Solar Series

By combining the newly developed nano gel electrolyte and high density positive plate paste, BSB Solar series Valve-regulated lead acid batteries offers high daily cycle life and high recharge efficiency at the very low charge current. The acid stratification is highly depressed by adding of gel electrolyte. This range battery is highly suited to energy storage for renewable energy such as PV and wind turbine power systems applications.

Application

- Photovoltaic system
- Renewable Energy System
- Electric Utility
- Outdoor control Equipment
- Railroad Utility

General Features

- 12 years float life at 20°C
- Up to 5 years design life at renewable energy applications
- Wide operating temperature range of -15 to 60°C
- Nano gel electrolyte eliminate the acid stratification and prolong cycle life
- Round trip efficiency as high as 85%
- Thick positive flat plate with high density paste
- Low self-discharge rate and long shelf life(1 year at 25°C)
- Excellent deep discharge recovery capability

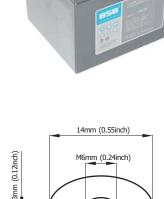
Construction

 Componen 	tRaw material
 Positive 	Lead dioxide
 Negative 	Lead
 Container 	ABS
Cover	ABS

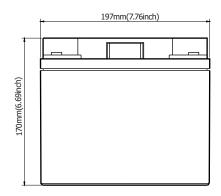
• SealantEpoxy Resin

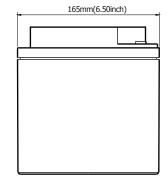
• Safety valveEPDR • TerminalCopper • SeparatorAGM

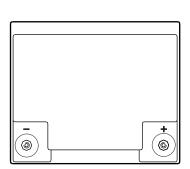
• ElectrolyteHybrid Gel



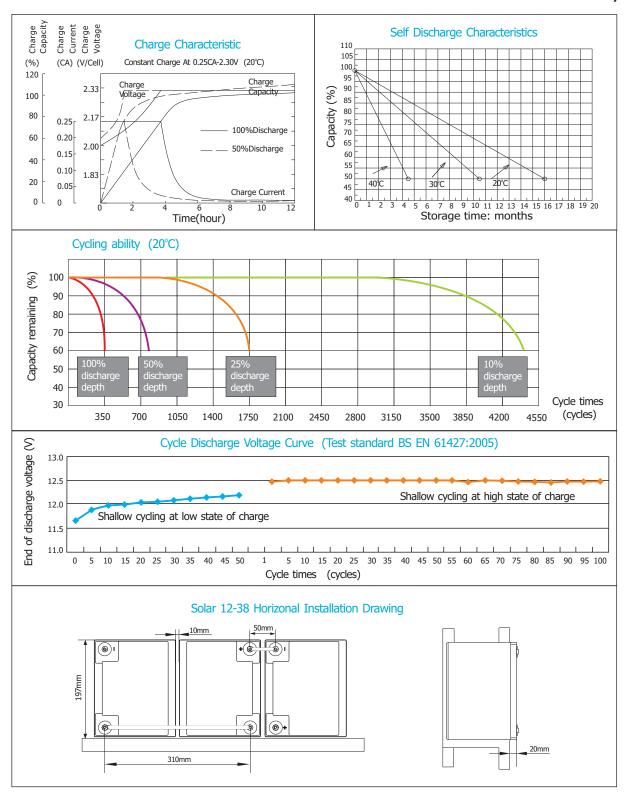
Terminal Dimensions







Battery Model		Solar 12-38					
Designed Floating Life		12 Years					
Designed Cycle Life		5 Ye	ears				
Capacity(20°C)	10HR(3.8A,1.80V)	24HR(1.67A,1.80V)	48HR(0.88A,1.80V)	100HR(0.46A,1.80V)			
Capacity(20 C)	38AH	40AH	42AH	46AH			
Dimonsions	Length	Width	Height	Total Height			
Dimensions	197mm(7.76inch)	165mm(6.50inch)	170mm(6.69inch)	170mm(6.69inch)			
Approx. Weight		13.3Kg (29.3 lbs)					
Internal Resistance		Full charged at 20°C: 0.0095 Ohm					
Self Discharge		3% of capacity decline	d per month at (20°C)				
Capacity Affected	40°C	20°C	0°C	-15°C			
by Temp.(20HR)	102%	100%	85%	65%			
Chargo Voltago(20°C)	Cycle	e use	Float use				
Charge Voltage(20°C)	14.4-14.8V(-30mV/	C), max. Current: 9.5A	13.6-13.8V(-20mV/ °C)				



