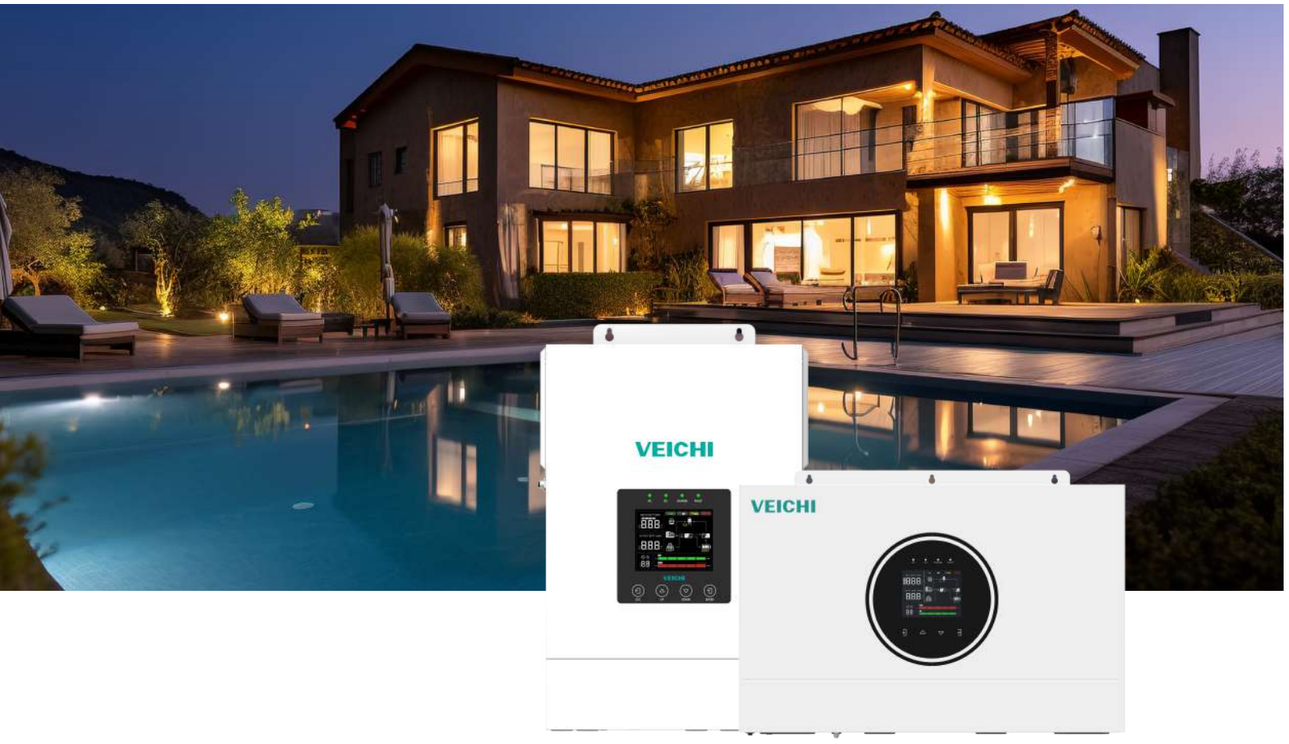
# SV-(4/6)K-S1
# SV-12K-S
## MPPT Solar Inverter




## Product Highlights

- Two-year warranty, generating more power throughout its life cycle
- Supports up to 1.3 times photovoltaic power input
- 10-milli second ultra-fast switching
- Built-in WiFi, connects to the VEICHI cloud platform
- Dual output design, extending critical load usage time
- Built-in diesel generator interface, no ATS required, smarter generator switching

| Model | SV-4K-S1 | SV-6K-S1 | SV-12K-S |
|---|---|---|---|
| Input (PV DC) | | | |
| Max. PV array power(Wp) | 7200 | 10800 | 24000 |
| Maximum input power | 4400 | 7800 | 18000 |
| Number of MPPTs | 1 | 1 | 2 |
| Number of MPPT input strings | 1 | 1 | 2 |
| Rated PV input voltage(V) | 500 | 550 | 500 |
| PV input voltage range(V) | 90~450 | 90~500 | 90~450 |
| MPPT voltage range(V) | 90~450 | 90~500 | 90~450 |
| Start-up voltage(V) | 120 | 120 | 120 |
| Max. PV input current per MPPT(A) | 18 | 27 | 30 |
| Max. PV short-circuit current input per MPPT(A) | 23 | 32 | 44 |
| Battery | | | |
| Compatible battery type | Lead-acid & Lithium-ion | Lead-acid & Lithium-ion | Lead-acid & Lithium-ion |
| Communication protocol type | RS485/CAN | RS485/CAN | RS485/CAN |
| Rated battery voltage(V) | 24 | 48 | 48 |
| Battery voltage range(V) | 20~30 | 42~60 | 42~60 |
| Max. charge current(A) | 120 | 120 | 250 |
| Max. discharge current(A) | 137 | 137 | 280 |
| Active Battery | Yes | Yes | Yes |
| Grid | | | |
| Rated AC voltage(V) | 230V AC | 230V AC | 230V AC |
| AC Voltage range | 90~280V AC | 90~280V AC | 90~280V AC |
| Rated AC frequency(Hz) | 50/60 | 50/60 | 50/60 |
| Rated AC output current(A) | 18.1 | 28.2 | 52.1 |
| Rated AC output power(W) | 4000 | 6000 | 12000 |
| THDv | <3% | <3% | <3% |
| Max. continuous AC passthrough current(A) | 35 | 35 | Grid 70A/Generator 60A |
| UPS | | | |
| Rated output power(W) | 4000 | 6000 | 12000 |
| Rated output voltage(V) | 230 | 230 | 230 |
| Rated output current(A) | 18 | 27 | 52.1 |
| Rated output frequency(Hz) | 50/60 | 50/60 | 50/60 |
| Peak power and peak time | 2 time peak power，5s | 2 time peak power，5s | 2 time peak power，5s |
| Switching time(ms) | 4 | 4 | 4 |
| Dual Output | YES | YES | YES |
| Efficiency | | | |
| Max. MPPT effciency | 99% | 99% | 99% |
| Peak Efficiency (PV to INV) | 94% | 94% | 94% |
| Protection & function | | | |
| PV Reversed Protection | YES | | |
| Over current/voltage protection | YES | | |
| AC Short-circuit current protection | YES | | |
| Grid monitoring | YES | | |
| AC Surge protection | YES | | |
| DC Surge protection | YES | | |
| Battery reverse polarity protection | YES | | |
| PV reverse polarity protection | YES | | |
| Power sales monitoring | YES | | |
| General | | | |
| Ingress protection rating | IP21 | IP21 | IP21 |
| Operating environment temperature range(℃) | -10~50 | | |
| Derating temperature(℃) | 45 | | |
| Storage temperature range(℃) | -15~60 | | |
| Relative humidity | 5%~95% | | |
| Display & Communication interface | LED, RS485/Wi-Fi/CAN/USB | | |
| Warranty | 2 years | | |
| Cooling method | Smart fan cooling | | |
| Topology | Transformer-less | | |
| Altitude(m) | <4000 | | |
| Noise emission(typical)(dB) | 50 | | |
| Parallel Capacity(PCS) | / | 9 | 9 |
| Dimension (W*H*D)(mm) | 390*525*125 | | 625*400*120 |
| Weight(kg) | 9.3 | 10.3 | 20 |
| Standards & Certification | | | |
| Certification | IEC 62109-1, IEC 61000, IEC61683 | | |

