AUcontrols

Static Phase Converters

CAUTION: Read the following carefully before attempting installation.
Phase Converters MUST BE INSTALLED by a Qualified Technician.
Follow the wiring Diagram and DO NOT connect it different than showed.

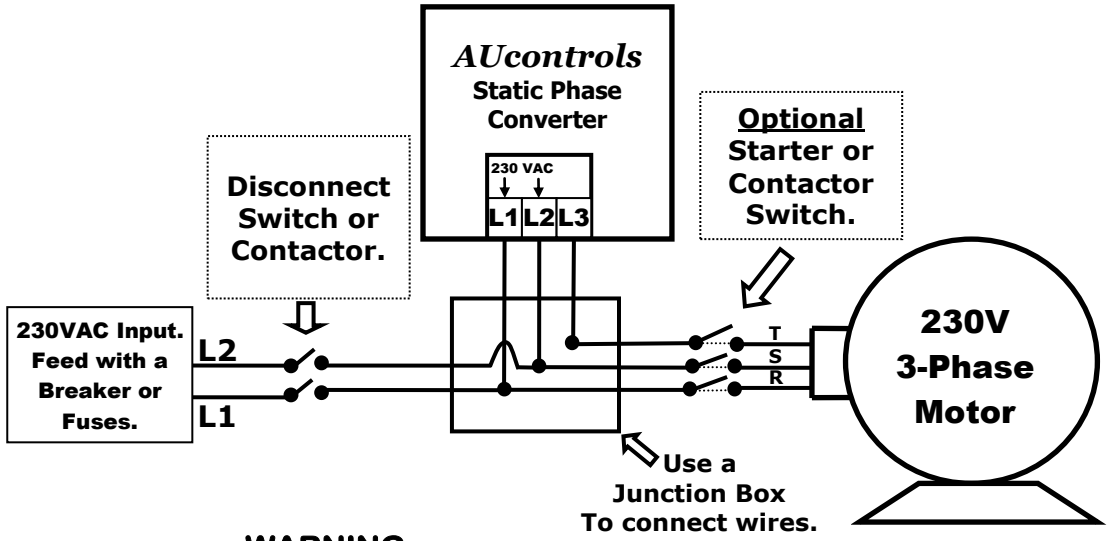
Static Phase Converters are designed to run 230VAC, 3-phase Motors with 230VAC single phase power to operate 230 VAC Machine, Tools and Motors with light to medium loads only.

Always make sure your Motor is between the HP of the Converter.

➡ DO NOT install a bigger Converter than your Motor's HP thinking it will give more power, it will NOT work! Nor use a smaller, it will not work either!

Static converters DO NOT give full power; you'll only get 2/3 of the rated motor's HP.

Static Phase Converters provide inexpensive 3-Phase power for Home Workshops and Industrial use. 3-phase motors, when used with static phase converters, have great advantage over single-phase motors. Current draw on starting is approximately 6~8 times less. This enables the use of higher HP motors where previously not thought possible. Static Phase Converters are devoid of the Harmonic Effect; they DO NOT generate or induce "Electric Noise" to the power lines.



WARNING:

- **Apply 230 VAC power ONLY in L1 and L2.**
- **Properly Ground ALL Electrical Equipment!**
- **Connect motor ONLY according to this Diagram.**
- **Always make sure the motor is wired for 230 VAC!**
- **Use a Starter or a Disconnect Switch to Start Motor.**
- **The Motor Starter's coil must be fed with L1 & L2 ONLY!**
- **If your Equipment has Phase loss detector you must disable it!**
- **Do NOT connect L3 to ground! It will severely damage the Converter.**

For Instant Reverse operation use a 3-Phase switch for reversing and ALWAYS connect it between the Converter and the Motor.

Motor MUST start within 5 seconds maximum, if motor fails to start or it hums **turn power OFF** and check the wiring and/or the motor's load. A heavily loaded motor will not operate with a Static Phase Converter; you will need a Rotary type Phase Converter. We offer our DIY-KIT for you to make your own Rotary Phase Converter.

Contact us at: info@aucotrols.com we can help you with your needs.

Recommended Breakers and Wires size for Static Phase Converters. Refer to NEC code #430 C										
HP	**1**	**2**	**3**	**4**	**7.5**	**10**	**15**	**20**	**25**	**30**
Breaker Amps.	15	15	20	30	40	60	100	125	160	200
Wire Size # from Breaker to Motor	14	14	12	10	8	6	3	1	1/0	3/0
Wire to Converter	14	14	14	12	12	8	6	3	1	1/0
Fuses*	10	10	15	30	40	45	60	80	100	125
Conduit size	1/2	1/2	1/2	1/2	1/2	3/4	3/4	1	1-1/4	1-1/2
*Fuses (If used) must be TIME DELAY, and use them ONLY for the Input Power L1 & L2. Do not use Fuses on 3-Phase lines to the Motor.										

Static Phase Converters are designed for indoor uses only, away from vibration.
DO NOT expose them to rain, nor install them in wet or damp locations.
Always start a machine out of gear or in lowest spindle speed at initial hook-up to reduce load.

Uses Includes:

Lathes above 3 HP not fitted with a clutch, Mills, Grinders, Saws, Drill Press, Metal Working Machines, Woodworking Machines and equipment, Printing Machines, Sewing Machines, Garbage Disposals, Food Processing, Equipment, Meat Grinders, Dough Mixers, Food Blenders, Elevators Belts, etc. You can also run Air compressors, blowers, hydraulic pumps, etc. **But** you MUST reduce the Motor's pulley by 1/3 or use a 50% larger Motor. For Heavy Starting Cycles, Frequent starting, instant Reversing, etc. **Just keep in mind that Static Converters will give ONLY 2/3 of Motor's rated HP.**

If have an application where you are not sure what to use, let us recommend you the options you have before you buy motors or equipment. We can help you with your needs.

We also manufacture DC Motor Speed Controllers (Drives) REVERSIBLE and NON-Reversible from: 1/20 HP to 5 HP, for Single Phase Power 115 / 230 VAC (or bigger sizes up to 30 HP), which have FULL POWER and Better TORQUE than AC Motors, we can help you with your applications and will save you time and money. Let us know about your needs, we may help you to solve the problem.

Contact us at: info@aucontrols.com or visit us at: www.aucontrols.com

TROUBLESHOOTING

1. **If the motor fails to start** and any of the following symptoms occur: clicking noises from the Static Converter, the red light flickers and motor just hums or buzzes, motor starts intermittently this could indicate that either the motor is wired for 460V or the static converter being used is too high in horsepower for the motor, and a smaller size converter should be tried
2. **Motor runs backwards**: Reverse lines L1 & L2 between the converter and the motor.
3. **For further assistance** contact the factory weekdays at: ***info@aucontrols.com.***