DPS MY-PS-3

DPS MY-PS-3 Digital Phase Converter User Manual

Model: MY-PS-3

1. Product Overview

The DPS MY-PS-3 Digital Phase Converter is designed to efficiently convert single-phase 200-240V power into stable 3-phase 220V power, specifically for operating 2HP (1.5kW) 6A motors. This device is ideal for workshops and homes where 3-phase power is not readily available, enabling the use of various industrial and commercial electrical equipment.

Image: The DPS MY-PS-3 Digital Phase Converter, a compact grey unit with clear labeling for input and output terminals.

2. Safety Information and Precautions

WARNING: Electrical work should only be performed by qualified personnel. Always disconnect power before installation or maintenance.

- The MY-PS-3 model must be used exclusively for a 2HP (1.5kW) 6A 3-phase motor.
- Do not use a DPS model that is not suitable for your motor specifications. Using an incorrect model may cause overheating or noise.
- Always verify your motor's horsepower (HP), rated current (A), and voltage (V) before selecting a DPS model.
- One DPS unit is designed for use with one motor only. Do not connect multiple motors to a single DPS.
- Ensure the motor's wiring is configured for 200V-240V operation.
- The input/output voltages of the DPS are 200V-240V.
- Select wire thickness appropriate for the capacity of the DPS and the motor.

How to Choose DPS Model (Electric Motor)

NO	DPS Model	3 - Phase Motor Specifications	
		Rated HP / kW	Rated Current (AMP)
1	MY-PS-0.5	0.25 HP / 0.2kW	0.75 AMP
2	MY-PS-1	0.5 HP / 0.4kW	1.5 AMP
3	MY-PS-2	1 HP / 0.75kW	3 AMP
4	MY-PS-3	2 HP / 1.5kW	6 AMP
5	MY-PS-5	3 HP / 2.2kW	9 AMP
6	MY-PS-7.5	5 HP / 3.7kW	15 AMP
7	MY-PS-10	7.5 HP / 5.5kW	23 AMP
8	MY-PS-15	10 HP / 7.5kW	30 AMP
9	MY-PS-20	15 HP / 11kW	45 AMP
10	MY-PS-25	20 HP / 15kW	60 AMP
11	MY-PS-30	25 HP / 18.7kW	75 AMP
12	MY-PS-40	30 HP / 22.5kW	90 AMP
13	MY-PS-50	40 HP / 30kW	120 AMP

Image: A caution sign highlighting critical safety precautions for using the DPS phase converter, including motor compatibility and wiring requirements.

3. Product Features and Specifications

Key Features:

- Converts single-phase power to 3-phase for motor operation.
- Simple and easy connection to motor.
- Compact size and lightweight design.
- Maintains continuous 3-phase power supply after motor startup.
- UL Listed (UL-US-2328605-1, UL-CA-2324527-1) for safety and compliance.
- Digital type phase converter with excellent startup torque.
- Low failure rate and non-flammable design.
- Sealed type construction protects against dust, moisture, and heat.
- Operates without high-frequency noise.
- Lower power consumption and high efficiency compared to other phase converters.

Technical Specifications:

- **Model Name:** MY-PS-3
- **Applicable Motor Capacity:** 2HP (1.5kW) 6A 3-Phase motor
- **Input Voltage:** 200-240V Single-Phase
- **Output Voltage:** 200-240V 3-Phase
- **Frequency:** 50/60 Hz
- **Dimensions (W x L x H):** 3.1" x 4.9" x 6.1" (80mm x 115mm x 154mm)
- **Net Weight:** 1.6 lbs (0.7 kg)

