

# BP6 Series

## Variable Frequency Power Supply

The BP6 Series Variable Frequency Power Supply is a cost-effective AC power source capable of simulating voltage/frequency conditions of power grids worldwide. It is ideal for R&D testing and production testing in industries such as home appliances, motors, and power tools.

The BP6 Series Variable Frequency Power Supply features ultra-low output voltage distortion, dual-mode control via buttons/knobs, and configurable output current protection thresholds. It offers intuitive operation and comprehensive information display. Additionally, optional remote communication interfaces such as RS232, RS485, and Ethernet are available to enable real-time monitoring of the power supply's operating status.



### Product Application



Home Appliances



Electric Motors



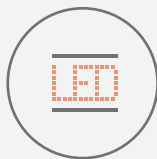
Electric Tools



Scientific Research  
Institutions



Import and Export  
Equipment



LED



Compressor



Avionics

## ⚡ Features

- BP60 Series
- > Button + knob operation for easy control.
- > Voltage waveform distortion as low as 1% for superior waveform quality.
- > Customizable output current protection threshold for enhanced load safety.
- > Automatic line voltage drop compensation.
- > Key lock function to prevent accidental operation.
- > Compact size to save space.
- > Standard RS232 interface, optional RS485 and Ethernet interfaces.

### BP63 Series

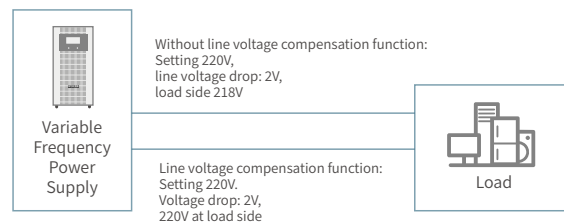
- > 7-inch true-color touch screen for intuitive operation.
- > Overload capacity up to 3 times, greatly reducing the required power capacity for motor loads.
- > Voltage waveform distortion as low as 1% for superior waveform quality.
- > Standard programming function to realize true programmable variable frequency power supply.
- > Standard soft-start function to effectively solve the problem of excessive motor starting current.
- > Standard RS232 interface, optional RS485 and Ethernet interfaces.
- > Automatic fan speed control for lower noise.

## ⚡ Customizable Output Current Protection Threshold

Users can customize the output current protection threshold. The power supply will quickly cut off the output when the load current exceeds the set value, effectively protecting the load.

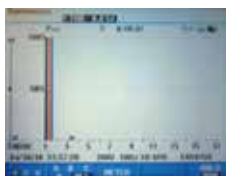
## ⚡ Line Voltage Drop Compensation Function

Equipped with line voltage drop compensation function: When the cable between the variable frequency power supply and the load is long, it can automatically adjust the voltage at the load end to keep the load end voltage consistent with the set voltage value.



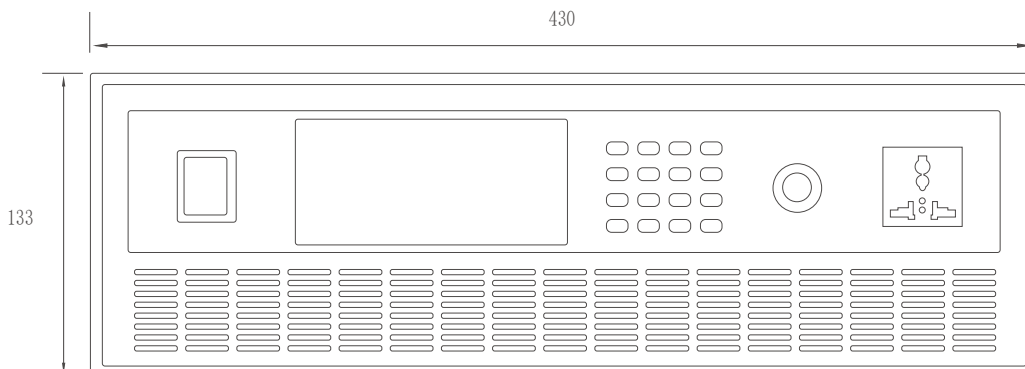
## ⚡ Ultra-low Waveform Distortion

The lower the distortion, the closer the output voltage is to a standard sine wave. When the output phase voltage of the BP6 Series Variable Frequency Power Supply is 220V/110V  $\pm 15\%$ , it can achieve THDu  $\leq 1\%$ .



## ⚡ Key Lock Function

Equipped with a key lock function, it automatically locks the buttons and knobs after 5 minutes of inactivity, effectively preventing accidental operation by users.