TIME	1HR	3HR	5HR	10HR	24HR	48HR	72HR	100HR	120HR
CUT-OFF VOLTAGE	1.80	1.80	1.80	1.80	1.80	1.80	1.80	1.80	1.80
CAPACITY(AH)	24	29	33	38	40	42	44	46	47





Range Summary

By combining the newly developed nano gel electrolyte with high density paste, BSB created an innovative range of Solar batteries. The range offers high recharge efficiency at the very low charge current. The acid stratification is highly depressed by adding of gel. This range battery is highly suited to energy storage for renewable energy such as PV and wind turbine power systems applications.

Application

- Photovoltaic system
- Renewable Energy System
- Electric Utility
- Outdoor control Equipment
- Railroad Utility

General Features

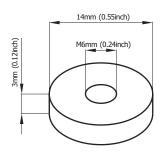
- 12 years float life at 20°C
- Up to 5 years design life at renewable energy applications
- Wide operating temperature range of -15 to 60°C
- Nano gel electrolyte eliminate the acid stratification and prolong cycle life
- Round trip efficiency as high as 85%
- Thick positive flat plate with high density paste
- Low self-discharge rate and long shelf life(1 year at 25°C)
- Excellent deep discharge recovery capability

Construction

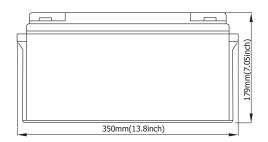
Cover

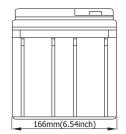
- Positive Lead dioxideNegative Lead • Container ABS
- ABS • Sealant Epoxy Resin
- Safety valve EPDR
- Terminal Copper
- Separator AGM
- Electrolyte Acid with gel

