

VHR 12SCG38 (12V38Ah)

Superior Cycle Gel Battery

VHR 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



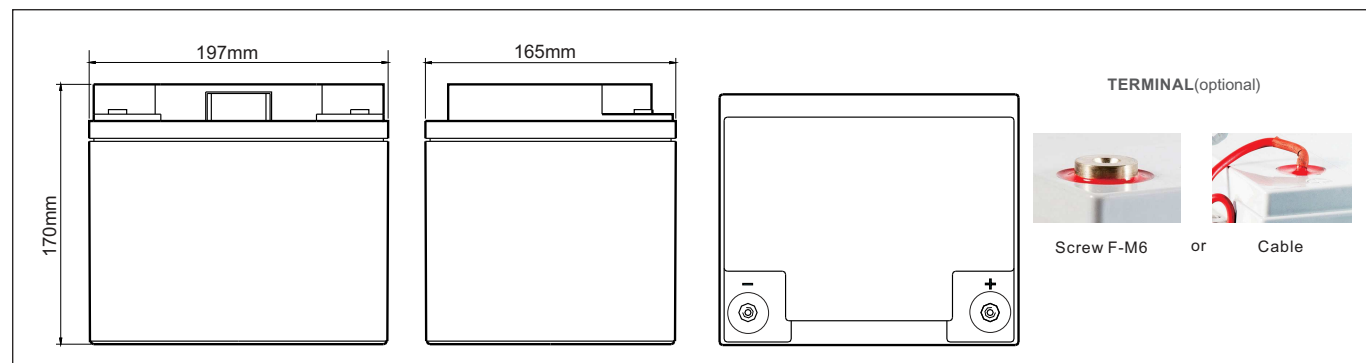
Nominal Voltage (V)	12 (6 cells per unit)
Designed Floating Life (25°C)	12 Years
Nominal Capacity (25°C)	38 Ah @ 10HR-rate (to 1.80Vpc)
Dimension (mm)	L197mm x W165mm x H170mm
Approx. Weight	12.3 kg (27.1 lbs)
Terminal Type	F-M6 or cable (torque:6~8N.m for F-M6)
Internal Resistance	Approx. 0.0095 Ohm (fully charged @ 20°C)
Max. Charge Current	9.5A
Max. Discharge Current (5S)	500 A
Short Circuit Current	1250 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	39.4	24.4	14.5	10.5	8.39	7.00	4.76	3.93	2.07
1.75V	38.0	23.9	14.2	10.3	8.29	6.91	4.69	3.88	2.03
1.80V	36.3	23.1	13.9	10.1	8.10	6.74	4.58	3.80	1.99
1.85V	34.3	22.1	13.4	9.82	7.87	6.58	4.48	3.70	1.95

Constant Power Discharge Characteristics: W/cell (25°C)									
F.V/Time	30min	1h	2h	3h	4h	5h	8h	10h	20h
1.70V	73.7	46.1	27.5	20.1	16.1	13.5	9.27	7.69	4.08
1.75V	71.8	45.6	27.3	20.0	16.1	13.4	9.22	7.64	4.03
1.80V	69.2	44.4	27.0	19.8	15.8	13.2	9.07	7.55	3.98
1.85V	66.0	42.9	26.1	19.3	15.5	13.0	8.93	7.40	3.92

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)
VHR 12SCG38	40.7	42.9	44.1	46.0	47.5
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

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CHARACTERISTICS