### ⚡ Single-phase output product

Note: For products below 10kVA, the input is single-phase 220V  $\pm$  10%; for products above 15kVA, the input is three-phase 380V  $\pm$  10%.

| Model  | Voltage          | Current (Low/High) | Power | Size (W*H*D) mm |
|--------|------------------|--------------------|-------|-----------------|
| BP6605 | Monophase 0-300V | 4.5A/2.25A         | 500VA | 430×133×380     |
| BP6001 |                  | 9A/4.5A            | 1kVA  |                 |
| BP6002 |                  | 18A/9A             | 2kVA  | 430×133×440     |
| BP6003 |                  | 27A/13.5A          | 3kVA  |                 |
| BP6005 |                  | 45A/22.5A          | 5kVA  | 350×635×530     |
| BP6010 |                  | 90A/45A            | 10kVA |                 |
| BP6015 |                  | 136A/68A           | 15kVA | 470×875×700     |
| BP6020 |                  | 182A/91A           | 20kVA |                 |
| BP6030 |                  | 272A/136A          | 30kVA | 530×1010×800    |
| BP6045 |                  | 408A/204A          | 45kVA |                 |
| BP6060 |                  | 544A/272A          | 60kVA |                 |

### ⚡ Three-phase output products

| Model   | Voltage                                     | Current (Low/High) | Power  | Size (W*H*D) mm |
|---------|---------------------------------------------|--------------------|--------|-----------------|
| BP6315  | Phase voltage 0-300V<br>Line voltage 0-520V | 45A/22.5A          | 15kVA  | 600×1135×1010   |
| BP6330  |                                             | 90A/45A            | 30kVA  |                 |
| BP6345  |                                             | 136A/68A           | 45kVA  | 700×1385×1240   |
| BP6360  |                                             | 182A/91A           | 60kVA  |                 |
| BP6390  |                                             | 272A/136A          | 90kVA  | 750×1445×1385   |
| BP63120 |                                             | 362A/181A          | 120kVA |                 |
| BP63150 |                                             | 454A/227A          | 150kVA | 800×1845×1450   |
| BP63180 |                                             | 544A/272A          | 180kVA |                 |

## ⚡ Technical Parameters

|                           |                         |                                                                                                                                                  |                                                                                                                                                                                                                       |
|---------------------------|-------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Input frequency           |                         |                                                                                                                                                  | 50Hz/60Hz±5%                                                                                                                                                                                                          |
| Output                    | Output voltage          | Range                                                                                                                                            | Phase Voltage: Low Range: 0-150V, High Range: 0-300V                                                                                                                                                                  |
|                           |                         | Error                                                                                                                                            | ± (0.2%+0.2%F.S.)                                                                                                                                                                                                     |
|                           | Output frequency        |                                                                                                                                                  | 40-70Hz Adjustable                                                                                                                                                                                                    |
| Frequency stability       |                         |                                                                                                                                                  | <±0.1%                                                                                                                                                                                                                |
| Transient recovery time   |                         |                                                                                                                                                  | ≤20ms                                                                                                                                                                                                                 |
| Source effect/load effect |                         |                                                                                                                                                  | ≤1%                                                                                                                                                                                                                   |
| Waveform distortion       |                         |                                                                                                                                                  | <1% (High/Low Range Voltage: 220V/110V ±15%, Resistive Load)                                                                                                                                                          |
| Overload capacity         |                         |                                                                                                                                                  | 100%-110% for 30s; 110%-120% for 10s; >120% Immediate Output Shutdown (Single-phase Output Models)<br><br>100%-110% for 5min; 110%-150% for 1min; 150%-200% for 5s; 200%-300% for 2s; ≥300% Immediate Output Shutdown |
| Protection function       |                         |                                                                                                                                                  | Automatic Protection & Alarm Display for Overvoltage, Overcurrent, Overload, Overtemperature and Short Circuit                                                                                                        |
| Display                   | Display mode            | LED Display (Single-phase Output Models) / 7-inch Touch Screen (Three-phase Output Models)                                                       |                                                                                                                                                                                                                       |
|                           | Output voltage          | Unit: V, Minimum Resolution: 0.1V                                                                                                                |                                                                                                                                                                                                                       |
|                           | Output current          | Unit: A, Minimum Resolution: 0.01A                                                                                                               |                                                                                                                                                                                                                       |
|                           | Output frequency        | Unit: Hz, Minimum Resolution: 0.1Hz                                                                                                              |                                                                                                                                                                                                                       |
|                           | Output power            | Unit: W/kW, Minimum Resolution: 1W /0.01kW                                                                                                       |                                                                                                                                                                                                                       |
| Features                  | Protection current      | Customizable Output Current Protection Threshold                                                                                                 |                                                                                                                                                                                                                       |
|                           | Communication function  | Optional RS485, RS232, LAN Communication Interfaces                                                                                              |                                                                                                                                                                                                                       |
|                           | Step programming        | 50 Programmable Voltage/Frequency Groups, Each Group's Running Time Adjustable up to 99H:59M:59S, Up to 60000 Cycles (Three-phase Output Models) |                                                                                                                                                                                                                       |
|                           | Resistance compensation | 0.000- 0.500Ω                                                                                                                                    |                                                                                                                                                                                                                       |
| Security                  | Insulation impedance    | ≥ DC500V, 10MΩ                                                                                                                                   |                                                                                                                                                                                                                       |
|                           | Voltage insulation      | DC2100V, 10mA, 60s                                                                                                                               |                                                                                                                                                                                                                       |
| Cooling mode              |                         |                                                                                                                                                  | Forced Air Cooling                                                                                                                                                                                                    |
| Environment               | Operating temperature   | 0~40°C                                                                                                                                           |                                                                                                                                                                                                                       |
|                           | Relative humidity       | 0~90% (Non-condensing)                                                                                                                           |                                                                                                                                                                                                                       |
|                           | Altitude                | < 1500m (Altitude)                                                                                                                               |                                                                                                                                                                                                                       |