# VLS-(6/8/10/12)K-H1

## Low Voltage Single-Phase Hybrid Inverter




## Application Scenarios

Platform Capacity Expansion / Urban Households / Villa & Luxury Residence Users / Areas with Unstable Grid Power

## Product Highlights

### Flexible Adaptability

10-unit parallel, On/Off-grid, Generator input integrated, 28A high current PV input

### High Performance

160% PV oversizing, 200% EPS peak power (60s), 220A high-current charge/discharge, 80V low start-up voltage

### Safe and Secure

Battery terminal temperature monitoring, IP65 protection, Type II AC/DC SPDs, optional AFCI protection

### Efficient Management

Smart load management via cloud platform & LCD screen, UPS-level switchover < 10ms (single unit)



| Model | VLS-6K-H1 | VLS-8K-H1 | VLS-10K-H1 | VLS-12K-H1 |
|---|---|---|---|---|
| **PV Input** | | | | |
| Recommended Max.input power(kW) | 9.6 | 12.8 | 16 | 19.2 |
| Start-up voltage(V) | 80 | | | |
| Max.DC input voltage*(V) | 510 | | | |
| Rated DC input voltage(V) | 360 | | | |
| MPPT voltage range*(V) | 90 ~ 425 | | | |
| No.of MPP trackers | 2 | | | |
| No.of DC inputs per MPPT | 1 + 1 | 2 + 2 | | |
| Max.input current(A) | 18 + 18 | 28 + 28 | | |
| Max.short-circuit current(A) | 27 + 27 | 42 + 42 | | |
| **Battery Side** | | | | |
| Battery type | Lead acid / Li-ion | | | |
| Battery voltage range(V) | 40 ~ 60 | | | |
| Maximum charging/discharge current(A) | 135 | 190 | 200 | 210 |
| List of compatible batteries | VEICHI, GreenCN, BYD, Deye, WECO, ect. | | | |
| **Grid Side** | | | | |
| Rated output power(kW) | 6 | 8 | 10 | 12 |
| Max.output apparent power(kVA) | 6.6 | 8.8 | 11 | 12 |
| Max.input apparent power(kVA) | 6.6 | 8.8 | 11 | 12 |
| Max.charging power of battery(kW) | 6 | 8 | 10 | 12 |
| Rated AC voltage | 220 / 230 Vac, L / N / PE | | | |
| Rated AC frequency(Hz) | 50/60 | | | |
| Max.output current(A) | 28.7 | 38.3 | 43.5 | 52.2 |
| Power factor | -0.8 lagging ~ 0.8 leading | | | |
| Max.total harmonic distortion | < 3% (of nominal power) | | | |
| **Back-up Side** | | | | |
| Rated output power(kW) | 6 | 8 | 10 | 12 |
| Max.output current(A) | 28.7 | 38.3 | 43.5 | 52.2 |
| UPS switching time(ms) | < 10 | | | |
| Rated output voltage | 220 / 230 Vac, L / N / PE | | | |
| Rated output frequency(Hz) | 50/60 | | | |
| Voltage harmonic distortion | < 3% (of nominal power) | | | |
| **Efficiency** | | | | |
| Max.efficiency(%) | 96 | | | |
| European efficiency(%) | 96.5 | | | |
| **Protection** | | | | |
| Integration | DC Polarity Reverse Connection Protection, AC Output Overcurrent Protection, Thermal Protection, AC Output Overvoltage Protection, AC Output Short Circuit Protection, DC Component Monitoring, Overvoltage Load Drop Protection, Ground Fault Current Monitoring, Power Network Monitoring, Island Protection Monitoring, Earth Fault Detection DC Input Switch, DC Terminal Insulation Impedance Monitoring, Residual Current Detection (RCD), Surge Protection Level Rapid Shutdown, RSD | | | |
| Over voltage category | PV:II Main:III | | | |
| **General Data** | | | | |
| Dimensions [W×H×D(mm)] | 411×631×236 | | 411*631*238 | |
| Weight(kg) | 28.6 | | 30 | |
| Protection degree | IP65 | | | |
| Topology | Transformerless for PV Side / HF for Battery Side | | | |
| Operating Temperature Range(℃) | -25 ~ +60( >45 derating) | | | |
| Relative Humidity(%) | 5 ~ 95 (condensing) | | | |
| Operating Altitude(m) | < 3000 | | | |
| Cooling | Smart redundant fan cooling | | | |
| Noise Level(dB) | <45 | | | |
| Display | LED+LCD | | | |
| Communication | LED + LCD / CAN, RS485, CT, NTC, WiFi / (4G, LAN Optional) | | | |
| Safety Certification | IEC 62109, IEC 61000 | | | |
| Grid Connection Certification | EN 50549-1/10, IEC 61683, IEC 61727, IEC62116 | | | |

# VLT-(10/12/15)K-H1

## Low Voltage Three-Phase Hybrid Inverter




## Application Scenarios

Platform Capacity Expansion / Villas & Luxury Residences /
Large Self-Built Homes / Small Farms / Integrated
Solar-Storage-Charging Compact Charging Stations

## Product Highlights

### Flexible Adaptability

10-unit parallel, On/Off-grid, Generator input integrated,
30A high current PV input

### High Performance

160% PV oversizing, 110% AC output, 200% EPS peak power (10s),
290A high-current charge/discharge, 80V low start-up voltage

### Safe and Secure

Battery terminal temperature monitoring, IP65 protection,
Type II AC/DC SPDs, optional AFCI protection

