

# STANDARD DUTY ROTO-PHASE I



**STANDARD FEATURES**

- HEAVY DUTY CONSTRUCTION
- ODP OR TEFC ROTARY BASE AVAILABLE
- NEMA 3R PANEL
- CONTINUOUS DUTY CYCLE
- EASY INSTALLATION
- 5-YEAR WARRANTY

| Model | Largest Motor | Avg. Max. Operated HP Capacity |
|-------|---------------|--------------------------------|
| MF    | 1             | 3                              |
| MG    | 1.5           | 5                              |
| M     | 3             | 7                              |
| A     | 5             | 12                             |
| R     | 7.5           | 17                             |
| B     | 10            | 25                             |
| C     | 15            | 40                             |
| G     | 20            | 50                             |
| P     | 25            | 65                             |
| PKT   | 30            | 70                             |
| PKO   | 40            | 70                             |
| K2G   | 50            | 100                            |
| Y2P   | 60            | 110                            |
| L2S   | 75            | 125                            |
| W3P   | 100           | 150                            |

The Standard Duty Roto-Phase is designed to operate multiple motors simultaneously with ONE three-phase motor equal to the largest motor rating of the rotary phase converter, and the remaining three-phase motor loads are smaller in horsepower rating for a combined operated load equal or less than the Recommended Horsepower Capacity of the phase converter. The Standard Duty Series design is the industry leader for its quality, performance, and dependability in providing economical three-phase power. The Roto-Phase I units are built from a larger rotary frame design than most converter manufacturers; therefore delivering a superior three-phase converter system. All models are rated in horsepower rather than KVA, and they list the specific ratings of the rotary phase converter (LARGEST MOTOR HP & TOTAL HP CAPACITY). The largest motor horsepower rating is in true horsepower, and it is not intended to operate mis-rated motor or motor loads. If the largest motor horsepower rating is starting or running in continuous overload or has a low power factor rating, then the next larger Roto-Phase I Standard Duty or Roto-Phase II Heavy Duty may be required. When two motors match the largest motor rating of the phase converter, a larger Roto-Phase converter is usually required...CONSULT FACTORY.

**CAUTION: FOR FOREIGN MOTOR DESIGNS, 2-SPEED WINDINGS, AND INSTANT-REVERSING APPLICATION CONSULT FACTORY FOR SIZING**

**BUILT-IN OPTIONS AVAILABLE FOR ROTO-PHASE**

- MAGNETIC STARTER WITH OVERLOAD PROTECTION (PUSH BUTTON START/STOP OR AUTOMATIC OPTION)
- FUSED DISCONNECT
- SURGE ARRESTOR
- VOLTAGE REGULATION FOR SMALL MOTOR LOAD OPERATION
- HIGH TORQUE KIT

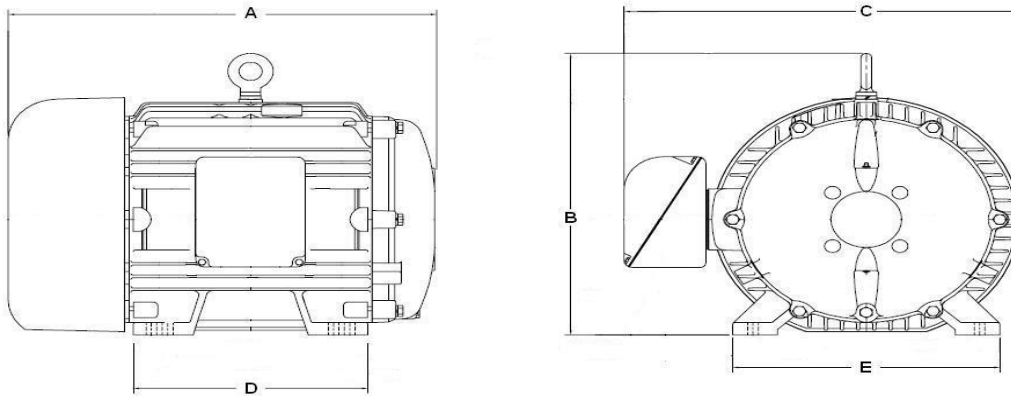
**ARCO ELECTRIC PRODUCTS**

2325 E. Michigan Road - Shelbyville, IN 46176-3400

Phone Toll-Free (800) 428-4370, (317) 398-9713 Fax (317) 398-2655

Website: [www.arco-electric.com](http://www.arco-electric.com)

“We set the standards others strive to meet.”