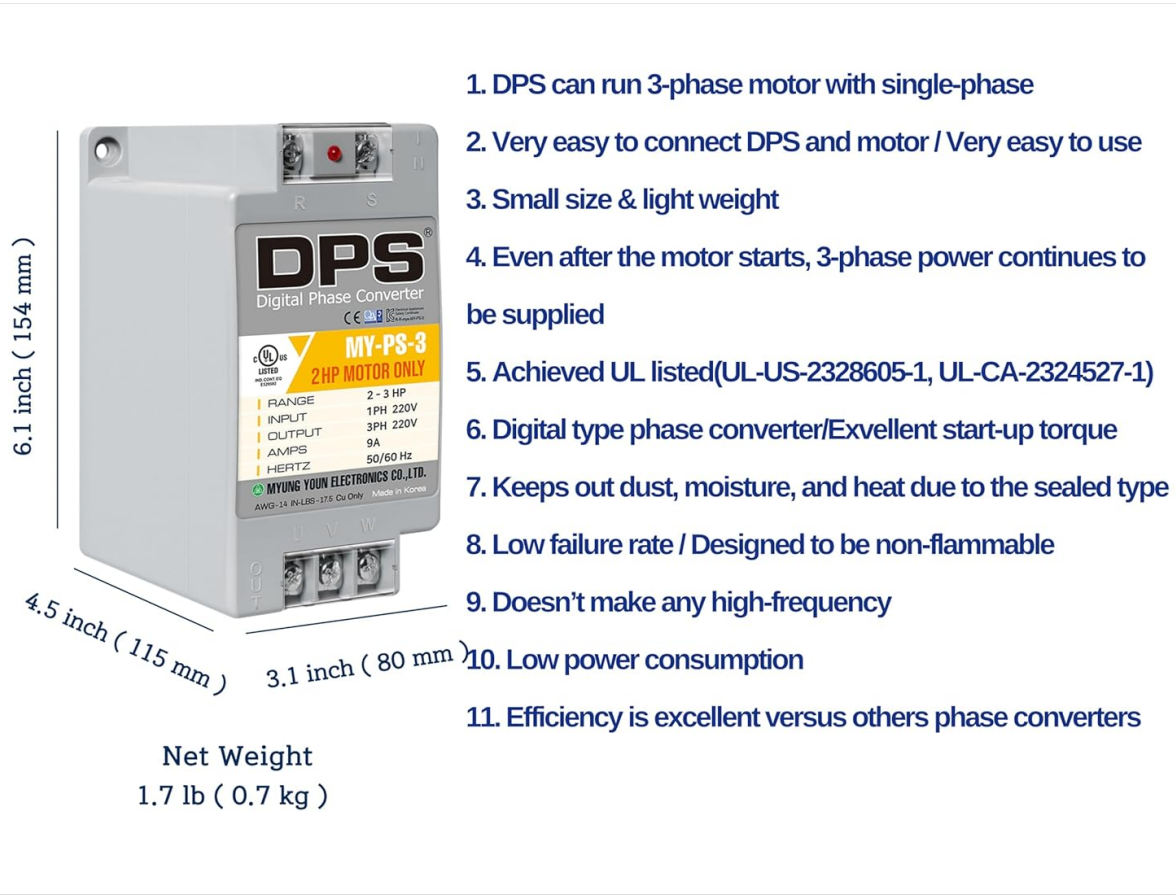

Image: Visual representation of the DPS MY-PS-3 unit with its dimensions and a list of key features.

4. Installation and Setup

Proper installation is crucial for the safe and effective operation of your DPS MY-PS-3 Digital Phase Converter. Please follow these steps carefully:

1. **Motor Compatibility Check:** Before installation, confirm that your motor is a 2HP (1.5kW) 6A 3-phase motor. Refer to the DPS model selection table below to ensure compatibility.