### Efficient Management

Smart load management via cloud platform & LCD screen,
UPS-level switchover < 6 ms (single unit)





| Model | VLT-10K-H1 | VLT-12K-H1 | VLT-15K-H1 |
|---|---|---|---|
| PV Input | | | |
| Recommended Max.input power(kW) | 16 | 19.2 | 24 |
| Start-up voltage(V) | 160 | | |
| Max.DC input voltage(V) | 800 | | |
| Rated DC input voltage(V) | 550 | | |
| MPPT voltage range(V) | 200 ~ 700 | | |
| No.of MPP trackers | 2 | | |
| No.of DC inputs per MPPT | 2 + 2 | | |
| Max.input current(A) | 30 + 30 | | |
| Max.short-circuit current(A) | 36 + 36 | | |
| Battery Side | | | |
| Battery type | Lead-acid or Lithium-ion | | |
| Battery voltage range(V) | 40 ~ 60 | | |
| Maximum charging/discharge current(A) | 220 | 250 | 290 |
| List of compatible batteries | VEICHI, GreenCN, BYD, Deye, WECO, ect. | | |
| Grid Side | | | |
| Rated output power(kW) | 10 | 12 | 15 |
| Max.output apparent power(kVA) | 11 | 13.2 | 16.5 |
| Max.input apparent power(kVA) | 11 | 13.2 | 16.5 |
| Max.charging power of battery(kW) | 10 | 12 | 15 |
| Rated AC voltage | 220 / 380 , 230 / 400， 3 L / N / PE | | |
| Rated AC frequency(Hz) | 50/60 | | |
| Max.output current(A) | 15.9 | 19.2 | 24 |
| Power factor | -0.8 lagging ~ 0.8 leading | | |
| Max.total harmonic distortion | < 3% (of nominal power) | | |
| Back-up Side | | | |
| Rated output power(kW) | 10 | 12 | 15 |
| Max.output current(A) | 15.9 | 19.2 | 24 |
| UPS switching time(ms) | < 6 | | |
| Rated output voltage | 220 / 380 , 230 / 400 , 3 L / N / PE | | |
| Rated output frequency(Hz) | 50/60 | | |
| Voltage harmonic distortion | < 3% (of nominal power) | | |
| Efficiency | | | |
| Max.efficiency(%) | 97.6 | | |
| European efficiency(%) | 96.5 | | |
| Protection | | | |
| Integration | DC Polarity Reverse Connection Protection, AC Output Overcurrent Protection, AC Output Overvoltage Protection AC Output Short Circuit Protection, DC Component Monitoring, Overvoltage Load Drop Protection, Ground Fault, Current Monitoring, Arc Fault Circuit Interrupter, Power Network Monitoring, Island Protection Monitoring, Earth Fault Detection, DC Input Switch, DC Terminal Insulation Impedance Monitoring, Residual Current Detection(RCD), Rapid Shutdown, RSD(Optional) | | |
| Over voltage category | PV:II Main:III | | |
| General Data | | | |
| Dimensions [W×H×D(mm)] | 440×660×282 (Excluding Connectors and Brackets) | | |
| Weight(kg) | ≤38.5 | | |
| Protection degree | IP65 | | |
| Topology | Transformerless for PV Side / HF for Battery Side | | |
| Operating Temperature Range(℃) | -25 ~ +60( >45 derating) | | |
| Relative Humidity(%) | 5 ~ 95 (No condensation) | | |
| Operating Altitude(m) | < 3000 | | |
| Cooling | Intelligent Redundant Fan Cooling | | |
| Noise Level(dB) | ≤ 55 | | |
| Display | LED+LCD | | |
| Communication | RS485/CAN/WIFI / (4G, LAN Optional) | | |
| Safety Certification | IEC 62109, IEC 61000 | | |
| Grid Connection Certification | EN 50549-1/10, IEC 61683, IEC 61727, IEC62116 | | |

# VCLB-5K/16K-E01

## Low-Voltage Lithium Battery




## Product Highlights

### Flexible Expansion

Up to 15 units in parallel,
respond flexibly to demand

### Easy Installation

Wall-mounted or floor-standing installation,
aesthetically pleasing

### Performance

Maximum charge/discharge current
100A, rapid recharging

### Convenient Control

Built-in 4.3-inch capacitive touchscreen
displaying all battery status information

### Safety

Built-in aerosol fire suppression system;
IP20 ingress protection

### Long-term Reliability

LFP battery,6000+ charge/discharge cycles,
SOH no less than 80%;5-year warranty,
10-year warranty optional

| Model | VCLB-5K-E01 | VCLB-16K-E01 |
|---|---|---|
| General Specification | | |
| Nominal voltage(Vdc) | 51.2 | |
| Nominal capacity(Ah) | 100 | 314 |
| Battery energy(Wh) | 5120 | 16076 |
| Charge voltage | 57.6 | |
| Discharge voltage(V) | 44.8 | |
| Recommended charge/discharge current（A） | 70A(0.7C) | 157A(0.5C) |
| Maximum charge/discharge current（A） | 70A(0.7C) | 220A(0.7C) |
| Peak charge/discharge current(A) | 100A(1C) | 314A(1C) |
| Nominal charge/discharge power(W) | 5120 | 16076 |
| DOD | 95% | 95% |
| Communication | | |
| Display | SOC status indicator, LED indicator | |
| Communication | RS485, CAN | |
| General Specification | | |
| Dimension[W/D/H](mm) | 380x190x610 | 460×240×820 |
| Battery net weight(Approx.)(kg) | 44.5 | 122.25 |
| Installation | Floor-standing or wall-mounted | |
| Charging temp. range(℃) | 0~55 | |
| Discharge temp. range(℃) | -20~55 | |
| Operating/storage humidity | ≤95%RH | |
| Max. operating altitude | ≤3000m | |
| IP rating | IP20 | |
| Wi-Fi module | Built-in Wi-Fi module, APP | |
| Cell technology | LiFePO4 (Lithium Iron Phosphate) | |
| Cooling method | Forced air cooling | |
| Fire protection system | / | Aerosol Fire Extinguishing |
| Cycle life | 6000 Cycles @ 80% DOD/25℃/0.5C, 60%EOL | |
| Scalability | Max. 15 batteries in parallel | |
| Usage environment | Indoor | |
| Standard Compliance | | |
| Certification | CE , MSDS , UN 38.3 | |

# VCLB-5K/10K-W01

## Low-Voltage Lithium Battery




## Product Highlights

### Flexible Expansion

Up to 20 units in parallel,
5.12kWh--204.8kWh capacity

### Certificates

UN38.3, MSDS, CE, EMC

### Long-term Reliability

LFP battery, 6000+ charge/discharge cycles,
SOH no less than 80%; 5-year warranty,
10-year warranty optional

### Easy Installation

Wall-mounted or floor-standing installation,
aesthetically pleasing and space-saving

### Convenient Control

Touchscreen displaying all battery information;
quick switching communication protocols

### Safety

Built-in aerosol fire suppression system;
IP65 ingress protection

| Model | VCLB-5K-W01 | VCLB-10K-W01 |
|---|---|---|
| General Specification | | |
| Nominal voltage(Vdc) | 51.2 | |
| Rated capacity(Ah) | 100 | 200 |
| Energy(Wh) | 5120 | 10240 |
| Battery impedance(mΩ) | ≤50 | |
| Charging cut-off voltage(V) | 56.16 | |
| Discharge cut-off voltage(V) | 44.8 | |
| Recommend charge current | 0.5C 50A | 0.5C 100A |
| Scalable | Up to 15 units | |
| Max charge current(A) | 100 | 200 |
| Max continue discharge current | 100A,-20℃~60℃,≤65+20%RH | 200A,-20℃~60℃,≤65+20%RH |
| Operating temperature range(℃) | -20~60 | |
| Storage environment(50%state of harge) | 20℃~45℃in three months;25±3℃overthree months; Humidity: ≤65±20%RH | |
| Environment | Outdoor/Indoor | |
| Installation | Wall mounted/Floor stand | |
| Cell technology | Lithium-iron phosphate(LiFeP04) | |
| Life cycle | 6000 times @80%DOD | |
| Cooling | Natural convection | |
| Protection rating | IP65 | |
| Certificates | IEC62619, UN38.3, MSDS, CE | |
| Dimension and Weight | | |
| Dimension[W/D/H(mm)] | 520×470×141.5 | 800×590×142 |
| Battery net weight(Approx.)(kg) | 47.2 | 96.5 |
| Compatibility list | VEICHI, Deye, Growatt, Goodwe, Solis ,ect. | |

