

Smart Residential ESS Solution

V-Power Series



14.33kWh

Features and Advantages



Intelligent BMS, multiple real-time protections, timely failure warnings, and user friendly



Stronger overcurrent ability and larger capacity to meet daily needs



Provides remote monitoring APP and intelligent management of the cloud platform



Excellent performance standards, 6000 cycles lifespan



Floor installation, easy installation to save time and cost



Fashionable appearance design with a variety of color options

SPECIFICATION

| Model | VT-48280 |
|---------------------------------------|--|
| Chemistry | LiFePO ₄ |
| Nominal Battery Energy (kWh) | 14.33 |
| Nominal Capacity (Ah) | 280 |
| Nominal Voltage (Vdc) | 51.2 |
| Working Voltage (Vdc) | 46.4-58.4 |
| Rated Charge Voltage/@25°C (Vdc) | 58.4 |
| Charge Current/Max. Continuous (A) | 200 |
| Discharge Cut-off Voltage/@25°C (Vdc) | 43.2 |
| Discharge Current/Max. Continuous (A) | 200 |
| Depth of Discharge (%) | 80 |
| Ambient Temperature/Charge (°C) | 0~55 |
| Ambient Temperature/Discharge (°C) | -20~60 |
| Dimension/W*H*D (mm) | 500 * 842 * 260 |
| Net Weight (kg) | 124.1 |
| IP Rating | IP20 |
| Expansion | Up to 15 units in parallel |
| Color | White/Black |
| Communication | CAN/RS-485 |
| Cooling Mode | Natural |
| Cycle Life | ≥6000, 80%DOD@25°C |
| Design Life | 10+ Years (25°C/°F) |
| Installation Method | Vertical |
| Humidity | 5% ~ 95%(RH) No Condensation |
| Altitude(m) | <2000 |
| Alarms | Overcharge/Over-discharge/Overtemperature/ Overcurrent/Short Circuit etc. |
| Compatible Inverters | Deye/Solis (Ginlong)/ Sinexcel(Isuna)/Afore/SunSynk |
| Certification & Safety Standard | UN38.3/ IEC62619/EN61000 |

Disclaimer:

This document may contain forecast information, including but not limited to future finances, operations, product series, new technologies, etc. Due to practice the uncertainty in the actual results may differ from the predicted information. Therefore, the information in this document is for reference only and does not constitute any offer or promise. V-TAC may modify the above information without notice.



