



PES-700Pro/PES-1200Pro
/PES-2400Pro
Portable Energy Storage

User Instruction



Safety Warning

- [1]** This product is not intended for children.
- [2]** If anyone else uses this product, make sure to remind them to read this manual and fully understand how to use this product.
- [3]** Before using this product, please remove all packaging and untie the cables.
- [4]** Don't disassemble this product without authorization to avoid unexpected dangers. If you need maintenance, please contact customer service.
- [5]** If this product has been violently shocked, dropped, or otherwise damaged, do not use it and take it to service personnel.
- [6]** Don't place this product near heat sources such as fire or stoves.
- [7]** Don't use this product near flammable gases or liquids.
- [8]** Don't put this product on flammable objects such as carpets, paper, cardboard, etc. When product is running, please keep it away from items which are may affected by high temperature, such as blankets, pillows, mattresses, etc.
- [9]** Don't expose this product to any liquids, don't immerse this product in water or even get it wet. Don't use this product in rain or humid environment.
- [10]** This product becomes hot during use and must be properly ventilated. Please ensure that there is at least 7.5 cm of space around the product.
- [11]** When using this product, please follow the required temperature in this manual. If the temperature's too high, the battery may get on fire. If it's too low, this product will work undesirably or even cannot work. If this product exudes peculiar smell or heat when using, please switch it off and place it in one open place for observation. After confirming safety, please contact the manufacturer or dealer of this product.
- [12]** Don't place other heavy objects on the top of this product.
- [13]** Don't forcibly block the fan when using, or leave this product in one stuffy or dusty space.
- [14]** Don't use this product in environments with strong static electricity or strong magnetic field.
- [15]** Do not use this product at an altitude exceeding 2000m.
- [16]** AC output of this product is 110V-240V, don't insert your fingers or any hand-held metal conductors into the AC output socket.
- [17]** Don't short-circuit the output of this product.
- [18]** Please match power station model according to electrical equipment power. It's forbidden to use this product with excessive power or overload.
- [19]** Don't use this product with damaged power strips or plugs. If damaged, replace power strips or plugs immediately.



Safety Warning

- [20]** Do not charge this product with any damaged charging cables.
- [21]** Please choose solar panel charging according to the electrical parameters specified in this manual.
- [22]** To minimize the risk of electric-shock, turn off and unplug this product before maintenance or cleaning.
- [23]** Operation of this equipment in a residential environment could cause radio interfere

1 Disclaimer

Please read this user manual (hereinafter referred to as the "User Manual") and fully understand its content before using this product (hereinafter referred to as the "Product") and always ensure correct use of the Product. After reading the User Manual, please keep it properly for future reference. Failing to operate the Product correctly may cause serious injury to yourself or others, or cause damage to the Product and property. Using the Product will be deemed that you have understood, recognized and accepted all the terms and contents included in the User Manual. The user promises to be responsible for his/her own behavior and all consequences arising therefrom. The manufacturer will not be liable for any losses caused by the user's failure to use the Product according to the User Manual.

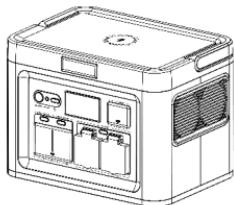
Subject to compliance with applicable laws and regulations, the manufacturer is entitled to the final interpretation of the User Manual and all related documents for the Product.

The User Manual is subject to update, revision or termination without notice.

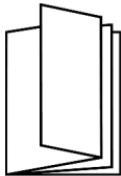
2 General

The PES-700Pro/PES-1200Pro/PES-2400Pro is a portable Energy storage product. Featuring multi-port AC output and DC output functions as well as built-in LED lighting, this product can be used to provide power supply for mobile phones, laptops, cameras, TVs, various chargers, game consoles, DVD players, small power tools and other equipment. It is very convenient for emergency off-grid demand such as sudden power failure, snowstorm or hurricane, outdoor tourism, outdoor operation, RV power supply, etc. There is perfect performance with fast charging, high capacity and long cycle life.