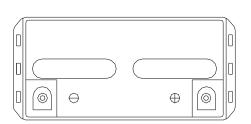




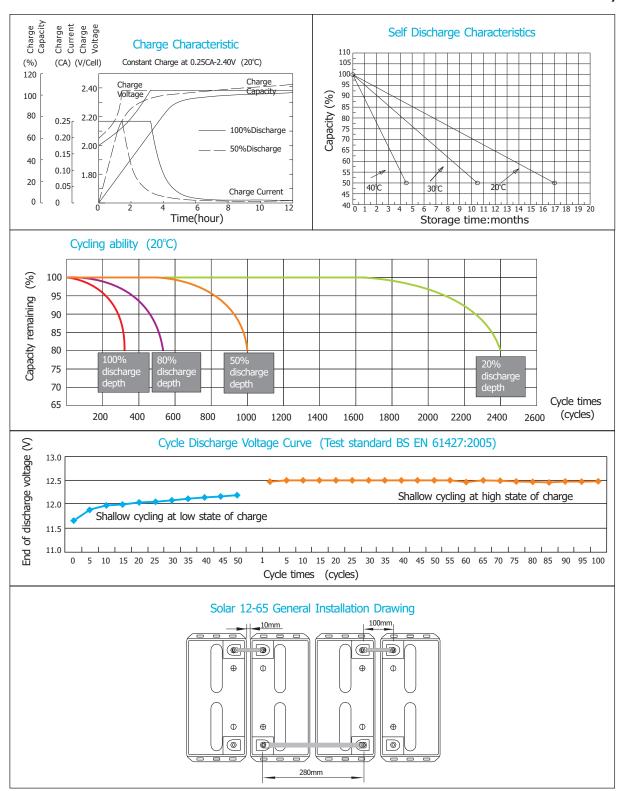
Terminal Dimensions







Battery Model		Solar 12-65					
Designed Floating Life		12 Years					
Designed Cycle Life (According to IEC61427)		5 Ye	ears				
Canacity(20°C)	10HR(6.5A,1.80V)	24HR(2.88A,1.80V)	48HR(1.52A,1.80V)	100HR(0.78A,1.80V)			
Capacity(20°C)	65Ah	69Ah	73Ah	78Ah			
Dimonologo	Length	Width	Height	Total Height			
Dimensions	350mm(13.8inch)	166mm(6.54inch)	179mm(7.05inch)	179mm(7.05inch)			
Approx. Weight		21.2Kg (46.7 lbs)					
Internal Resistance		Full charged at 20°C: 0.006 Ohm					
Self Discharge		3% of capacity decline	d per month at (20°C)				
Capacity Affected	40°C	20°C	0°C	-15℃			
by Temp.(10HR)	109%	100%	85%	65%			
Chargo Voltago(20°C)	Cycle	e use	Float use				
Charge Voltage(20°C)	14.4-14.8V(-30mV/ °C)	, max. Current: 16.25A	13.6-13.8V(-18mV/ °C)				



Constant current discharge ratings-amperes at 20°C

TIME	1h	3h	5h	10h	24h	48h	72h	100h	120h
CUT-OFF VOLTAGE	1.80	1.80	1.80	1.80	1.80	1.80	1.80	1.80	1.80
CAPACITY(Ah)	41	49	56	65	69	73	76	78	80



COPYRIGHT BSB POWER COMPANY LIMITED

Solar Series

By combining the newly developed nano gel electrolyte and high density positive plate paste, BSB Solar series Valve-regulated lead acid batteries offers high daily cycle life and high recharge efficiency at the very low charge current. The acid stratification is highly depressed by adding of gel electrolyte. This range battery is highly suited to energy storage for renewable energy such as PV and wind turbine power systems applications.

Application

- Photovoltaic system
- Renewable Energy System
- Electric Utility
- Outdoor control Equipment
- Railroad Utility

General Features

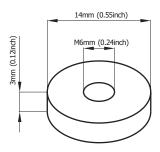
- 12 years float life at 20°C
- Up to 5 years design life at renewable energy applications
- Wide operating temperature range of -15 to 60°C
 Nano gel electrolyte eliminate the acid stratification and prolong cycle life
- Round trip efficiency as high as 85%
- Thick positive flat plate with high density paste
- Low self-discharge rate and long shelf life(1 year at 25°C)
- Excellent deep discharge recovery capability

Construction

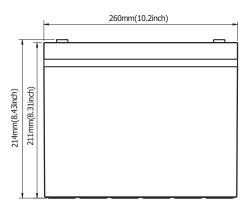
• Componen	tRaw material
 Positive 	Lead dioxide
 Negative 	Lead
 Container 	ABS
Cover	ABS

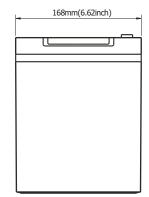
- SealantEpoxy Resin
- •Safety valveEPDR
- TerminalCopper SeparatorAGM
- ElectrolyteHybrid Gel