Smart Residential APP



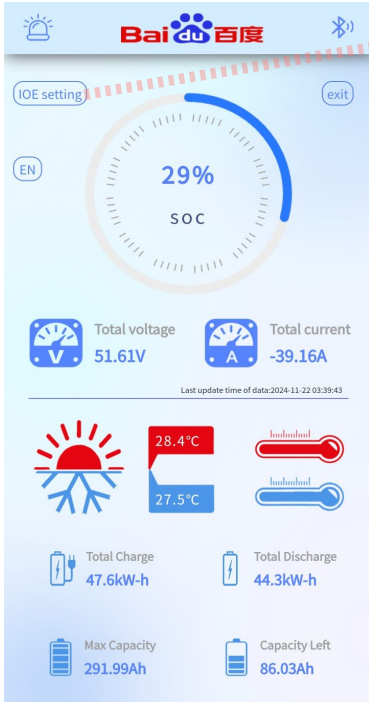
POWERROAD

EN

register

username

password

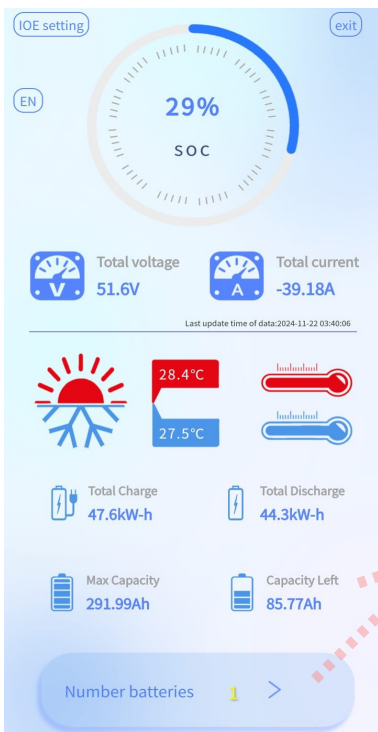
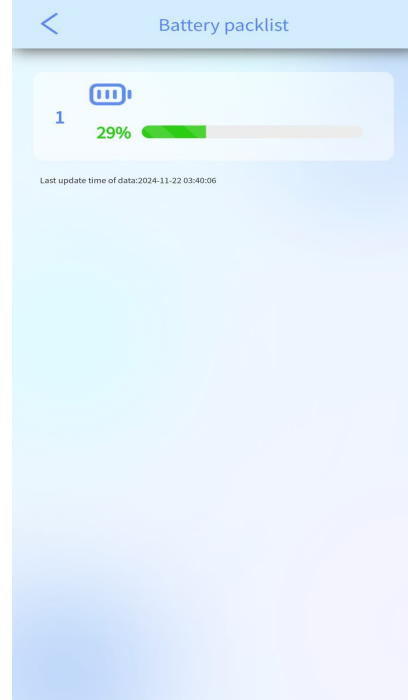


IOE setting

Wi-Fi name: [Read](#) [Setting](#)

Wi-Fi password: [Read](#) [Setting](#)

Inverter: [Read](#) [Setting](#)



Voltage information

| | | | |
|------|-------|------|-------|
| V1: | 3.226 | V2: | 3.224 |
| V3: | 3.225 | V4: | 3.225 |
| V5: | 3.227 | V6: | 3.226 |
| V7: | 3.226 | V8: | 3.227 |
| V9: | 3.218 | V10: | 3.221 |
| V11: | 3.231 | V12: | 3.231 |
| V13: | 3.231 | V14: | 3.229 |
| V15: | 3.219 | | |

Temperature information

| | | | |
|-------------------------|--------|-------------------------|--------|
| Terminal temperature1: | 28.1°C | Terminal temperature2: | 28.4°C |
| Electrode temperature1: | 27.9°C | Electrode temperature2: | 27.5°C |

V-TAC

Meaningful Innovation.

10kW

Three Phase Hybrid Solar Inverter

05 YEAR
WARRANTY



Colorful touch LCD, IP65 protection degree



DC couple and AC couple to retrofit existing solar system

10

Max. 10pcs parallel for on-grid and off-grid operation; Support multiple batteries parallel

240

Max. charging/discharging current of 240A

6

6 time periods for battery charging/discharging



Support storing energy from diesel generator



V-TAC.EU

|

VTACEXPORTS.COM



CE RoHS

LISTING DETAILS

SKU Code: **11542**
 EAN Code: **3800157697217**

MASTER BOX PACKAGING

Net Weight : **33.6kg**
 Product Size : **422W x 699.3H x279D**

EFFICIENCY

Max. Efficiency **97.60%**
 Euro Efficiency **97.00%**
 MPPT Efficiency **99.90%**

GENERAL DATA

Operating Temperature Range (°C) **-40~60°C, >45°C derating**
 Cooling **Smart cooling**
 Noise (dB) **<45 dB**
 Communication with BMS **RS485; CAN**
 Protection Degree **IP65**
 Installation Style **Wall-mounted**

PV STRING INPUT DATA

Max. DC Input Power (W) **13000**
 Rated PV Input Voltage (V) **550V(160V~800V)**
 Start-up Voltage (V) **160V**
 MPPT Voltage Range (V) **200V-650V**
 Full Load DC Voltage Range (V) **350V-650V**
 PV Input Current (A) **26+13**
 Max. PV ISC (A) **34+17**
 No.of MPP Trackers **2**
 No.of Strings per MPP Tracker **2+1**

AC OUTPUT DATA

Rated AC Output and UPS Power (W) **10000**
 Max. AC Output Power (W) **11000**
 AC Output Rated Current (A) **15.2/14.5**
 Max. AC Current (A) **22.7/21.7**
 Max. Continuous AC Passthrough (A) **40A**
 Peak Power (off grid) **2 time of rated power, 10 S**
 Power Factor **0.8 leading to 0.8 lagging**
 Grid Type **Three Phase**
 DC injection current (mA) **THD<3% (Linear load<1.5%)**
 Output Frequency and Voltage **50/60Hz; 3L/N/PE 220/380, 230/400Vac**

