ThinkVolt

2026

Powering a Smarter, Greener Future

Complete Energy Storage Solutions for Commercial, Industry, and Home

Products Catalogue

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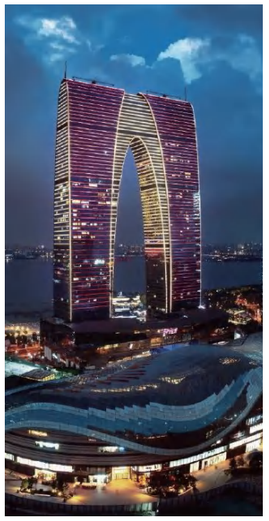
▶ The More Stable Energy, The More Brighter Life.

Production HQ:
Wuxi, China



Operational HQ:
Suzhou, China

Sales Center:
Hong Kong, China

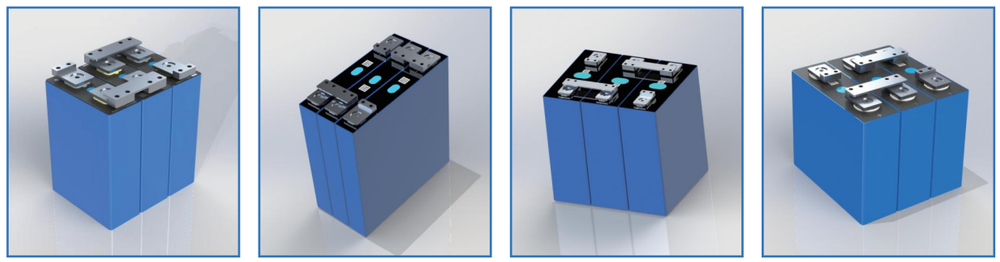
Lithium-ion Battery

Solar Storage Inverter

Energy Storage System

Global Battery Localization Made Simple: Thinkvolt's SKD/CKD Partnership

Our flexible SKD (Semi-Knocked Down) to CKD (Completely Knocked Down) partnership enables global clients to establish localized battery production efficiently.



Cooperation Roadmap

SKD Phase
Pre-assembled modules, BMS, and structural components for quick market entry

CKD Transition
Gradual localization with technical transfer, training, and equipment support

End-to-End Solutions
From initial setup to full-scale production, backed by our R&D expertise

Key Benefits

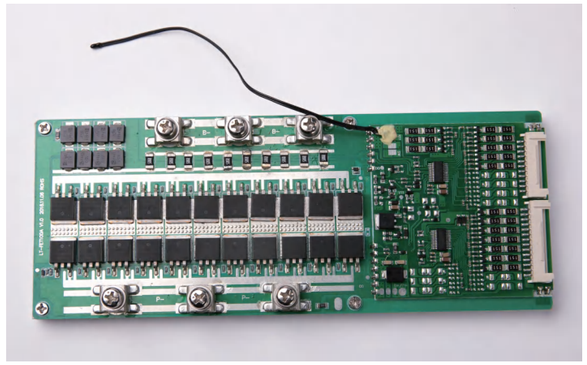
- Faster Market Entry
- Tariff Optimization
- Local Compliance

BMS SYSTEM

BMS (Battery Management System) is the core and safety component of a battery system.

It features a **three-level structure (BMU, RBMS, SBMS)** for efficient operation and a **four-level safety strategy** (cell to system protection) for reliability. Through data analysis and multi-parameter monitoring, it enables **predictive maintenance** of the battery system.

- **BMU (Battery Management Unit)**
  is the foundation of a safe and efficient BMS
- **RBMS (Rack BMS)**
  manages and safeguards the entire battery rack
- **SBMS (System BMS)**
  centralizes and analyzes data from all RBMS units in real time



SECURITY CONTROLS

- **Cell Level**
- **Module Level**
- **Rack Level**
- **System Level**

Smart Cloud Management System

- Remote monitoring via mobile APP & PC
- Multi-level security management
- Predictive maintenance & analytics
- Closed-loop O&M control

Smart Fire Control System

- Hot-melt fire pipes with perfluorohexanone extinguishing agent
- **Dual protection**
  Module-built-in + cabinet-level safety
- **24/7 monitoring**
  Real-time alerts & historical data tracking via mobile app

Advanced LFP Battery Technology

ThinkVolt utilizes premium Lithium Iron Phosphate (LFP) battery cells, certified to the highest international safety and performance standards including UL1973, IEC62619, CE, UN38.3, and more.

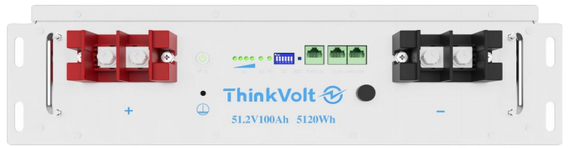
Core Advantages

- **Military-Grade Safety**
  Proprietary LFP chemistry eliminates thermal runaway risks
  Multi-layer protection against overcharge/over-discharge
  Flame-retardant materials and explosion-proof design
- **Unmatched Cycle Life**
  6,000+ full charge/discharge cycles at 1C rate (100% DoD)
  ≤20% capacity degradation after full cycle life
  Calendar life exceeding 15 years in typical applications
- **Extreme Power Performance**
  Instant 10C pulse discharge capability
  Continuous 3C discharge for high-power applications
  Ultra-fast 2C charging (0-100% in 30 minutes)
  Wide operating temperature range (-20°C to 60°C)

51.2V100Ah Lithium LiFePo4 Battery (Rack Mounted)

Features

- Safest lithium battery technology
- Lighter weight
- Eco-friendly
- Longer life
- Multiple safety protection
- Intelligent balancing function
- 20 Years designed service life



51.2V100Ah Lithium LiFePO4 Battery (Rack Mounted)	
Model	TVES-48100R
Nominal Voltage	51.2V
Nominal Capacity	100AH
Energy	5.12KWH
Rated Charge Current	50A
Max. Charge Current	100A
Rated Charge Voltage	54.4~55.2V
Charge Cut-off Voltage	58.4V
Balancing Voltage	>54.4V
Rated Discharge Current	50A
Max. Discharge Current	100A
Rated Discharge Cut-off Voltage	44.8V
Min. Discharge Cut-off Voltage	>40V
Short Circuit Current	Approx. 2000A
Cycle Life	≥6000 times(80%DOD)
Communication Protocol	CAN/RS485
Storage Temperature	-5°C ~ 35°C
Battery Max Parallel Number	16(CAN)/14(RS485)
Dimension	442*420*130MM
Weight	46KG
Certificate	Cell: CE/UN38.3/UL1973
	Battery: CE/UN38.3/IEC62619
	Transport Appraisal: UN3480,CLASS 9

51.2V100Ah Lithium LiFePo4 Battery Power Wall

Features

- Safest lithium battery technology
- Lighter weight
- Eco-friendly
- Longer life
- Multiple safety protection
- Intelligent balancing function
- 20 Years designed service life

