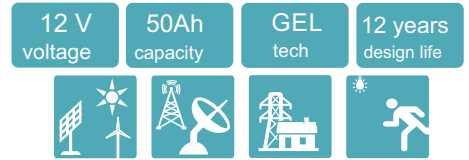


VHR 12SCG50 (12V50Ah)

Superior Cycle Gel Battery

VHR series is Superior Cycle VRLA 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

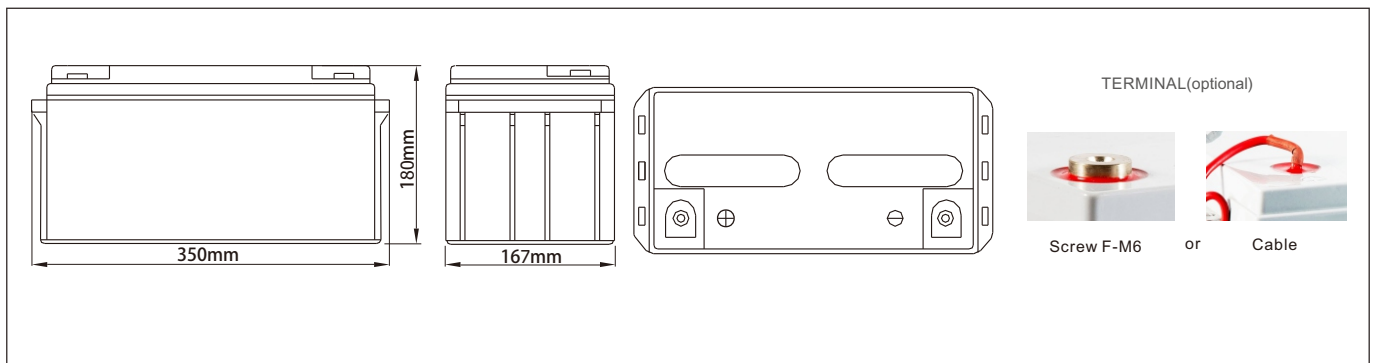
Nominal Voltage (V)	12 (6 cells per unit)
Designed Floating Life (25°C)	12 Years
Nominal Capacity (25°C)	50 Ah @ 10HR-rate (to 1.80Vpc)
Dimension (mm)	L350mm x W167mm x H180mm
Approx. Weight	18.5 kg (40.8 lbs)
Terminal Type	F-M6 or cable (torque:6~8N.m for F-M6)
Internal Resistance	Approx. 0.0065 Ohm (fully charged @ 20°C)
Max. Charge Current	12.5A
Max. Discharge Current (5S)	500 A
Short Circuit Current	1700 A
Self Discharge	Approx. 2.5% per month @ 20°C
Ambient Temperature	Discharge: -40~60°C Charge: -25~55°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	51.8	32.2	19.0	13.8	11.0	9.18	6.26	5.17	2.73
1.75V	50.0	31.5	18.7	13.6	10.9	9.09	6.17	5.10	2.67
1.80V	47.8	30.5	18.3	13.4	10.6	8.87	6.03	5.00	2.63
1.85V	45.1	29.1	17.5	12.9	10.4	8.66	5.90	4.87	2.56

Constant Power Discharge Characteristics: W/cell (25°C)									
F.V/Time	30min	1h	2h	3h	4h	5h	8h	10h	20h
1.70V	97.3	60.7	36.3	26.5	21.2	17.7	12.2	10.1	5.37
1.75V	94.5	59.9	35.9	26.3	21.0	17.6	12.1	10.0	5.30
1.80V	90.9	58.5	35.5	26.0	20.8	17.5	11.9	9.91	5.25
1.85V	86.8	56.5	34.4	25.4	20.5	17.1	11.7	9.73	5.15

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)
VHR12SCG50	53.0	56.0	57.4	60.5	61.9
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