# VCLB-5K/16K-W02

## Low-Voltage Lithium Battery




## Product Highlights

### Flexible Expansion

Up to 15 units in parallel,
respond flexibly to demand

### Easy Installation

Wall-mounted or floor-standing installation,
aesthetically pleasing

### Performance

Maximum charge/discharge current
100A, rapid recharging

### Convenient Control

Built-in 4.3-inch capacitive touchscreen
displaying all battery status information

### Safety

Built-in aerosol fire suppression system;
IP65 ingress protection

### Long-term Reliability

LFP battery,6000+ charge/discharge cycles,
SOH no less than 80%;5-year warranty,
10-year warranty optional

| Model | VCLB-5K-W02 | VCLB-16K-W02 |
|---|---|---|
| General Specification | | |
| Nominal voltage(Vdc) | 51.2 | |
| Nominal capacity(Ah) | 100 | 314 |
| Battery energy(Wh) | 5120 | 16076 |
| Charge voltage | 57.6 | |
| Discharge voltage(V) | 44.8 | |
| Recommended charge/discharge current（A） | 70A(0.7C) | 157A(0.5C) |
| Maximum charge/discharge current（A） | 70A(0.7C) | 220A(0.7C) |
| Peak charge/discharge current(A) | 100A(1C) | 314A(1C) |
| Nominal charge/discharge power(W) | 5120 | 16076 |
| DOD | 95% | 95% |
| Communication | | |
| Display | SOC status indicator, LED indicator | |
| Communication | RS485, CAN | |
| General Specification | | |
| Dimension[W/D/H](mm) | 380x190x610 | 460×240×820 |
| Battery net weight(Approx.)(kg) | 47.5 | 125 |
| Installation | Floor-standing or wall-mounted | |
| Charging temp. range(℃) | 0~55 | |
| Discharge temp. range(℃) | -20~55 | |
| Operating/storage humidity | ≤95%RH | |
| Max. operating altitude | ≤3000m | |
| IP rating | IP65 | |
| Wi-Fi module | Built-in Wi-Fi module, APP | |
| Cell technology | LiFePO4 (Lithium Iron Phosphate) | |
| Cooling method | Forced air cooling | |
| Fire protection system | / | Aerosol Fire Extinguishing |
| Cycle life | 6000 Cycles @ 80% DOD/25℃/0.5C, 60%EOL | |
| Scalability | Max. 15 batteries in parallel | |
| Usage environment | Indoor or outdoor | |
| Standard Compliance | | |
| Certification | CE , MSDS , UN 38.3 | |

# VHT-10/12K-25-H
# VHT-10/12/15/20K-40-H
## High Voltage Three-Phase Hybrid Inverter




## Product Highlights

- 150%DC oversizing boosts solar capture
- Maximum 40A charging and discharging
- Wide 135-750V range fits diverse batteries
- 10ms up S-level switch secures supply
- 200% max backup @10s handles overloads
- IP65 protects both indoors and outdoors
  Silent 25dB operation for comfort





| Model | VHT-10K-25-H | VHT-12K-25-H | VHT-10K-40-H | VHT-12K-40-H | VHT-15K-40-H | VHT-20K-40-H |
|---|---|---|---|---|---|---|
| PV Input | | | | | | |
| Recommended Max.input power(kW) | 15 | 18 | 15 | 18 | 22.5 | 30 |
| Start-up voltage(V) | 135 | | | | | |
| Max.DC input voltage*(V) | 1000 | | | | | |
| Rated DC input voltage(V) | 620 | | | | | |
| MPPT voltage range*(V) | 200 ~950 | | | | | |
| No.of MPP trackers | 2 | | | | | |
| No.of DC inputs per MPPT | 1 + 1 | | 2 + 2 | | | |
| Max.input current(A) | 15/15 | | 30 /30 | | | |
| Max.short-circuit current(A) | 20/20 | | 40/40 | | | |
| Battery Side | | | | | | |
| Battery type | Lithium Battery | | | | | |
| Battery voltage range(V) | 135 ~750 | | | | | |
| Maximum charging/discharge current(A) | 25 | | 40 | | | |
| List of compatible batteries | VEICHI, Deye, Goodwe, Must, SRNE, Felicity, etc. For more details, please visit veichi.com | | | | | |
| Grid Side | | | | | | |
| Rated output power(kW) | 10 | 12 | 10 | 12 | 15 | 20 |
| Max.output apparent power(kVA) | 11 | 13.2 | 11 | 13.2 | 16.5 | 22 |
| Max.input apparent power(kVA) | 16.5 | 16.5 | 20 | 24 | 30 | 30 |
| Max.charging power of battery(kW) | 10 | 12 | 10 | 12 | 15 | 20 |
| Rated AC voltage | 220/380, 230/400, 240/415, 3L/N/PE | | | | | |
| Rated AC frequency(Hz) | 50/60 | | | | | |
| Max.output current(A) | 16.5 | 20 | 16.5 | 20 | 25 | 33.5 |
| Power factor | -0.8 lagging ~ 0.8 leading | | | | | |
| Max.total harmonic distortion | < 3% | | | | | |
| Back-up Side | | | | | | |
| Rated output power(kW) | 10 | 12 | 10 | 12 | 15 | 20 |
| Max.output apparent power(kVA) | 11 | 13.2 | 11 | 13.2 | 16.5 | 22 |
| Max.output current(A) | 16.5 | 20 | 16.5 | 20 | 25 | 33.5 |
| UPS switching time(ms) | < 10 | | | | | |
| Rated output voltage | 3L/N/PE; 220/380V; 230/400V; 240/415V | | | | | |
| Rated output frequency(Hz) | 50/60 | | | | | |
| Voltage harmonic distortion | < 3% | | | | | |
| Efficiency | | | | | | |
| Max.efficiency(%) | 98.2 | | 98.4 | | | |
| European efficiency(%) | 97.4 | | 97.5 | | | |
| Protection | | | | | | |
| Integration | DC Polarity Reverse Connection Protection, AC Output Overcurrent Protection, AC Output Overvoltage Protection AC Output Short Circuit Protection, DC Component Monitoring, Overvoltage Load Drop Protection, Ground Fault, Current Monitoring, Arc Fault Circuit Interrupter, Power Network Monitoring, Island Protection Monitoring, Earth Fault Detection, DC Input Switch | | | | | |
| Over voltage category | PV:II Main:III | | | | | |
| General Data | | | | | | |
| Dimensions [W×H×D(mm)] | 534 × 418 × 210 | | | | | |
| Weight(kg) | 26 | | 28 | | 31 | |
| Protection degree | IP65 | | | | | |
| Standby self-consumption | < 15 | | | | | |
| Topology | Transformerless | | | | | |
| Operating Temperature Range(℃) | -30~60 | | | | | |
| Relative Humidity(%) | 0 ~ 100 | | | | | |
| Operating Altitude(m) | 3000 (>3000m derating) | | | | | |
| Cooling | Natural Convection | | Smart fan | | | |
| Noise Level(dB) | <25 | | <40 | | | |
| Display | LED+LCD | | | | | |
| Communication | RS485/CAN/WIFI /LAN | | | | | |

