HTND3/HSVC-B Series
AC Voltage Stabilizer

User Manual

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Please carefully read the user manual before the installation and use of the products,and then keep it properly as backup.

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HTND3/HSJWs /HSVC-B series
High-Precision Full-Automatic AC Voltage Stabilizer

Overview

HTND3/HSJW3/HSVC-B series high-precision full-automatic AC voltage stabilizer is a new generation of AC voltage stabilizer with LCD display developed by the company, with an innovative and luxury form design and wide voltage stabilization range free of additional distortion, it adopts a CPU capable of data processing and provides complete protection functions, including electronic overload protection, overvoltage protection, short circuit and temperature protection. With intuitive and clear digital display of input/output voltage, it is an ideal AC voltage stabilizer for all users.
Featured with high voltage stabilization precision and low loss, the product is suitable for voltage stabilization in families, schools, research institutes, laboratories, radio and television equipment, textile machinery, factories production lines, plant residence, various types of processing equipment.
HTND3/HSJW3/HSVC-B series high-precision full-automatic AC voltage stabilizer is composed of varitran, linear integrated control circuit, voltage and current sampling circuit, CPU processor, servo motor, transmission mechanism and other components. In case of mains voltage fluctuations or user load changes, the sampling circuit processes the voltage change signal through the control circuit and then the servo motor drives the relative motion of the varitran brush arm, that is, adjusts the primary and secondary turns ratio to achieve the purpose of automatic and stable output.

Main Technical Parameters

1. Model implication
Single phase: HTND represents ordinary pointer type, HTND2- represents LED display type and HTND3/HSVC-B represents LCD display type;
Three-phase: HSJW represents ordinary pointer type, HSJW2- represents LED display type and HSJW3- represents LCD display type;
2. Main technical indicators

Phase number / Item	Single phase	Three phase
Input voltage range	Technical indexes of each stabilizer are subject to indications on the stabilizer body	
Output voltage	220V ±4%	230V ±4%	380V ±4%	400V ±4%
Output overvoltage protection	246±1.6V	257±1.6V	425±1.7V	445±1.7V
Output undervoltage protection	184±1.6V	192±1.6V	------	------
Efficiency	>96%			
Frequency	50/60Hz			
Temperature rise	<90K			
Regulation time	<1s(When the input voltage fluctuate by 10%)			

Note 1: The technical parameters of the product are subject to the indicators on the body and generally the conventional products are not provided with "undervoltage protection". If required, the "undervoltage protection" shall be specially customized.
Note 2: The products above 5k are not provided with 110V output and. If required, 110V output end shall be indicated separately at order with a default value of 110V±4V. When at110V with load, article 3 should be strictly followed.
Note: 110V output end of the conventional products does not have the protection functions.
Note 3: The products with the input voltage beyond the above range can be specially customized.

3. See the figure for the output capacity curve

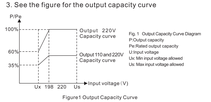


Fig.1 Output Capacity Curve Diagram
P:Output capacity
Pe:Rated output capacity
U:Input voltage
Ux: Min input voltage allowed
Un: Max input voltage allowed

Figure1 Output Capacity Curve

Product Overall Structure

1. The panel appearance of 1kVA- 10kVA high-precision full-automatic AC voltage stabilizer is shown in Figure 2.

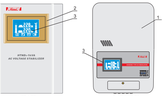


Figure 2: 1kVA-10kVA front panel.
Panel part: 1. Panel; 2. Display frame; 3. Display screen

2. The LCD operation mode display of HTND3/HSVC-B high-precision full-automatic AC voltage stabilizer is shown in Figure 3.

Figure 3: LCD mode display

2.1 LCD operation mode display:
1. Temperature display bar, 2. Input voltage,
3. Output voltage,
4. Load display bar, 5. Output delay display,
6. Output undervoltage display,
7. Output overvoltage display,
8. Protection display
2.2 Symbol meanings

Symbol	Symbol description
	Temperature display bar
	Load display bar
	Delay output
	Output overvoltage
	Output undervoltage
	Output protection

3. The back panel appearance of HTND3 - 1kVA--1.5kVA high-precision full-automatic voltage stabilizer is shown in Figure 4.

Figure 4: Rear panel part:
1. Rocker switch;
2. Fuse holder (overcurrent protection)
3. Input power line (plug)
4. Output triplex receptacle (220VAC)
5. Output two-pin socket (110VAC)

4. The rear panel appearance of HTND3 -- 2kVA high-precision full-automatic voltage stabilizer is shown in Figure 5.

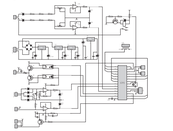
Figure 5: Rear panel part:
1. Overload protection switch
2. Output triplex receptacle (220VAC/10A)
3. Input neutral line (N);
4. Input phase line (L);
5. Protective earthing;
6. Output neutral line
7. Output phase line (110VAC)
8. Output neutral line
9. Output phase line (220VAC)

5. The rear panel appearance of HTND3 - 3kVA--5kVA high-precision full-automatic voltage stabilizer is shown in Figure 6.

Fig. 6: Rear panel part:
1. Miniature moulded case circuit breaker;
2. Output triplex receptacle (220VAC/10A)
3. Input neutral line (N);
4. Input phase line (L);
5. Protective earthing;
6. Output neutral line
7. Output phase line (110VAC)
8. Output neutral line
9. Output phase line (220VAC)

6. The rear panel appearance of HTND3-7kVA--10kVA high-precision full-automatic voltage stabilizer is shown in Figure 7.

Figure 7: Rear panel part:
1. Miniature moulded case circuit breaker;
2. Output triplex receptacle (220VAC/10A)
3. Input neutral line (N);
4. Input phase line (L);
5. Protective earthing;
6. Output neutral line
7. Output phase line (220VAC)

Electrical Schematic Diagrams

1. The schematic diagram of the detection control part of single-phase 1kVA--30KVA high-precision full-automatic AC voltage stabilizer is shown in Figure 8.