**SPECIFICATIONS**

| MODEL       | A      | B      | C      | D      | E      | PANEL    | AUX BANK | WT        |
|-------------|--------|--------|--------|--------|--------|----------|----------|-----------|
| MF          | 12.00" | 11.00" | 11.00" | 7.00"  | 9.00"  | 10x8x6   |          | 67 Lbs.   |
| MG          | 12.00" | 11.00" | 11.00" | 7.00"  | 9.00"  | 10x8x6   |          | 84 Lbs.   |
| M           | 13.00" | 11.00" | 10.00" | 7.00"  | 9.00"  | 10x8x6   |          | 96 Lbs.   |
| A           | 16.00" | 13.00" | 13.00" | 8.00"  | 10.00" | 16x12x6  |          | 171 Lbs.  |
| R           | 17.00" | 14.00" | 13.00" | 10.00" | 12.00" | 16x12x6  |          | 222 Lbs.  |
| B           | 19.00" | 16.00" | 16.00" | 12.00" | 12.00" | 16x12x6  |          | 275 Lbs.  |
| C           | 23.00" | 18.00" | 21.00" | 13.00" | 13.00" | 18x18x10 |          | 482 Lbs.  |
| G           | 25.00" | 20.00" | 24.00" | 14.00" | 15.00" | 18x18x10 |          | 643 Lbs.  |
| P           | 25.00" | 20.00" | 24.00" | 14.00" | 15.00" | 18x18x10 |          | 687 Lbs.  |
| PKT(1)      | 25.00" | 20.00" | 24.00" | 14.00" | 15.00" | 18x18x10 | 10x10x6  | 697 Lbs.  |
| PKO(1)      | 25.00" | 20.00" | 24.00" | 14.00" | 15.00" | 18x18x10 | 12x12x8  | 700 Lbs.  |
| K2G(**)(1)  | 25.00" | 20.00" | 24.00" | 14.00" | 15.00" | 18x18x10 | 10x10x6  | 1296 Lbs. |
| Y2P(**)(1)  | 25.00" | 20.00" | 24.00" | 14.00" | 15.00" | 18x18x10 | 8x8x6    | 1384 Lbs. |
| L2S(**)(1)  | 27.00" | 22.00" | 25.00" | 15.00" | 17.00" | 24x24x10 | 12x12x8  | 1975 Lbs. |
| W3P(***)(1) | 25.00" | 20.00" | 24.00" | 14.00" | 15.00" | 18x18x10 | 18x12x8  | 2071 Lbs. |

(\*\*) Two Units Paralleled (\*\*\*) Three Units Paralleled (1) Includes Separate Auxiliary Capacitor Bank

NOTE: When ordering the phase converter with the magnetic starter control package, you will need to add the Prefix Letter "C" (Automatic unit with starter, OL protection, and time-delay relay), or Prefix Letter "C/" (Manual unit with starter, OL protection, and push button START/STOP station).

With the addition of optional features, the panel size of the phase converter model may change - Please Consult Factory.

*ARCO Electric Products reserves the right to make product changes without prior notification.*

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# HEAVY DUTY SERIES ROTO-PHASE II

**Roto-Phase Converter**



| Model | Largest Motor | Avg. Max. Operated HP Capacity |
|-------|---------------|--------------------------------|
| HD2   | 2             | 9                              |
| HD3   | 3             | 12                             |
| HD5   | 5             | 20                             |
| HD7   | 7.5           | 30                             |
| HD10  | 10            | 45                             |
| HD15  | 15            | 60                             |
| HD20  | 20            | 75                             |
| HD25  | 25            | 100                            |
| HD30  | 30            | 100                            |
| HD40  | 40            | 100                            |
| HD2P  | 50            | 120                            |
| HD2S  | 60            | 150                            |
| HD3P  | 75            | 200                            |
| HD4P  | 100           | 220                            |

\* SPECIFY 230 VAC OR 460 VAC

\* CONTINUOUS OPERATING DUTY CYCLE

\* ODP OR TEFC DESIGN UNITS AVAILABLE

\* 5-YEAR WARRANTY

The Heavy Duty Roto-Phase is designed to start ONE "hard starting" motor based on the rotary phase converter's Largest Motor HP rating plus miscellaneous smaller motor loads equal to or less than the Maximum Recommended HP Capacity. It can also handle a start-up load of TWO motors of the same HP rating as the Largest Motor rating of the phase converter if they are sequentially started and operated under light loads. This unit has a greater capacity than any rotary phase converter made. The reason for the larger horsepower capacity of this unit is due to the increase in physical size. The heavy duty converters are substantially larger in comparison than our competitor's units which are listed at a heavy duty rating. This allows the converter the capability of starting motors that are "hard starting" or operating more three phase motor load.