BATTERY INPUT DATA

Battery Type **Lead-acid or Li-Ion**
 Battery Voltage Range (V) **40~60**
 Max. Charging Current (A) **210A**
 Max. Discharging Current (A) **210A**
 External Temperature Sensor **Yes**
 Charging Curve **3 Stages / Equalization**
 Charging Strategy for Li-Ion Battery **Self-adaption to BMS**

PROTECTION

Integrated **PV Input Lightning Protection, Anti-islanding Protection, PV String Input Reverse Polarity Protection, Insulation Resistor Detection, Residual Current Monitoring Unit, Output Over Current Protection, Output Shorted Protection, Surge protection**

Output Over Voltage Protection **DC Type II/AC Type III**

CERTIFICATIONS AND STANDARDS

Grid Regulation **VDE4105, IEC61727/62116, VDE0126, AS4777.2, CEI 0 21, EN50549-1, G98, G99, C10-11, UNE217002, NBR16149/NBR16150**

Safety EMC / Standard **IEC/EN 61000-6-1/2/3/4, IEC/EN 62109-1, IEC/EN 62109-2**

Hi-MO 7

LR8-66HGD 595~625M

- High-performance PV modules for utility power plants
- Advanced HPDC cell technology delivers superior module efficiency and power
- High bifaciality and excellent power temperature coefficient achieves high energy yield
- LONGi lifecycle quality ensures long-term performance

12

12-year Warranty for
Materials and Processing

30

30-year Warranty for Extra
Linear Power Output

Complete System and Product Certifications

IEC 61215, IEC 61730, UL 61730

ISO9001:2015: ISO Quality Management System

ISO14001: 2015: ISO Environment Management System

ISO45001: 2018: Occupational Health and Safety

IEC62941: Guideline for module design qualification and type approval

LONGi



23.1%
MAX MODULE
EFFICIENCY

0~3%
POWER
TOLERANCE

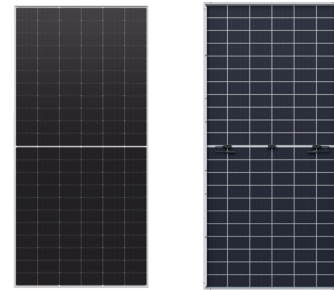
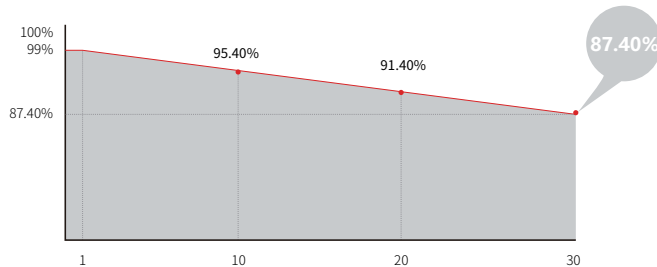
<1%
FIRST YEAR
POWER DEGRADATION

0.4%
YEAR 2-30
POWER DEGRADATION

HALF-CELL
Lower operating temperature

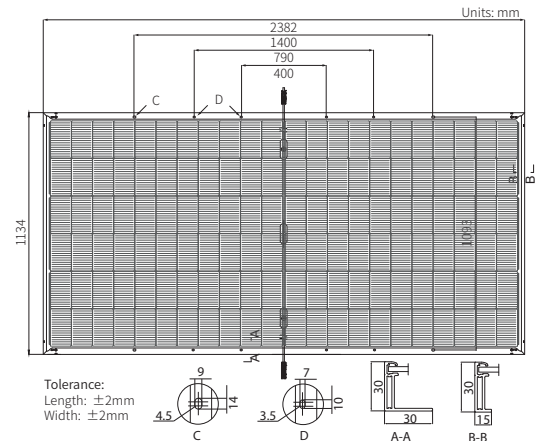
Additional Value

30-Year Power Warranty



Mechanical Parameters

| | |
|------------------|---|
| Cell Orientation | 132 (6×22) |
| Junction Box | IP68, three diodes |
| Output Cable | 4mm ² , +400, -200mm/±1400mm length can be customized |
| Glass | Dual glass, 2.0+2.0mm heat strengthened glass |
| Frame | Anodized aluminum alloy frame |
| Weight | 33.5kg |
| Dimension | 2382×1134×30mm |
| Packaging | 36pcs per pallet / 144pcs per 20' GP / 720pcs or 576pcs (only for USA) per 40' HC |



