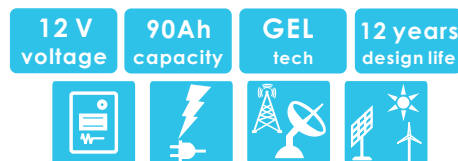


SOLRA SERIES VRLA BATTERY

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)	90 Ah @ 10HR-rate (to 1.80Vpc)
Dimension (mm)	L306mm x W169mm x H214mm
Approx. Weight	26.3 kg (58 lbs)
Terminal Type	Female Copper Insert M6 (torque:6~7N.m)
Internal Resistance	Approx. 0.0055 Ohm (fully charged @ 20°C)
Max. Charge Current	22.5A
Max. Discharge Current (5S)	800 A
Short Circuit Current	2200 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)



ISO9001



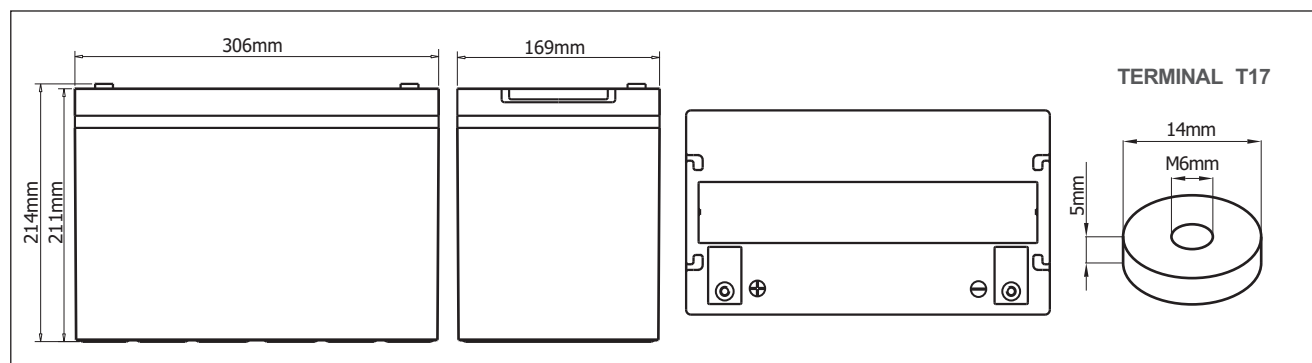
ISO14001



Complied standards

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

BATTERY DIMENSIONS



BATTERY DISCHARGE TABLE

Constant Current Discharge Characteristics: Amps (25°C)									
F.V/Time	30min	1h	2h	3h	4h	5h	8h	10h	20h
1.70V	93.2	57.9	34.3	24.9	19.9	16.6	11.3	9.31	4.91
1.75V	90.0	56.7	33.7	24.5	19.6	16.4	11.1	9.18	4.82
1.80V	86.0	54.8	32.9	24.0	19.2	16.0	10.9	9.00	4.72
1.85V	81.2	52.4	31.7	23.3	18.6	15.6	10.6	8.77	4.61

Constant Power Discharge Characteristics: W/cell (25°C)									
F.V/Time	30min	1h	2h	3h	4h	5h	8h	10h	20h
1.70V	175	109	65.2	47.7	38.2	32.0	22.0	18.2	9.67
1.75V	170	108	64.6	47.3	38.1	31.8	21.8	18.1	9.55
1.80V	164	105	63.8	46.8	37.5	31.3	21.5	17.9	9.43
1.85V	156	102	61.9	45.7	36.7	30.8	21.2	17.5	9.27