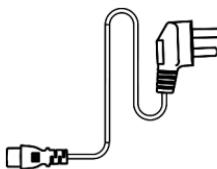
3 Packing list



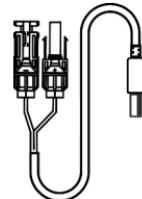
Portable Energy Storage



User Manual



AC Power Cable



MC4-Anderson connector cable

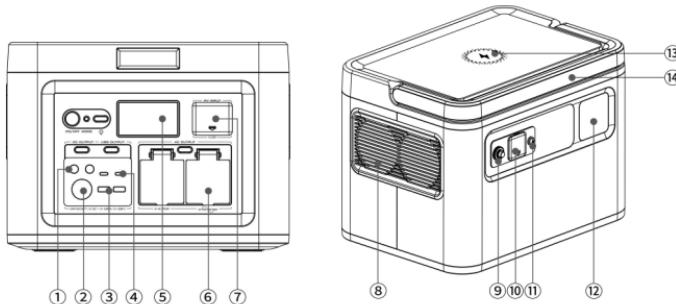
4 Specification

■ TECHNICAL SPECIFICATIONS

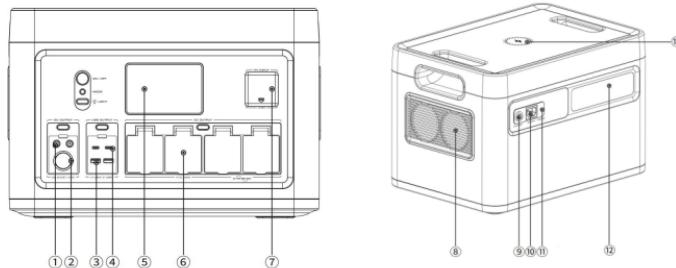
General parameters	Description		Portable Energy Storage										
	Model		PES-700Pro		PES-1200Pro		PES-2400Pro						
	Specifications	EU/UK	US	EU/UK	US	EU/UK	US						
	Battery Type	Lithium Iron Phosphate		Lithium Iron Phosphate		Lithium Iron Phosphate							
	Rated Capacity	22.4V, 30Ah/672Wh		25.6V, 42Ah/1075.2Wh		51.2V, 36Ah/1843.2Wh							
	Net Weight	≈10 kg		≈ 15kg		≈ 26kg							
	Product Size	327mm*235mm*242mm		360mm*262mm*265mm		430mm*300mm*287mm							
	Operating Temp	14 to 104°F (-10 to 40°C)											
	Charging Temp	32 to 104°F (0 to 40°C)											
Input	Storage Temp	-4 to 113°F (-20 to 45°C)											
	AC Input Voltage	200V-260V~2.6A, 50Hz	100V-130V~5A, 60Hz	200V-260V~3.5A, 50Hz	100V-130V~6.7A, 60Hz	200V-260V~6.5A, 50Hz	100V-130V~12.5A, 60Hz						
	AC Input Power	AC 600W		AC 800W		AC 1500W							
	PV Input	DC 12V-55V, 240W Max		DC 12V-55V, 430W Max		DC 12V-55V, 800W	DC 12V-75V, 800W						
Output	Car Charging	DC 12V/24V, 192W Max		DC 12V/24V, 192W Max		DC 12V/24V, 192W Max							
	AC Output Voltage x2	230V~50Hz	110V~60Hz	230V~50Hz	110V~60Hz	230V~50Hz	110V~60Hz						
	Rated Output Power	700W		1200W		2400W							
	Output Waveform	Pure Sine Wave											
	UPS Switching Time	10ms											
	Cigarette Lighter Socket Output	12V~ 10A											
	DC Output x2	12V~ 3A (Each)											
	USB-A Output x2	5V~ 3A, 9V~ 2A, 12V~ 1.5A, 18W Max											
	USB-C Output x2	5V/9V/12V/15V/20V~ 3A, 20V~ 5A, 100W Max											
	Wireless Charge	10W											
	LED Light	3W											

