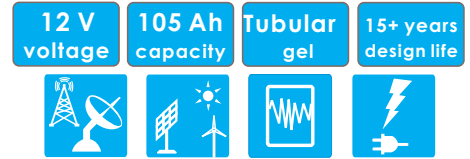


12V TUBULAR GEL SERIES VRLA BATTERY

BSB TGF Front access series adopt the unique 12V tubular positive plates and combine with the updated advanced Gel electrolyte technique. It aims to meet the requirements of heavy duty applications in high temperature & frequently power failure conditions. This series is highly suited for renewable energy and telecommunication systems where reliability and performance are the priorities.

The TG batteries benefit from an optimized tubular plates and gelled electrolyte which offer both a longer float life and deep cycle life and maintenance free. The compact dimension design can adapt the ETSI standard 19' & 23' cabinet & rack.



SPECIFICATIONS

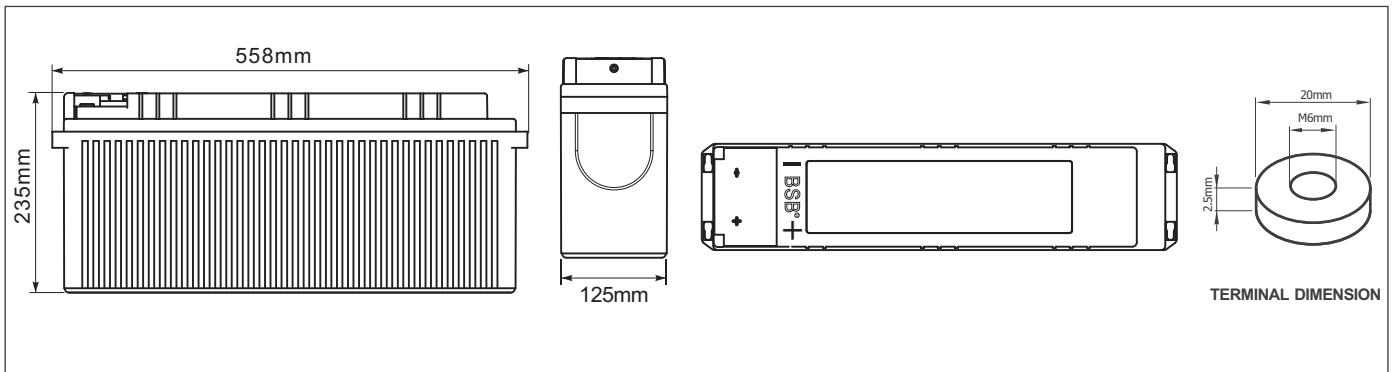
Nominal Voltage (V)	12
Designed Floating Life (20°C)	15+ Years
Nominal Capacity (20°C)	105 Ah @ C10 (to 1.80Vpc)
Dimensions	L558mm × W125mm × H235mm
Approx. Weight	36.0 kg (79.4 lbs)
Terminal Type	Female Copper Insert M6 (torque:6~7N.m)
Internal Resistance	Approx. 8.2mOhm (fully charged @ 20°C)
Max. Charge Current	30 A
Max. Discharge Current (5S)	900 A
Short Circuit Current	1850 A
Self Discharge	Approx. 2% per month @ 20°C
Ambient Temperature	Discharge: -15~60°C Charge: -15~50°C Storage: -15~45°C
Float Charge Voltage (20~25°C)	13.52-13.79V (-3mV / °C/ cell)
Equalize Charge Voltage (20~25°C)	14.10-14.40V (-5mV / °C/ cell)
Container Material	ABS(UL94-V0 optional)



Complied standards

- IEC 60896-21/22
- IEC61427
- YD/T1360
- Eurobat guide, long life
- BS6290 part 4
- UL1989

DIMENSIONS



BATTERY DISCHARGE TABLE

Constant Current Discharge Characteristics: Amps (20°C)

F.V/Time	15min	30min	1h	2h	3h	4h	5h	6h	8h	10h
1.70V	127.3	90.2	59.5	36.9	27.4	22.0	18.4	16.2	13.0	10.8
1.75V	116.9	85.5	57.4	35.9	26.8	21.5	18.0	16.0	12.8	10.6
1.80V	103.6	80.0	54.8	34.7	26.1	21.0	17.7	15.7	12.6	10.5
1.85V	94.1	75.5	52.7	33.6	25.1	20.2	17.0	15.2	12.1	10.1
1.90V	75.1	63.0	47.6	30.9	23.2	18.9	16.0	14.2	11.4	9.42

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

F.V/Time	15min	30min	1h	2h	3h	4h	5h	6h	8h	10h
1.70V	221.5	158.8	105.9	66.3	49.9	40.4	34.2	30.4	24.4	20.5
1.75V	208.0	153.1	103.9	65.4	49.0	39.8	33.7	30.0	24.3	20.3
1.80V	189.5	147.1	101.3	64.6	48.7	39.5	33.2	29.7	24.0	20.1
1.85V	174.1	140.4	98.5	63.5	48.0	38.8	32.8	29.4	23.7	19.8
1.90V	144.2	121.6	92.3	60.5	46.0	37.6	32.0	28.5	22.9	19.0