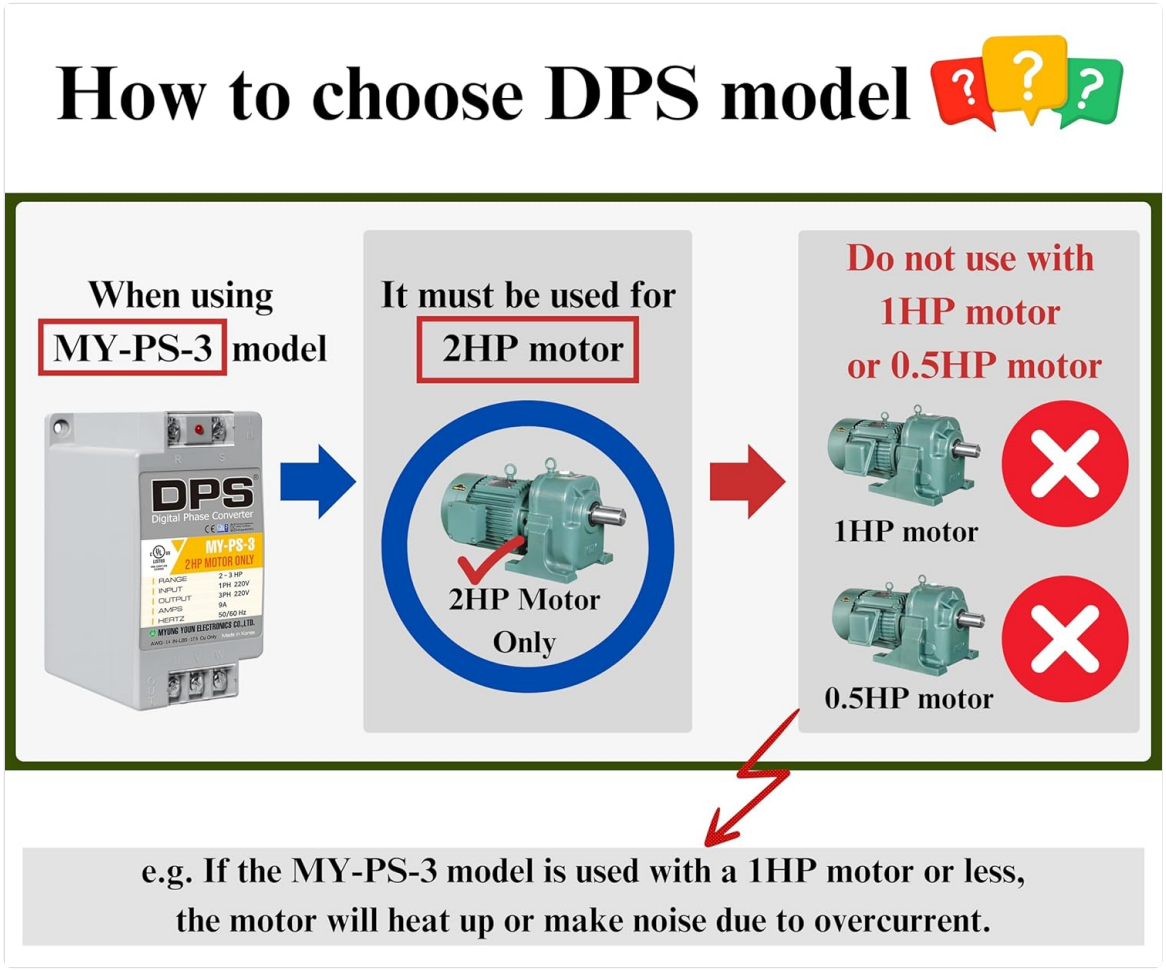

Image: Diagram illustrating that the MY-PS-3 model is exclusively for 2HP motors, and should not be used with 1HP or 0.5HP motors to prevent overheating or noise.

2. **Wiring Configuration:** Connect the single-phase 200-240V input power to the R and S terminals of the DPS unit. Connect the 3-phase 220V output from the U, V, and W terminals of the DPS unit to your 3-phase motor. Ensure all connections are secure and follow local electrical codes.

