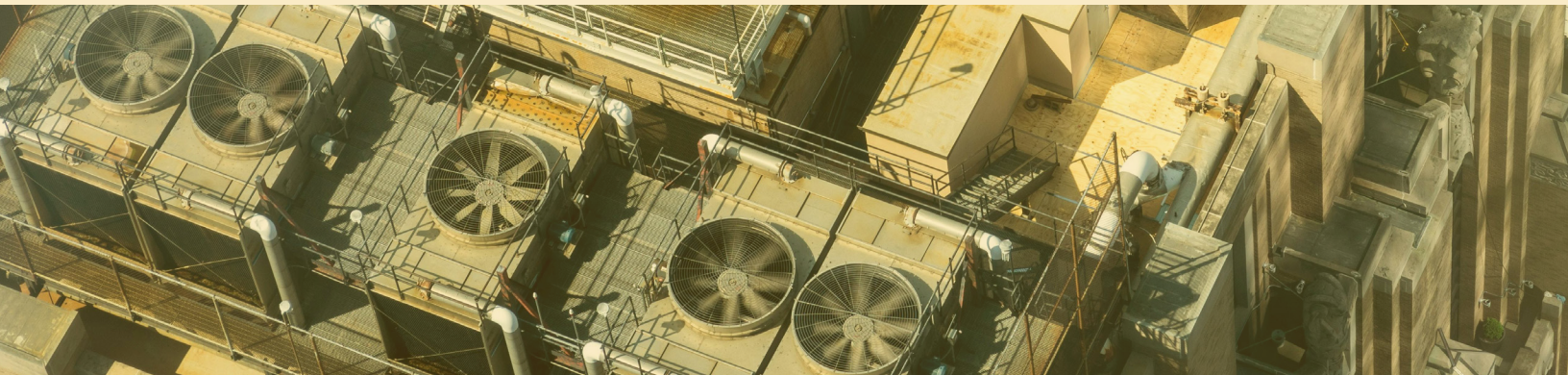


**CONCEPT** Three-phase power is a type of electrical power that uses three separate waveforms, each separated in phase by 120 degrees. It is commonly used in engineering and industrial applications because it provides higher efficiency, smoother power delivery, and better power transmission over long distances compared to single-phase power. Three-phase power is typically generated by a three-phase alternator or generator and used to power large industrial motors, heavy machinery, large air conditioning units, elevators and other electrical equipment that requires high electrical loads.



## BACKGROUND

The history of three-phase power dates back to the late 19th century with the work of Nikola Tesla and George Westinghouse. Tesla invented the alternating current (AC) motor and developed the concept of three-phase power, which involves using three separate electrical signals that are out of phase with each other to create a smooth and efficient power supply. Westinghouse recognized the potential of three-phase power and worked with Tesla to develop and promote it as a superior alternative to direct current (DC) power. By the early 20th century, three-phase power had become the standard for industrial and high-power applications.