

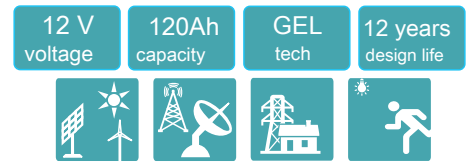
# VHR 12V120AH (12V120Ah)

Superior Cycle Gel Battery

SCG series is Superior Cycle VRLA Deep Cycle Gel battery. By combining the newly developed nano gel electrolyte and high cyclic paste, SCG series delivers high cycle life, excellent high&low temperature performance, it is highly suited for renewable energy systems, outdoor telecom and other harsh environment require high cycle applications.

## TECHNICAL SPECIFICATIONS

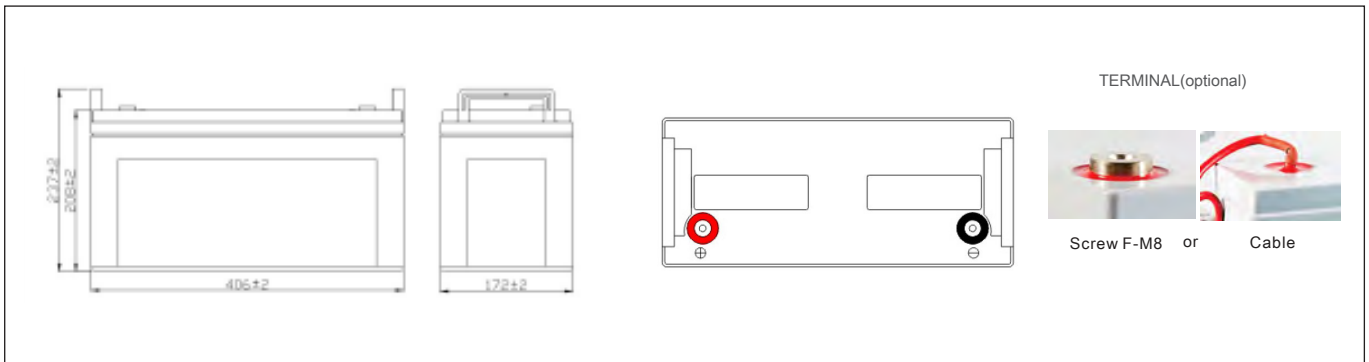
Nominal Voltage (V)	12 (6 cells per unit)
Designed Floating Life (25°C)	12 Years
Nominal Capacity (25°C)	120 Ah @ 10HR-rate (to 1.80Vpc)
Dimension (mm)	L405mm x W174mm x H232mm
Approx. Weight	38.0 kg
Terminal Type	F-M8 or cable (torque:10~12N.m for F-M8)
Internal Resistance	Approx. 0.004 Ohm (fully charged @ 20° C)
Max. Charge Current	30A
Max. Discharge Current (5S)	960 A
Short Circuit Current	3000 A
Self Discharge	Approx. 2.5% per month @ 20° C
Ambient Temperature	Discharge: -40~60° C Charge: -20~55° C Storage: -25~45° C
Float Charge Voltage	13.5-13.62V/block @25°C (-3mV/ cell/°C)
Equalize and cycle Use Charge Voltage	14.1-14.4V/block @25°C
Container Material	ABS (UL94-V0 optional)



### Complied standards

- IEC 60896-21/22
- GB/T19638
- IEC61427
- JIS C8704
- BS6290 part 4

## 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	124	77.1	45.7	33.2	26.5	22.1	15.0	12.4	6.54
1.75V	120	75.6	44.9	32.7	26.2	21.8	14.8	12.2	6.42
1.80V	115	73.1	43.9	32.0	25.6	21.3	14.5	12.0	6.30
1.85V	108	69.9	42.2	31.0	24.8	20.8	14.2	11.7	6.15

Constant Power Discharge Characteristics: W/cell (25° C)									
F.V/Time	30min	1h	2h	3h	4h	5h	8h	10h	20h
1.70V	233	146	87.0	63.5	50.9	42.7	29.3	24.3	12.9
1.75V	227	144	86.2	63.1	50.7	42.5	29.1	24.1	12.7
1.80V	219	140	85.1	62.4	50.0	41.8	28.7	23.8	12.6
1.85V	208	136	82.6	60.9	49.0	41.1	28.2	23.4	12.4

## PARAMETERS FOR SOLAR & WIND APPLICATIONS

Long time discharge capacity for Solar & Wind applications

Capacity	C <sub>24</sub> (Ah)	C <sub>48</sub> (Ah)	C <sub>72</sub> (Ah)	C <sub>100</sub> (Ah)	C <sub>120</sub> (Ah)
VHR12V120AH	128	136	139	145	150
Final Voltage	1.85V				

### Solar & Wind applications parameters settings

Over voltage disconnect:	2.45±0.01V/cell @ 25° C
Regulation/equalize voltage:	2.40±0.01V/cell @ 25° C
Array reconnection voltage:	2.25±0.005V/cell @ 25° C
Float voltage setting:	2.27±0.005V/cell @ 25° C
Low voltage alarm voltage:	1.95±0.005V/cell @ 25° C
Low voltage disconnect:	1.90±0.005V/cell @ 25° C
Load reconnect voltage:	2.09±0.01V/cell @ 25° C
Temp. compensate coefficient:	-5mV/cell/° C

## CHARACTERISTICS