# VHT-(30/50)K-100-H

## High Voltage Three-Phase Hybrid Inverter




## Product Highlights

- 110% unbalanced output enhances self-consunption
- 100A charging/discharging for efficiency energy transfer
- Continuous 110% AC overloading sustains power
- Starts at 135V for more generation time
- Max.10 pcs parallel for on-grid operation and max.4 pcs parallel for off grid operation
- 120% max backup @60s handles overloads
- IP65 protects both indoors and outdoors
- Supports diesel generators for diverse energy sourcing

| Model | VHT-30K-100-H | VHT-50K-100-H |
|---|---|---|
| PV Input | | |
| Recommended Max.input power(kW) | 45 | 75 |
| Start-up voltage(V) | 135 | |
| Max.DC input voltage*(V) | 1000 | |
| Rated DC input voltage(V) | 620 | |
| MPPT voltage range*(V) | 200 ~850 | |
| No.of MPP trackers | 4 | |
| No.of DC inputs per MPPT | 2 + 2+2+2 | |
| Max.input current(A) | 30×4 | |
| Max.short-circuit current(A) | 40×4 | |
| Battery Side | | |
| Battery type | Lithium Battery | |
| Battery voltage range(V) | 135 ~750 | |
| Maximum charging/discharge current(A) | 100 | |
| List of compatible batteries | Veichi, Deye, Must, SRNE, Felicity, etc. For more details, please visit veichi.com | |
| Grid Side | | |
| Rated output power(kW) | 30 | 50 |
| Max.output apparent power(kVA) | 33 | 55 |
| Max.input apparent power(kVA) | 36 | 60 |
| Max.charging power of battery(kW) | 30 | 50 |
| Rated AC voltage | 220/380, 230/400, 240/415, 3L/N/PE | |
| Rated AC frequency(Hz) | 50/60 | |
| Max.output current(A) | 50 | 83 |
| Power factor | -0.8 lagging ~ 0.8 leading | |
| Max.total harmonic distortion | < 3% | |
| Back-up Side | | |
| Rated output power(kW) | 30 | 50 |
| Max.output apparent power(kVA) | 33 | 55 |
| Max.output current(A) | 50 | 83 |
| UPS switching time(ms) | 10ms | |
| Rated output voltage | 3L/N/PE; 220/380V; 230/400V; 240/415V | |
| Rated output frequency(Hz) | 50/60 | |
| Voltage harmonic distortion | < 3% | |
| Generator Side | | |
| Maximum Apparent Input Power (kVA) | 36 | 60 |
| Rated Input Voltage | 3L/N/PE; 220/380V; 230/400V; 240/415V | |
| Input Voltage Frequency (Hz) | 50/60 | |
| Maximum Input Current (A) | 54.5 | 90.9 |
| Efficiency | | |
| Max.efficiency(%) | 98.8 | |
| European efficiency(%) | 98.3 | |
| Protection | | |
| Integration | DC Polarity Reverse Connection Protection, AC Output Overcurrent Protection, AC Output Overvoltage Protection AC Output Short Circuit Protection, DC Component Monitoring, Overvoltage Load Drop Protection, Ground Fault, Current Monitoring, Arc Fault Circuit Interrupter, Power Network Monitoring, Island Protection Monitoring, Earth Fault Detection, DC Input Switch | |
| Over voltage category | PV:II Main:III | |
| General Data | | |
| Dimensions [W×H×D(mm)] | 800× 620 × 300 | |
| Weight(kg) | 72 | |
| Protection degree | IP65 | |
| Standby self-consumption | < 40 | |
| Topology | Transformerless | |
| Operating Temperature Range(℃) | -30 ~ 60 | |
| Relative Humidity(%) | 0 ~ 100 | |
| Operating Altitude(m) | 3000 (>3000m derating) | |
| Cooling | Smart fan cooling | |
| Noise Level(dB) | <65 | |
| Display | LED+LCD | |
| Communication | RS485/CAN/WIFI /LAN | |

# 125kW–500kW
# Modular C&I Energy Storage Solution
Flexible PCS / STS / MPPT Configuration



### High-speed, reliable transfer
STS module enables ultra-fast transfer in <10ms for seamless switching between grid, off-grid, and diesel generator modes.

### Maximized PV utilization
Dual modules support up to 240kW PV input, maximizing solar energy use for battery charging and load supply.

### Parallel scalability
Multi-unit parallel operation enables smooth expansion up to 500kW, ideal for large C&I users and PV plants.

### Integrated modular architecture
Integrates PCS, MPPT, STS, and EMS functions, with AC coupling support for all-in-one PV consumption and intelligent energy control.

### Integrated EMS
Local and cloud-based operation supports zero-export control and time-of-use charging/discharging strategies.

### Smart Energy Storage Battery System
- Remote monitoring & updates via inverter
- Low-power sleep mode
- Black start capability
- Insulation resistance test



## VPM-PCS-0125



| PCS Module | VPM-PCS-0125 |
|---|---|
| Battery | |
| Battery Type | Lithium-Ion battery |
| Voltage Range (V) | 630-1000 |
| Max. Charge Current (A) | 200 |
| Max. Discharge Current (A) | 200 |
| Input Channels | 1 |
| AC Parameters | |
| Rated AC Active Power (kW) | 125 |
| Max. AC Apparent Power（kVA） | 137.5 |
| Rated Charge / Discharge Current（A） | 189/181 |
| Grid Connection | 3L+N+PE |
| Overload Capability | 1.1× continuous |
| Grid Voltage Range（V） | 220/380 230/400 3L/N/PE |
| Grid Frequency Range（Hz） | 50 / 60 |
| THDi | < 3% @ Rated Power |
| Power Factor | -1~1 |
| DC Parameters | |
| DC Voltage Range（V） | 630~1000 |
| Max. DC Current（A） | 200 |
| Interfaces | |
| Display | LCD |
| Communication Interfaces | WIFI/RS485/CAN/Meter |
| General | |
| Max. Efficiency | 98% |
| Dimensions (mm) | 543W×310H×775D |
| Overvoltage Level | OVC II(DC), OVC III(AC) |
| Weight（kg） | 70 |
| Noise（dB） | < 75 |
| Protection Grade | IP54 |
| Operating Temperature | -40°C to +60°C (Derating above 45°C) |
| Cooling Method | Intelligent air cooling |
| Relative Humidity | 0~95% |
| Max. Altitude | 3000m |
| EMC & Safety | IEC/EN 62477-1 |
| Grid Compliance | IEC 61727, IEC 62116 |