5 Product Structure Diagram

PES-700Pro/PES-1200Pro

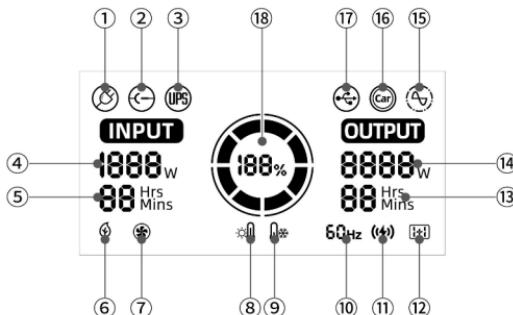


PES-2400Pro



- ① DC Output
- ② Cigarette Lighter Socket Output
- ③ USB-A Output
- ④ USB-C Output
- ⑤ LCD Screen Display
- ⑥ AC Output 700W ×2
- ⑦ PV Input
- ⑧ Air Intake Vent with Cooling Fan
- ⑨ OLP Reset
- ⑩ AC Input
- ⑪ Grounding Port
- ⑫ LED Light
- ⑬ Wireless Charge
- ⑭ Folding Handle

*The AC socket, AC output voltage and frequency of the Product may vary in different countries or regions. Please refer to the actual product!

Display screen

①	AC Input	When the AC charging cable is inserted, this label is displayed on the LCD.
②	DC Input	When the DC DC/SOLAR PV charging cable is inserted, this label is displayed on the LCD.
③	UPS Mode	When the device is in the AC charging state and the AC output is turned on, the UPS mode automatically starts and this label is displayed on the LCD.
④	Input Power	When charging, the display displays "INPUT" and charging power.
⑤	Input Time	When charging, the display shows full remaining time.
⑥	Quick Charge Switching	When the AC charging mode is used, the label is displayed when the charging mode is switched to slow charge.
⑦	Fan Start Cooling Status	When the fan is running, this label is displayed on the LCD.
⑧	High Temperature Alarm	When the inverter or battery pack temperature is too high, this label is displayed on the LCD.
⑨	Low Temperature Alarm	When the temperature of the inverter or battery pack is too low, this label is displayed on the LCD.
⑩	AC Output Frequency	When the AC switch is turned on, the display displays "OUTPUT" and the icon.
⑪	Wireless Charge	When the wireless charge output, this label is displayed on the LCD.
⑫	AC Parallel State (Parallel version)	When the AC output is synchronized, this identifier is displayed on the LCD.
⑬	Output Time	In the output state, the screen displays the remaining output time.
⑭	Output Power	Displays the total used power of DC output, USB-A, USB-C, and AC output. ⚠ Note: that this value can be adjusted multiple times as the energy consumption of the connected device changes. This is evident when the port is initially activated using a connected device.
⑮	AC Outputs	After the AC output switch is turned on, the icon lights up and displays the total ac output power, current remaining time, and current frequency.
⑯	Cigarette Lighter Socket Output	When the Cigarette Lighter Socket Output is turned on, the icon lights up and shows the total power used by the DC output, the current remaining time and frequency.
⑰	USB Output	When the USB output is turned on, the icon lights up and shows the total power used by the DC output, the current remaining time and frequency.
⑲	Battery Level Indicator	Displays the current battery level in the form of energy circle + percentage. The main switch is turned on and the battery quantity is displayed. During the charging process, the energy circle is displayed dynamically.

LIST OF FAULT CODES

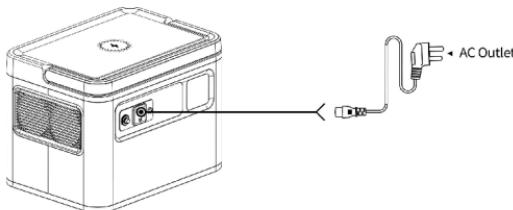
Fault code	Significance	solutions
E01	Battery over voltage	Please disconnect the charging cable and stop charging
E02	Battery under voltage	Please disconnect the output and charge the device
E03	Invert overheating	Please disconnect the output and wait 1-2 hours before operation
E04	Abnormal input voltage	Please disconnect the charging cable
E05	Abnormal grid frequency	Please disconnect the charging cable
E06	Output voltage anomaly	Please contact customer service center
E07	Output short circuit	Please disconnect the output and check the electrical equipment
E08	Output overload	Please disconnect output
E09	Invert an failure	Please contact customer service center

⚠ NOTE: When the DC load is abnormal, the system will automatically turn off the output and will not show the fault code. Please disconnect the output and check the electrical equipment then try again. When the USB load is abnormal, the corresponding output power will be zero and the system will not show the fault code. Please disconnect the outputs and check the electrical equipment, then try again.

