## Lead Acid Battery

## VCDC1270 (12V 7.0AH)

VCONN Standard battery is design for a general purpose by KaiYing power. Absorbent Glass Mat (AGM) technology for superior performance.
Valve regulated, non-spillable construction allows safe operation in any position.
UL recognized under file number MH 46789. Approved for transport by sea or by air.


Specifications: Designed according with the IEC61056-1/2:2012

Nominal Voltage
Nominal Capacity
20hr
3hr (1.75A)
27min Rate (7.0A)
Weight
Internal Resistance
Maximum Discharge Current
Operating Temperature Range

Float Charging Voltage
Equalization and Cycle Service
Maximum Charging Current
Terminal
Self Discharge

12Volts (6 Cells per unit)
@ $25^{\circ} \mathrm{C}$
7.70Ah @ to 1.75 V per cell
5.25Ah @ to 1.70V per cell
3.73Ah @ to 1.60 V per cell

Approx. ( $2.01 \pm 3 \%$ ) kg(4.43lbs)
Approx. $25.5 \mathrm{~m} \Omega$ full charged @ $25^{\circ} \mathrm{C}$
70A(3sec)
Discharge: $-20^{\circ} \mathrm{C} \sim 60^{\circ} \mathrm{C}$; Charge: $0^{\circ} \mathrm{C} \sim 50^{\circ} \mathrm{C}$
Storage: $-20^{\circ} \mathrm{C} \sim 40^{\circ} \mathrm{C}$
13.50~13.80VDC/unit Average @ $25^{\circ} \mathrm{C}$
14.40~15.00VDC/unit Average @ $25^{\circ} \mathrm{C}$
2.1A

F1/F2
VCONN batteries can be stored for more than 6 months and the Self-discharge ratio less than 3\%per
month at $25^{\circ} \mathrm{C}$. Please charge batteries before using.


ISO9001:2015
ISO14001:2015
ISO45001:2018 ISO50001:2011
APPLICATION STANDARDS

- GB/T19639.1/2-2014
- IEC 61056-1/2:2012
- JIS C8702-1-2009

Dimensions: L151*W65.5*H94(TH100)mm
151


Constant Current Discharge Characteristics (A,25 ${ }^{\circ} \mathrm{C}$ )

| F.V/TIME | 5 min | 10 min | 15 min | 30 min | 60 min | 90 min | 2 h | 3 h | 5 h | 10 h | 20 h |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 9.60 | 26.3 | 17.5 | 10.5 | 7.00 | 4.55 | 3.26 | 2.56 | 1.92 | 1.28 | 0.73 | 0.39 |
| 9.90 | 25.5 | 17.0 | 10.2 | 6.79 | 4.41 | 3.19 | 2.53 | 1.90 | 1.27 | 0.73 | 0.39 |
| 10.20 | 24.9 | 16.6 | 10.1 | 6.72 | 4.37 | 3.12 | 2.52 | 1.89 | 1.26 | 0.73 | 0.39 |
| 10.50 | 24.2 | 16.1 | 9.66 | 6.44 | 4.19 | 3.06 | 2.49 | 1.87 | 1.25 | 0.72 | 0.39 |
| 10.80 | 23.4 | 15.6 | 9.58 | 6.38 | 4.15 | 2.99 | 2.47 | 1.85 | 1.23 | 0.72 | 0.39 |

Constant Power Discharge Characteristics (Watt, $\mathbf{2 5}^{\circ} \mathrm{C}$ )

| F.V/TIME | 5 min | 10 min | 15 min | 30 min | 60 min | 90 min | 2 h | 3 h | 5 h | 10 h | 20 h |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 9.60 | 293 | 197 | 120 | 80.2 | 52.7 | 38.1 | 29.9 | 22.8 | 15.3 | 8.78 | 4.69 |
| 9.90 | 284 | 191 | 116 | 77.8 | 51.1 | 37.3 | 29.6 | 22.6 | 15.1 | 8.74 | 4.67 |
| 10.20 | 278 | 188 | 115 | 77.0 | 50.6 | 36.6 | 29.5 | 22.5 | 15.0 | 8.70 | 4.65 |
| 10.50 | 270 | 182 | 110 | 73.8 | 48.5 | 35.8 | 29.2 | 22.2 | 14.9 | 8.67 | 4.63 |
| 10.80 | 262 | 176 | 109 | 73.2 | 48.1 | 35.0 | 28.9 | 22.0 | 14.7 | 8.65 | 4.62 |

Float Service Life


Cycle Service Life


Effect of Temperature on Capacity


Battery Voltage and Charge time for standby use


Battery Voltage and Charge time for Cycle use


Capacity Retention Characteristic


## End Voltage

| Discharge Rate | Discharge Current | End Voltage (V/cell) |
| :---: | :---: | :---: |
| 20 h | $0.05 \mathrm{C}_{20} \mathrm{~A}\left(\mathrm{I}_{20}\right)$ | 1.75 |
| 10 h | $0.09 \mathrm{C}_{20} \mathrm{~A}\left(\mathrm{I}_{10}\right)$ | 1.75 |
| 3 h | $0.25 \mathrm{C}_{20} \mathrm{~A}\left(\mathrm{l}_{3}\right)$ | 1.70 |
| 1 C | $1 \mathrm{C}_{20} \mathrm{~A}\left(\mathrm{C}_{1}\right)$ | 1.60 |

