

Pytes

Creating Undertaking & Sharing



Shanghai PYTES Energy Co., LTD

HYBRID INVERTERS PRODUCT CATALOG

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V3PL15K



Features

- IP65 waterproof and dustproof makes the inverter available for various working conditions
- 150% unbalanced load support
- Built-in AC coupled function
- Reserved communication port for BMS (RS485)
- Built-in WiFi for mobile monitoring (App is available)
- Optional dual outputs for smart load management (check sales)
- User-adjustable charging current and voltage
- Parallel operation up to 6 units

V3PL15K

Model

Maximum PV Input Power	22500 W
Rated Output Power	15000 W
Maximum Charging Power	15000 W

Grid-tie Operation

PV Input (DC)

Nominal DC Voltage / Maximum DC Voltage	720 VDC / 1000 VDC
Start-up Voltage / Initial Feeding Voltage	320 VDC / 350 VDC
MPP Voltage Range	350 – 950 VDC
Number of MPP Trackers / Maximum Input Current	2 / A: 26A, B: 26A
Number of Strings Per MPP Tracker	A: 2, B: 2

Grid Output (AC)

Nominal Output Voltage	230 VAC (P-N) / 400 VAC (P-P)
Output Voltage Range	184 – 265 VAC per phase
Nominal Output Current	21.7 A per phase
Power Factor Range	0.9 lag – 0.9 lead

Efficiency

Maximum Conversion Efficiency (DC/AC)	>96%
European Efficiency @V _{nominal}	>95%

OFF-Grid Operation

AC Input

AC Start-up Voltage / Auto Restart Voltage	120 – 140 VAC / 180 VAC
Acceptable Input Voltage Range	170 – 290 VAC per phase
Maximum AC Input Current	40 A

PV Input (DC)

Maximum DC Power	22500 W
Maximum DC Voltage	1000 VDC
MPP Voltage Range	350 – 950 VDC
Number of MPP Trackers / Maximum Input Current	2 / A: 26A, B: 26A
Number of Strings Per MPP Tracker	A: 2, B: 2

Battery Mode Output (AC)

Nominal Output Voltage	230 VAC (P-N) / 400 VAC (P-P)
Output Waveform	Pure sine wave
Efficiency (DC to AC)	91%

Hybrid Operation

PV Input (DC)

Max DC Voltage	1000 VDC
Start-up Voltage / Initial Feeding Voltage	320 VDC / 350 VDC
MPP Voltage Range	350 – 950 VDC
Number of MPP Trackers / Maximum Input Current	2 / A: 26A, B: 26A
Number of Strings per MPP Tracker	A: 2, B: 2

Grid Output (AC)

Nominal Output Voltage	230 VAC (P-N) / 400 VAC (P-P)
Output Voltage Range	184 – 265 VAC per phase
Nominal Output Current	21.7 A per phase

AC Input

AC Start-up Voltage / Auto Restart Voltage	120 – 140 VAC / 180 VAC
Acceptable Input Voltage Range	170 – 290 VAC per phase
Maximum AC Input Current	40A

Battery Mode Output (AC)

Nominal Output Voltage	230 VAC (P-N) / 400 VAC (P-P)
Efficiency (DC to AC)	91%

Battery & Charger

Battery Voltage Range	40 – 62 VDC
Maximum Charging Current	300 A

General

Physical

Dimension L x W x H (mm)	255 X 660 X 750
Net Weight (kgs)	78

Interface

Communication Port	RS-232, RS-485, USB, CAN and Wi-Fi
Intelligent Slot	Optional for SNMP and Modbus cards

Environment

Humidity	0 ~ 100% RH (Non-condensing)
Operation Temperature	-25 to 60°C, > 45°C power derating
Altitude	0 – 1000m**

Protection & Certificate

Safety	IEC 62109, IEC 62116, IEC 61727, IEC 61683
Grid Connection Standard	NRS097-2-1:2017, VDE-AR-N4105

*These figures are based on VDE-4105 standard. All figures may vary depending on different AC voltage and country requirements.

** Power derating 1% every 100 m when altitude is over 1000m.

Product specifications are subject to change without further notice.