## VPM-PD-0120-M2Z4



| MPPT Module | VPM-PD-0120-M2Z4 |
|---|---|
| Input | |
| Max. PV Voltage（V） | 950 |
| MPPT Voltage Range（V） | 250-950 |
| Max. Current（A） | 50+50+50+50 |
| Max. Power（kW） | 120 |
| PV Inputs | 2+2 |
| Number of MPPTs | 2 |
| Full-Load Operating Voltage（V） | 600-950 |
| Output | |
| Voltage Range（V） | 630-1000 |
| Max. Current（A） | 200 |
| Voltage Accuracy | < 1%@100%Pn |
| Current Accuracy | < 1%@100%Pn |
| Efficiency | |
| Max. Conversion Efficiency | ≥99% |
| Max. MPPT Efficiency | ≥99.9% |
| Protection | |
| DC Arc Fault Protection | Supported |
| Surge Protection (Type II) | Supported |
| DC Reverse Polarity Protection | Supported |
| General | |
| Protection Grade | IP54 |
| Max. Altitude | 3000m |
| Cooling Method | Intelligent air cooling |
| Noise | <70dB |
| Dimensions (D × W × H) | 560mmx440mm*163mm |
| Weight | 34kg |
| EMC & Safety | IEC/EN 62109-1 |



## VPM-STS-0500-T3NN



| STS Module | VPM-STS-0250-T3NN | VPM-STS-0500-T3NN |
|---|---|---|
| PCS/Grid/GEN/Load-side date | | |
| Rated Power（kW） | 250 | 500 |
| Max. Current（A） | 379/362 | 758/725 |
| Rated Grid Voltage（VAC） | 220/380V 230/400V 3L/N/PE | |
| Grid Connection | 3L/N/PE | |
| Rated Grid Frequency（Hz） | 50/60 | |
| Overload Capability | 1.1× continuous | |
| General | | |
| Grid / Off-Grid Transfer Time | ≤10ms | |
| Cooling Method | Natural air cooling | |
| Max. Altitude | 3000m | |
| Dimensions (W × D × H) | 650mmx680mmx880mm | 650mm×780mm×880mm |
| Protection Grade | IP20 | |
| Overvoltage Level | OVC III | |
| EMC & Safety | IEC/EN 61439-1/-2 | |

# VPS01 Series

## Microgrid Hybrid Inverter




## Product Highlights

### Load Adaptability and Operating Modes

- 100% three-phase unbalanced load capacity for stable operation under complex conditions
- Intelligent load rate regulation for optimized diesel generator load distribution and enhanced fuel efficiency
- Multi-mode operation (VF/PQ/VSG/constant bus) with multi-unit parallel compatibility
- On/off-grid/emergency power support with high/low voltage ride-through and black start

### Control and Protection Capacity

- Customizable control strategies for scenario-specific performance
- ARM+FPGA dual-core architecture for high-speed, precision control with superior dynamic response
- Multi-layer current protection: drive protection against hardware overcurrent, CBC, overload, and overcurrent for various industrial needs
- Grid-tied charging/discharging and off-grid standalone inverter functions available

### Integrated and Scalable Design

- Seamless switching between PV-MPPT, isolation transformer integrated in a compact design for unified maintenance
- Flexible PV expansion support for adaptable system scalability

### Intelligent O&M Management

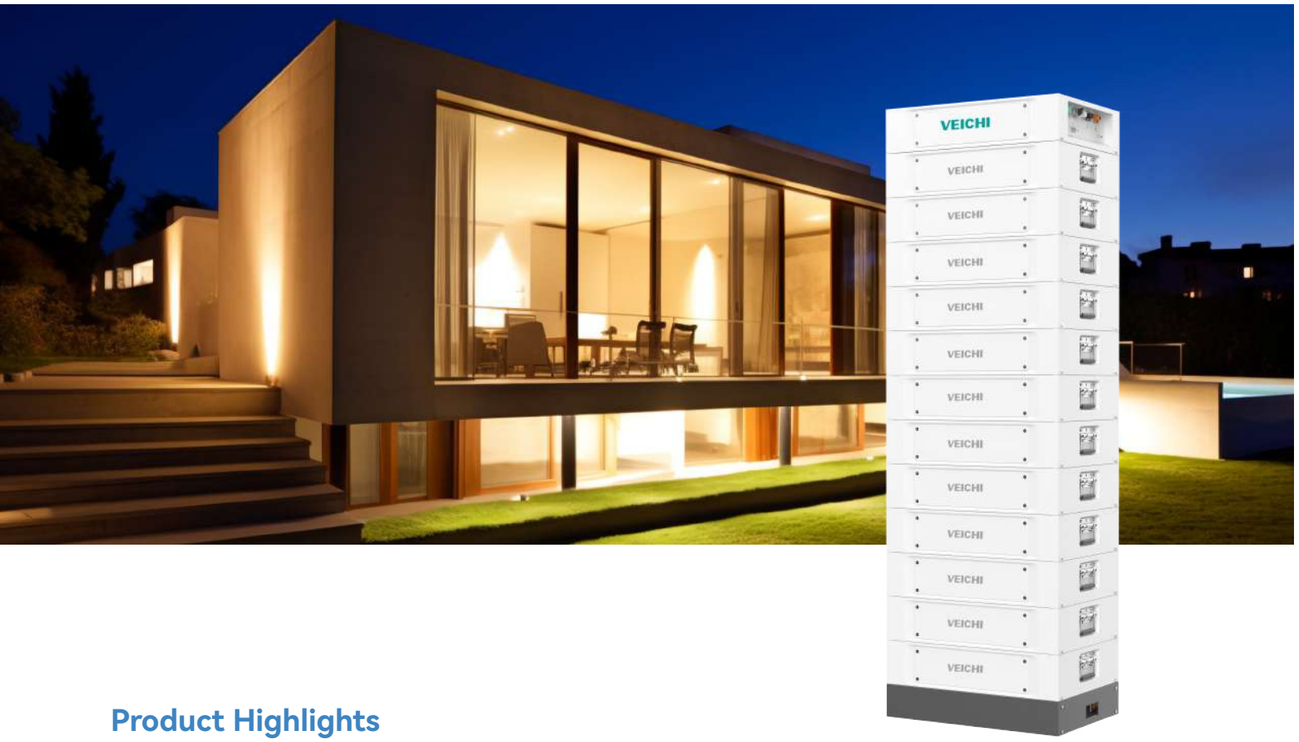
- Remote monitoring and OTA upgrades for reduced on-site maintenance and higher efficiency



