

PHASEMASTER® AUTOMATIC ROTARY PHASE CONVERTER FOR UNATTENDED APPLICATIONS

TYPE MA-A

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

DESCRIPTION:

The PHASEMASTER Type MA-A rotary phase converter is a highly reliable source of 3-phase power for all types of *unattended* cyclical applications such as air conditioners, compressors, elevators, etc. or where the operator desires to control the converter from a remote location.

The TYPE MA-A converter is identical in operation and performance to a manually switched unit except that it is *remotely* controllable. It is designed to be turned on and off from a remote pilot control as required by the load, thus saving energy when the load is not operating. The control panel is housed in a side-mounted box which includes starter, fuses, and terminal blocks. The converter is designed to be interlocked with the load to start on demand *or* from a remote mounted pushbutton station at the operator's station.

When connected to a 1-phase supply line, it produces a near replica of utility 3-phase at its output terminals with each phase shifted 120 degrees. The converter will maintain a voltage between phases within 2-5% with efficiency in excess of 95%.

CONSTRUCTION:

The MA-A converter is a *rotary* type which uses a spinning armature to create a phase shifted third voltage leg. Unlike a *static* converter, it produces *true* 3-phase power at its output terminals. Thus it is capable of starting and providing a near balanced current into one or more motors simultaneously. The converter does not use electrolytic capacitors, potential relays, brushes, slip rings, or other high maintenance, failure-prone components. It is built for extra quiet performance.

INSTALLATION & MAINTENANCE:

The MA-A converter can be fed from any 1-phase service large enough to supply the total demand of the *connected* load. The converter can be installed indoors or out and does not have to be bolted down. Inspection of control contacts and bearing lubrication are the only maintenance requirements.

SIZING AND ORDERING INFORMATION:

The sizing table that follows this page is for information and estimating purposes only. Motor designs and operating characteristics vary widely. Some loads require a converter rated larger than the motor nameplate HP. It is advisable to consult a factory representative before making a final selection. The following information is required for proper sizing:

- ◆ Type of load (compressor, elevator, etc.)
- ◆ HP or KW, voltage and motor nameplate data
- ◆ Starting load HP load and running load HP

Refer to the *Sizing and Selection Worksheet* for further discussion of essential information required.

OUTPUT:

All units are factory wired for 230 volts. 460 volt units are available on request. Consult factory for 208 volt applications or for 208 volt 4-wire output.

OPTIONAL ACCESSORIES:

- ◆ Enclosures for weather protection
- ◆ Voltage regulated output for variable loads
- ◆ Surge protection
- ◆ Step up transformer 230-460 Volts



5 HP Model MA-1-A Automatic Rotary Phase Converter
With optional start-stop buttons and plug-in receptacle

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