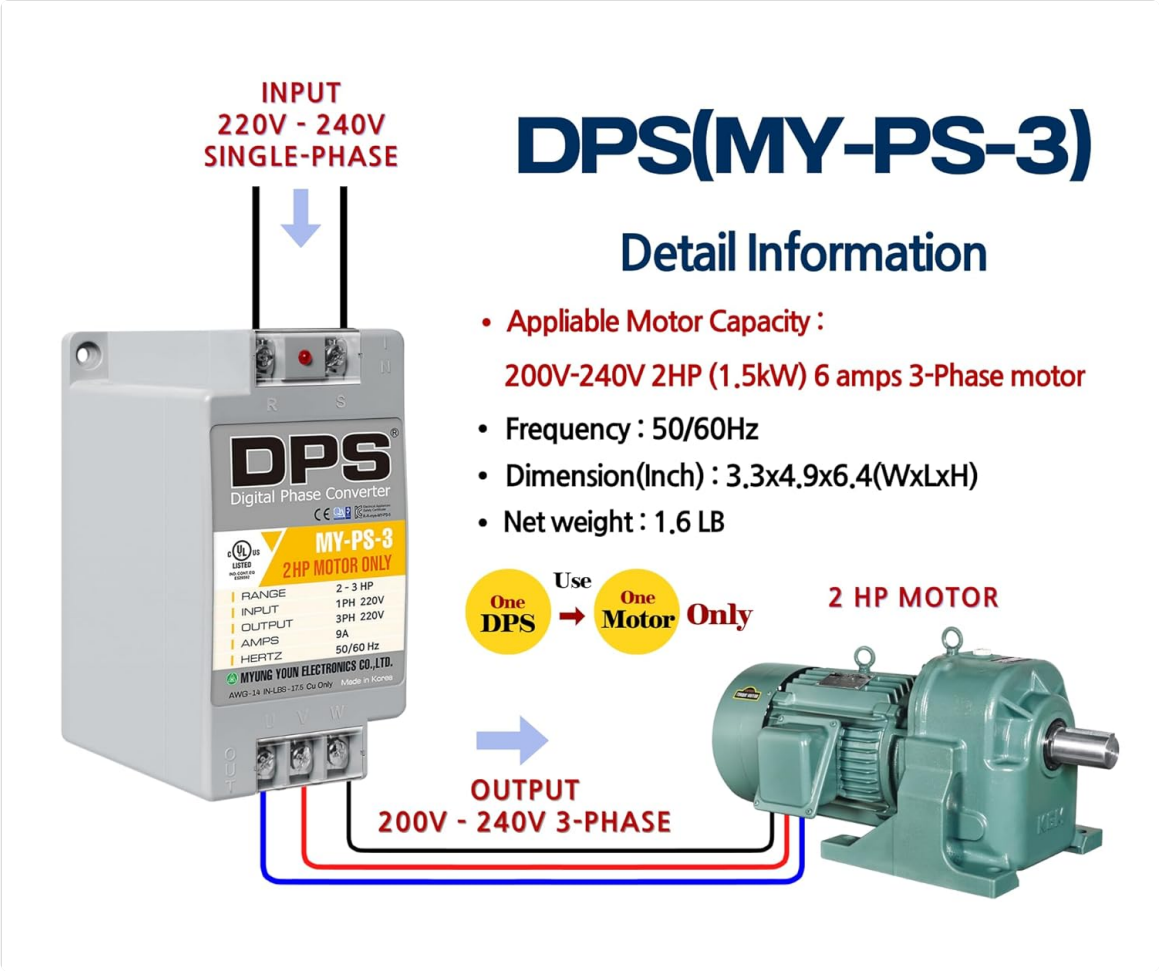

Image: A simplified wiring diagram showing the single-phase input to the DPS MY-PS-3 and the 3-phase output connection to a 2HP motor.

3. **Motor Wiring:** Verify that the motor's internal wiring is set for 200V-240V operation. Consult your motor's manual for specific wiring instructions.
4. **Wire Gauge:** Use appropriate wire gauges for both input and output connections to handle the 6A current draw and prevent overheating.

DPS Model Selection Table (Electric Motor)

NO	DPS Model	3 - Phase Motor Specifications	
		Rated HP / kW	Rated Current (AMP)
1	MY-PS-0.5	0.25 HP / 0.2kW	0.75 AMP
2	MY-PS-1	0.5 HP / 0.4kW	1.5 AMP
3	MY-PS-2	1 HP / 0.75kW	3 AMP
4	**MY-PS-3**	**2 HP / 1.5kW**	**6 AMP**
5	MY-PS-5	3 HP / 2.2kW	9 AMP
6	MY-PS-7.5	5 HP / 3.7kW	15 AMP
7	MY-PS-10	7.5 HP / 5.5kW	23 AMP

NO	DPS Model	3 - Phase Motor Specifications	
		Rated HP / kW	Rated Current (AMP)
8	MY-PS-15	10 HP / 7.5kW	30 AMP
9	MY-PS-20	15 HP / 11kW	45 AMP
10	MY-PS-25	20 HP / 15kW	60 AMP
11	MY-PS-30	25 HP / 18.7kW	75 AMP
12	MY-PS-40	30 HP / 22.5kW	90 AMP
13	MY-PS-50	40 HP / 30kW	120 AMP

Table: Comprehensive selection guide for DPS models based on motor horsepower and rated current. The MY-PS-3 model is highlighted for 2HP/1.5kW motors requiring 6 AMPs.