V3PL12K



Features

- IP65 waterproof and dustproof makes the inverter available for various working conditions
- 150% unbalanced load support
- Two independent AC power sources connected and switched automatically
- Reserved communication port for BMS (RS485)
- Built-in WiFi for mobile monitoring (App is available)
- Dual output for smart load control
- User-adjustable charging current and voltage
- Parallel operation up to 6 units

V3PL12K

Model

RATED POWER	12000 W
PV INPUT (DC)	
Maximum DC Power	18000 W
Nominal DC Voltage	720 VDC
Maximum DC Voltage	900 VDC
Working DC Voltage Range	150 VDC ~ 900 VDC
Start-up Voltage / Initial Feeding Voltage	150 VDC / 150 VDC
MPP Voltage Range / Full Load MPP Voltage Range	150 VDC ~ 850 VDC / 400VDC ~ 850 VDC
Number of MPP Trackers / Maximum Input Current	2 /A: 27A, B:18A
Grid Output (AC)	
Nominal Output Voltage	230 VAC (P-N) / 400 VAC (P-P)
Output Voltage Range	184 – 265 VAC per phase
Output Frequency Range	47.5 ~ 51.5 Hz or 59.3~ 60.5Hz
Nominal Output Current	17.4A per phase
Inrush Current/Duration	22 A per phase / 20ms
Maximum Output Fault Current/Duration	66 A per phase / 1ms
Maximum output Overcurrent Protection	66 A per phase
Power Factor Range	0.9 lead – 0.9 lag
AC Input	
AC Start-up Voltage	120-140 VAC per phase
Auto Restart Voltage	180 VAC per phase
Acceptable Input Voltage Range	170 – 290 VAC per phase
Nominal Frequency	50 Hz / 60 Hz
AC Input Power	12KVA/12KW
Maximum AC Input Current	40 A
Inrush Input Current	40 A / 1ms
Battery Mode Output (AC)	
Nominal Output Voltage	230 VAC (P-N) / 400 VAC (P-P)
Output Frequency	50 Hz / 60 Hz (auto sensing)
Output Waveform	Pure sine wave
Output Power	12KVA/12KW
Efficiency (DC to AC)	93%
BATTERY & CHARGER (Lead-acid/Li-ion)	
DC Voltage Range	40 – 60 VDC
Nominal DC Voltage	48 VDC
Maximum Battery Discharging Current	250A
Maximum Charging Current	240A
GENERAL	
PHYSICAL	
Dimension, L x W x H (mm)	247 x 500 x 650
Net Weight (kgs)	54
INTERACE	
Communication Port	RS-232/USB/RS485/CAN/WI-FI
Intelligent Slot	Optional SNMP, Modbus cards available
ENVIRONMENT	
Protective Class	I
Ingress Protection Rating	IP65
Humidity	0 ~ 100% RH (No condensing)
Operating Temperature	-25 to 60°C (Power derating above 45°C)
Altitude	Max. 1000m*

*These figures are based on VDE-4105 standard. All figures may vary depending on different AC voltage and country requirements.
** Power derating 1% every 100 m when altitude is over 1000m.
Product specifications are subject to change without further notice.

V3PL10K



Features

- IP65 waterproof and dustproof makes the inverter available for various working conditions
- 150% unbalanced load support
- Two independent AC power sources connected and switched automatically
- Reserved communication port for BMS (RS485)
- Built-in WiFi for mobile monitoring (App is available)
- Dual output for smart load control
- User-adjustable charging current and voltage
- Parallel operation up to 6 units