51.2V100Ah Lithium LiFePO4 Battery Power Wall	
Model	TVES-48100W
Nominal Voltage	51.2V
Nominal Capacity	100AH
Energy	5.12KWH
Rated Charge Current	50A
Max. Charge Current	100A
Rated Charge Voltage	54.4~55.2V
Charge Cut-off Voltage	58.4V
Balancing Voltage	>54.4V
Rated Discharge Current	50A
Max. Discharge Current	100A
Rated Discharge Cut-off Voltage	44.8V
Min. Discharge Cut-off Voltage	>40V
Short Circuit Current	Approx. 2000A
Cycle Life	≥6000 times(80%DOD)
Communication Protocol	CAN/RS485
Storage Temperature	-5°C ~ 35°C
Battery Max Parallel Number	16(CAN)/14(RS485)
Dimension	442*550*136MM
Weight	43KG
Certificate	Cell:CE/UN38.3/UL1973
	Battery: CE/UN38.3/IEC62619
	Transport Appraisal: UN3480,CLASS 9

51.2V200Ah Lithium LiFePo4 Battery Landing

Features

- Safest lithium battery technology
- Lighter weight
- Eco-friendly
- Longer life
- Multiple safety protection
- Intelligent balancing function
- 20 Years designed service life

51.2V200Ah Lithium LiFePO4 Battery Landing	
Model	TVES-48200L
Nominal Voltage	51.2V
Nominal Capacity	200AH
Energy	10.24KWH
Rated Charge Current	50A
Max. Charge Current	100A
Rated Charge Voltage	54.4~55.2V
Charge Cut-off Voltage	58.4V
Balancing Voltage	>54.4V
Rated Discharge Current	50A
Max.Discharge Current	100A
Rated Discharge Cut-off Voltage	44.8V
Min. Discharge Cut-off Voltage	>40V
Short Circuit Current	Approx. 2000A
Cycle Life	≥6000 times(80%DOD)
Communication Protocol	CAN/RS485
Storage Temperature	-5°C~ 35°C
Battery Max Parallel Number	16(CAN)/14(RS485)
Dimension	442*730*230MM
Weight	88KG
Certificate	Cell: CE/UN38.3/UL1973
	Battery: CE/UN38.3/IEC62619
	Transport Appraisal: UN3480,CLASS 9

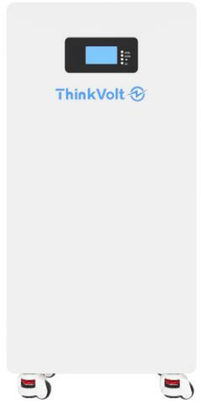
25.6V100Ah Lithium LiFePo4 Battery Power Wall

Features

- Safest lithium battery technology
- Lighter weight
- Eco-friendly
- Longer life
- Multiple safety protection
- Intelligent balancing function
- 20 Years designed service life

25.6V100Ah Lithium LiFePO4 Battery Power Wall	
Model	TVES-24100W
Nominal Voltage	25.6V
Nominal Capacity	100AH
Energy	2.56KWH
Rated Charge Current	50A
Max. Charge Current	100A
Rated Charge Voltage	27.2~27.6V
Charge Cut-off Voltage	29.2V
Balancing Voltage	＞27.2V
Rated Discharge Current	50A
Max.Discharge Current	100A
Rated Discharge Cut-off Voltage	22.4V
Min. Discharge Cut-off Voltage	＞20V
Short Circuit Current	Approx. 2000A
Cycle Life	≥6000 times(80%DOD)
Communication Protocol	CAN/RS485
Storage Temperature	-5°C~ 35°C
Battery Max Parallel Number	16(CAN)/14(RS485)
Dimension	442*400*136MM
Weight	29KG
Certificate	Cell: CE/UN38.3/UL1973
	Battery: CE/UN38.3/IEC62619
	Transport Appraisal: UN3480,CLASS 9

51.2V300Ah Lithium LiFePo4 Battery Landing



Features

- Safest lithium battery technology
- Lighter weight
- Eco-friendly
- Longer life
- Multiple safety protection
- Intelligent balancing function
- 20 Years designed service life

51.2V300Ah Lithium LiFePO4 Battery Landing	
Model	TVES-48300L
Nominal Voltage	51.2V
Nominal Capacity	314AH
Energy	16.08KWH
Rated Charge Current	75A
Max. Charge Current	150A
Rated Charge Voltage	54.4~55.2V
Charge Cut-off Voltage	58.4V
Balancing Voltage	>54.4V
Rated Discharge Current	75A
Max.Discharge Current	150A
Rated Discharge Cut-off Voltage	44.8V
Min. Discharge Cut-off Voltage	>40V
Short Circuit Current	Approx. 2000A
Cycle Life	≥6000 times(80%DOD)
Communication Protocol	CAN/RS485
Storage Temperature	-5°C~ 35°C
Battery Max Parallel Number	16(CAN)/14(RS485)
Dimension	442*840*240MM
Weight	126KG
Certificate	Cell: CE/UN38.3/UL1973
	Battery: CE/UN38.3/IEC62619
	Transport Appraisal: UN3480,CLASS 9

25.6V200Ah Lithium LiFePo4 Battery Power Wall

Features

- Safest lithium battery technology
- Lighter weight
- Eco-friendly
- Longer life
- Multiple safety protection
- Intelligent balancing function
- 20 Years designed service life

25.6V200Ah Lithium LiFePO4 Battery Power Wall	
Model	TVES-24200W
Nominal Voltage	25.6V
Nominal Capacity	200AH
Energy	5.12KWH
Rated Charge Current	50A
Max. Charge Current	100A
Rated Charge Voltage	27.2~27.6V
Charge Cut-off Voltage	29.2V
Balancing Voltage	＞27.2V
Rated Discharge Current	50A
Max.Discharge Current	100A
Rated Discharge Cut-off Voltage	22.4V
Min. Discharge Cut-off Voltage	＞20V
Short Circuit Current	Approx. 2000A
Cycle Life	≥6000 times(80%DOD)
Communication Protocol	CAN/RS485
Storage Temperature	-5°C~ 35°C
Battery Max Parallel Number	16(CAN)/14(RS485)
Dimension	500*500*136MM
Weight	47KG
Certificate	Cell: CE/UN38.3/UL1973
	Battery: CE/UN38.3/IEC62619
	Transport Appraisal: UN3480,CLASS 9

All In One ESS

Features

- 15 Years designed service life
- Intelligent management
- Visual display interface
- Modular design
- Multiple operation modes
- Multi-functional with WIFI/APP support

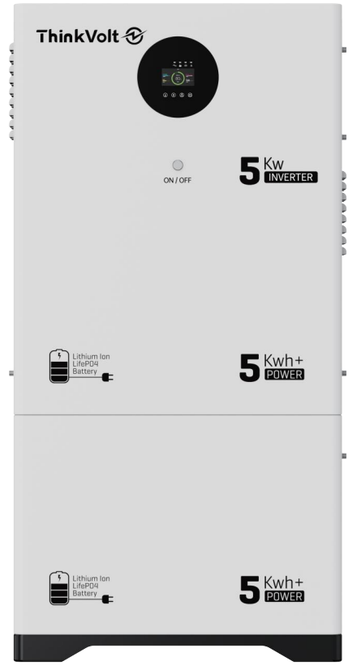
All In One ESS	
Model	TV-5KW-5KWH
AC Input	
Input Voltage(VAC)	208/220/230/240;L+N+PE
Voltage Range(VAC)	160-260
Frequency(Hz)	50/60(Auto Recognition)
AC Output	
Rated Power(kw)	5
Rated Voltage(VAC)	220/230/240
Frequency	50/60Hz
Efficiency	≥90%
Waveform	Pure Sine Wave
Charging(PV/AC)	
Solar Charger Type	MPPT
MPPT Charger Type	≥98%
Max PV Open Circuit Voltage(VDC)	200
Max PV Charging Current(A)	60
Max AC Charging Current(A)	90
Battery	
Normal Voltage(VDC)	51.2
Capacity(Ah)	100
Energy(Wh)	5120
Low Voltage Protection(VDC)	40