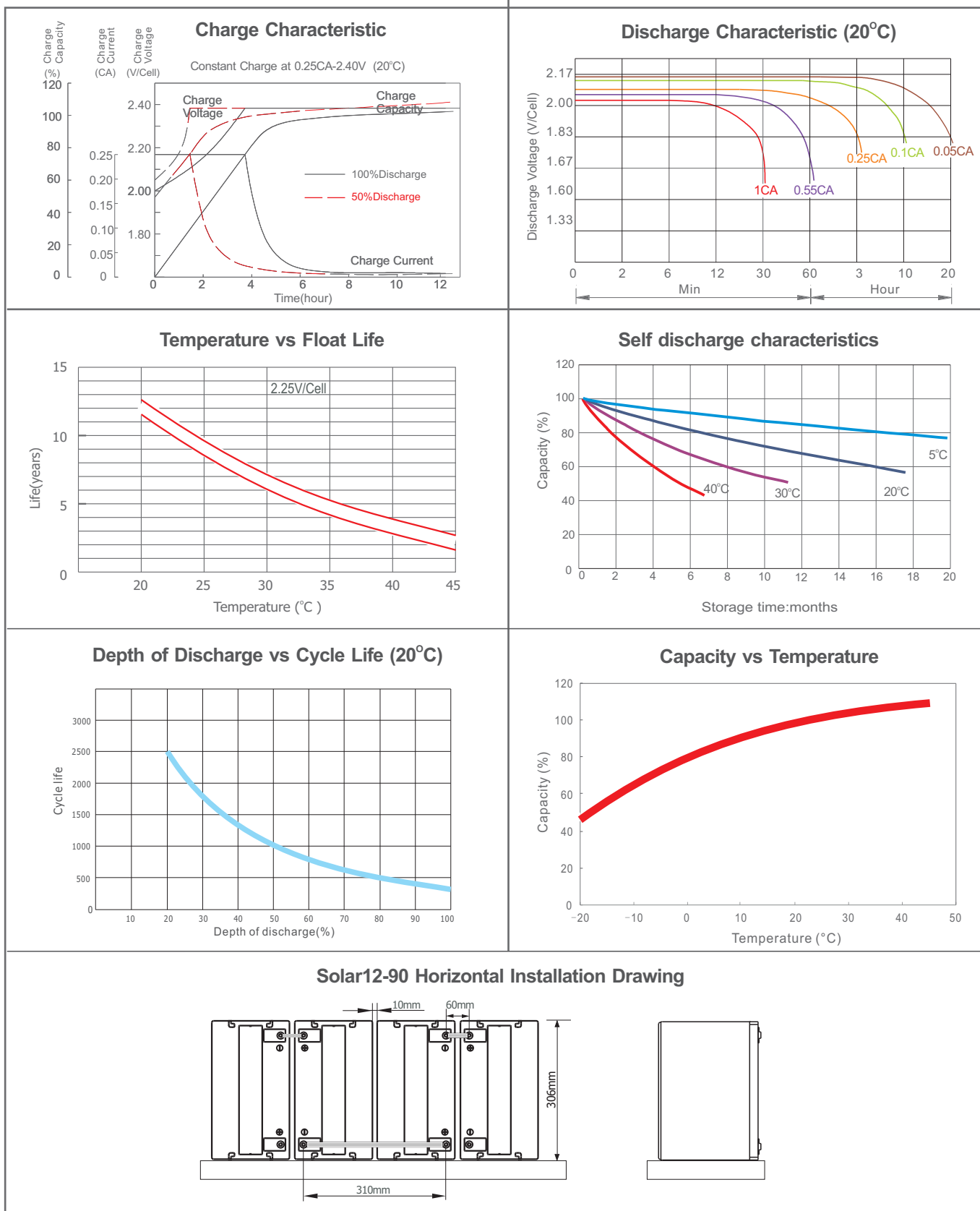
PARAMETERS FOR SOLAR & WIND APPLICATIONS

Long time discharge capacity for Solar & Wind applications

Capacity	C ₂₄ (Ah)	C ₄₈ (Ah)	C ₇₂ (Ah)	C ₁₀₀ (Ah)	C ₁₂₀ (Ah)
Solar12-90	96.3	102	104	109	113
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