6 How to Operate

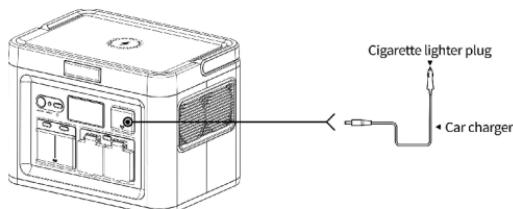
AC charging

Use the AC charging cable we provided to charge the device. It takes 1.3-2.0 hours to full capacity. When LCD showing battery power reached 100%, it means that battery has been full charged and input power will turn off in minutes.



12V car charging

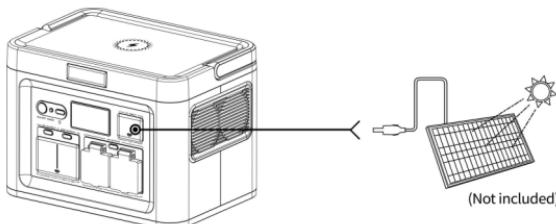
Use our car charging cable to charge. It takes 3-12 hours to fully charge. When the LCD shows that the battery power is 100%, it means that the battery is fully charged.



⚠ Caution: Do not charge the product with solar PV input and car port at the same time!

Solar PV charging

Support 100W/120W/200W solar panel charging, the charging time is determined by the sunlight intensity. Please place as many solar panels in direct sunlight as possible.



⚠ The total open circuit voltage of solar modules after series-parallel connection should not exceed the specified voltage! Please confirm the same voltage specification.

USB Output

1. After starting up, gently short press the USB switch to switch on the USB output function, and the screen will show "USB Output icon".

2. Plug the USB-A cable into the USB-A port to charge electric appliances.

3. Plug the USB-C cable into the USB-C port to charge electric appliances.

4. After using, gently short press the USB switch to turn off the USB output, then unplug the USB cable.

* When USB output function running for 6 hours (or even longer) with no load, the USB output function will be automatically turned off.

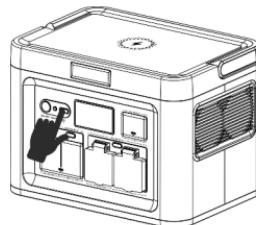
LED Lighting

1. Press the LED switch briefly to activate the LED lighting.

2. Repeat to press the LED switch briefly to switch the LED lighting modes in order: Weak, Strong, Strobe, SOS, and OFF.

3. Press and hold the LED switch to deactivate the LED lighting directly.

* The LED lighting will be automatically deactivated after working continuously for more than 12h.



AC Output

1. After the Product is switched on1, connect an AC consumer which is in the OFF state to the AC socket, and then switch on the consumer for operation.

2. Press the AC switch to enable the AC output. Then the AC-out is shown on the display.

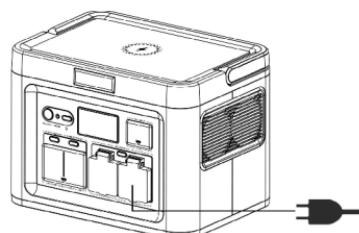
3. After use, press the AC switch to deactivate the AC output, and then disconnect the consumer.

* The AC output will be deactivated automatically once the battery level drops below 5%.

* The AC output will be deactivated automatically if it is in no-load condition for more than 6h.

* When the AC output of the Product is not in use, deactivate the AC output to save energy.

* The AC voltage standards and socket specifications may vary in different countries or regions.



Make sure to check whether the Product is compatible with the specifications of the consumer before use.

* Do not connect any other AC power supply to the AC socket of the Product.

