

TRE SERIES BATTERY

BSB TRE series battery uses quasi bipolar technology. It has very good cycle life at PSOC state and can be faster charged. TRE series can provide reliable, versatile, maintenance-free power and completely spill proof. It is suited for cyclic use under PSOC state, these batteries are ideal for many renewable energy applications.

High Charge Efficiency

Ah Efficiency up 98%

Long Cycle Life Under PSOC

4000 Cycles @ 30% DOD

12 V

Voltage

200Ah

C₁₀₀ Capacity

Quasi Bipolar

Technology



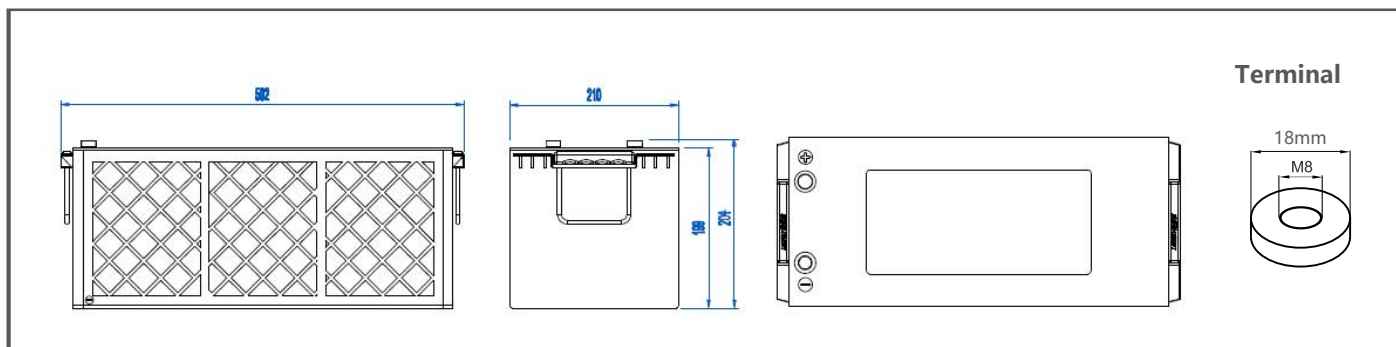
TECHNICAL SPECIFICATIONS

Nominal Voltage (V)	12 (6 cells per unit)
Capacity (25°C)	200Ah @ C ₁₀₀ to 1.85Vpc
Psoc Cycle Life (25 °C)	4000 cycles @30%DoD (40%~70%SoC)
Dimensions	L502mm x W210mm x H199mm(204)
Approx. Weight	51.5 kg
Terminal Type	M8 Copper Insert(torque: 12-13N.m)
Internal Resistance	Approx. 1.35mΩ (fully charged @ 25°C)
Ambient Temperature	Discharge: -40~60°C Charge: -25~60°C Storage: -25~40°C
Self Discharge	Approx. 3% per month @ 20°C
Float Charge Voltage (20 ~ 25°C)	13.4-13.6V (-3mV /°C/cell)
Cycle Charge Voltage (20 ~ 25°C)	14.1-14.3V
Container Material	ABS

Standards

- IEC 61427
- UL1989

BATTERY DIMENSIONS



BATTERY DISCHARGE TABLE

Constant Current Discharge Characteristics: Amps (25°C)

F.V/Time	15min	20min	30min	45min	1h	2h	3h	5h	8h	10h	20h
1.75V	405	318	242	186.0	135.0	78.0	55.0	39.0	25.0	17.5	9.2
1.80V	395	310	236	181.0	131.0	75.0	53.2	38.0	24.3	17.1	9.0
1.85V	380	298	228	174.0	125.0	72.0	51.5	36.6	23.5	16.5	8.7

Long Time Discharge Capacity@25°C :

Discharge Rate	C ₁₀	C ₂₀	C ₇₂	C ₁₀₀	C ₁₂₀
Capacity(Ah)	171	180	193	200	205
Final Voltage	1.85Vpc				

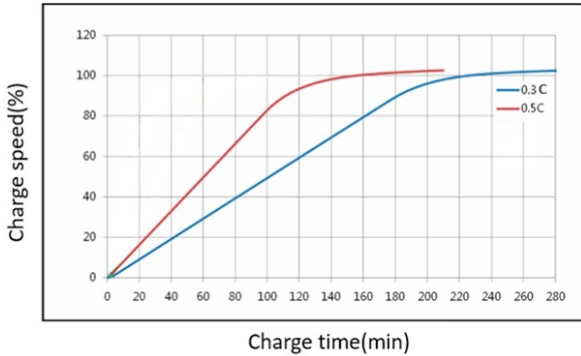
Constant Power Discharge Characteristics: W/cell (25°C)