| Model | VPS01-0200-GE0A | VPS01-0300-GE0A | VPS01-0500-GE0A | VPS01-0800-GE0A | VPS01-1000-GE0A |
|---|---|---|---|---|---|
| AC (Grid-Connected) | | | | | |
| Maximum output power (kW) | 220 | 330 | 550 | 880 | 1100 |
| Rated power (kW) | 200 | 300 | 500 | 800 | 1000 |
| Rated voltage (V) | 400 | 400 | 400 | 400 | 400 |
| Rated current (A) | 289 | 433 | 722 | 1155 | 1444 |
| Voltage range (V) | 340~460 | | | | |
| Rated frequency (Hz) | 50/60 | | | | |
| Frequency range(Hz) | 45~55/55~65 | | | | |
| THDI | < 3% (Linear balanced load) | | | | |
| Power Factor | 1.0 ( 0.8 leading~0.8 lagging configurable) | | | | |
| AC connection | Three-phase four-wire + Ground (3W+N+PE) | | | | |
| AC Power(off-grid) | | | | | |
| Max. output power (kW) | 220 | 330 | 550 | 880 | 1100 |
| Rated power (kW) | 200 | 300 | 500 | 800 | 1000 |
| Rated voltage (V) | 400 | 400 | 400 | 400 | 400 |
| Rated current (A) | 289 | 433 | 722 | 1155 | 1444 |
| THDU | <3% (Linear balanced load) | | | | |
| Rated frequency (Hz) | 50/60 | | | | |
| Overload capacity | 110% for non-stop operation | | | | |
| PV Input | | | | | |
| Max. PV voltage (V) | 900 | | | | |
| Max. PV power | 120kW per MPPT | 120kW per MPPT | 120kW per MPPT | 120kW per MPPT | 120kW per MPPT |
| PV input channel | 1 | 1 | 1 | 1 | 1 |
| MPPT qty | 2 | 3 | 5/6 | 8/9/10 | 10/11/12 |
| Isc(A) | 240 | | | | |
| Max. discharge current(A) | 200 | | | | |
| MPPT voltage range (V) | 250~850 | | | | |
| Battery | | | | | |
| Max. charge power (kW) | 240 | 360 | 600/720 | 960/1080/1200 | 1200/1320/1440 |
| Battery voltage range (V) | 630~900 | | | | |
| System Configuration | | | | | |
| Dimension[W/D/H](mm) | 1350*900*2082 | 1450*900*2082 | 643*728*2082+ 2000*1100*2082 | (643*728*2082)*2+ 2754*1303*2184 | (643*728*2082)*2+ 2885*1305*2205 |
| Net(kg) | 1350 | 1830 | 353+2656 | 320*2+3900 | 353*2+4500 |
| Environment temperature | -10℃~50℃; (Derate by 1% for every 1℃ rise when above 40℃, 50℃ max) | | | | |
| Relative humidity | 0% ~ 95%, no condensation | | | | |
| Protection level | IP21 | | | | |
| Noise(dB) | <70 | | | | |
| Altitude(m) | 4000 max (Derate by 1% for every 100m increase when above 1000m) | | | | |
| Standby power consumption | <0.5% of rated power | | | | |
| Cooling | Forced fan cooling | | | | |
| Display and Communication | | | | | |
| Display | LCD touch screen | | | | |
| BMS communication | RS485, CAN | | | | |
| Local communication | RS485, TCP/IP | | | | |

# VCHB-61.4K-STF

## High-Voltage Lithium Battery




## Product Highlights

### Flexible Expansion

Up to 12 clusters in parallel, with a capacity of 15kWh~737kWh
Wiring-free rackless stacking with plug-AND-play design enables SINGLE-cluster installation in 30 min

### Universal Compatibility

Suitable for grid frequency regulation, charging stations, and other scenarios, enabling cost savings

### Transport

Rackless design reduces transport space by 50%+ and shipping costs by 50%

### Cooling System

Built-in air duct design enables faster cooling and minimizes foreign object intrusion

### Safety

Intelligent fire extinguishing system detects and extinguishes fires within 5s

| Model | VCHB-61.4K-STF | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| General Specification | | | | | | | | |
| Capacity(Ah) | 153.6V100Ah | 307.2V100Ah | 358.4V100Ah | 409.6V100Ah | 460.8V100Ah | 512V100Ah | 563.2V100Ah | 614.3V100Ah |
| Number of layers | 3 | 6 | 7 | 8 | 9 | 10 | 11 | 12 |
| Energy(kWh) | 15.36 | 30.72 | 35.84 | 40.96 | 46.08 | 51.2 | 56.32 | 61.44 |
| Operating voltage range(V) | 133.8~172.8 | 267.6~345.6 | 312.2~403.2 | 356.8~460.8 | 401.4~518.4 | 446~576 | 492.8~633.6 | 537.6~691.2 |
| Dimension(L*W*H)(mm) | 590×390×632 | 590×390×1031 | 590×390×1164 | 590×390×1297 | 590×390×1430 | 590×390×1563 | 590×390×1696 | 590×390×1829 |
| Weight(kg) | 163 | 304 | 351 | 398 | 445 | 492 | 539 | 586 |
| Recommend charge current(A) | 50 | | | | | | | |
| Max continue charge current(A) | 100 | | | | | | | |
| Max continue discharge current(A) | 100 | | | | | | | |
| Peakcurrent | 1.25C@2min | | | | | | | |
| Communication | Support RS485/CAN | | | | | | | |
| Maximum parallel support | 12 clusters( 3 to 12 units per cluster) | | | | | | | |
| Charging temperature(℃) | 0~55 | | | | | | | |
| Discharge temperature(℃) | -20~55 | | | | | | | |
| Environment | Indoor | | | | | | | |
| Cooling | Forcedwind cooling | | | | | | | |
| Celltechnology | Lithium-ironphosphate(LiFeP04) | | | | | | | |
| Protection rating | IP21 | | | | | | | |
| Lifecycle | ≥8000cycles/10Years, Testconditions:0.2CCharging/Discharging, @25℃,95%DOD | | | | | | | |
| Certificates | CB,IEC62619,CE-EMC,CE-GPSD,En62040,UN38.3,MSDS | | | | | | | |
| BDU Technical Specification | | | | | | | | |
| Maximum voltage(V) | 900 | | | | | | | |
| Maximum charge/discharge current(A) | 100 | | | | | | | |
| Dimensions(mm) | 590×390×133 | | | | | | | |
| Weight(kg) | 15.3 | | | | | | | |
| Pack Technical Specification | | | | | | | | |
| Cut-off voltage(V) | 57.6 | | | | | | | |
| Maximum charge/discharge current(A) | 100 | | | | | | | |
| Dimensions(mm) | 590×390×233 | | | | | | | |
| Weight(kg) | 47 | | | | | | | |

# VCHB-241K-314

## High-Voltage Lithium Battery




## Product Highlights

### Flexible High-Voltage Scaling

Scalable from 3 to 15 modules (48 to 241 kWh) in series. Powered by a heavy-duty 1000V/250A master controller to minimize line loss and optimize efficiency