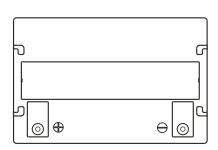




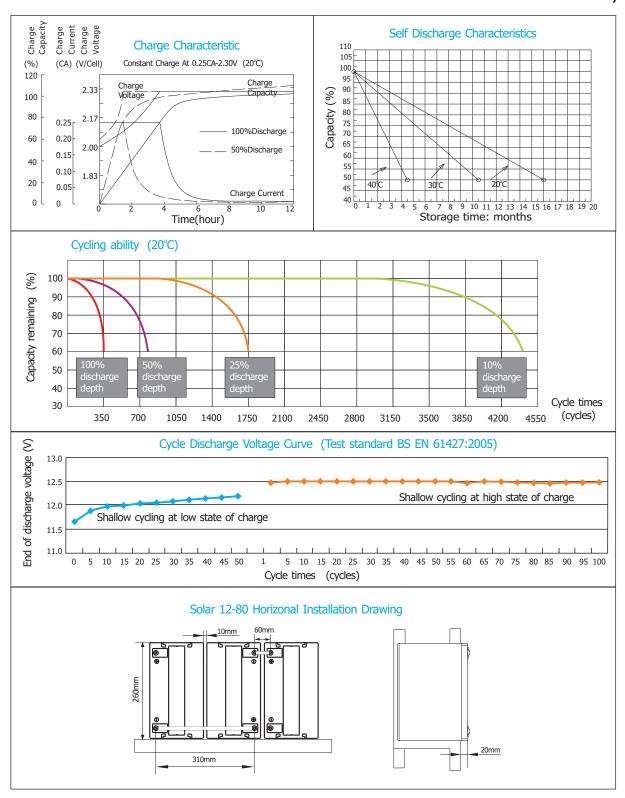
Terminal Dimensions







Battery Model	Solar 12-80						
Designed Floating Life		12 Years					
Designed Cycle Life		5 Ye	ears				
Capacity(20°C)	10HR(8A,1.80V)	24HR(4A,1.80V)	48HR(2.08A,1.80V)	100HR(1.08A,1.80V)			
Capacity(20 C)	80AH	85AH	89AH	96AH			
Dimonsions	Length	Width	Height	Total Height			
Dimensions	260mm(10.2inch)	168mm(6.62inch)	211mm(8.31inch)	214mm(8.43inch)			
Approx. Weight		25Kg (55.1 lbs)					
Internal Resistance		Full charged at 20°C: 0.006 Ohm					
Self Discharge		3% of capacity decline	ed per month at (20°C)				
Capacity Affected	40°C	20°C	0°C	-15℃			
by Temp.(20HR)	102%	100%	85%	65%			
Charge Voltage(20°C)	Cycle	e use	Float use				
Charge voilage(20 C)	14.4-14.8V(-30mV/ °	°C), max. Current: 20A	13.6-13.8V(-20mV/ °C)				



TIME	1HR	3HR	5HR	10HR	24HR	48HR	72HR	100HR	120HR
CUT-OFF VOLTAGE	1.80	1.80	1.80	1.80	1.80	1.80	1.80	1.80	1.80
CAPACITY(AH)	50	60	68	80	85	89	93	96	98



Solar Series

By combining the newly developed nano gel electrolyte and high density positive plate paste, BSB Solar series Valve-regulated lead acid batteries offers high daily cycle life and high recharge efficiency at the very low charge current. The acid stratification is highly depressed by adding of gel electrolyte. This range battery is highly suited to energy storage for renewable energy such as PV and wind turbine power systems applications.

Application

- Photovoltaic system
- Renewable Energy System
- Electric Utility
- Outdoor control Equipment
- Railroad Utility

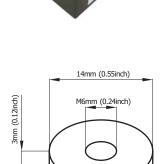
General Features

- 12 years float life at 20°C
- Up to 5 years design life at renewable energy applications
- Wide operating temperature range of -15 to 60°C
 Nano gel electrolyte eliminate the acid stratification and prolong cycle life
- Round trip efficiency as high as 85%
- Thick positive flat plate with high density paste
- Low self-discharge rate and long shelf life(1 year at 25°C)
- Excellent deep discharge recovery capability

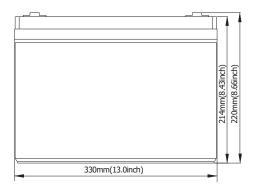
Construction

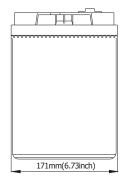
tRaw material
Lead dioxide
Lead
ABS
ABS

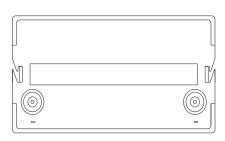
- SealantEpoxy Resin •Safety valveEPDR
- TerminalCopper SeparatorAGM
- ElectrolyteHybrid Gel