F.V/Time	15min	20min	30min	45min	1h	2h	3h	5h	8h	10h	20h
1.75V	725	575	444	345	253	147	105	75.2	48.7	34.4	18.3
1.80V	718	569	440	341	249	144	103	74.4	48.1	34.2	18.2
1.85V	702	556	432	333	241	140	101	72.8	47.2	33.5	17.8

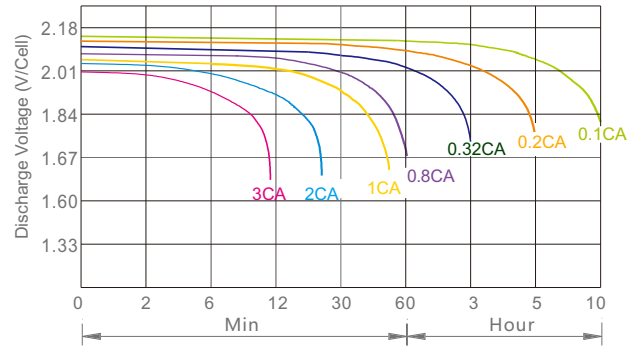


Characteristics

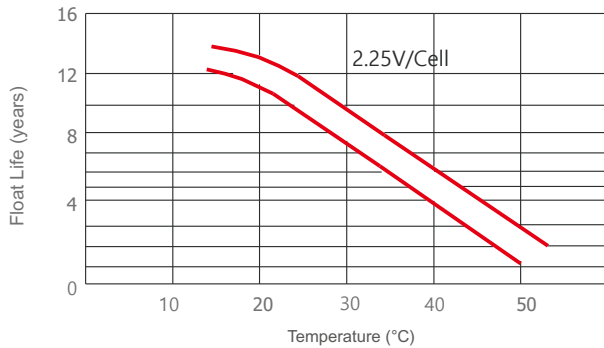
IU Charge Characteristic (25°C)



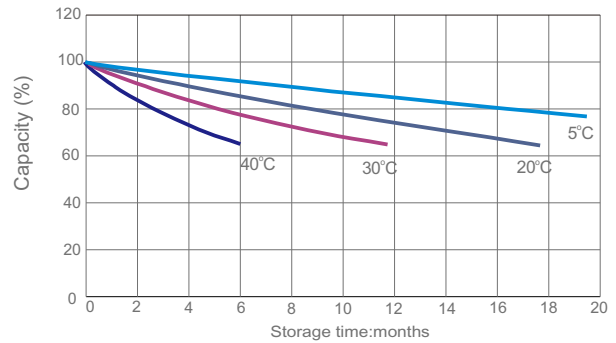
Discharge Characteristic (25°C)



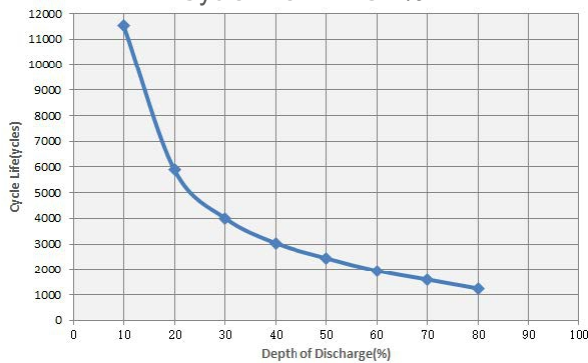
Temperature vs Float Life



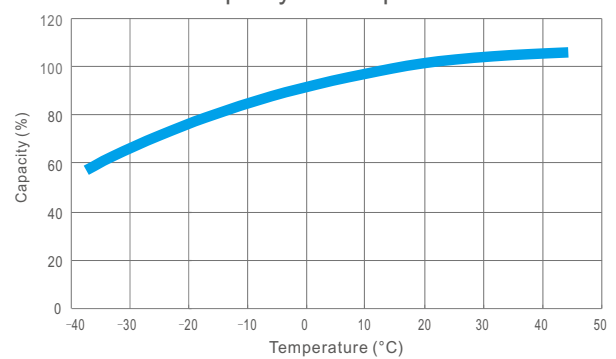
Self Discharge Characteristics



Cycle Life vs DOD%



Capacity vs Temperature



Charging Parameter Settings for Renewable Energy:

Bulk Charge	Max Current (amps)	100% of 20 Hr Capacity
Absorption (Regulation) Charge	Constant Voltage	14.1 - 14.3V @ 25°C
Float Charge	Constant Voltage	13.4 - 13.6 V @ 25°C
Equalize Charge	Constant Voltage	14.1 - 14.3 V @ 25°C
Equalize Charge interval		30~90 days
Over voltage Disconnect	Constant Voltage	14.5 - 14.6V @ 25°C
Low Voltage Alarm	Constant Voltage	11.6 - 11.7 V @ 25°C
Low Voltage Disconnect	Constant Voltage	11.4 - 11.5 V @ 25°C
Temp. Compensation Coefficient		-18 ~ -21mV / unit / C

Parameter settings per charge, cut-off & equalize intervals are application specific and will vary dependent upon site specific characteristics such as temperature, days of autonomy, array to load ratio, etc.

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12 V
Voltage

250Ah
C₁₀₀ Capacity

Quasi Bipolar
Technology

TECHNICAL SPECIFICATIONS

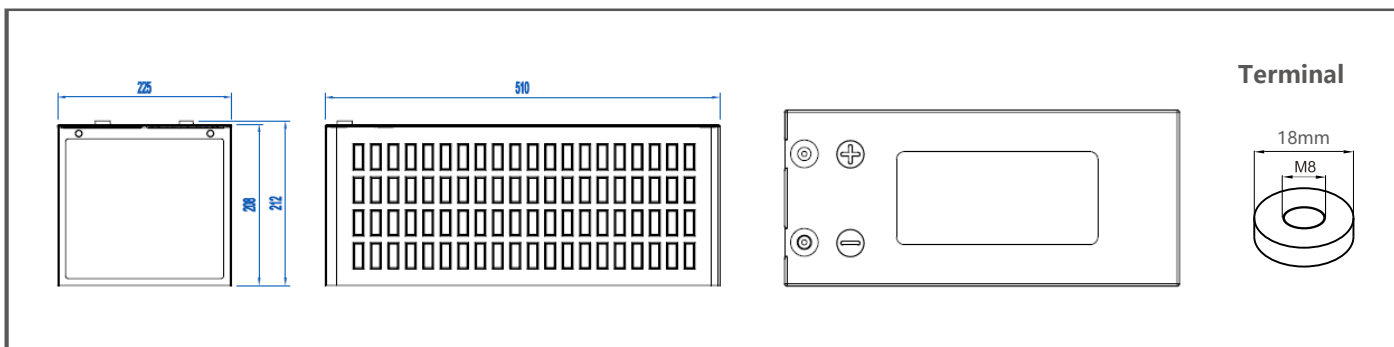
Nominal Voltage (V)	12 (6 cells per unit)
Capacity (25°C)	250Ah @ C ₁₀₀ to 1.85Vpc
Psoc Cycle Life (25 °C)	4000 cycles @30%DoD (40%~70%SoC)
Dimensions	L510mm x W225mm x H208mm(212)
Approx. Weight	61.0 kg
Terminal Type	M8 Copper Insert(torque: 12-13N.m)
Internal Resistance	Approx. 1.25mΩ (fully charged @ 25°C)
Ambient Temperature	Discharge: -40~60°C Charge: -25~60°C Storage: -25~40°C
Self Discharge	Approx. .3% per month @ 20°C
Float Charge Voltage (20 ~ 25°C)	13.5-13.7V (-3mV /°C/cell)
Cycle Charge Voltage (20 ~ 25°C)	14.1-14.3V
Container Material	ABS



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1.80V	410	344	247	182.0	147.0	80.9	58.8	38.2	24.5	21.0	11.0
1.85V	395	330	235	175.0	141.0	78.8	56.0	36.6	23.5	19.8	10.3

Long Time Discharge Capacity@25°C :

Discharge Rate	C ₁₀	C ₂₀	C ₇₂	C ₁₀₀	C ₁₂₀
Capacity(Ah)	210	220	245	250	255
Final Voltage	1.80Vpc				

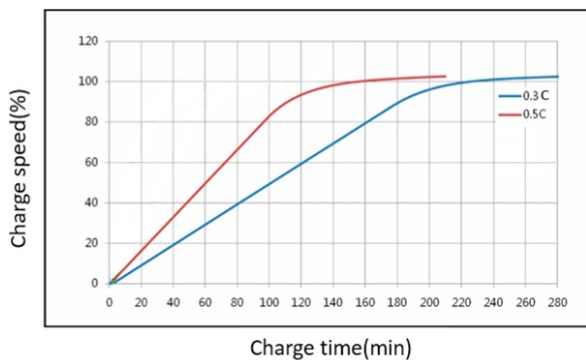
Constant Power Discharge Characteristics: W/cell (25°C)

