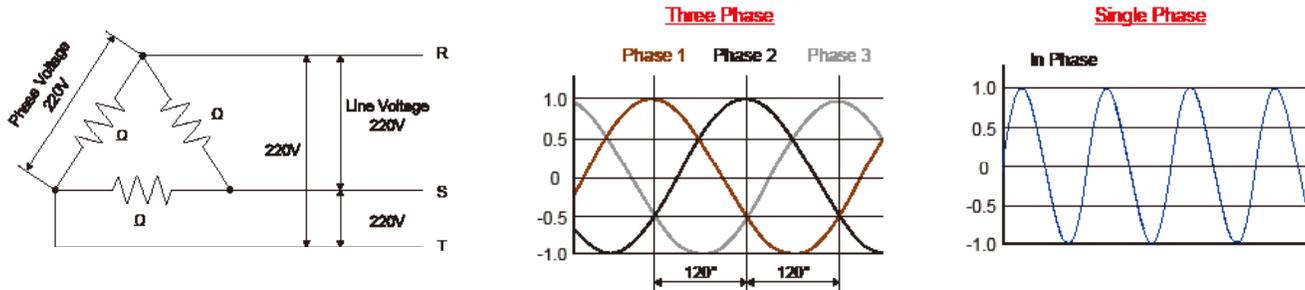


Three-Phase Power Installation Guide

Why Use Three-Phase Power

In applications that need a lot of power, it is more economical to use three-phase than single-phase power. This is because three-phase power is better suited for both domestic and industrial use, while single-phase is more economical for domestic power use. Furthermore, three-phase motors can generate more power than their single-phase counterparts in a similar motor size.



Some of the benefits and characteristics of using three-phase-power are as follows:

CONSTANT POWER DELIVERY

Single-phase delivers zero power each time the voltage crosses zero (120 times per second in the US), while with three-phase, each time a phase crosses zero, there is still power being delivered. This enables three-phase motors to operate more smoothly.

SMALLER WIRES REQUIRED FOR CONNECTING THREE-PHASE EQUIPMENT

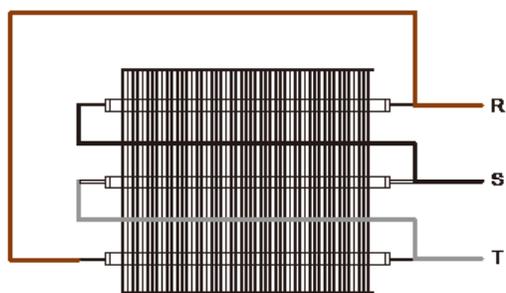
Because the current is divided among the three phases instead of between just two, the wires can be smaller and are therefore usually easier to handle.

HOUSE CURRENT

House current is electric power delivered at 220 volts or depending on the country, standard house current may vary. Even though three-phase power draws less peak current, it cannot run directly on house current like single-phase. This is because house current is single-phase. Therefore, if three-phase power is required, special wiring from the power company will be needed. Alternatively, a phase converter can be used to change single-phase current into three-phase.

Three-Phase Power Connection for Double Insulated MH and MSH Types

If three-phase-power connection is required for a single Fin PTC Air Heater unit, only the MH and MSH type heaters with double insulation are suitable for three-phase delta connection.



Three-Phase Power Connection for Multiple Heater Units

Multiple Fin PTC Air Heater units can be connected using a three-phase delta connection. Heaters used for this type of connection are not limited to single or double insulation.