The Heavy Duty Series Design is capable of handling the tough jobs such as: CENTRIFUGAL WATER PUMPS, GRAIN DRYERS, FERTILIZER MIXERS, DOUGH MIXERS, REFRIGERATION COMPRESSORS, AIR COMPRESSORS, and RESISTIVE LOADS as well as multiple inductive motor loads. The largest motor horsepower rating is in true horsepower and is not intended to operate mis-rated motors or motor loads. Where TWO motors match the Largest Motor Rating of the phase converter and are "simultaneously" started, then you would need to choose the Roto-Phase Converter model which matches the TOTAL horsepower of the two three-phase motors. When using this series of converter with "high efficiency" motor loads, please consult factory. **CAUTION: FOR FOREIGN MOTOR DESIGNS, 2-SPEED WINDINGS, AND INSTANT-REVERSING APPLICATIONS. CONSULT FACTORY**

**BUILT-IN CONTROL PACKAGE OPTIONS**

\*MAGNETIC STARTER WITH OVERLOAD PROTECTION & PB ON/OFF STATION OR A TIME-DELAY RELAY

\*FUSED DISCONNECT SWITCH

\*VOLTAGE REGULATION LARGER MODELS AVAILABLE

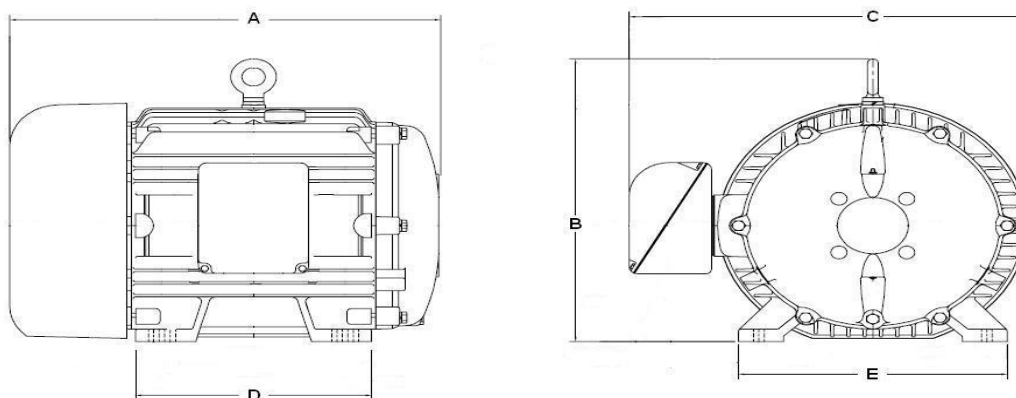
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**SPECIFICATIONS**

| MODEL      | A      | B      | C      | D      | E      | PANEL    | AUX BANK | WT        |
|------------|--------|--------|--------|--------|--------|----------|----------|-----------|
| HD2        | 13.00" | 11.00" | 10.00" | 7.00"  | 9.00"  | 10x8x6   |          | 96 Lbs.   |
| HD3        | 16.00" | 13.00" | 13.00" | 8.00"  | 10.00" | 16x12x6  |          | 171 Lbs.  |
| HD5        | 17.00" | 14.00" | 13.00" | 10.00" | 12.00" | 16x12x6  |          | 222 Lbs.  |
| HD7        | 19.00" | 16.00" | 16.00" | 12.00" | 12.00" | 16x12x6  |          | 275 Lbs.  |
| HD10       | 23.00" | 18.00" | 21.00" | 13.00" | 13.00" | 18x18x10 |          | 482 Lbs.  |
| HD15       | 25.00" | 20.00" | 24.00" | 14.00" | 15.00" | 18x18x10 |          | 643 Lbs.  |
| HD20       | 25.00" | 20.00" | 24.00" | 14.00" | 15.00" | 18x18x10 |          | 687 Lbs.  |
| HD25       | 27.00" | 22.00" | 25.00" | 15.00" | 17.00" | 24x24x10 |          | 975 Lbs.  |
| HD30(1)    | 27.00" | 22.00" | 25.00" | 15.00" | 17.00" | 24x24x10 | 8x8x6    | 1009 Lbs. |
| HD40(1)    | 27.00" | 22.00" | 25.00" | 15.00" | 17.00" | 24x24x10 | 10x10x6  | 1023 Lbs. |
| HD2P(**)   | 25.00" | 20.00" | 24.00" | 14.00" | 15.00" | 18x18x10 |          | 1375 Lbs. |
| HD2S(**)   | 27.00" | 22.00" | 25.00" | 15.00" | 17.00" | 24x24x10 |          | 1982 Lbs. |
| HD3P(***)  | 25.00" | 20.00" | 24.00" | 14.00" | 15.00" | 18x18x10 |          | 2062 Lbs. |
| HD4P(****) | 25.00" | 20.00" | 24.00" | 14.00" | 15.00" | 18x18x10 |          | 2750 Lbs. |

(\*\*) Two Units    (\*\*\*) Three Units    (\*\*\*\*) Four Units Paralleled    (1) Includes Separate Auxiliary Capacitor Bank

NOTE: When ordering the phase converter with the magnetic starter control package, you will need to add the Prefix Letter "C" (Automatic unit with starter, OL protection, and time-delay relay), or Prefix Letter "C/" (Manual unit with starter, OL protection, and push button START/STOP station).

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