PARAMETERS FOR SOLAR & WIND APPLICATIONS

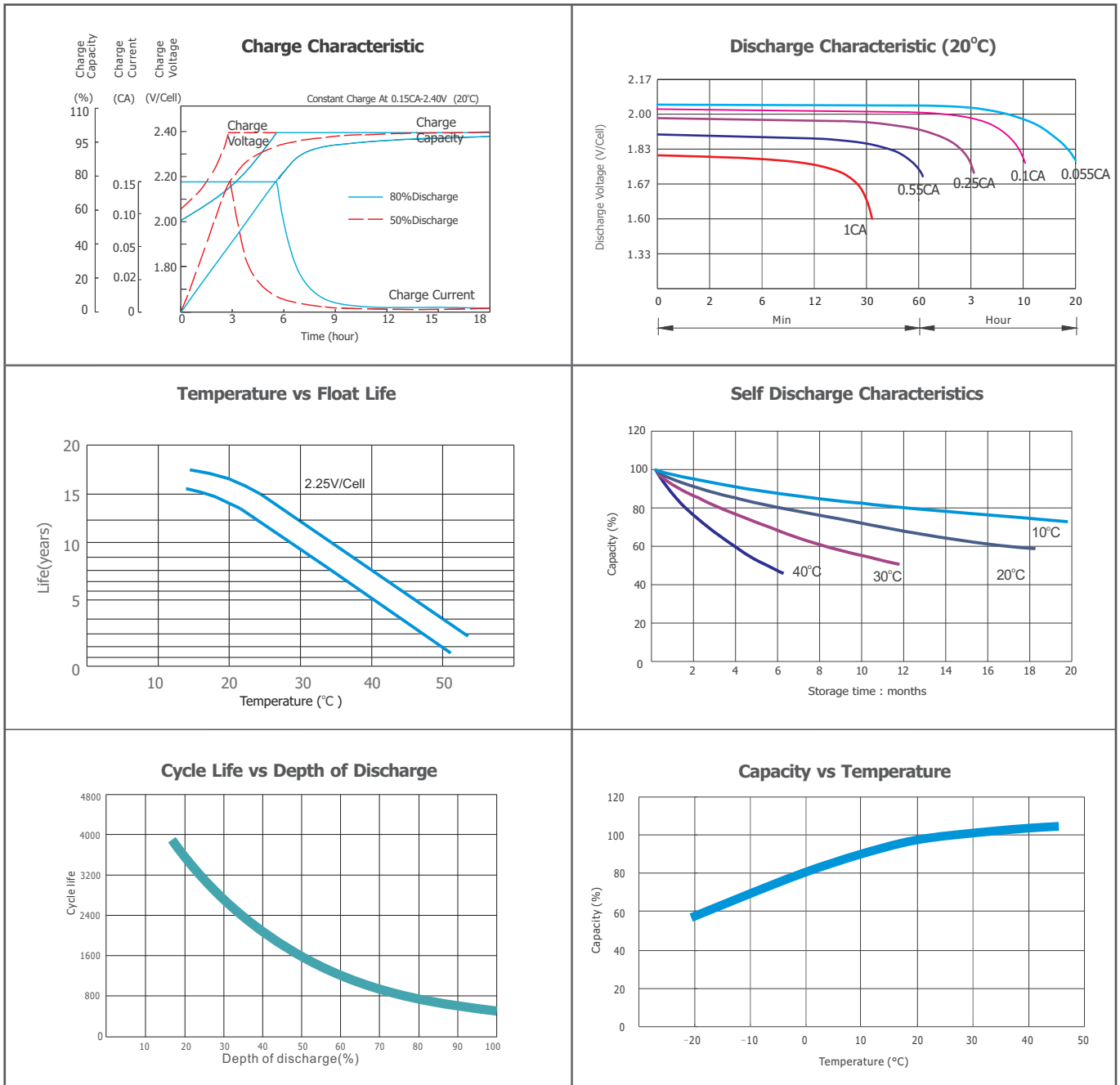
Long time disch. capacity for Solar & Wind applications

Capacity	C20 (Ah)	C24 (Ah)	C48 (Ah)	C72 (Ah)	C100 (Ah)	C120 (Ah)	C240 (Ah)
TGF12-100	112	115	120	125	129	131	136
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

CHARACTERISTICS



FINAL VOLTAGE SETTINGS RECOMMENDED ACCORDING TO THE DISCHARGE CURRENT

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

HEADQUARTERS AND SUBSIDIARIES:

- BSB Power Company Limited (HQ)
- BSB Power Europe (France)
- PT. BSB Indonesia
- BSB Power (Thailand) Co., Ltd
- BSB Power Company Pakistan Ltd