All In One ESS	
High Voltage Protection(VDC)	58.4
Battery Type	Lithium Battery
General Data	
Protection Rating	IP20
Operating Temperature	0-50℃
Relative Humidity	5%~95%(Non-condensing)
Dimensions WDH(mm)	600*860*265

All In One ESS

Features

- 15 Years designed service life
- Intelligent management
- Visual display interface
- Modular design
- Multiple operation modes
- Multi-functional with WIFI/APP support



All In One ESS	
Model	TV-5KW-10KWH
AC Input	
Input Voltage(VAC)	208/220/230/240;L+N+PE
Voltage Range(VAC)	160-260
Frequency(Hz)	50/60(Auto Recognition)
AC Output	
Rated Power(kw)	5
Rated Voltage(VAC)	220/230/240
Frequency	50/60Hz
Efficiency	≥90%
Waveform	Pure Sine Wave
Charging(PV/AC)	
Solar Charger Type	MPPT
MPPT Charger Type	≥98%
Max PV Open Circuit Voltage(VDC)	200
Max PV Charging Current(A)	60
Max AC Charging Current(A)	90
Battery	
Normal Voltage(VDC)	51.2
Capacity(Ah)	200
Energy(Wh)	10240
Low Voltage Protection(VDC)	40

All In One ESS	
High Voltage Protection(VDC)	58.4
Battery Type	Lithium Battery
General Data	
Protection Rating	IP20
Operating Temperature	0-50℃
Relative Humidity	5%~95%(Non-condensing)
Dimensions WDH(mm)	600*1300*265

All In One ESS Storage and Charging Integrated System

Features

- High Reliability:Independent microgrid ensures stable power supply
- Intelligent Operation:Built-in energy management system for smart scheduling
- Scalability:Supports flexible expansion
- Modular Design:Simple and convenient structure
- High Efficiency:Advanced MPPT algorithm
- Enhanced Safety:System-level protection functionality

All In One ESS	
Model	TV-12KW-32KWH
AC(Grid Side)	
Rated Grid Voltage	110-127/208-240V Split phase,240V Single phase
Voltage Range(VAC)	240
Rated Grid Frequency(Hz)	60
Grid Frequency Range(Hz)	55~65
Charging Pile	
Rated Power(KW)	12
Rated Voltage(VAC)	240
Frequency(Hz)	60
Max Charging Current(A)	50
Charging Plug	SAE 1772(Type 1)
PV Input	
Max PV Input Power(KW)	18
Rated PV Input Voltage(VDC)	310
Max PV Input Voltage(VDC)	500
Min PV Input Voltage(VDC)	120
MPPT Quantity	4
Max Current per MPPT(A)	16/16/16/16
Battery	
Nominal Voltage(VDC)	51.2
Capacity(Ah)	628

All In One ESS	
Energy(Wh)	32153.4
Low Voltage Protection(VDC)	40
High Voltage Protection(VDC)	58.4
Battery Type	Lithium Battery
General Data	
IP Rating	IP65
Operating Temperature	0-50℃
Relative Humidity	5%~95%(non-condensing)
Dimensions WDH(mm)	680*1700*540

12.8V100Ah Lithium LiFePO4 Battery

Features

- Safest lithium battery technology
- Lighter weight
- Eco-friendly
- Longer life
- Multiple safety protection
- Intelligent balancing function
- 20 Years designed service life

12.8V100Ah Lithium LiFePO4 Battery	
Model	TVLI-12100
Nominal Voltage	12.8V
Nominal Capacity	100AH
Energy	1.28KWH
Rated Charge Current	50A
Max. Charge Current	100A
Rated Charge Voltage	13.6~13.8V
Charge Cut-off Voltage	14.6V
Balancing Voltage	>13.6V
Rated Discharge Current	50A
Max. Discharge Current	100A
Rated Discharge Cut-off Voltage	11.2V
Min. Discharge Cut-off Voltage	>10V
Short Circuit Current	Approx. 1000A
Cycle Life	≥5000 times(80%DOD)
Bluetooth	YES
Storage Temperature	-5 C ~ 35 C
Battery Max Parallel Number	4
Dimension	330*171*220MM
Weight	9.5KG
Certificate	Cell: CE/UN38.3/UL1973
	Battery: CE/UN38.3/IEC62619
	Transport Appraisal: UN3480,CLASS 9

12.8V150Ah Lithium LiFePO4 Battery

Features

- Safest lithium battery technology
- Lighter weight
- Eco-friendly
- Longer life
- Multiple safety protection
- Intelligent balancing function
- 20 Years designed service life

12.8V150Ah Lithium LiFePO4 Battery	
Model	TVLI-12150
Nominal Voltage	12.8V
Nominal Capacity	150AH
Energy	1.92KWH
Rated Charge Current	75A
Max. Charge Current	150A
Rated Charge Voltage	13.6~13.8V
Charge Cut-off Voltage	14.6V
Balancing Voltage	>13.6V
Rated Discharge Current	75A
Max. Discharge Current	150A
Rated Discharge Cut-off Voltage	11.2V
Min. Discharge Cut-off Voltage	>10V
Short Circuit Current	Approx. 1200A
Cycle Life	≥5000 times(80%DOD)
Bluetooth	YES
Storage Temperature	-5°C ~ 35°C
Battery Max Parallel Number	4
Dimension	483*170*245MM
Weight	15.5KG
Certificate	Cell: CE/UN38 3/UL1973
	Battery: CE/UN38.3/IEC62619
	Transport Appraisal: UN3480,CLASS 9

12.8V200Ah Lithium LiFePO4 Battery

Features

- Safest lithium battery technology
- Lighter weight
- Eco-friendly
- Longer life
- Multiple safety protection
- Intelligent balancing function
- 20 Years designed service life

12.8V200Ah Lithium LiFePO4 Battery	
Model	TVLI-12200
Nominal Voltage	12.8V
Nominal Capacity	200AH
Energy	2.56KWH
Rated Charge Current	100A
Max. Charge Current	200A
Rated Charge Voltage	13.6~13.8V
Charge Cut-off Voltage	14.6V
Balancing Voltage	>13.6V
Rated Discharge Current	100A
Max. Discharge Current	200A
Rated Discharge Cut-off Voltage	11.2V
Min. Discharge Cut-off Voltage	>10V
Short Circuit Current	Approx. 1800A
Cycle Life	≥5000 times(80%DOD)
Bluetooth	YES
Storage Temperature	-5°C ~ 35°C
Battery Max Parallel Number	4
Dimension	522*244*223MM
Weight	18.5KG
Certificate	Cell: CE/UN38.3/UL1973
	Battery: CE/UN38.3/IEC62619
	Transport Appraisal: UN3480,CLASS 9