* Do not charge the Product by plugging the power cable into its AC socket.

* If the AC output is short-circuited or the power of the consumer exceeds the AC output power of the Product, the protection function of the Product will be triggered. To solve this problem, eliminate the short circuit or remove the consumer first, and then switch the Product on and off to restore the AC output function.

How to switch frequency?

The device can intelligently identify the frequency of voltage when charging, and can automatically set the frequency, so please charge before using. After plugging in the charging cable, the display will show the frequency of current grid voltage if it displays "50", it is 50Hz, if it displays "60", is 60Hz.

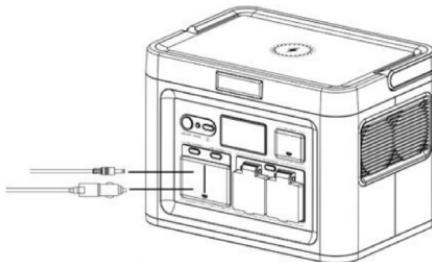
You can also manually set and change the voltage frequency. Before using the power station, please confirm the voltage frequency of your electrical equipment, 50 Hz or 60 Hz?

Then press the "Power on/off" button for 1 seconds to turn on the device. If "50" is displayed on the LCD, it means that the operating frequency of the power station is 50 Hz. If '60' is displayed on the LCD screen, it means 60 Hz.

If the frequency displayed on the LCD display does not match the frequency of the local power grid, you must change the frequency according to the following steps:

Step 1: press the button 'Power on/off' for 3 seconds to power off (the LCD display screen will turn off).

Step 2: keep pressing the button 'AC on/off' with your right finger first and then press the button 'Power on/off' for 1 seconds with your left finger, then release the both fingers off the buttons. You will see the frequency.



DC Output

1. After the Product is switched on, connect a DC consumer which is in the OFF state to the DC output, and then switch on the consumer for operation.
2. Press the DC switch briefly to enable the DC output. Then the DC-out is shown on the display.
3. After use, press the DC switch briefly to deactivate the DC output, and then disconnect the consumer.

Power output attention

Press output switch to select the desired outlet type. The output port must press the corresponding button to activate the port. When activated, the LCD display will turn on and provide detailed information about the charging output. When no output is activated, the LCD screen will automatically turn off.

Overload condition

When all outputs are short-circuited, the device automatically turns off the output power. The code "E07" will be displayed on the LCD screen.

When all outputs are overloaded, the device will automatically cut off the output power. The code "E08" will be displayed on the LCD screen.

Discharging

Press the "Power on/off" button for 1 seconds to turn on the device. Press the "Power on/off" button for 3 seconds to turn off the device. The device uses an advanced battery management system that allows it to charge the connected device through AC or DC output or USB output.

Cooling fan

The equipment is designed with an internal cooling fan to ensure that the product runs within the proper temperature range. When the device experiences a high output load, it will automatically turn on the fan. During discharging and charging, the fan may run intermittently to keep the internal temperature within the operating range. When the AC circuit is activated, the fan is likely to start to ensure normal operation.

Power saving sleep mode

- ① No charging (AC input + PV), no discharging (DC + USB + AC). When charging is not connected and only the main switch is turned on: sleep after 5 minutes.
- ② Any charging is connected (regardless of whether there is power), and it does not sleep.
- ③ Without any charging input, if the conditions of $USB < 5W$, $DC < 5W$, and $AC < 25W$ are all met simultaneously, the device will enter sleep mode after a delay of 8 hours.
- ④ The self-consumption of whole machine is less than 5mA after shutting down all switch and sleeping.
- ⑤ Please turn off the main power switch during transportation or it will not be used for a long time. Self-consumption after switching off is less than or equal to 200 μ A.

Equipment cleaning

Please make sure that the device is disconnected from all input power and output devices. Wipe with a clean, dry, non-soft cotton cloth. Remove all any foreign objects, dirt or other obstructions on the vents on both sides. While cleaning foreign objects in the side vents, do not allow debris, dirt or other blockage to enter the equipment.

Do not use corrosive cleaners or solvents.