V3PL10K

Model

RATED POWER	10000 W
PV INPUT (DC)	
Maximum DC Power	15000 W
Nominal DC Voltage	720 VDC
Maximum DC Voltage	900 VDC
Working DC Voltage Range	150 VDC ~ 900 VDC
Start-up Voltage / Initial Feeding Voltage	150 VDC / 150 VDC
MPP Voltage Range / Full Load MPP Voltage Range	150 VDC ~ 850 VDC / 420VDC ~ 850 VDC
Number of MPP Trackers / Maximum Input Current	2 /A: 18A, B:18A
Grid Output (AC)	
Nominal Output Voltage	230 VAC (P-N) / 400 VAC (P-P)
Output Voltage Range	184 – 265 VAC per phase
Output Frequency Range	47.5 ~ 51.5 Hz or 59.3~ 60.5Hz
Nominal Output Current	14.5A per phase
Inrush Current/Duration	22 A per phase / 20ms
Maximum Output Fault Current/Duration	66 A per phase / 1ms
Maximum output Overcurrent Protection	66 A per phase
Power Factor Range	0.9 lead – 0.9 lag
AC Input	
AC Start-up Voltage	120-140 VAC per phase
Auto Restart Voltage	180 VAC per phase
Acceptable Input Voltage Range	170 – 290 VAC per phase
Nominal Frequency	50 Hz / 60 Hz
AC Input Power	10KVA/10KW
Maximum AC Input Current	40 A
Inrush Input Current	40 A / 1ms
Battery Mode Output (AC)	
Nominal Output Voltage	230 VAC (P-N) / 400 VAC (P-P)
Output Frequency	50 Hz / 60 Hz (auto sensing)
Output Waveform	Pure sine wave
Output Power	10KVA/10KW
Efficiency (DC to AC)	93%
BATTERY & CHARGER (Lead-acid/Li-ion)	
DC Voltage Range	40 – 60 VDC
Nominal DC Voltage	48 VDC
Maximum Battery Discharging Current	220A
Maximum Charging Current	200A
GENERAL	
PHYSICAL	
Dimension, L x W x H (mm)	247 x 500 x 650
Net Weight (kgs)	50
INTERACE	
Communication Port	RS-232/USB/RS485/CAN/WI-FI
Intelligent Slot	Optional SNMP, Modbus cards available
ENVIRONMENT	
Protective Class	I
Ingress Protection Rating	IP65
Humidity	0 ~ 100% RH (No condensing)
Operating Temperature	-25 to 60°C (Power derating above 45°C)
Altitude	Max. 1000m*

*These figures are based on VDE-4105 standard. All figures may vary depending on different AC voltage and country requirements.
** Power derating 1% every 100 m when altitude is over 1000m.
Product specifications are subject to change without further notice.

V3PL8K



Features

- IP65 waterproof and dustproof makes the inverter available for various working conditions
- 150% unbalanced load support
- Two independent AC power sources connected and switched automatically
- Reserved communication port for BMS (RS485)
- Built-in WiFi for mobile monitoring (App is available)
- Dual output for smart load control
- User-adjustable charging current and voltage
- Parallel operation up to 6 units

V3PL8K

Model

RATED POWER

8000 W

PV INPUT (DC)

Maximum DC Power	12000 W
Nominal DC Voltage	720 VDC
Maximum DC Voltage	900 VDC
Working DC Voltage Range	150 VDC ~ 900 VDC
Start-up Voltage / Initial Feeding Voltage	150 VDC / 150 VDC
MPP Voltage Range / Full Load MPP Voltage Range	150 VDC ~ 850 VDC / 400VDC ~ 850 VDC
Number of MPP Trackers / Maximum Input Current	2 / A: 15A, B:15A

Grid Output (AC)

Nominal Output Voltage	230 VAC (P-N) / 400 VAC (P-P)
Output Voltage Range	184 – 265 VAC per phase
Output Frequency Range	47.5 ~ 51.5 Hz or 59.3~ 60.5Hz
Nominal Output Current	11.6A per phase
Inrush Current/Duration	22 A per phase / 20ms
Maximum Output Fault Current/Duration	66 A per phase / 1ms
Maximum output Overcurrent Protection	66 A per phase
Power Factor Range	0.9 lead – 0.9 lag

AC Input

AC Start-up Voltage	120-140 VAC per phase
Auto Restart Voltage	180 VAC per phase
Acceptable Input Voltage Range	170 – 290 VAC per phase
Nominal Frequency	50 Hz / 60 Hz
AC Input Power	8KVA/8KW
Maximum AC Input Current	40 A
Inrush Input Current	40 A / 1ms

Battery Mode Output (AC)

Nominal Output Voltage	230 VAC (P-N) / 400 VAC (P-P)
Output Frequency	50 Hz / 60 Hz (auto sensing)
Output Waveform	Pure sine wave
Output Power	8KVA/8KW
Efficiency (DC to AC)	93%

BATTERY & CHARGER (Lead-acid/Li-ion)

DC Voltage Range	40 – 60 VDC
Nominal DC Voltage	48 VDC
Maximum Battery Discharging Current	200A
Maximum Charging Current	160A

GENERAL

PHYSICAL

Dimension, L x W x H (mm)	247 x 500 x 650
Net Weight (kgs)	50

INTERACE

Communication Port	RS-232/USB/RS485/CAN/WI-FI
Intelligent Slot	Optional SNMP, Modbus cards available

ENVIRONMENT

Protective Class	I
Ingress Protection Rating	IP65
Humidity	0 ~ 100% RH (No condensing)
Operating Temperature	-25 to 60°C (Power derating above 45°C)
Altitude	Max. 1000m*

*These figures are based on VDE-4105 standard. All figures may vary depending on different AC voltage and country requirements.