25.6V100Ah Lithium LiFePO4 Battery

Features

- Safest lithium battery technology
- Lighter weight
- Eco-friendly
- Longer life
- Multiple safety protection
- Intelligent balancing function
- 20 Years designed service life

25.6V100Ah Lithium LiFePO4 Battery	
Model	TVLI-24100
Nominal Voltage	25.6V
Nominal Capacity	100AH
Energy	2.56KWH
Rated Charge Current	50A
Max. Charge Current	100A
Rated Charge Voltage	27.2~27.6V
Charge Cut-off Voltage	29.2V
Balancing Voltage	>27. 2V
Rated Discharge Current	50A
Max. Discharge Current	100A
Rated Discharge Cut-off Voltage	22.4V
Min. Discharge Cut-off Voltage	>20V
Short Circuit Current	Approx. 1000A
Cycle Life	≥6000 times(80%DOD)
Bluetooth	YES
Storage Temperature	-5°C ~ 35°C
Battery Max Parallel Number	4
Dimension	522*244*223MM
Weight	18.5KG
Certificate	Cell: CE/UN38.3/UL1973
	Battery: CE/UN38.3/IEC62619
	Transport Appraisal: UN3480,CLASS 9

25.6V200Ah Lithium LiFePO4 Battery

Features

- Safest lithium battery technology
- Lighter weight
- Eco-friendly
- Longer life
- Multiple safety protection
- Intelligent balancing function
- 20 Years designed service life

25.6V200Ah Lithium LiFePO4 Battery	
Model	TVLI-24200
Nominal Voltage	25.6V
Nominal Capacity	200AH
Energy	5.12KWH
Rated Charge Current	100A
Max. Charge Current	200A
Rated Charge Voltage	27.2~27.6V
Charge Cut-off Voltage	29.2V
Balancing Voltage	>27.2V
Rated Discharge Current	100A
Max. Discharge Current	200A
Rated Discharge Cut-off Voltage	22.4V
Min. Discharge Cut-off Voltage	>20V
Short Circuit Current	Approx. 1800A
Cycle Life	≥6000 times(80%DOD)
Bluetooth	YES
Storage Temperature	-5°C ~ 35°C
Battery Max Parallel Number	4
Dimension	522*244*223MM
Weight	37.0KG
Certificate	Cell: CE/UN38.3/UL1973
	Battery: CE/UN38.3/IEC62619
	Transport Appraisal: UN3480,CLASS 9

3KW Off-Grid Solar Storage Inverter

Features

- High power density and low cost
- Typical switch time is 10ms
- In UPS mode High charge and discharge
- Efficiency Compatible with lead-acid and lithium battery
- Support lithium battery activation wake-up
- Protection for over temperature,over load, over voltage,over current and short circuit

3KW Off-Grid Solar Storage Inverter	
Model	TVI3000-24
AC Output	3KW
Output Waveform	Pure Sine Wave
AC Output	208V/220V/230V/240V
Max Pv Open Circuit Voltage	500VDC
Efficiency	99.5 Max
Max Charging Current	120A
Maximum PV Array Power	4KW
Dimension	315*460*139MM
Weight	15.5KG
Inverter Max Parallel Number	Nonsupport

5KW Off-Grid Solar Storage Inverter

Features

- High power density and low cost
- Typical switch time is 10ms
- In UPS mode High charge and discharge
- Efficiency Compatible with lead-acid and lithium battery
- Support lithium battery activation wake-up
- Protection for over temperature,over load, over voltage,over current and short circuit

5KW Off-Grid Solar Storage Inverter	
Model	TV15000-48
AC Output	5KW
Output Waveform	Pure Sine Wave
AC Output	208V/220V/230V/240V
Max Pv Open Circuit Voltage	500VDC
Efficiency	99.5 Max
Max Charging Current	80A
Maximum PV Array Power	6KW
Dimension	315*460*139MM
Weight	16KG
Inverter Max Parallel Number	6

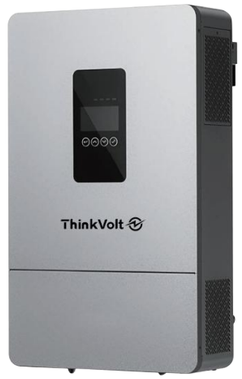
11KW Off-Grid Solar Storage Inverter

Features

- High power density and low cost
- Typical switch time is 10ms
- In UPS mode High charge and discharge
- Efficiency Compatible with lead-acid and lithium battery
- Support lithium battery activation wake-up
- Protection for over temperature,over load, over voltage,over current and short circuit

11KW Off-Grid Solar Storage Inverter	
Model	TVI11000-48
AC Output	11KWH
Output Waveform	Pure Sine Wave
AC Output	220V/230V/240V
Max Pv Open Circuit Voltage	500VDC
Efficiency	93%
Max Charging Current	150A
Maximum PV Array Power	5.5KW*2
Dimension	136*440*540MM
Weight	18.5KG
Inverter Max Parallel Number	6

TVI6000-48



Features

- Engineered for energy independence for off-grid and microgrid systems
- Operates in harsh environments (-10°C to 50°C)
- Delivers 93-94% efficiency with dual charging modes (solar + AC)
- Ultra-wide MPPT range (PV6000: 120–450V; PV9000: 60–450V)
- Seamless integration of solar arrays, generators, and battery banks

Item	Specifications
Model	TVI6000-48
AC Output	6KW
Output Waveform	Pure Sine Wave
AC Output	208V/220V/230V/240V
Max PV Open Circuit Voltage	500VDC
Efficiency	93%
Max Charging Current	80A
Maximum PV Array Power	6000W
Dimension	510*306*115MM (without bracket)
Weight	9.5KG
Inverter Max Parallel Number	9

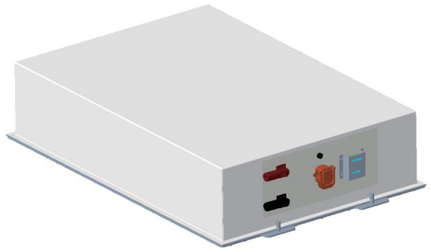
TVI9000-48

Features

- Engineered for energy independence for off-grid and microgrid systems
- Operates in harsh environments (-10°C to 50°C)
- Delivers 93-94% efficiency with dual charging modes (solar + AC)
- Ultra-wide MPPT range (PV6000: 120–450V; PV9000: 60–450V)
- Seamless integration of solar arrays, generators, and battery banks

Item	Specifications
Model	TVI9000-48
AC Output	6KW
Output Waveform	Pure Sine Wave
AC Output	208V/220V/230V/240V
Max PV Open Circuit Voltage	500VDC
Efficiency	94%
Max Charging Current	120A
Maximum PV Array Power	9000W
Dimension	410*336*110MM (without bracket)
Weight	10.0KG
Inverter Max Parallel Number	NA

48S liquid cooling module



Features

- Modular design: Easy maintenance, convenient disassembly and installation, transportation-grade installation
- Self-developed BMS: High sampling accuracy, advanced SOC and SOH calculation methods
- DC1000V voltage platform