F. V/Time	15min	20min	30min	45min	1h	2h	3h	5h	8h	10h	20h
1.75V	786	663	483	360	294	163	120	78.6	50.9	43.2	22.9
1.80V	768	651	474	353	288	160	117	77.1	49.9	42.4	22.5
1.85V	752	635	459	345	281	158	114	75.1	48.7	41.4	21.8

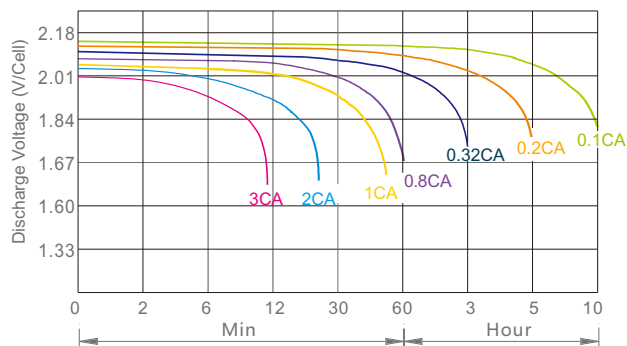


Characteristics

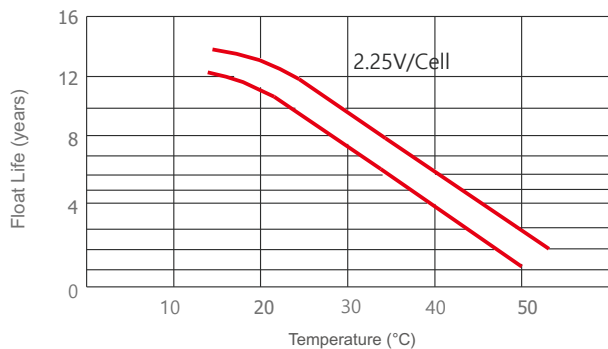
IU Charge Characteristic (25°C)



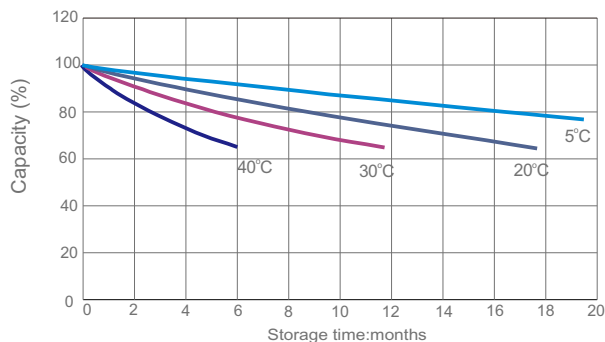
Discharge Characteristic (25°C)



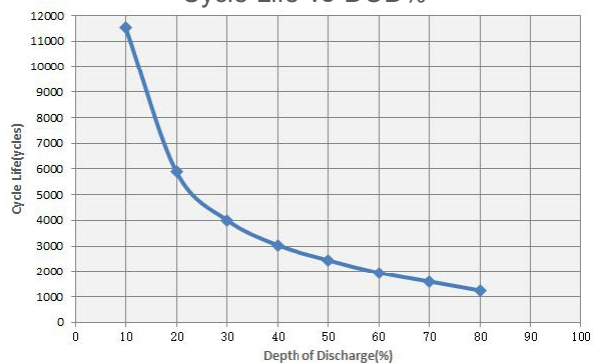
Temperature vs Float Life



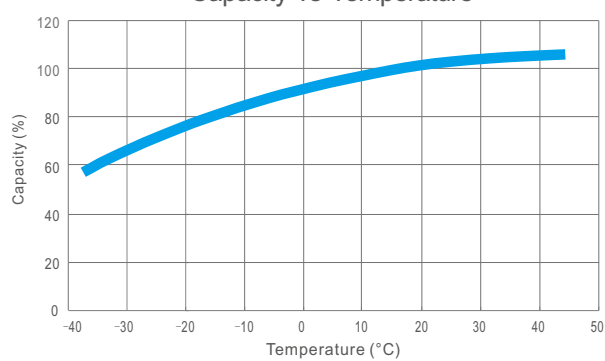
Self Discharge Characteristics



Cycle Life vs DOD%



Capacity vs Temperature



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