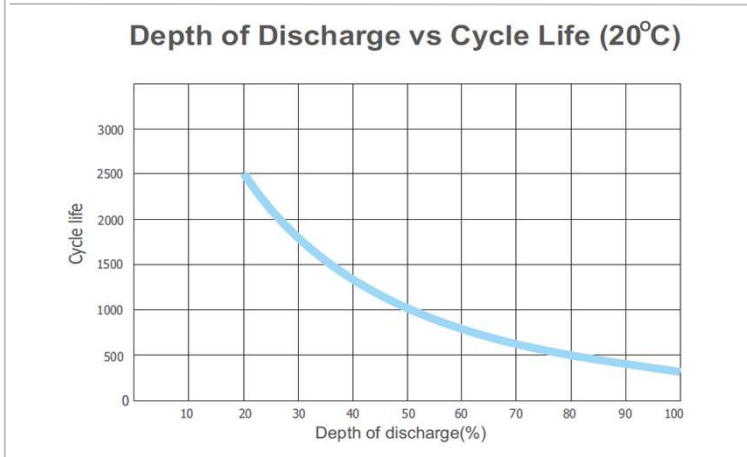
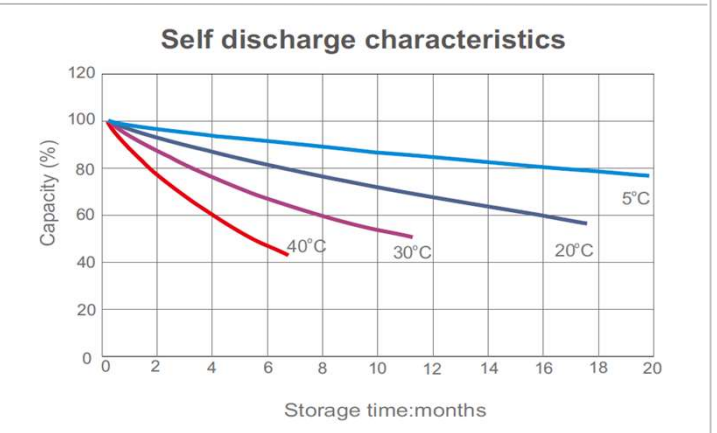
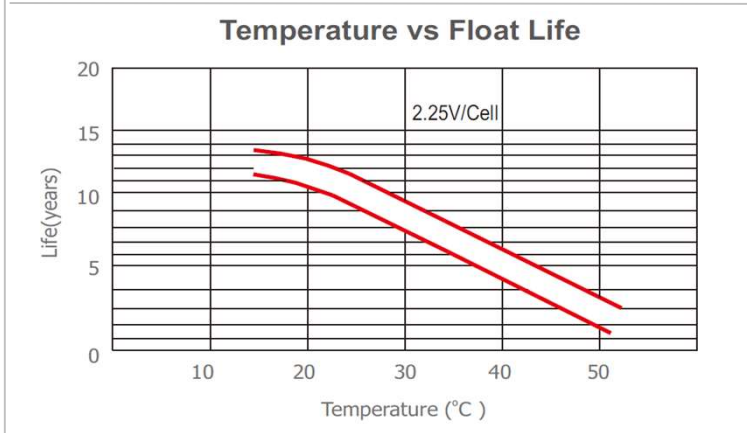
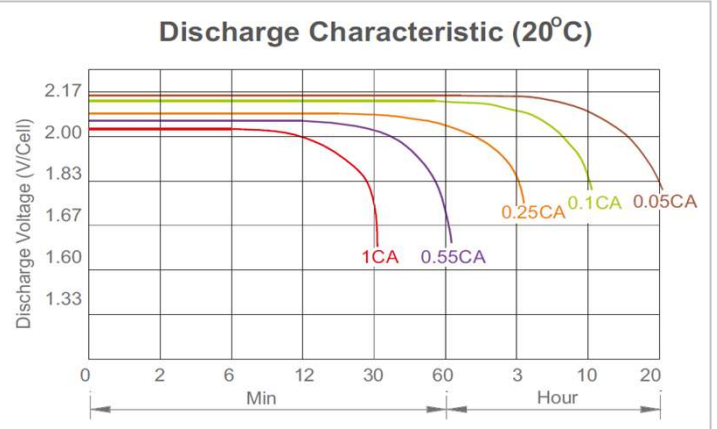
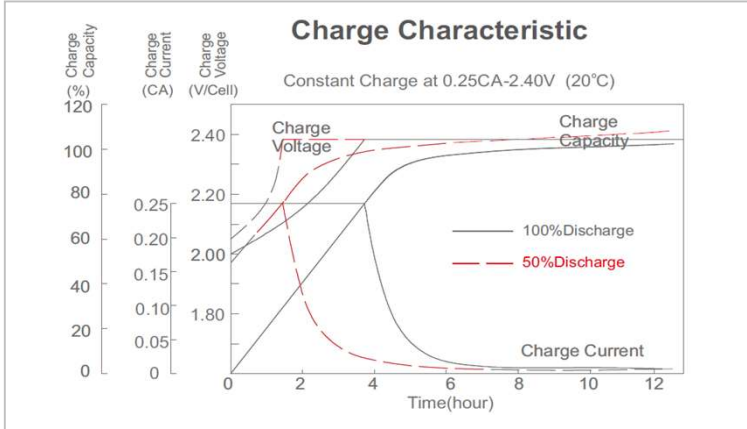
Long time discharge capacity for Solar & Wind applications

Capacity(Ah)	C ₂₄	C ₄₈	C ₇₂	C ₁₀₀	C ₁₂₀
6-CNF-55	58.0	62.0	65.0	68.0	70.0
Final Voltage	1.85V				

Solar & Wind applications parameters settings

Over voltage disconnect :	2.50 ± 0.01V/cell @25°C
Regulation / equalize voltage :	2.45 ± 0.01V/cell @25°C
Array reconnection voltage :	2.25 ± 0.005V/cell @25°C
Float Voltage setting:	2.27 ± 0.005V/cell @25°C
Low voltage alarm voltage:	1.95 ± 0.01V/cell @25°C
Low voltage disconnect:	1.90 ± 0.005V/cell @25°C
Load reconnect voltage:	2.09 ± 0.005V/cell @25°C
Temp. compensate coefficient:	-5mV/cell/°C

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	$\geq 1.85V_{pc}$	$\geq 1.80V_{pc}$	$\geq 1.75V_{pc}$	$\geq 1.70V_{pc}$	$\geq 1.60V_{pc}$