Project	Basic parameters
System capacity	280Ah
System voltage	153.6V
Grouping method	1P48S
System energy	43.008kWh
Operating voltage range	120~172Vdc
Operating temperature range	Charge：0℃~55℃
	Discharge：-20℃~60℃
Storage temperature range	-5℃~35℃
Communication	CAN
Protection level	IP65
Thermal management strategy	Liquid cooling
Dimensions (Length * Width * Height)	795*1125*228 mm

System-TV-50-129kwh-SP

Features

- Modular design: Easy maintenance, easy disassembly and installation, transportation-grade installation
- High safety: Equipped with ventilation and explosion-proof relief devices, equipped with Lion-tamer combustible gas detector, fire protection, etc
- Long lifespan: Under 0.5C charging and discharging conditions, 6000 cycles, energy remaining 80%
- Self-developed BMS: High sampling accuracy, advanced SOC and SOH calculation methods
- DC1000V voltage platform
- Two-level short-circuit protection, graded rapid current limiting
- Online estimation of SOC, SOH, SOE based on real-time data and big data

Basic parameters	50K - 129KWh liquid-cooled cabinet
Model number	TV-50-129kwh-SP
Arrangement type	1P144S
Cell capacity	280Ah
Magnification	0.5P
Inverter power	50kw
Rated capacity	280Ah
Rated energy	129kWh
Rated voltage	460.8Vdc
Operating voltage range	360~518Vdc
Operating temperature range	-20℃~55℃
Storage temperature range	-30℃~60℃
Highest working altitude (meters)	⩽3000
Battery temperature control method	Liquid cooling
Energy storage system fire protection system	Aerosol
Energy storage system communication interface	RS485/Ethernet
Energy storage system protection level	IP55
Weight	1.7t
Dimensions (Length * Width * Height)	1000*1350*2065mm
Other configurations	DCDC\ATS

System-TV-100-215kwh-SP

Features

- Modular design: Easy maintenance, easy disassembly and installation, transportation-grade installation
- High safety: Equipped with ventilation and explosion-proof relief devices, equipped with Lion-tamer combustible gas detector, fire protection, etc
- Long lifespan: Under 0.5C charging and discharging conditions, 6000 cycles, energy remaining 80%
- Self-developed BMS: High sampling accuracy, advanced SOC and SOH calculation methods
- DC1000V voltage platform
- Two-level short-circuit protection, graded rapid current limiting
- Online estimation of SOC, SOH, SOE based on real-time data and big data

Basic parameters	100K-215kWh liquid-cooled cabinet
Model number	TV-100-215kwh-SP
Arrangement type	1P240S
Cell capacity	280Ah
Magnification	0.5P
Inverter power	50kw*2
Rated capacity	280Ah
Rated energy	215kWh
Rated voltage	768Vdc
Operating voltage range	600~876Vdc
Operating temperature range	-20℃~55℃
Storage temperature range	-30℃~60℃
Highest working altitude (meters)	⩽3000
Battery temperature control method	Liquid cooling
Energy storage system fire protection system	Aerosol
Energy storage system communication interface	RS485/Ethernet
Energy storage system protection level	IP55
Weight	2.3t
Dimensions (Length * Width * Height)	1000*1350*2065mm
Standard	IEC62619,UN38.3,UL1973,GB/T36276-2018,GB/T31484-2015

System-TV-100-215kwh-NP

Features

- Modular design: Easy maintenance, easy disassembly and installation, transportation-grade installation
- High safety: Equipped with ventilation and explosion-proof relief devices, equipped with Lion-tamer combustible gas detector, fire protection, etc
- Long lifespan: Under 0.5C charging and discharging conditions, 6000 cycles, energy remaining 80%
- Self-developed BMS: High sampling accuracy, advanced SOC and SOH calculation methods
- DC1000V voltage platform
- Two-level short-circuit protection, graded rapid current limiting
- Online estimation of SOC, SOH, SOE based on real-time data and big data

Basic parameters	100K-215kWh liquid-cooled cabinet
Model number	TV-100-215kwh-NP
Arrangement type	1P240S
Cell capacity	280Ah
Magnification	0.5P
PCS power	100kw
Rated capacity	280Ah
Rated energy	215kWh
Rated voltage	768Vdc
Operating voltage range	600~876Vdc
Operating temperature range	-20℃ ~55℃
Storage temperature range	-30℃ ~60℃
Highest working altitude (meters)	⩽3000
Battery temperature control method	Liquid cooling
Energy storage system fire protection system	Aerosol
Energy storage system communication interface	RS485/Ethernet
Energy storage system protection level	IP55
Weight	2.3t
Dimensions (Length * Width * Height)	1000*1350*2065mm
Standard	IEC62619,UN38.3,UL1973,GB/T36276-2018,GB/T31484-2015

52S liquid cooling module

- Modular design: Easy maintenance, convenient disassembly and installation, transportation-grade installation
- Self-developed BMS: High sampling accuracy, advanced SOC and SOH calculation methods
- DC1000V voltage platform

Project	Basic parameters
System capacity	314Ah
System voltage	166.4V
Grouping method	1P52S
System energy	52.249kWh
Operating voltage range	130~187.2Vdc
Operating temperature range	Charge：0℃ ~55℃
	Discharge：-20℃ ~60℃
Storage temperature range	-5℃ ~35℃
Communication	CAN
Protection level	IP65
Thermal management strategy	Liquid cooling
Dimensions (Length * Width * Height)	1150*787*258.5 mm

System-TV100-261kwh-NP

Features

- Modular design: Easy maintenance, easy disassembly and installation, transportation-grade installation
- High safety: Equipped with ventilation and explosion-proof relief devices, equipped with Lion-tamer combustible gas detector, fire protection, etc
- Long lifespan: Under 0.5C charging and discharging conditions, 6000 cycles, energy remaining 80%
- Self-developed BMS: High sampling accuracy, advanced SOC and SOH calculation methods
- DC1000V voltage platform
- Two-level short-circuit protection, graded rapid current limiting
- Online estimation of SOC, SOH, SOE based on real-time data and big data

Basic parameters	100k-261liquid-cooled cabinet
Model number	TV100-261kwh-NP
Arrangement type	1P260S
Cell capacity	314Ah
Magnification	0.5P
PCS power	100kw
Rated capacity	314Ah
Rated energy	261kWh
Rated voltage	832Vdc
Operating voltage range	650~936Vdc
Operating temperature range	-20℃ ~55℃
Storage temperature range	-30℃ ~60℃
Highest working altitude (meters)	≤3000
Battery temperature control method	Liquid cooling
Energy storage system fire protection system	Aerosol
Energy storage system communication interface	RS485/Ethernet
Energy storage system protection level	IP54
Weight	2.3t
Dimensions (Length * Width * Height)	1200*1450*2100mm
Other configurations	ATS/DCDC