Do not use compressed air to clean the side cooling vents, as it will cause foreign particles to enter the interior and cause a short circuit.

⚠ Note: To avoid the risk of electric shock, do not use metal objects to clean the ports.

Storage

If it will be stored for more than 1 month, please charge it to 50% capacity and keep it indoors, at normal temperature, and the maximum storage time shall not exceed 6 months. Please keep it away from direct sunlight.

Excessive temperature will lead to reduced service life, overheating and fire. Extremely cold conditions below the specified storage range can also impair the performance and service life of the equipment. Please keep away from corrosive chemicals and gases.

After taking it out of storage, perform a visual inspection to ensure that the appearance of the equipment and all accessories are qualified. Check the vents on the intake and exhaust sides to make sure they are free of foreign objects.

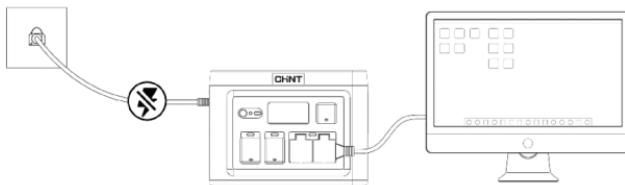
Entry-Level UPS Function User Manual

The entry-level UPS (Uninterruptible Power Supply) function offers basic power protection, allowing your device to automatically switch to battery power within 20 milliseconds after a sudden AC power outage.

Note: This feature is not professional-grade and does not support zero-millisecond switching. It is not suitable for equipment with extremely high demands for uninterrupted power supply. Before use, test the compatibility of your equipment to avoid affecting the user experience.

To use the UPS function, connect the product to the AC power source using an AC cable, plug your device into the product's output port, and turn on the AC switch. Once the switch is on, your device will continue to operate even after a power outage.

Caution: The UPS only supports devices with a power rating below its specified capacity. Avoid using other devices simultaneously to prevent overload. Our company is not responsible for any abnormal operation or data loss caused by improper use. The UPS function is ineffective when multiple AC-powered devices are connected.



AC Smart Load-Carrying Mode Introduction

The inverter within our product features an intelligent load-carrying capability, allowing you to utilize appliances that exceed the rated power (unlike traditional inverters, which become inoperative due to overload when appliances exceed the rated power).

The PES-700Pro can intelligently support devices up to 1000W, the PES-1200Pro up to 1500W, and the PES-2400Pro up to 3000W.

Please take note of the following when using the smart load-carrying mode:

1. The intelligent load-carrying feature is enabled by default.
2. This feature is not available during the charging state.
3. When utilizing the smart load-carrying mode, connect only one appliance to prevent voltage fluctuations from affecting the performance of other appliances when multiple devices are in use.

You can use devices such as heating or motor-driven appliances, including hair dryers and electric kettles. However, the smart load-carrying feature is not suitable for all types of appliances. Some equipment with strict voltage requirements may not be compatible, so thorough testing is recommended to avoid affecting your usage experience. It is not advised to power high-power-demand devices such as air conditioners, coffee machines, dryers, stoves, refrigerators, microwave ovens, lawn mowers, ovens, or washing machines with the product.

7 Trouble shooting

The device does not discharge

- ① Check whether the connecting wire has been inserted in right place;
- ② Check whether the total output power exceeds the rated output power;
- ③ Check whether the temperature of the equipment is too high.

The device is not charging

- ① Confirm that the AC socket on the wall and the AC charging cable are fully inserted into the AC input terminal;
- ② The device cannot be charged immediately after it is discharged. Please put it aside for an hour and try again, because it may enter the over-temperature protection.

8 Maintenance and Service

- It is recommended to use or store the Product at an ambient temperature of 20°C ~ 30°C, away from water, heat sources, and other metal objects.
- For safety, do not store the Product at an ambient temperature above 45°C or below -20°C.
- If long-term storage is required, charge and discharge the Product once every 3 months (i.e., discharge the Product to 30%, then charge it to 60%).
- If the battery level of the Product is lower than 1% after use, charge the Product to 60% and then store it properly. Idling at an extremely low battery level for a long time may cause irreversible damage to the cells and shorten the service life of the Product.

