

## STATIC PHASE CONVERTER – PAM Series

Designed especially for running three-phase 230V Machine Tools and Motors from single-phase 230V power.

The Static Converter provides an inexpensive 3-phase power solution for home workshops and industrial use.

- IMMEDIATE DELIVERY FROM STOCK
- NO MORE CHANGING MOTORS OR SWITCH GEAR
- SIMPLE INSTALLATION
- RELIABILITY HAS PROVEN EXCEPTIONALLY GOOD
- GUARANTEED 12 MONTHS AGAINST MANUFACTURING DEFECTS

Uses include the following: Lathes, Mills, Grinders, Drills, Saws, Metal working and Wood working Equipment, Printing Machines and Equipment, Sewing Machines, Garbage Disposals, Food Processing Equipment, Meat Grinders, Dough Mixers, Food Blenders, Elevator Belts, and many more.

**RUNS THREE-PHASE MOTORS FROM SINGLE-PHASE POWER AT 2/3 RATED HP\***



PAM Models  
PAM-100HD through PAM-900HD dimensions

### METHOD 1 Reduced HP method

Using the PHASE-A-MATIC™ Static Converter alone will produce approximately **2/3 normal HP.\*** It runs **MOTOR LOADS ONLY.** This method is inexpensive and the most popular. It provides excellent results on most machine tools and can be for numerous other uses. Motor speed is not changed and most 2-speed motors, power feeds, coolant pumps, etc. will operate. Motor will instant reverse, there is nothing to change and all switch gear will work normally.

**\*Refers to wye-wound motors;** delta-wound motors will run at 50% rated HP. Delta-wound motors are rarely made in the United States but are occasionally found on some imported equipment and particularly on German and Italian machines.

### METHOD 2 Full or close to full HP method

Make your own type of ROTARY CONVERTER using the PHASE-A-MATIC™ Static Converter. In conjunction with a three-phase motor used as an idler motor, this can produce full or close to full HP. When running unloaded, the windings of the motor function as a rotary transformer or generator while consuming little extra power. The idler motor needs to be a minimum of 50% larger than the largest motor that you want to run to accommodate the higher starting current. A good quality 3600 RPM three-phase wye-wound 230V motor is the best choice. 1800 RPM motors can be used on applications not heavily loaded. Used three-phase motors are inexpensive and readily available. For more information, see the Static Instruction Sheet, Form No. SIS. It is available to view or download on our website from the Static Converter product page on [www.phase-a-matic.com](http://www.phase-a-matic.com). Also, see note below:

**NOT FOR USE IN WET OR DAMP LOCATIONS**

The PHASE-A-MATIC™ static converter has been developed, tested, and thoroughly proven for over a 50-year period demonstrating exceptionally high reliability and long life.

Three-phase motors when used with the PHASE-A-MATIC™ Static Converter have a distinct advantage over single-phase motors. Current draw on starting is approximately 6 times less. This enables the use of high HP motors where previously not thought possible. There is no interference to electronic equipment such as TV, CNC/PLC, controls, etc.

**NOTE:**

PHASE-A-MATIC™ Rotary Phase Converter FULL POWER units are available in stock from 1 HP up to 500 HP or more. Ask for PHASE-A-MATIC™ Rotary Phase Converter brochure.

*If you would like to become a Phase-A-Matic™ dealer, please call (661) 947-8485.*

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# STATIC PHASE CONVERTER – PAM Series 230V Rated

## IMPORTANT ORDERING INFORMATION:

**CAUTION!** Do not order a larger size PHASE-A-MATIC™ Static Converter thinking it will give you more HP. Also, when sized too large (or too small) it becomes incompatible and will not work.

The following load types **will not work** on the Static Converter using Method No. 1:

- Refrigeration compressors, some air compressors
- Pumps, blowers, vacuums, fans
- Most hydraulic pump-driven machines
- EDM machines, heating elements, transmitters, welders, battery chargers, rectifiers, lasers, plasma cutters, MRI machines, radiation
- 3-phase electronic controls such as CNC, SCR, VFD, dynamic brakes, rheostat
- 3-phase transformers
- WEG motors
- Most motor RPM ratings less than 1200 RPM
- Very old open frame motors

To run these load types, you must use Method No. 2 or use our PHASE-A-MATIC™ Rotary Phase Converter.

### Sizing:

The maximum or minimum starting current (or HP) applied to the converter at any one time determines which model PHASE-A-MATIC™ PAM series Static Converter to use. The HP rating of the machine (motor) must match the HP rating of the converter with very few exceptions.

Do not add the HP of the power feed, coolant pump, etc. These rely on the generator effect of the main motor.

The only time to add the HP of two or more motors together is when they always start at the same time.

2-speed motors are dual HP. Select the PHASE-A-MATIC™ PAM series Static Converter with a minimum and maximum HP rating that is the same as or very close to the dual HP ratings of the motor. Example: 2 HP 3600 RPM motor is 1 HP at 1800 RPM. Use the PAM-300HD, rated 1 to 3 HP.

**It is best to consult with PHASE-A-MATIC before purchasing, please call 1-800-962-6976.**

### PAM Series HEAVY DUTY “HD” Models

MODEL NO.	HP RANGE	Wt. Lbs	SHIP Wt. Lbs.	DIMENSIONS H x W x D	SHIPPING DIMENSIONS H x W x D
PAM-100HD	1/3 to 3/4	3	3	9.5 x 5.25 x 2.7	10 x 6 x 4
PAM-200HD	3/4 to 1-1/2	3	3	9.5 x 5.25 x 2.7	10 x 6 x 4
PAM-300HD	1 to 3	3	3	9.5 x 5.25 x 2.7	10 x 6 x 4
PAM-600HD	3 to 5	4	4	9.5 x 5.25 x 2.7	10 x 6 x 4
PAM-900HD	4 to 8	4	4	9.5 x 5.25 x 2.7	10 x 6 x 4
PAM-1200HD	8 to 12	5	5	12.25 x 5.25 x 2.7	13 x 6 x 4
PAM-1800HDES	12 to 18	12	12	10.5 x 6.5 x 5.5	14 x 12 x 6
PAM-3600HDES	20 to 30	18.5	20	14 x 8 x 5.75	14 x 12 x 6
PAM-5000HDES	30 to 50	25.5	30	15 x 10.75 x 5.75	16 x 12 x 8
PAM-7500HDES	50 to 75	32.5	35	18.75 x 10.75 x 6	20 x 12 x 8

F.O.B. Palmdale, CA. California buyers add sales tax.

For more complete **sizing information**, ask for form STN (Static Technical Notes). It is also available to view or download online at [www.phase-a-matic.com](http://www.phase-a-matic.com).

For the **installation instructions**, ask for form SIS (Static Instruction Sheet). It is also available to view or download online at [www.phase-a-matic.com](http://www.phase-a-matic.com).

### PAM Series HEAVY DUTY uses include:

- Lathes above 3 HP not fitted with a clutch.
- Air compressors: The motor pulley diameter must also be reduced by 1/3\*, or a 50% larger motor can be fitted.
- For long, heavy starting cycles, frequent starting, instant reversing, unattended motors or equipment.
- If jogging is required, or if there is a good chance of the motor being stalled during use.

\*On delta-wound motors, pulley must be reduced by 50%.

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