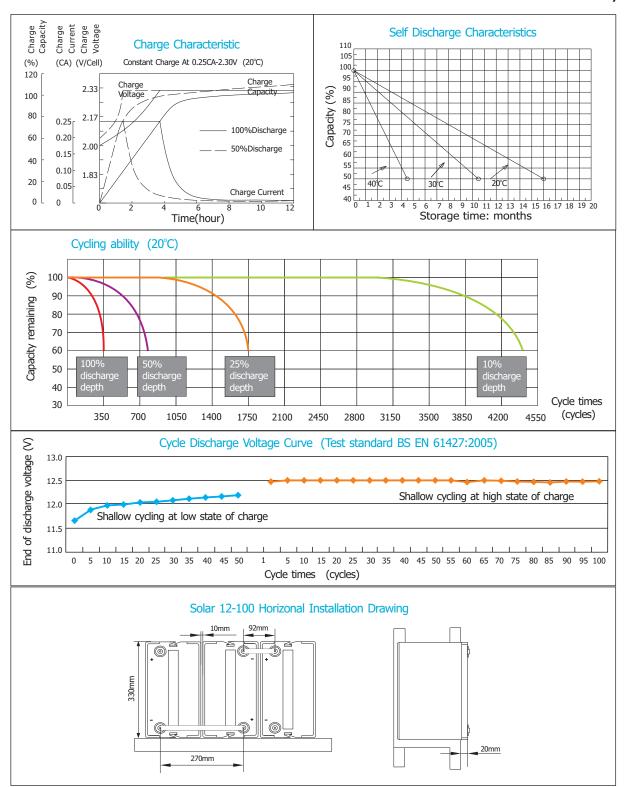
Terminal Dimensions







Battery Model		Solar 12-100					
Designed Floating Life		12 Years					
Designed Cycle Life		5 Ye	ears				
Capacity(20°C)	10HR(10A,1.80V)	24HR(4.42A,1.80V)	48HR(2.31A,1.80V)	100HR(1.2A,1.80V)			
Capacity(20 C)	100AH	106AH	111AH	120AH			
Dimensions	Length	Width	Height	Total Height			
Dimensions	330mm(13.0inch)	171mm(6.73inch)	214mm(8.43inch)	220mm(8.66inch)			
Approx. Weight	31Kg (68.4 lbs)						
Internal Resistance		Full charged at 2	0°C: 0.005 Ohm				
Self Discharge		3% of capacity decline	d per month at (20°C)				
Capacity Affected	40°C	20°C	0°C	-15°C			
by Temp.(20HR)	102%	100%	85%	65%			
Chargo Voltago(20°C)	Cycle	e use	Float use				
Charge Voltage(20°C)	14.4-14.8V(-30mV/ [°]	°C), max. Current: 25A	13.6-13.8V(-20mV/ °C)				



TIME	1HR	3HR	5HR	10HR	24HR	48HR	72HR	100HR	120HR
CUT-OFF VOLTAGE	1.80	1.80	1.80	1.80	1.80	1.80	1.80	1.80	1.80
CAPACITY(AH)	65	75	87	100	106	111	116	120	123



Solar Series

By combining the newly developed nano gel electrolyte and high density positive plate paste, BSB Solar series Valve-regulated lead acid batteries offers high daily cycle life and high recharge efficiency at the very low charge current. The acid stratification is highly depressed by adding of gel electrolyte. This range battery is highly suited to energy storage for renewable energy such as PV and wind turbine power systems applications.

Application

- Photovoltaic system
- Renewable Energy System
- Electric Utility
- Outdoor control Equipment
- Railroad Utility

General Features

- 12 years float life at 20°C
- Up to 5 years design life at renewable energy applications
- Wide operating temperature range of -15 to 60°C
- Nano gel electrolyte eliminate the acid stratification and prolong cycle life
- Round trip efficiency as high as 85%
- Thick positive flat plate with high density paste
- Low self-discharge rate and long shelf life(1 year at 25°C)
- Excellent deep discharge recovery capability

Construction

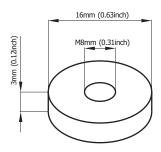
 Componen 	tRaw material
 Positive 	Lead dioxide
 Negative 	Lead
 Container 	ABS
Cover	ABS

• SealantEpoxy Resin

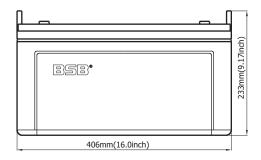
• Safety valveEPDR • TerminalCopper • SeparatorAGM

