

PHASEMASTER® ROTARY PHASE CONVERTER FOR OUTDOOR PUMPING AND IRRIGATION SERVICE

TYPE PI

The World Leader in Single to Three-Phase Electric Power Conversion

NO 3-PHASE? NO PROBLEM!

The **Phasemaster**® Type **PI** rotary phase converter is a totally enclosed weatherproof unit that will produce balanced 3-phase power from a 1-phase supply from 1-100 HP. It is specifically designed for all types of irrigation and pumping equipment but is equally suited for any application in harsh environments where utility 3-phase is not available or too expensive to obtain.

Its rugged **totally enclosed** construction is designed to give years of reliable outdoor service. The converter will run any combination of pivot motors, end gun, and submersible pumps simultaneously. All motors develop their full nameplate HP and will enable the pumps to deliver their rated flow. The Type **PI** converter is guaranteed compatible with variable frequency drives.

YOUR LOWEST COST ALTERNATIVE

The **Phasemaster**® converter is far less expensive than alternatives such as generators or 1-phase motors and less costly than bringing in utility 3-phase lines. All converters and accessories are available in a few days as compared to weeks or months for a line extension. The Type **PI** converter is extremely efficient. It **will not increase** your electric bill. In fact it may actually reduce power bills by eliminating 3-phase utility demand charges.

EASY TO INSTALL - LOW MAINTENANCE The converter can be connected to any existing 230 or 460 volt 1-phase service. Installation is as simple as "2 wires in and 3 wires out" and can be performed in a few hours. The unit does not have to be bolted down. Occasional lubrication and overall inspection are the only required maintenance procedures.

EXPERTLY DESIGNED, CAREFULLY BUILT

The **Phasemaster**® Type **PI** converter is unlike any in its class. The professionally engineered design and high quality construction is evident at a glance. The converter carries a CSA/UL equivalent approval. It is completely self-contained and does not require separate capacitor panels or adjustments. The convenient side-mounted control box houses the input-output terminals, and the optional disconnect switch, fuses and controls.



Model PI-80, 30HP Converter with Nema 3R control cabinet

ACCESSORIES

The Phasemaster rotary phase converter offers a full range of convenient accessories to coordinate with most pump control and irrigation management systems. Add the ordering suffix to the selected model number to include that option.

Automatic Controls (ordering suffix -A)

For unattended or cyclical applications, this feature includes fuses, magnetic contactor, and timing relay to allow remote supervisory control or to start and stop the converter as demanded by the load.

Disconnect Switch (-R)

Fusible disconnect switch complete with time delay fuses supplied separately of factory mounted directly on the phase converter for local on-off control.

Surge Protection (-L)

Internally mounted lightning arrestors protect the converter from liner surges and other harmful transients.

Step Up Transformer

Single-phase dry type transformers to change 230 volt supply lines to 460 volts typically required for pivot irrigation systems. Refer to factory for recommended KVA rating.

Extended Warranty

All converters carry our standard five year warranty and may be extended up to ten years at nominal additional cost.



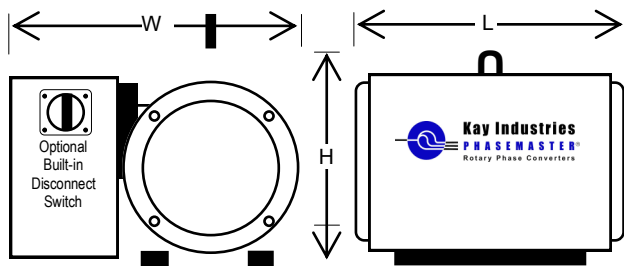
SIZING AND ORDERING INFORMATION:

The following sizing table is useful for most applications. However, motor designs and operational characteristics vary widely among manufacturers, so some motors require a larger converter. It is advisable to consult a factory representative before making a final selection.

The following information is required for sizing:

- Number of motors and horsepower (HP) of each
- Largest HP to be operated
- Total HP to be operated
- Operating voltage

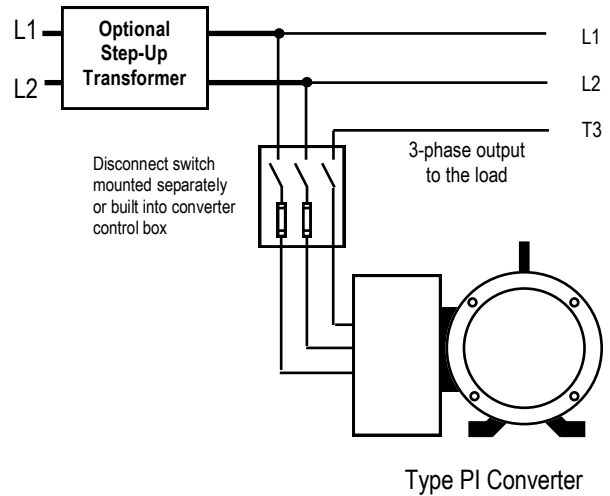
For pivot systems, multiply the number of pivot towers by the horsepower (HP) of each drive motor, then add the HP of the end gun booster pump or supply pump to determine total maximum running HP. Select the converter corresponding to the maximum HP to be started simultaneously. If powering a submersible motor and pump, increase converter one model size.



Model No.	Max Starting HP	Max Running HP	L IN	W IN	H IN	WT. LBS
PI-10	3	6	14	16	14	136
PI-15	5	10	17	20	14	207
PI-20	7.5	15	20	21	20	307
PI-30	10	20	22	21	20	372
PI-40	15	30	25	26	20	503
PI-50	20	40	26	28	21	720
PI-60	25	50	28	28	21	770
PI-80	30	60	31	30	24	905
PI-100	40	80	31	30	24	1005
PI-120	50	100	34	33	28	1570

NOTE:

- Actual dimensions and weights subject to change but will not exceed those shown.
- See Drawing 0302-PI for connection details and wire sizes.
- See Drawing 0302-AUTO for automatic control connection details including coordination with load.
- Consult factory for step up transformer sizing on 460 Volt systems or for 208 Volt 4-wire output.



The Phase Converter Pumping Application Experts



Phasemaster[®] converters feature the most advanced designs and a full range of engineering services for all pumping applications...pivots, submersibles, lift stations, centrifugal pumps, irrigation, wastewater treatment, turf watering, decorative fountains and many more. Wherever 3-phase pump motors are used, **Phasemaster[®]** can handle the job!