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The single to three phase

MultiPhase converter

The MultiPhase™ converter is designed for use with CNC machines and machines with large inverters. It reliably maintains the output voltage within narrow limits at all times. The three-phase outputs provide pure 400V sine waves. Digital displays provide information on the output voltage and the currents drawn by machines.

The standard supply voltage is 230V single phase. Versions of 16kW and above can be ordered for 460V split-phase supply. All versions are compatible with a 400V two-phase supply.
The installation process involves connecting a single-phase cable from a switched single-phase wall socket to the input terminal block of the converter, and connecting a cable from the three-phase output terminal block of the converter to as many 400V three-phase wall sockets as there are machines.

The power electronics contain solid-state switching elements that control a group of binary-weighted high-voltage capacitors with millisecond precision. This ensures a consistent output voltage of ±4% across all load levels, while also guaranteeing the lifespan of all components. Our intelligent AI controllers are capable of outputs of up to 100kW. Converter manufacturers around the world have decided to incorporate them into their products for this reason.

When selecting a MultiPhase converter, it is advisable to choose a model with a kW rating that is at least 10% higher than the load. The 100% duty cycle facilitates uninterrupted 24/7 operation at full load. The momentary overload capability is up to 300%.
MultiPhase 8 is capable of supporting a welder of up to 300A, while MultiPhase 12 is capable of supporting a welder up to 450A.

MultiPhase converters contain oversized components, including transformers, quiet-running, service-free generators, motors and long-life capacitors. All components are housed in steel cases measuring 800 x 410 x 370 mm each. Converters with outputs above 8kW are housed in multiple interconnected enclosures of 8kW each.
MultiPhase converters and their intelligent digital controllers are designed and manufactured in New Zealand. The complimentary part replacement warranty is valid for a period of five years.