System-TV135-261kwh-NP

Features

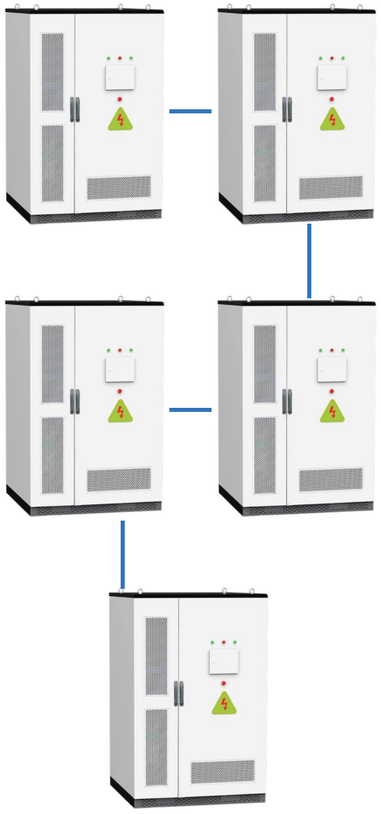
- Modular design: Easy maintenance, easy disassembly and installation, transportation-grade installation
- High safety: Equipped with ventilation and explosion-proof relief devices, equipped with Lion-tamer combustible gas detector, fire protection, etc
- Long lifespan: Under 0.5C charging and discharging conditions, 6000 cycles, energy remaining 80%
- Self-developed BMS: High sampling accuracy, advanced SOC and SOH calculation methods
- DC1000V voltage platform
- Two-level short-circuit protection, graded rapid current limiting
- Online estimation of SOC, SOH, SOE based on real-time data and big data

Basic parameters	135k-261liquid-cooled cabinet
Model number	TV135-261kwh-NP
Arrangement type	1P260S
Cell capacity	314Ah
Magnification	0.5P
PCS power	135kw
Rated capacity	314Ah
Rated energy	261kWh
Rated voltage	832Vdc
Operating voltage range	650~936Vdc
Operating temperature range	-20℃ ~55℃
Storage temperature range	-30℃ ~60℃
Highest working altitude (meters)	≤3000
Battery temperature control method	Liquid cooling
Energy storage system fire protection system	Aerosol
Energy storage system communication interface	RS485/Ethernet
Energy storage system protection level	IP54
Weight	2.5t
Dimensions (Length * Width * Height)	1200*1450*2100mm
Other configurations	ATS/DCDC

System-TV500-1305kwh-NP

Features

- Modular design: Easy maintenance, easy disassembly and installation, transportation-grade installation
- High safety: Equipped with ventilation and explosion-proof relief devices, equipped with Lion-tamer combustible gas detector, fire protection, etc
- Long lifespan: Under 0.5C charging and discharging conditions, 6000 cycles, energy remaining 80%
- Self-developed BMS: High sampling accuracy, advanced SOC and SOH calculation methods
- DC1000V voltage platform
- Two-level short-circuit protection, graded rapid current limiting
- Online estimation of SOC, SOH, SOE based on real-time data and big data



Basic parameters	100k-261liquid-cooled cabinet*5
Model number	TV-500k-1305kwh-NP
Arrangement type	1P260S*5
Cell capacity	314Ah
Magnification	0.5P
PCS power	100kw*5
Rated capacity	314Ah*5
Rated energy	261kWh*5
Rated voltage	832Vdc
Operating voltage range	650~936Vdc
Operating temperature range	-20℃~55℃
Storage temperature range	-30℃~60℃
Highest working altitude (meters)	≤3000
Battery temperature control method	Liquid cooling
Energy storage system fire protection system	Aerosol
Energy storage system communication interface	RS485/Ethernet
Energy storage system protection level	IP54
Weight	2.5t*5
Dimensions (Length * Width * Height)	1200*1450*2100mm*5
Other configurations	ATS/DCDC

104S liquid cooling module

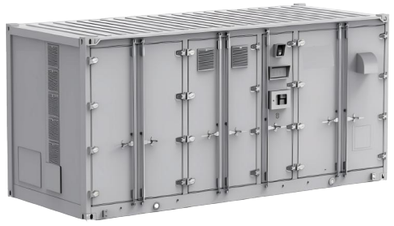
- Modular design: Easy maintenance, convenient disassembly and installation, transportation-grade installation
- Self-developed BMS: High sampling accuracy, advanced SOC and SOH calculation methods
- DC1500V voltage platform

Project	Basic parameters
System capacity	314Ah
System voltage	332.8V
Grouping method	1P104S
System energy	104.499kWh
Operating voltage range	260~374.4Vdc
Operating temperature range	Charge：0℃ ~55℃
	Discharge：-20℃ ~60℃
Storage temperature range	-5℃ ~35℃
Communication	CAN
Protection level	IP65
Thermal management strategy	Liquid cooling
Dimensions (Length * Width * Height)	2170*790*247 mm

System-TV2.5MW-5MWh-SP

Features

- Modular design: Easy maintenance, easy disassembly and installation, transportation-grade installation
- High safety: Equipped with ventilation and explosion-proof relief devices, equipped with Lion-tamer combustible gas detector, fire protection, etc
- Long lifespan: Under 0.5C charging and discharging conditions, 6000 cycles, energy remaining 80%
- Self-developed BMS: High sampling accuracy, advanced SOC and SOH calculation methods
- DC1000V voltage platform
- Two-level short-circuit protection, graded rapid current limiting
- Online estimation of SOC, SOH, SOE based on real-time data and big data

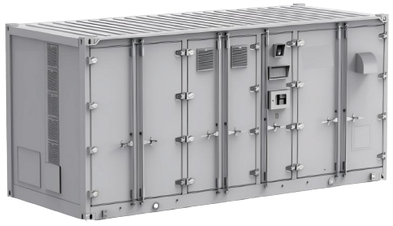


Basic parameters	TV 2.5MW-5MWh 20-foot container
Model number	TV2.5MW-5MWh-SP
Arrangement type	1P416S*12
Cell capacity	314Ah
Magnification	0.5P
Inverter Boost Integrated Chamber	2.5MW
Rated capacity	314Ah*12
Rated energy	5.015MWh
Rated voltage	1331.2Vdc
Operating voltage range	1040~1497.6Vdc
Operating temperature range	-20℃~55℃
Storage temperature range	-30℃~60℃
Highest working altitude (meters)	≤3000
Battery temperature control method	Liquid cooling
Energy storage system fire protection system	Perfluorohexanone
Energy storage system communication interface	RS485/Ethernet
Energy storage system protection level	IP54
Weight	16t
Dimensions (Length * Width * Height)	6058*2438*2591mm
Other	DCDC (optional)

System-TV1.25MW-2.5MWh-SP

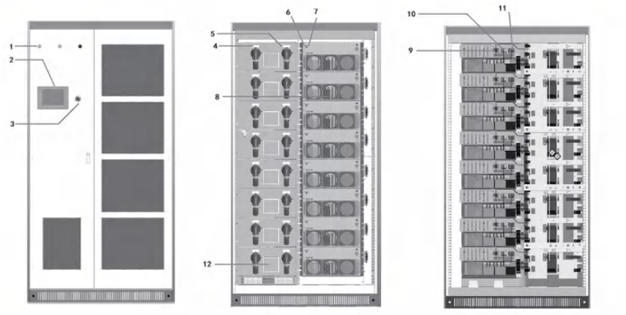
Features

- Modular design: Easy maintenance, easy disassembly and installation, transportation-grade installation
- High safety: Equipped with ventilation and explosion-proof relief devices, equipped with Lion-tamer combustible gas detector, fire protection, etc
- Long lifespan: Under 0.5C charging and discharging conditions, 6000 cycles, energy remaining 80%
- Self-developed BMS: High sampling accuracy, advanced SOC and SOH calculation methods
- DC1000V voltage platform
- Two-level short-circuit protection, graded rapid current limiting
- Online estimation of SOC, SOH, SOE based on real-time data and big data