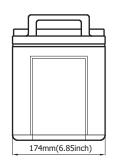
• ElectrolyteHybrid Gel

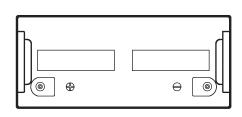




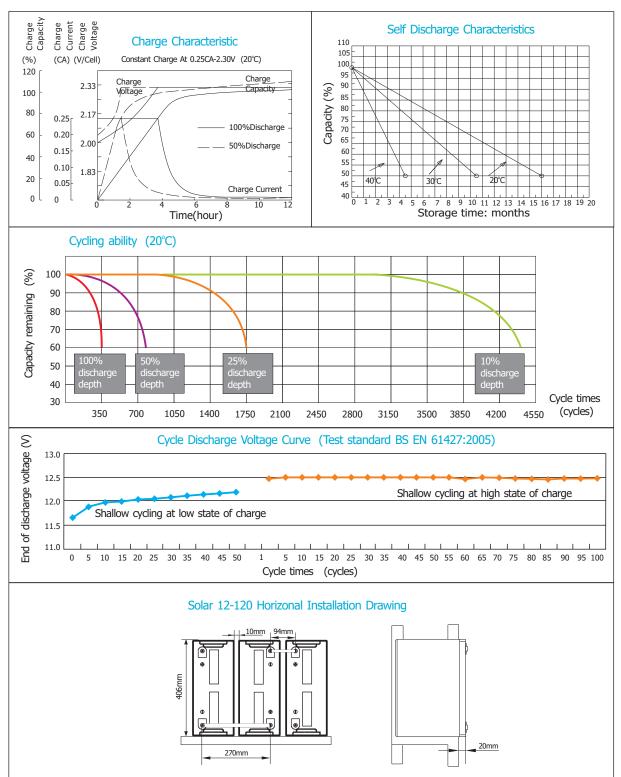
Terminal Dimensions







Battery Model	Solar 12-120						
Designed Floating Life	12 Years						
Designed Cycle Life	5 Years						
Capacity(20°C)	10HR(12A,1.80V)	24HR(5.29A,1.80V)	48HR(2.79A,1.80V)	100HR(1.45A,1.80V)			
Capacity(20 C)	120AH	127AH	134AH	145AH			
Dimonsions	Length	Width	Height	Total Height			
Dimensions	406mm(16.0inch)	174mm(6.85inch)	208mm(8.19inch)	233mm(9.17inch)			
Approx. Weight		36Kg (79.4 lbs)					
Internal Resistance		Full charged at 20°C: 0.004 Ohm					
Self Discharge		3% of capacity decline	d per month at (20°C)				
Capacity Affected	40°C	20°C	0°C	-15℃			
by Temp.(20HR)	102% 100%		85%	65%			
Charge Voltage(20°C)	Cycl	e use	Float use				
Charge voilage(20 C)	14.4-14.8V(-30mV/	°C), max. Current: 30A	13.6-13.8V(-20mV/ °C)				



TIME	1HR	3HR	5HR	10HR	24HR	48HR	72HR	100HR	120HR
CUT-OFF VOLTAGE	1.80	1.80	1.80	1.80	1.80	1.80	1.80	1.80	1.80
CAPACITY(AH)	78	90	103	120	127	134	140	145	147



Solar Series

By combining the newly developed nano gel electrolyte and high density positive plate paste, BSB Solar series Valve-regulated lead acid batteries offers high daily cycle life and high recharge efficiency at the very low charge current. The acid stratification is highly depressed by adding of gel electrolyte. This range battery is highly suited to energy storage for renewable energy such as PV and wind turbine power systems applications.

Application

- Photovoltaic system
- Renewable Energy System
- Electric Utility
- Outdoor control Equipment
- Railroad Utility

General Features

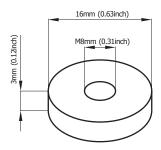
- 12 years float life at 20°C
- Up to 5 years design life at renewable energy applications
- Wide operating temperature range of -15 to 60°C
- Nano gel electrolyte eliminate the acid stratification and prolong cycle life
- Round trip efficiency as high as 85%
- Thick positive flat plate with high density paste
- Low self-discharge rate and long shelf life(1 year at 25°C)
- Excellent deep discharge recovery capability