9 FAQ

Q: How long can the Product be stored?

A: It can be stored for 6 months when fully charged. It is recommended to charge it every three months.

Q: How long does it take to fully charge the Product?

A: It takes approximately 1.3-2.0h to charge the Product from 5% to 95% by using the provided AC power cable.

Q: Can the Product be used during charging?

A: The Product can be used during charging. The input and output power can be automatically regulated according to actual situations.

Q: Is the Product provided with temperature protection?

A: The protection will be triggered once the internal temperature is higher than 55°C during charging, or higher than 60°C during discharging.

Q: Can the Product be used to start a vehicle?

A: The Product cannot be used directly to start a vehicle, but charge the starter battery of a vehicle by using an optional charging cable. Generally, the vehicle can be started after being charged for 5-10 min.

10 After-sales Service

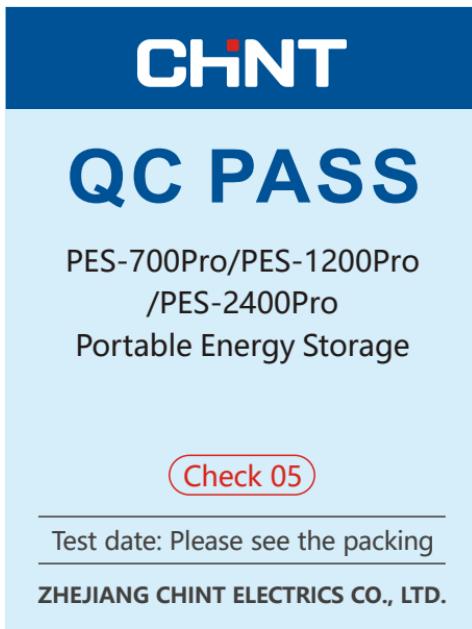
Policy with "Three Guarantees", including the following service contents:

The Product can be returned due to quality problems within 7 days from the date of purchase, or replaced within 30 days from the date of purchase. The warranty service will be provided free of charge during the warranty period, which is 12 months. It is important to observe the following requirements in order to protect your legitimate rights and interests:

- A valid proof of purchase must be issued by the sales outlet when the Product is purchased.
- The Warranty Card and the proof of purchase must be kept properly by the user and may not be replaced if lost.
- If the Product fails due to non-human reasons, the user can send the Product to the Customer Service Center for free repair within the warranty period by presenting the Warranty Card and proof of purchase.

During use, the Product in any of the following conditions will not be covered by the warranty:

1. The warranty period is expired.
2. Damage is caused due to falling-off or water immersion of the Product during use.
3. Failure is caused by unauthorized disassembly, modification or other human reasons.
4. Failure is caused by using the Product in a non-compliance environment.
5. Failure or damage is caused by force majeure (e.g., fire, earthquake, lightning strike).
6. Damage is caused by failure to use the Product according to the User Manual.
7. The Warranty Card or the proof of purchase fails to match the Product's serial number, or is altered.
8. The SN barcode on the Product is removed or damaged, making it vague and unrecognizable.

**FCC Warning**

This device complies with part 15 of the FCC Rules. Operation is subject to the following two conditions:

(1) This device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation. Any changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment. Note: This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures: -Reorient or relocate the receiving antenna. -Increase the separation between the equipment and receiver. -Connect the equipment into an outlet on a circuit different from that to which the receiver is connected. -Consult the dealer or an experienced radio/TV technician for help. This equipment complies with FCC radiation exposure limits set forth for an uncontrolled environment. This equipment should be installed and operated with minimum distance 20cm between the radiator & your body.

PES-700Pro/PES-1200Pro
/PES-2400Pro
Portable Energy Storage
User Instruction

Zhejiang Chint Electrics Co., Ltd.

Add: No.1, CHINT Road, CHINT Industrial Zone, North Baixiang,
Yueqing, Zhejiang 325603, P.R.China
E-mail: global-sales@chint.com
Website: <http://en.chint.com>
0463PS1608

