

## “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](http://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 weatherproof 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

Distributed by:

PHASE-A-MATIC, INC.  
39360 3<sup>rd</sup> St. E., Suite 301 · Palmdale, Ca. 93550-3255  
PHONE: 661-947-8485 FAX 661-947-8764  
Email: [info@phase-a-matic.com](mailto:info@phase-a-matic.com)

[www.phase-a-matic.com](http://www.phase-a-matic.com)

### 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 #1 below</small>	APROX. IDLE CURRENT	DISCONNECT SWITCH FUSE (TIME DELAY FUSES)	NEMA STARTER SIZE	STARTER AMPERAGE	MINIMUM SINGLE PHASE SUPPLY <small>See #2 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

**1. 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.

**2. 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 the many types of applications possible. 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. 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.

**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.