** Power derating 1% every 100 m when altitude is over 1000m.

Product specifications are subject to change without further notice.

V1PL6K



Features

- Dual outputs for smart load control
- Self-consumption and Feed-in to the grid
- Built-in communication port for BMS (RS485), Wi-Fi
- Programmable multiple operation modes: Grid-tie, off-grid and grid-tie with backup
- IP65 waterproof and dustproof makes the inverter available for various working conditions
- Programmable supply priority for PV, Battery or Grid
- User-adjustable charging current and voltage
- Parallel operation up to 9 units

V1PL6K

Model

Rated Output Power 6000W

PV Input (DC)

Maximum PV Power 7000W
Maximum PV Array Open Circuit Voltage 500 VDC
MPPT Range @ Operating Voltage 120 VDC – 400 VDC
Maximum PV Array Short Circuit Current 30 A
Number of MPP Tracker 1

Grid-tie Operation

Grid Output (AC)

Nominal Output Voltage 220 / 230 / 240 VAC
Feed-in Grid Voltage Range 195.5 – 253 VAC @India regulation
184 – 264.5 VAC @Germany regulation
184 – 264.5 VAC @South America regulation
Feed-in Grid Frequency Range 49 – 51Hz @India regulation
47.5 – 51.5Hz @Germany regulation
57 – 62Hz @South America
Nominal Output Current 26A
Power Factor Range >0.99
Maximum Conversion Efficiency (DC/AC) 95%

OFF-Grid, Hybrid Operation

Grid Input

Acceptable Input Voltage Range 90 – 280 VAC or 170 – 280 VAC
Frequency Range 50 Hz / 60 Hz (Auto sensing)
Transfer Time < 10ms (for UPS)
< 20ms (for home appliances)
< 50ms (for parallel system operation)
Rating of AC Transfer Relay 40 A

Battery Mode Output (AC)

Nominal Output Voltage 220 / 230 / 240 VAC
Output Waveform Pure sine wave
Efficiency (DC to AC) 93%

Battery & Charger

Nominal DC Voltage 48 VDC
Maximum Charging Current (from Grid) 120 A
Maximum Charging Current (from PV) 120 A
Maximum Charging Current 120 A
Automatic Generator Start Integrated

General

Dimension, L x W x H (mm) 192 x 360 x 665
Net Weight (kgs) 27

Interface

Parallel-able Yes, 9 Units
External Safety Box (Optional) Yes
Communication USB or RS232 / Dry Contact / RS485 / Wi-Fi

Environment

Humidity 0 – 95% RH (No condensing)
Operating Temperature -25°C to 50°C

Product specifications are subject to change without further notice.

Train



Staff
Place
Content

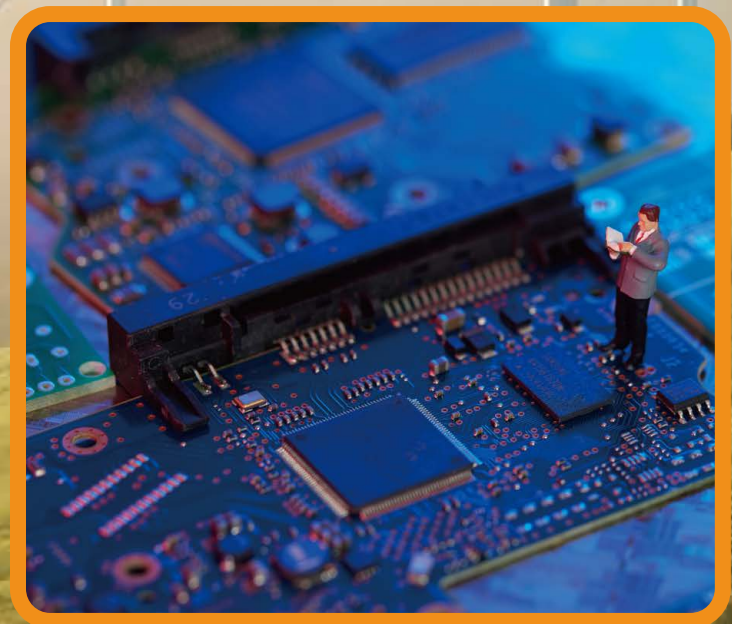
Product Manager, Quality Manager
Guangdong Factory
After Sales

Sales Market
Online
Selling Point

After Sales Support

5-year machine warranty

- Machine replacement
- Certified Engineer Change Board





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