

“KW” ROTARY PHASE CONVERTER

400-480 Volt 50HZ “KW” Series Rotary Phase Converter for world-wide use

Runs 400V 50HZ three-phase equipment from 400V 50HZ single-phase power source



RH50-30KW SHOWN

- HEAVILY LOADED APPLICATIONS
- QUIET OPERATION
- SIMPLE INSTALLATION
- MULTI-MOTOR OPERATION
- MULTI-SPEED APPLICATIONS
- RESISTIVE LOAD APPLICATIONS
- NO CHANGING MOTORS OR SWITCH GEAR
- 4 YEAR WARRANTY

USES INCLUDE: Farm equipment, water pumps, metalworking and woodworking equipment, compressors, elevators, printing equipment, food processing equipment, computers, sewing machines, air conditioners, hoists, extractors, wheel balancers, EDM machines, rectifiers, lasers, conveyors and just about any 3-phase equipment. For CNC/PLC equipment use our CNC PACKAGE PHASE CONVERTER. Ask for our CNC PAC brochure.

- **For long heavy starting loads**, instant reversing, momentarily overloaded motors, or imported equipment, contact factory or refer to application guidelines RTNKW, or find it on our web site at www.phase-a-matic.com/KWRotaryApplicationNotes.htm.

- **Multiple motor applications:** Due to the high in-rush current required to start a motor (5 to 10 times the normal running current), most applications require sizing the kW of the Rotary Converter 100% larger, **or more** than the kW rating of the largest motor, or any combination of motors started at exactly the same time. The first motor started, **if not running heavily loaded**, generates additional 3-phase power back into the circuit. You can then run additional motors (not heavily loaded and not all started at the same time).

- **Causes no interference** to computer, television, or radio equipment.

- **For sizes above 55 kW**, contact Phase-A-Matic, Inc.

400-480V 50HZ MODELS & PRICES
Also available in WeatherPhase™ models

| MODEL | KW | RETAIL PRICE US Dollars | SHIPPING WEIGHT Lbs. | SHIPPING WEIGHT Kgs. |
|------------|----|----------------------------|-------------------------|-------------------------|
| RH20-11KW | 11 | \$2,775.00 | 240 | 109 |
| RH30-19KW | 19 | \$3,800.00 | 320 | 146 |
| RH40-22KW | 22 | \$4,575.00 | 448 | 204 |
| RH50-30KW | 30 | \$5,575.00 | 480 | 218 |
| RH75-37KW | 37 | \$8,275.00 | 600 | 273 |
| RH100-55KW | 55 | \$10,250.00 | 700 | 318 |

PREPAID – Does not include shipping and tax.
ALL PRICES SHOWN F.O.B. PALMDALE, CA., USA

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CAUTION: ALWAYS START CONVERTER BEFORE APPLYING LOAD

1. Magnetic controls or **single-phase** loads (including electronics, microprocessors, etc.) must always be energized by lines T1 and T2.
2. Never connect a ground or neutral to line T3 (manufactured phase), which can easily be identified as the line with the highest voltage to ground with the converter running. Properly ground all electrical equipment.
3. It is essential that careful consideration be given to your wiring length and size to prevent slow starting due to a voltage drop. Consult electrical codes in your Area for proper wire sizing.
4. Due to the high starting current (in-rush current) common to electric motors, a drop of starting torque will occur and your motor will not be able to start when using a converter that is too small. Because of this, do NOT size an application KW for KW. The vast majority of applications require sizing the converter 100% larger *or more* than the largest KW rated motor of your equipment. Contact Phase-A-Matic, Inc. for further details.

| MODEL | MAXIMUM KW OUTPUT <small>See #A below</small> | APROX. IDLE CURRENT | DISCONNECT SWITCH FUSE (TIME DELAY FUSES) | NEMA STARTER SIZE | STARTER AMPERAGE | MINIMUM SINGLE PHASE SUPPLY <small>See #B below</small> | SHIPPING DIMENSIONS In inches |
|------------|--|---------------------|---|-------------------|------------------|--|----------------------------------|
| RH20-11KW | 11 | 5 Amps | 40 Amps | 2 | 35 Amps | 60 Amps | 31 x 24 x 21 |
| RH30-19KW | 19 | 6 Amps | 60 Amps | 3 | 48 Amps | 100 Amps | 31 x 24 x 21 |
| RH40-22KW | 22 | 8 Amps | 80 Amps | 3 | 63 Amps | 125 Amps | 31 x 24 x 24 ½ |
| RH50-30KW | 30 | 9 Amps | 100 Amps | 3 | 78 Amps | 150 Amps | 31 x 24 x 24 ½ |
| RH75-37KW | 37 | 15 Amps | 150 Amps | 4 | 125 Amps | 200 Amps | 31 x 24 x 25 |
| RH100-55KW | 55 | 24 Amps | 250 Amps | 4 | 175 Amps | 300 Amps | 40 x 33 x 25 |

A. LARGEST MOTOR KW: Almost all machines require sizing the converter 100% larger or more than the largest KW motor of your machine. See #4 above.

B. MINIMUM SINGLE-PHASE SUPPLY: Single-phase supply shown is for absolute maximum output of the Rotary Converter. Most of the time the converter is oversized to provide the high starting current for the motor. It is not always necessary to size the single-phase breakers this large. Contact Phase-A-Matic for smaller single-phase breaker qualifications.

IMPORTANT: This chart is simplified and cannot reflect all possible applications. Contact Phase-A-Matic, Inc. at 661-947-8485 to verify your phase converter requirements.

Larger KW rated phase converter systems may be obtained by connecting multiple Rotary Converters in parallel. This is necessary for output greater than RH100-55KW. Contact Phase-A-Matic, Inc. for wiring illustration for multiple units banked together.

5. Table shows approximate idle current at 415V. Higher line voltage will cause idle current to increase. Excessive amperage could also be caused by incorrect installation.
6. Converter should reach full speed within 2 to 3 seconds.
7. For converters with grease fittings, lubricate every 12 months for normal operation, or every 6 months for continuous (24-hour) operation. Use high-temp bearing grease: “Exxon POLYREX®EM” Polyurea grease or equivalent, available from Phase-A-Matic, Inc.
8. Voltage sensitive equipment (CNC/PLC, 3-phase powered electronics, etc.) may require a Phase-A-Matic™ Voltage Stabilizer designed to reduce phase voltage imbalance. Refer to Voltage Stabilizer brochure or call 661-947-8485.
9. Line T-3 amperage increases as load on motor increases and may measure lower than lines T-1 and T-2. This is normal when machine is not fully loaded, or when the machine is engineered with a motor that is amply sized, never realizing full load.

CAUTION: Converters are intended for use in clean, dry locations with access to an adequate supply of cooling air. In addition, there should be protection from, or avoidance of, flammable or combustible materials in the area of converters as they can eject flame and/or metal in the event of an insulation failure.