Construction

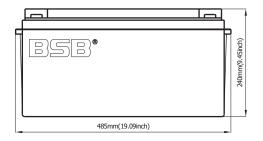
 Componen 	tRaw material
 Positive 	Lead dioxide
 Negative 	Lead
 Container 	ABS
Cover	ABS

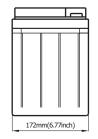
- SealantEpoxy Resin • Safety valveEPDR
- TerminalCopper • SeparatorAGM
- ElectrolyteHybrid Gel

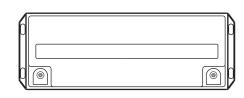




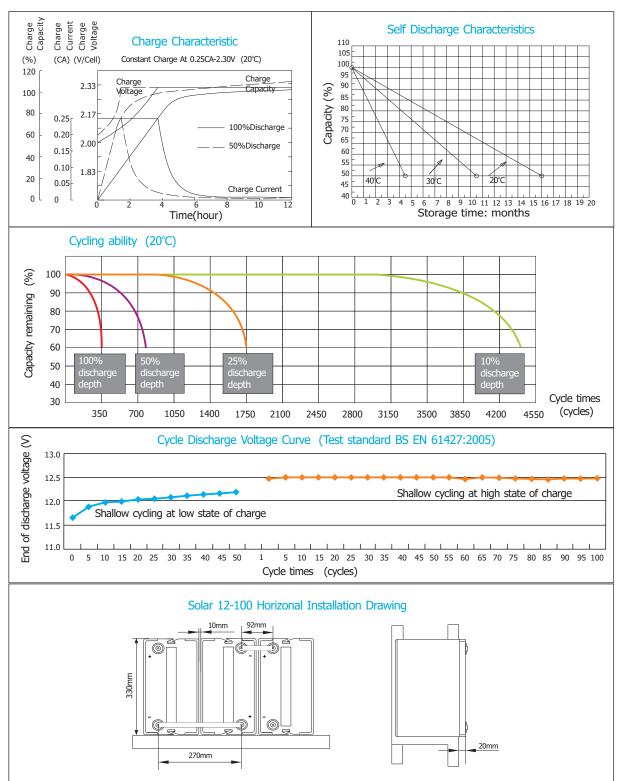
Terminal Dimensions







Battery Model	Solar 12-150						
Designed Floating Life	12 Years						
Designed Cycle Life	5 Years						
Capacity(20°C)	20HR(7.9A,1.80V)	10HR(15A,1.80V)	5HR(25.5A,1.75V)	1HR(94A,1.60V)			
Capacity(20 C)	158AH	150AH	127.5AH	94AH			
Dimensions	Length	Width	Height	Total Height			
Dimensions	485mm(19.1inch)	172mm(6.77inch)	240mm(9.45inch)	240mm(9.45inch)			
Approx. Weight		45Kg (99.2 lbs)					
Internal Resistance		Full charged at 20°C: 0.0035 Ohm					
Self Discharge		3% of capacity decline	ed per month at (20°C)				
Capacity Affected	40°C	20°C	0°C	-15°C			
by Temp.(20HR)	102%	100%	85%	65%			
Chargo Voltago(20°C)	Cycle	e use	Float use				
Charge Voltage(20°C)	14.4-14.8V(-30mV/ ^c	°C), max. Current: 37.5A	13.6-13.8V(-20mV/ °C)				



TIME	1HR	3HR	5HR	10HR	24HR	48HR	72HR	100HR	120HR
CUT-OFF VOLTAGE	1.80	1.80	1.80	1.80	1.80	1.80	1.80	1.80	1.80
CAPACITY(AH)	96	113	129	150	159	165	172	180	182



Solar Series

By combining the newly developed nano gel electrolyte and high density positive plate paste, BSB Solar series Valve-regulated lead acid batteries offers high daily cycle life and high recharge efficiency at the very low charge current. The acid stratification is highly depressed by adding of gel electrolyte. This range battery is highly suited to energy storage for renewable energy such as PV and wind turbine power systems applications.