Basic parameters	TV1.25MW-2.5MWh 20-foot container
Model number	TV1.25MW-2.5MWh-SP
Arrangement type	1P416S*6
Cell capacity	314Ah
Magnification	0.5P
Inverter Boost Integrated Chamber	1.25MW
Rated capacity	314Ah*6
Rated energy	2.507MWh
Rated voltage	1331.2Vdc
Operating voltage range	1040~1497.6Vdc
Operating temperature range	-20℃~55℃
Storage temperature range	-30℃~60℃
Highest working altitude (meters)	≤3000
Battery temperature control method	Liquid cooling
Energy storage system fire protection system	Perfluorohexanone
Energy storage system communication interface	RS485/Ethernet
Energy storage system protection level	IP54
Weight	16t
Dimensions (Length * Width * Height)	6058*2438*2591mm
Other	DCDC (optional)

DCDC (optional)-400K



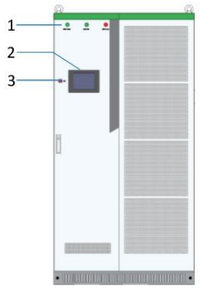
Visible Components of the PDS1-400K

Position	Designation	Description
1	Indicator lights	The fault light is red in case of fault and off in case of normal;The operation indicator and power indicator are green
2	Touch Screen	
3	EPO(Emergency Power Off)	
4	Low voltage side switches	Load disconnector
5	High voltage side switches	Load disconnector
6	Module operation indicator	
7	Module fault indicator	
8	DC module (1~8 module(S))	50kW per unit
9	Low voltage Bus Bar	
10	Nagative Bus Bar	
11	High voltage Bus Bar	
12	SPD	DXH06-F-3DC1000R40 NDB2-63c63/3

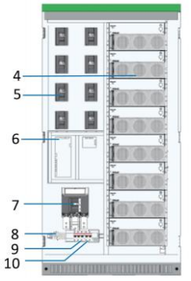
PDS1-400K

LV PV input mode		Other	
HV DC bus voltage	LV voltage +40V ~ 900V	Peak efficiency	98.60%
HV DC bus current	0~130A×8	Protection	OTP,OVP/UVP,EPO,Fan/Relay Failure,OLP
LV PV input voltage	250~800V	Configurable protection limits	Upper/Lower Voltage,Battery EOD voltage.
LV PV input current	0~130A×8	Display	Touch Screen
Power rating	50kW×8	Communication	RS485,CAN,Ethernet
LV battery dis-/charge mode		Isolation	Non-isolation
HV DC bus voltage	LV voltage +40V ~ 900V	Module Certification	CE LVD IEC 62109/62477, CE EMC IEC 61000,UL1741
HV DC bus current	0~130A×8		
LV battery voltage	250~800V		
LV battery current	0~130A×8		
Power rating	50kW×8		
Physical			
Cooling	Forced air cooling		
Noise	<75dB		
Enclosure	IP20/NEMA1		
Max elevation	3000m/10000feet (>3000m/10000feet derating)		
Operating ambient temperature	-20°C to 50°C (De-rating over 45°C)		
Humidity	0~95% (No condensing)		
Size (W×H×D)	1100×2160×800mm		
Weight	Cabinet 280kg + Module 40kg*n,n=1,2.....8		
Installation	Floor standing		

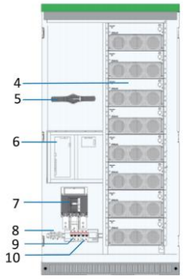
DCDC (optional)-500K



Visible Components of the



4/8 Strings Version



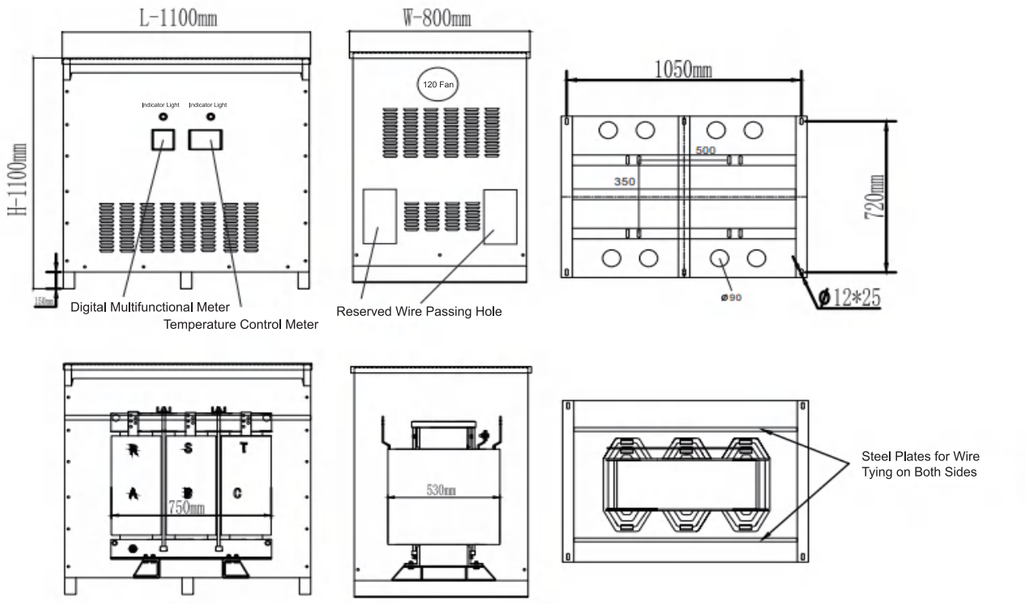
1 String version

Position	Designation	Description
1	Indicator lights	
2	Touch Screen	
3	EPO(Emergency Power Off)	
4	PCS-AC(1-8 module(s))	62.5KW per unit
5	DC disconnectors	1 or 8
6	Main control board	
7	AC Switch	
8	Wiring terminal	
9	SPD switch	
10	AUX Power supply switch	

	PW S1-500 KTL-EX-8M1	PW S1-500 KTL-EX-8M4	PW S1-500 KTL-EX-8M8
Utility-interactive Mode			
Nominal power	500kVA1		
AC max power	550kVA1		
AC frequency	50/60(-2.5~2.5)Hz		
AC voltage	400(-15%~15%)Vac		
Battery voltage range	600~900Vdc		
Quantity of battery strings	1	4	6
DC max current in each branch	864A	216A	108A
THDI	⩽3%		
AC PF	Listed:0.8~1 leading or lagging(Controllable)		
	Actual:0.1~1 leading or lagging(Controllable)		
Stand-alone Mode			
Nominal AC output power	500kVA1		
AC max power	550kVA1		
AC frequency	50/60(-2.5~2.5)Hz		
AC output voltage	380/400(±10% configurable)Vac		
Battery voltage range	600~900Vdc		
Quantity of battery strings	1	4	8
DC max current in each branch	864A	216A	108A
Output THDu	⩽2%(Linear load)		
Physical			
Cooling	Forced air cooling		
Endurence	NEMA1 IP20 and optional IP54 with outdoor cabinet		