### 15+ Years Life & 6000+ Cycles

Engineered for long-term ROI with an exceptional 15+ year design life and $\ge 6000$ cycles, ensuring minimal degradation in heavy applications

### Smart BMS & Total Safety

Intelligent BMS features active cell balancing, precise SOC/SOH tracking, and millisecond-level protection against over-voltage, over-current, and temperature extremes

### Seamless Smart Integration

Fully compatible with CANBUS, Modbus RTU, and TCP/IP protocols, enabling plug-and-play connection to EMS and third-party platforms for effortless remote digital O&M

| Model | VCHB-241K-314 | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Technical Specification | 48kWh | 64kWh | 80kWh | 96kWh | 112kWh | 128kWh | 144kWh | 160kWh | 176kWh | 192kWh | 208kWh | 225kWh | 241kWh |
| Installation Mode | Racked | | | | | | | | | | | | |
| Battery Type | LifePO4 (LFP) | | | | | | | | | | | | |
| Module Energy (wh) | 16076 | | | | | | | | | | | | |
| Module Nominal Voltage (V) | 51.2 | | | | | | | | | | | | |
| Module Capacity (Ah) | 314 | | | | | | | | | | | | |
| System Module | 48kWh | 64kWh | 80kWh | 96kWh | 112kWh | 128kWh | 144kWh | 160kWh | 176kWh | 192kWh | 208kWh | 225kWh | 241kWh |
| Nominal Voltage(V) | DC 153.6V | DC 204.8V | DC 256V | DC 307.2V | DC 358.4V | DC 409.6V | DC 460.8V | DC 512V | DC 563.2V | DC 614.4V | DC 665.6V | DC 716.8V | DC 768V |
| Working Voltage(V) | DC139.2V ~172.8V | DC185.6V ~230.4V | DC232.0V~ 288.0V | DC278.4V ~345.6V | DC324.8V ~403.2V | DC371.2V ~460.8V | DC417.6V ~518.4V | DC 464.0V ~576.0V | DC510.4V ~633.6V | DC556.8V ~691.2V | DC 603.2V ~748.8V | DC 649.6V ~806.4V | DC 696.0V ~864.0V |
| Nominal Capacity (Ah) | 314 | 314 | 314 | 314 | 314 | 314 | 314 | 314 | 314 | 314 | 314 | 314 | 314 |
| Rated Energy (Wh) | 48230 | 64307 | 80384 | 96460 | 112537 | 128614 | 144691 | 160768 | 176844 | 192921 | 208998 | 225075 | 241152 |
| Dimension(mm) | 547×799×1199 | 547×799×1463 | 547×799×1727 | 1054×799×1199 | | 1054×799×1463 | | 1054×799×1727 | | 1054×799×1991 | | 1054×799×2255 | |
| Weight(Kg) | 471.2 | 603.2 | 735.2 | 898.2 | 1019.2 | 1167.2 | 1288.2 | 1436.2 | 1557.2 | 1705.2 | 1826.2 | 1974.2 | 2095.2 |
| Battery Module Qty In Series (Optional) | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 |
| Recommend Charge/ Discharge Current (A) | 157 | | | | | | | | | | | | |
| Communication | CAN | | | | | | | | | | | | |
| Ingress Protection | IP20 | | | | | | | | | | | | |
| Altitude(m) | ≤2000 | | | | | | | | | | | | |
| Cycle Life | 25±2℃, 0.5C/0.5C, EOL70% ≥6000 times | | | | | | | | | | | | |
| Monitoring Parameters | System voltage, Current, Cell voltage, Cell temperature, Module temperature | | | | | | | | | | | | |
| SOC | Intelligent algorithm | | | | | | | | | | | | |
| Working Temperature(℃) | Charge: 0~55℃, Discharge: -20~55℃ | | | | | | | | | | | | |
| Storage Temperture(℃) | 0~35℃ | | | | | | | | | | | | |

# APPLICATION

## Saudi C&I  project

**Application occasions(Required)**: Food Factory
**Location(Required)**: Saudi Arabia
**PV system (Optional)**: 620W Topcon  150kW
**Storage capacity (Optional)**: 300kWh
**Inverter model (Required)**: 2 pcs* 50KW-Hybrid inverter





## Thailand C&I  project

**Application occasions(Required)**: Office
**Location(Required)**: Thailand
**PV system (Optional)**: 620w Topcon  60KW
**Storage capacity (Optional)**: 56kWh
**Inverter model (Required)**: 1 pcs* 50kW-Hybrid inverter






## Syria Food refrigeration storage room project

**Application occasions(Required)**: Food refrigeration storage room
**Location(Required)**: Syria
**Storage capacity (Optional)**: 100KW+102kWh
**Inverter model (Required)**: 2*50KW VHT+2*51kwh Lithium battery








## Syria Asmai hospital project

**Application occasions(Required)**: Asmai hospital
**Location(Required)**: Syria
**Storage capacity (Optional)**: 100kW+30kWh
**Inverter model (Required)**: 2*50kW VHT+1*30kWh Lithium battery



## Hochimin, Vietnam

**Application occasions(Required)**: Home use
**Storage capacity (Optional)**: 5kWh
**Inverter model (Required)**: VHS-5K-L01-K*1pcs
**Battery model (Required)**: VEICHI VCLB-5K-D01, Lithium ion battery 5.12KWH  1pcs





## Thailand

**Application occasions(Required)**: Company
**PV system (Optional)**: VEICHI ,VCS-132H-700-D
**Storage capacity (Optional)**: 7.2kWh
**Inverter model (Required)**: VHT-20K-40-H*1pcs
**Battery model (Required)**: VEICHI ,56KWH lithium ion battery





## Residential solar project in Lagos, Nigeria

**Application occasions(Required)**: Home use
**Location(Required)**: Lagos, Nigeria
**PV system (Optional)**: 4.4kW
**Storage capacity (Optional)**: 10kWh
**Inverter model (Required)**: SV-6K-S*1pcs
**Battery model (Required)**:SMS 51.2V 10kWh Lithium Battery




## Residential solar project in Lagos, Nigeria

**Application occasions(Required)**: Home use
**Location(Required)**: Lagos, Nigeria
**PV system (Optional)**: 4.4kW
**Storage capacity (Optional)**: 5kWh
**Inverter model (Required)**: SV-6K-S*1pcs
**Battery model (Required)**:BICODI BD048100P05 51.2V 100Ah lithium battery




## Residential solar project in Lagos, Nigeria

**Application occasions(Required)**: Home use
**Location(Required)**: Lagos, Nigeria
**PV system (Optional)**: 3.3kW
**Storage capacity (Optional)**: 5kWh
**Inverter model (Required)**: SV-6K-S*1pcs
**Battery model (Required)**:VEICHI VCLB-5K-W01 51.2V 100Ah lithium battery






## Case sharing- Off-Grid BESS

High energy efficiency, superior operational performance, and high reliability make it suitable as an emergency power source for ports.



A Seaport in Hong Kong



A Port in Nanjing



A Seaport in Qingdao



A Seaport in Pakistan



A Seaport in Indonesia