



DIRECT CURRENT COMPRESSOR (DCC) (AIR CONDITIONING)

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DESCRIPTION

The compressor of the automotive air conditioning is driven by an electric motor which in turn is operated by electric battery (12Volt). The system operating with inverter and an intelligent controller installed to vary the speed of the compressor for load matching and thermal comfort.

Needs

- Capability of controlling DCC for automotive /vehicle air conditioning system with variable-speed operation.
- Ability of matching the performance of DCC for automotive /vehicle air conditioning system with cooling load.
- Temperature controller based on reset value of fuzzy logic control.
- Simple installation and maintenance together with the potential to conserve energy.

Benefits

- Relieves the internal combustion engines from driving air-conditioning compressors, thus enable to contribute towards energy saving.
- Environmental-friendly features in modern passenger cars.



Application

- A variable speed of DCC -air conditioning is the system that could distribute conditioned air at different temperatures.
- The system with variable-speed control, can control the cooling capacity by changing the rotational speed of the DCC for load matching and thermal comfort.
- A good control scheme to maintain comfort under any conditions.
- The DCC aims for air-conditioning system operating with inverter and an intelligent controller installed to vary the speed of the compressor for load matching and thermal comfort.

Targeted Market

- Replacement of conventional (belt-driven) automotive /vehicle air conditioning systems with DCC.
- Replacement of the conventional control systems in conventional automotive /vehicle air conditioning systems with intelligent control system.



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