Application

- Photovoltaic system
- Renewable Energy System
- Electric Utility
- Outdoor control Equipment
- Railroad Utility

General Features

- 12 years float life at 20°C
- Up to 5 years design life at renewable energy applications
- Wide operating temperature range of -15 to 60°C
- Nano gel electrolyte eliminate the acid stratification and prolong cycle life
- Round trip efficiency as high as 85%
- Thick positive flat plate with high density paste
- Low self-discharge rate and long shelf life(1 year at 25°C)
- Excellent deep discharge recovery capability

Construction

• Componen	tRaw material
 Positive 	Lead dioxide
 Negative 	Lead
 Container 	ABS
Cover	ABS

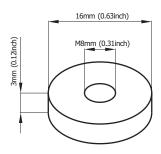
• SealantEpoxy Resin

• Safety valveEPDR
• TerminalCoppe

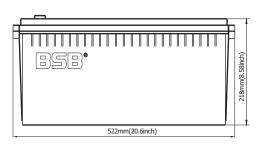
• TerminalCopper • SeparatorAGM

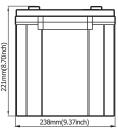
• ElectrolyteHybrid Gel





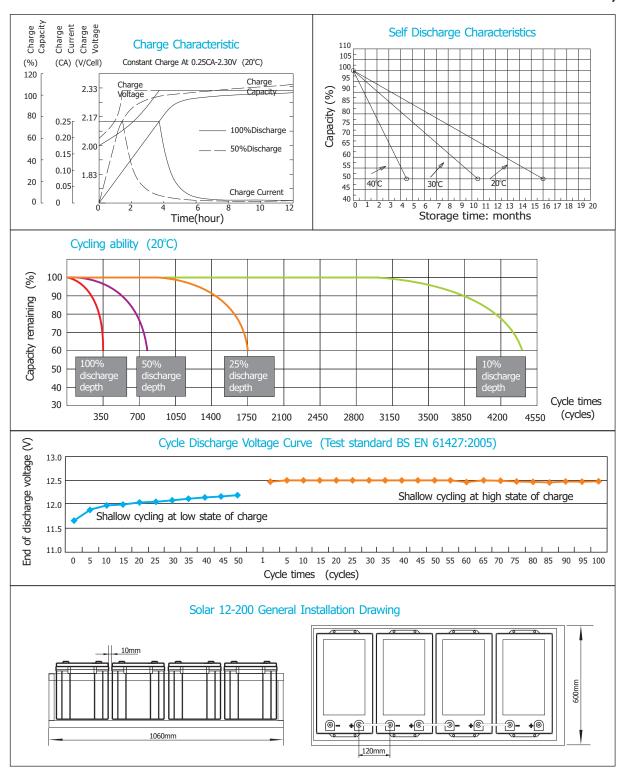
Terminal Dimensions







Battery Model	Solar 12-200						
Designed Floating Life	12 Years						
Designed Cycle Life	5 Years						
Canacity(20°C)	10HR(20A,1.80V)	24HR(8.92A,1.80V)	48HR(4.67A,1.80V)	100HR(2.4A,1.80V)			
Capacity(20°C)	200AH	214AH	224AH	240AH			
Dimensions	Length	Width	Height	Total Height			
Dimensions	522mm(20.6inch)	238mm(9.37inch)	218mm(8.58inch)	221mm(8.70inch)			
Approx. Weight		62Kg (137 lbs)					
Internal Resistance		Full charged at 20°C: 0.003 Ohm					
Self Discharge		3% of capacity decline	d per month at (20°C)				
Capacity Affected	40°C	20°C	0°C	-15°C			
by Temp.(20HR) 102%		100%	85%	65%			
Chargo Voltago(20°C)	Cycl	e use	Float use				
Charge Voltage(20°C)	14.4-14.8V(-30mV/	°C), max. Current: 50A	13.6-13.8V(-20mV/ °C)				



TIME	1HR	3HR	5HR	10HR	24HR	48HR	72HR	100HR	120HR
CUT-OFF VOLTAGE	1.80	1.80	1.80	1.80	1.80	1.80	1.80	1.80	1.80
CAPACITY(AH)	130	150	171	200	214	224	233	240	243





Cycle Life vs Depth of Discharge for Solar Series Battery

