



## Modules to build single to three-phase converters

Prefabricated modules include all or most of the components required to convert single phase into three-phase power.

Build a phase converter in minutes. Some modules balance three-phase voltages for use with inverters and CNC machines.

Small wall BW converters produce 230V for one motor without the need for a transformer or a generator motor. The two-step logic allows for simple phase voltage balancing. BW converters run motors between 0.37kW and 3kW. Different from other modules, the BW kW rating must match the motor kW rating.



Modules above 3kW are used in converters for multi-motor loads. They work with a single phase step-up transformer 240V to 415V on the input side and a generator motor for an exact phase angle separation of 120 degrees.

The single stage ME does not balance output voltages. This is acceptable with all average motors. When loads require balanced three-phase voltages, a multistage module is required:

A multistage controller T or F drives multiple capacitors in modules CT (four) or CF (eight stages plus start). Groups of run capacitors are switched in and out in a binary fashion. Switching is performed in quiet parts of the sine wave when voltages between capacitors are equal.

Four and eight stages are best for sensitive CNC machines, for machines with VFDs and inverters and for induction motors running under high load conditions.

Converter manufacturers use prefabricated modules to build converters in minutes and with a low material count.

The simple internal connections can be made in minutes.

Modules come either closed for wall mounting (BW) or as open versions for best capacitor cooling inside a converter.

The life expectancy of modules is high: The start SCR is protected against long lasting overloads or locked rotors.

Long life capacitors are used for longevity.

