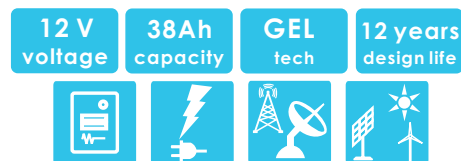


SOLRA SERIES VRLA BATTERY

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 range offers high recharge efficiency at very low charge current. The acid stratification is highly reduced by adding Nano Gel.

This series is suited for energy storage for renewable energies such as PV, wind turbine power systems and CATV.



TECHNICAL SPECIFICATIONS

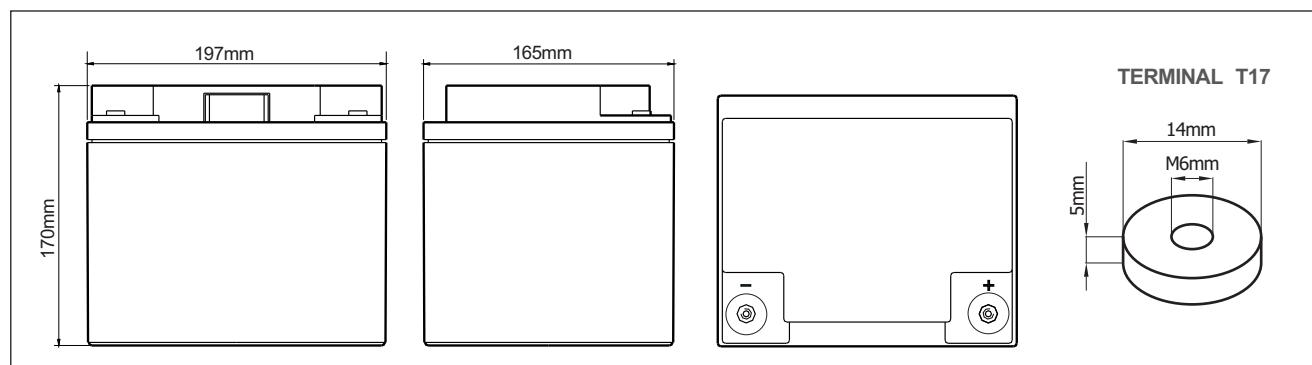
Nominal Voltage (V)	12 (6 cells per unit)
Designed Floating Life (20°C)	12 Years
Nominal Capacity (20°C)	38 Ah @ 10HR-rate (to 1.80Vpc)
Dimension (mm)	L197mm x W165mm x H170mm
Approx. Weight	13.3 kg (29.3 lbs)
Terminal Type	Female Copper Insert M6 (torque:6~7N.m)
Internal Resistance	Approx. 0.0095 Ohm (fully charged @ 20°C)
Max. Charge Current	9.5A
Max. Discharge Current (5S)	500 A
Short Circuit Current	1250 A
Self Discharge	Approx. 3% per month @ 20°C
Ambient Temperature	Discharge: -25~65°C Charge: -25~60°C Storage: -25~45°C
Float Charge Voltage (20~25°C)	13.6-13.8V (-3mV/ cell/ °C)
Equalize and cycle Use Charge Voltage (20~25°C)	14.4-14.8V (-5mV/ cell / °C)
Container Material	ABS (UL94-V0 optional)



Complied standards

- IEC 60896-21/22
- IEC 61427
- UL1989
- JIS C8704
- GB/T19639

BATTERY DIMENSIONS



BATTERY DISCHARGE TABLE

F.V/Time	30min	1h	2h	3h	4h	5h	8h	10h	20h
1.70V	39.4	24.4	14.5	10.5	8.39	7.00	4.76	3.93	2.07
1.75V	38.0	23.9	14.2	10.3	8.29	6.91	4.69	3.88	2.03
1.80V	36.3	23.1	13.9	10.1	8.10	6.74	4.58	3.80	1.99
1.85V	34.3	22.1	13.4	9.82	7.87	6.58	4.48	3.70	1.95

F.V/Time	30min	1h	2h	3h	4h	5h	8h	10h	20h
1.70V	73.7	46.1	27.5	20.1	16.1	13.5	9.27	7.69	4.08
1.75V	71.8	45.6	27.3	20.0	16.1	13.4	9.22	7.64	4.03
1.80V	69.2	44.4	27.0	19.8	15.8	13.2	9.07	7.55	3.98
1.85V	66.0	42.9	26.1	19.3	15.5	13.0	8.93	7.40	3.92

