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Static Phase Converters... Run 3-Phase Equipment from 1-Phase Power.



Industrial Heavy Duty



Dual Range



Extreme Duty

Industrial Heavy Duty

Static Phase Converters are an economical way to start simple 3-phase motor loads. For light to medium loads only!

Dual Range Static Phase Converters

Dual Range static phase converters add flexibility to your shop!

Extreme Duty Static Phase Converters

GENTEC's Extreme Duty (long start style) Static Phase Converters are for use with light to extremely hard starting motor loads.

Standard Features:

- Variable capacitance for adjusting the starting power to specific load/motor combinations. This makes GENTEC's static phase converters the most flexible available.
- DataLink technology advances performance with real-time component status and diagnostics
- Flow through single phase for control circuits
- Automatic start sensing (wires in before the machine - no messy wiring within the machine)
- Flexible mounting (5 configurations total)
- 240V motors
- Extra wiring / junction box
- Made in the USA

Pricing is current and valid as of 12/01/08. Prices, specifications, and availability are subject to change without prior notice. All information contained within this quotation must be confirmed prior to or at the time of sale.



Options & Upgrades:

- NEMA 3R and 4X
- Fail-safe Time-out Timer (protects converter in no start loaded situations)
- Dual Range selectable for starting different sized motors
- Variable capacitance kit
- Voltage balancer (improves balance of running current)
- Extreme Duty models

Industrial Heavy-Duty Static Phase Converters	
1/3 to 3/4 HP	
3/4 to 1-1/2 HP	
1 to 3 HP	
3 to 5 HP	
4 to 8 HP	
8 to 12 HP	
12 to 15 HP	
15 to 20 HP	

Industrial Heavy Duty Dual Range *** Static Phase Converters	
1/3 - 1.5 HP	
1 - 5 HP	
3 - 8 HP	
4 - 12 HP	
8 - 15 HP	
12 - 20 HP	

Extreme Duty Static Phase Converters (long start cycle)	
3.0 to 5.0 HP	
4.0 to 8.0 HP	
8.0 to 12.0 HP	
12.0 to 15.0 HP	
15.0 to 20.0	
20.0 to 30.0 HP	
30.0 to 40.0 HP	

*** Dual Range allows operation of multiple machine horsepower's with one converter.

DO NOT USE STATIC PHASE CONVERTERS

with the following motor and non-motor loads:

<u>motor loads:</u>		<u>non-motor loads:</u>
- 2 or 3 speed motors - lathes (non-clutched) - pumps - CNC - fans - refrigeration equipment - unattended equipment - welders	- air compressors - frequent-start loads (more - than 6x's/hr) - hard-starting applications - multiple motor applications - equipment run at more than 2/3 rated horsepower	- ovens - heaters - lasers - battery chargers - resistive or - rectifier loads

Please consider a rotary phase converter for these applications.



GENERAL INFORMATION ABOUT STATIC PHASE CONVERTERS:

What are static phase converters?

A static phase converter is simply a starting circuit, or motor starter. Once the 3-phase motor starts, the static phase converter disengages and leaves the 3-phase motor to run on single-phase power. There are several advantages as well as a few disadvantages to this method of phase conversion.

Why would I use a static phase converter?

Static phase converters provide the least expensive way to attain generally good phase conversion for most machine tools. There is no change to the motor speed. All switch gear will operate normally, motors will instant reverse, and motor speed is not changed.

What are the disadvantages of static phase converters?

The primary disadvantages of using a static phase converter are 1) the motor winding currents will be very unbalanced, and 2) the motor will only operate at about two-thirds its rated horsepower. When balanced voltage is desired and/or required, a rotary phase converter or digital phase converter is indicated.

Basic Static Phase Converter Sizing Guidelines:

You only need to determine the horsepower range and choose between heavy-duty and standard-duty when you are sizing a Static Phase Converter.

Note: Please call for sizing assistance of static phase converters if:

1. The motor in the equipment is older than 1965, and/or
2. The motor in the equipment is not a T-frame motor, and/or
3. The motor in the equipment is made in Taiwan, Italy, or Germany, and/or
4. The motor has a high efficiency rating (common in Europe).

Note: Static Phase Converters will *only* run motor loads. Static phase converters should not be used with CNC applications, resistive loads (such as ovens and other heaters), non-motor inductive loads (such as welders and battery chargers), air conditioners, and are not recommended for use with two-speed motors, or any load that will require the motor to produce more than 2/3HP (including most pumps, air compressors, blowers, etc). Please see our selection of rotary phase converters and digital phase converters for these applications, or call for assistance.

Note: All switch gear, contactors, and controls must operate from two lines only.

1. Choose the static phase converter with the hp range that includes the hp of the motor to be run.

- Unlike a rotary converter, over-sizing the converter is not necessary and will not work.
- Some of the hp ranges of the static phase converters overlap. If the equipment is hard starting, use the larger of the two converters that still includes the hp of the machine to be run.

2. Choose Heavy-Duty Static Phase Converters if:

- The equipment is started more than 3 times per hour.
- Instant reversing will be used.
- The motor in the equipment is more than 1700-1800 RPM
- The equipment has a large load to start, i.e. lathe, planer, wide belt sander, dust collector, etc.

3. Choose Standard-Duty Static Phase Converters if:

- None of the requirements for heavy-duty are met. When in doubt, use a heavy-duty static phase converter, or call for sales and technical support line at.

*Delta wound motors can produce up to 50% of their rated hp. They are uncommon and usually found in machines from Germany and Italy.

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