	PW S1-500 KTL-EX-8M1	PW S1-500 KTL-EX-8M4	PW S1-500 KTL-EX-8M8
Max elevation	3000m/10000feet(⩾3000m/10000feet derating)		
Size (W*H*D)	1100*2160*800mm		
Weight	Cabinet 380kg + Module 40kg·n, n=1.2.....8		
Other			
Protection	OTP,AC OVP/UVP,OFF/UFP,EPO, AC Phase Reverse,Fan/Relay Failure, OLP,GFDI,Anti-islanding		
Configurable protection limits	Upper/Lower AC Voltage/Frequency limit,Battery EOD voltage.		
AC connection	3-Phase 3-Wire		
Display	Touch Screen		
Communication	RS485,CAN,Ethernet		
Isolation	Non-isolation		
Certification	CE LVD IEC 62477,CE EMC IEC 61000 EN 50549-1:2019,EN50549-2 G99,AS4777.2:2020,VDE 4110, CE10-16 Synergrid listing		

Isolation transformer



Serial Number(NO.)	Name	Measurement Terminal	Measured Value	Test Conditions	Test Equipment
1	Rated Input Voltage	R-SR -TS -T	400V±3%400V±3%400V±3%	input:A-φ-C, 400V 50Hz,Output No-load	Transformer Integrated Test Bench
2	Rated Output Voltage	U -VU -WV-WU -N, V-N, W-N	400V±3%400V±3%400V±3%230V±3%	input:A-φ-C,400V 50Hz， Output No - load	Transformer Integrated Test Bench
3	Rated Apparent Power		315KVA		Transformer Integrated Test Bench
4	Working Frequency		47.5 - 55Hz		Transformer Integrated Test Bench
5	Rated Load Line Current	U -V -W	453A	Rated Condition	Transformer Integrated Test Bench
6	Wiring Method		Dyn11		Transformer Integrated Test Bench
7	No-load Current		＜2%	Input:A-φ-C，400V 50Hz, Output No-load	Transformer Integrated Test Bench
8	Coil Material		Wound with Aluminum Foil		Transformer Integrated Test Bench
9			4%		

12V100Ah VRLA GEL Battery

Features

- 12 years design life (25℃)
- Proven AGM-GEL technology
- Excellent deep discharge recovery and cyclability
- Very low maintenance: no water addition
- Low self-discharge rate

12V100Ah VRLA GEL Battery	
Model	TVG-12100
Nominal Voltage	12V
Nominal Capacity	100AH
Energy	1.20KWH
Length	330mm (13.0inches)
Width	173mm (6.81inches)
Container Height	212mm (8.35inches)
Total Height	218mm (8.58inches)
Approx Weight	30.8kg (67.9lbs)
Terminal	T11
Short-circuit current	2000A
Internal Resistance (25℃)	Approx 4.9 mΩ (Fully charged)
Nominal Operating Temp. Range	25±3℃ (77±5°F)
Max.Charging Current (25℃)	0.25C
Effect of temp. to Capacity	103%, 40℃ (104°F)
	100%, 25℃ (77°F)
	86%, 0℃ (32°F)
Battery Max Parallel Number	4
Certificate	• IEC60896 Certified
	• UL,CE Approved
	• Manufactured in ISO 45001, ISO 9001 and
	ISO14001 certified production facilities

12V150Ah VRLA GEL Battery

Features

- 12 years design life (25℃)
- Proven AGM-GEL technology
- Excellent deep discharge recovery and cyclability
- Very low maintenance: no water addition
- Low self-discharge rate

12V150Ah VRLA GEL Battery	
Model	TVG-12150
Nominal Voltage	12V
Nominal Capacity	150AH
Energy	1.80KWH
Length	483mm (19.0inches)
Width	170mm (6.69inches)
Container Height	238.5mm (9.39inches)
Total Height	238.5mm (9.39inches)
Approx Weight	43.6kg (96.1lbs)
Terminal	T11
Short-circuit current	3000A
Internal Resistance (25℃)	Approx 3.5 mΩ (Fully charged)
Nominal Operating Temp. Range	25±3℃ (77±5°F)
Max.Charging Current (25℃)	0.25C
Effect of temp. to Capacity	103%, 40℃ (104°F)
	100%, 25℃ (77°F)
	86%, 0℃ (32°F)
Battery Max Parallel Number	4
Certificate	• IEC60896 Certified
	• UL,CE Approved
	• Manufactured in ISO 45001, ISO 9001 and
	ISO 14001 certified production facilities

12V200Ah VRLA GEL Battery

Features

- 12 years design life (25℃)
- Proven AGM-GEL technology
- Excellent deep discharge recovery and cyclability
- Very low maintenance: no water addition
- Low self-discharge rate

12V200Ah VRLA GEL Battery	
Model	TVG-12200
Nominal Voltage	12V
Nominal Capacity	200AH
Energy	2.40KWH
Length	522mm (20.6inches)
Width	240mm (9.45inches)
Container Height	218mm (8.58inches)
Total Height	224mm (8.82inches)
Approx Weight	60.3kg (132.9lbs)
Terminal	T11
Short-circuit current	3600A
Internal Resistance (25℃)	Approx 3.2 mΩ (Fully charged)
Nominal Operating Temp. Range	25±3℃ (77±5°F)
Max.Charging Current (25℃)	0.25C
Effect of temp. to Capacity	103%, 40℃ (104°F)
	100%, 25℃ (77°F)
	86%, 0℃ (32°F)
Battery Max Parallel Number	4
Certificate	• IEC60896 Certified
	• UL,CE Approved
	• Manufactured in ISO 45001, ISO 9001 and
	ISO 14001 certified production facilities

12V250Ah VRLA GEL Battery

Features

- 12 years design life (25℃)
- Proven AGM-GEL technology
- Excellent deep discharge recovery and cyclability
- Very low maintenance: no water addition
- Low self-discharge rate

12V250Ah VRLA GEL Battery	
Model	TVG-12250
Nominal Voltage	12V
Nominal Capacity	250AH
Energy	3.00KWH
Length	522mm (20.6inches)
Width	268mm (10.6inches)
Container Height	220mm (8.66inches)
Total Height	226mm (8.90inches)
Approx Weight	75.5kg (166.4lbs)
Terminal	T11
Short-circuit current	4104A
Internal Resistance (25℃)	Approx 2.9 mΩ (Fully charged)
Nominal Operating Temp. Range	25±3℃ (77±5°F)
Max.Charging Current (25℃)	0.25C
Effect of temp. to Capacity	103%, 40℃ (104°F)
	100%, 25℃ (77°F)
	86%, 0℃ (32°F)
Battery Max Parallel Number	4
Certificate	• IEC60896 Certified
	• UL,CE Approved
	• Manufactured in ISO 45001, ISO 9001 and
	ISO 14001 certified production facilities