Electrical Characteristics

STC : AM1.5 1000W/m² 25°C NOCT : AM1.5 800W/m² 20°C 1.0 m/s Test uncertainty for Pmax: ±3%

| Module Type | LR8-66HGD-595M | | LR8-66HGD-600M | | LR8-66HGD-605M | | LR8-66HGD-610M | | LR8-66HGD-615M | | LR8-66HGD-620M | | LR8-66HGD-625M | |
|----------------------------------|----------------|-------|----------------|-------|----------------|-------|----------------|-------|----------------|-------|----------------|-------|----------------|-------|
| | STC | NOCT | STC | NOCT | STC | NOCT | STC | NOCT | STC | NOCT | STC | NOCT | STC | NOCT |
| Maximum Power (Pmax/W) | 595 | 452.9 | 600 | 456.7 | 605 | 460.5 | 610 | 464.3 | 615 | 468.1 | 620 | 471.9 | 625 | 475.8 |
| Open Circuit Voltage (Voc/V) | 47.78 | 45.41 | 47.98 | 45.60 | 48.18 | 45.79 | 48.38 | 45.98 | 48.58 | 46.17 | 48.78 | 46.36 | 48.98 | 46.55 |
| Short Circuit Current (Isc/A) | 15.80 | 12.69 | 15.85 | 12.73 | 15.90 | 12.77 | 15.95 | 12.81 | 16.00 | 12.85 | 16.05 | 12.89 | 16.10 | 12.93 |
| Voltage at Maximum Power (Vmp/V) | 39.91 | 37.93 | 40.11 | 38.12 | 40.31 | 38.31 | 40.51 | 38.50 | 40.71 | 38.69 | 40.91 | 38.88 | 41.11 | 39.07 |
| Current at Maximum Power (Imp/A) | 14.91 | 11.94 | 14.96 | 11.98 | 15.01 | 12.02 | 15.06 | 12.06 | 15.11 | 12.10 | 15.16 | 12.14 | 15.21 | 12.18 |
| Module Efficiency(%) | 22.0 | | 22.2 | | 22.4 | | 22.6 | | 22.8 | | 23.0 | | 23.1 | |

Electrical characteristics with different rear side power gain (reference to 610W front)

| Pmax/W | Voc/V | Isc/A | Vmp/V | Imp/A | Pmax gain |
|--------|-------|-------|-------|-------|-----------|
| 641 | 48.38 | 16.75 | 40.51 | 15.81 | 5% |
| 671 | 48.38 | 17.55 | 40.51 | 16.57 | 10% |
| 703 | 48.48 | 18.34 | 40.61 | 17.32 | 15% |
| 734 | 48.48 | 19.14 | 40.61 | 18.07 | 20% |
| 764 | 48.48 | 19.94 | 40.61 | 18.82 | 25% |

Operating Parameters

| | |
|------------------------------------|---------------------------|
| Operational Temperature | -40°C ~ +85°C |
| Power Output Tolerance | 0 ~ 3% |
| Maximum System Voltage | DC1500V (IEC/UL) |
| Maximum Series Fuse Rating | 35A |
| Nominal Operating Cell Temperature | 45±2°C |
| Protection Class | Class II |
| Bifaciality | 80±5% |
| Fire Rating | UL type 29 IEC Class C |

Mechanical Loading

| | |
|-----------------------------------|--------------------------------------|
| Front Side Maximum Static Loading | 5400Pa |
| Rear Side Maximum Static Loading | 2400Pa |
| Hailstone Test | 25mm Hailstone at the speed of 23m/s |

Temperature Ratings (STC)

| | |
|---------------------------------|------------|
| Temperature Coefficient of Isc | +0.045%/°C |
| Temperature Coefficient of Voc | -0.230%/°C |
| Temperature Coefficient of Pmax | -0.280%/°C |