PARAMETERS FOR SOLAR & WIND APPLICATIONS

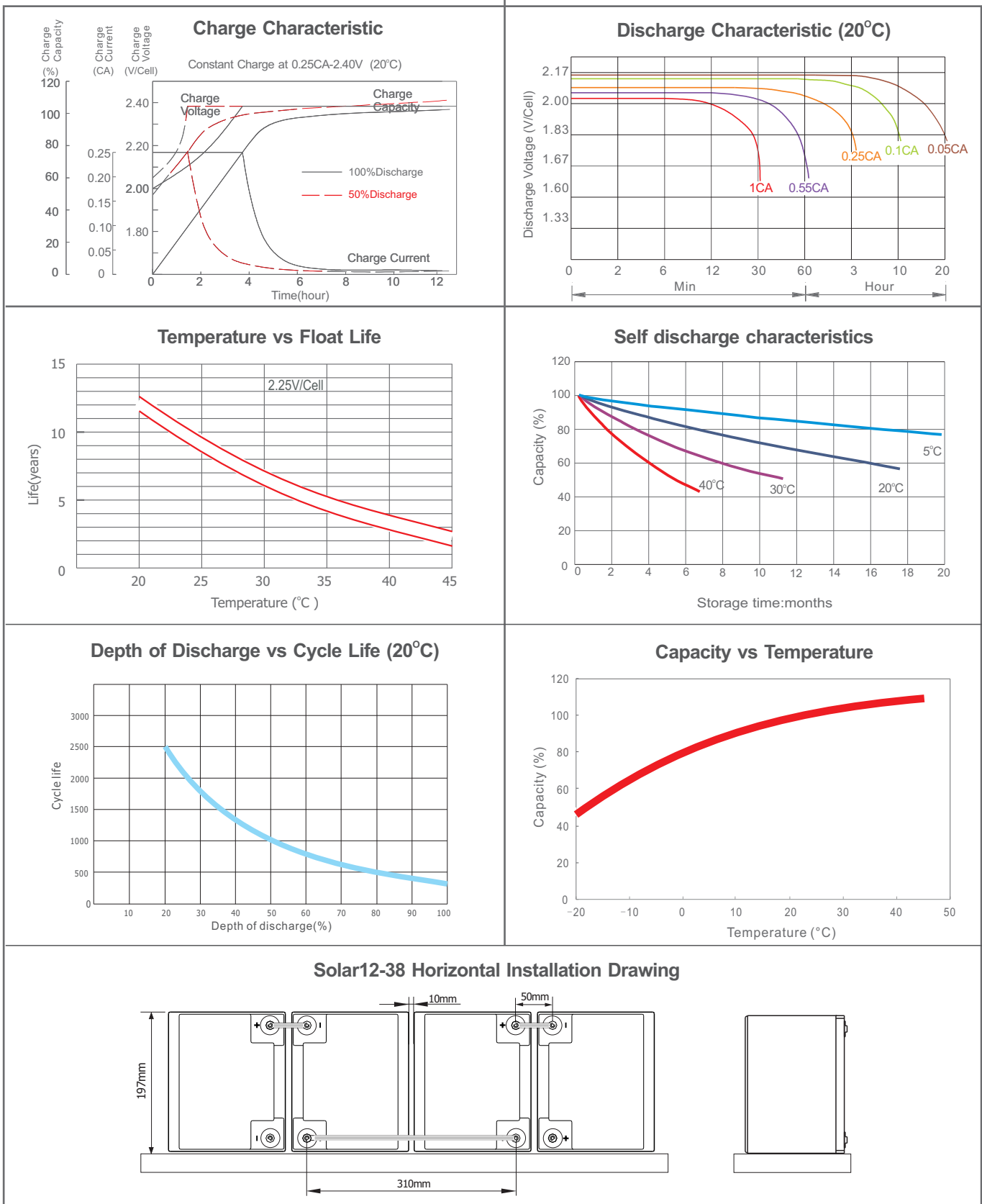
Long time discharge capacity for Solar & Wind applications

Capacity	C ₂₄ (Ah)	C ₄₈ (Ah)	C ₇₂ (Ah)	C ₁₀₀ (Ah)	C ₁₂₀ (Ah)
Solar12-38	40.7	42.9	44.1	46.0	47.5
Final Voltage	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

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	$\geq 1.85V/pc$	$\geq 1.80V/pc$	$\geq 1.75V/pc$	$\geq 1.70V/pc$	$\geq 1.60V/pc$

HEADQUARTERS AND SUBSIDIARIES

BSB Power Company Limited (HQ)
BSB Power Europe (France)

BSB Power Malaysia Sdn. Bhd
PT. BSB Indonesia

BSB Power (Thailand) Co., Ltd
BSB Power Company Pakistan Ltd