5. Operation

Once the DPS MY-PS-3 is correctly installed and wired, operating your 3-phase motor is straightforward:

1. **Power On:** Ensure all connections are secure and the motor is ready for operation. Apply single-phase power to the DPS unit.
2. **Motor Start:** Activate your 3-phase motor using its standard control mechanism (e.g., switch, starter). The DPS will convert the single-phase input to 3-phase output, allowing the motor to start and run smoothly.
3. **Continuous Operation:** The DPS continues to supply stable 3-phase power to the motor throughout its operation.
4. **Power Off:** To stop the motor, turn off its control mechanism. Disconnect power to the DPS unit when the motor is not in use for extended periods.

The DPS MY-PS-3 is designed for ease of use and reliable performance, providing excellent startup torque for your motor.

6. Maintenance

The DPS MY-PS-3 Digital Phase Converter is designed for minimal maintenance due to its sealed construction, which helps to keep out dust, moisture, and heat. Follow these general guidelines to ensure longevity:

- **Regular Inspection:** Periodically inspect the unit and its wiring for any signs of damage, loose connections, or wear.
- **Cleanliness:** Keep the unit clean and free from excessive dust buildup. Use a dry cloth for cleaning. Do not use liquids or abrasive cleaners.
- **Ventilation:** Ensure the installation area has adequate ventilation to prevent heat buildup around the unit, although its sealed design minimizes this concern.
- **Environmental Conditions:** Operate the unit within its specified environmental conditions (temperature, humidity) to prevent premature wear.

7. Troubleshooting

If you encounter issues with your DPS MY-PS-3, refer to the following common problems and their solutions:

- **Motor generates heat and noise:**
  Solution: Ensure the DPS model matches the motor's specifications. Using a DPS model that is too high compared to the motor's specifications can cause the motor to become hot and noisy.
- **No voltage on one phase from the DPS output:**
  Solution: Since DPS is induced through a motor and produces 3 phases, when the voltage is measured while the motor is running, 3 phases are produced. Ensure the motor is running when measuring output voltage.
- **Motor does not work after connecting DPS:**
  Solution: Try swapping the position of the wires connected to the 'U-V-W' output terminals of the DPS at least three times. This can resolve phase rotation issues.
- **DPS input current and voltage are unbalanced:**
  Solution: When there is little load on the motor, current and voltage imbalance may occur. However, when the motor is loaded more than 50%, the current and voltage typically become balanced. This is normal behavior under light load conditions.

8. Warranty and Support

The DPS MY-PS-3 Digital Phase Converter is a UL Listed product, ensuring compliance with recognized safety standards. For detailed warranty information and technical support, please refer to the official user guide provided with your product or contact Myung Youn Electronics directly.
You can also access the official User Guide (PDF)here.

Manufactured by Myung Youn Electronics Co., Ltd.

Related Documents - MY-PS-3

	DPS Gaming Desk Assembly and User Guide Comprehensive guide for assembling and using the DPS Gaming Desk, including safety warnings, parts list, and maintenance instructions.
	DPS 52851 Gaming Chair with Adjustable Headrest - Use, Care, and Assembly Guide Comprehensive guide for the DPS 52851 Gaming Chair, covering assembly instructions, usage tips, care guidelines, and limited warranty information. Features include adjustable headrest, 3D lumbar support, and tilt lockout.

	[MY-PS-2 Digital Phase Converter Specification | MYUNG YOUN ELECTRONICS] Detailed specifications, features, installation diagram, technical data, and cautions for the MY-PS-2 Digital Phase Converter by MYUNG YOUN ELECTRONICS. This device converts single-phase power to three-phase power for motors.
	[ATO VFD Quick Setup and Application Guide] A comprehensive guide to setting up and applying ATO Variable Frequency Drives (VFDs), covering quick setup, parameter configurations, and various control modes including panel control, three-wire system, external control, multi-stage operation, and constant pressure water supply systems.
	[MEAN WELL MSP-200 Series 200W Single Output Medical Type Power Supply Specifications] Detailed specifications, features, and technical data for the MEAN WELL MSP-200 series 200W single output medical type power supply, including electrical characteristics, environmental specifications, and safety approvals.
	[MEAN WELL LRS-200 Series 200W Single Output Switching Power Supply Datasheet] Comprehensive technical datasheet for the MEAN WELL LRS-200 series of 200W single-output enclosed switching power supplies. This document details features, applications, electrical specifications, environmental conditions, safety compliance, block diagrams, derating curves, static characteristics, and mechanical dimensions for models LRS-200-3.3 through LRS-200-48.