Variable Frequency Drive (VFD)

Product Description

- The AF-60 FP Drive, a Variable Frequency Drive (VFD), installed in the turbine enclosure allows air flow to be controlled or reduced, preventing damage at low temperatures.

- The AF-600 FP Drive includes:
  - Motor turning, RFI Filter, AC Line Reactor, and Choke filter
  - Three discrete input signals (from VFD to control system), provide VFD status feedback.
  - One discrete output from control system providing start command.
  - One analog controller output signal providing speed command.
  - AF-600 FP Drive provides warnings and alarms if certain parameters are met, can also trip motor.
  - VFD panel must be mounted within 100 meters of fan motor and located indoors or within a heated enclosure.
  - Customer must provide system appropriate power supply and cables.

Customer Value

- Current turbine exhaust fan controls allow 100% air flow, on or off, allowing no operator control. At low ambient temperatures (<40°F) this can freeze piping and damage internal instrumentation.

- AF-600 FP Drive System reduces stress on fan drives belts as well as reducing airflow during cold weather to prevent turbine instrumentation damage.

- AF-600 FP Drive System also allows operator control over airflow, allowing turbine exhaust to be reduced by up to 50%.

- Sophisticated controls include an Energy Savings Optimizer that can boost energy savings by 5-15% at partial loads.

- Reduced parasitic load from heaters and motors.

- Improved starting reliability.

- Reduce risk/prevent fan belt breakage, increasing maintance savings.

Applicable Units:

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* Configured for all LM6000 units