Dedicated fan features

The new VLT® HVAC Drive from Danfoss reduce power consumption and is beneficial to fan applications due to intelligent fan features.

Lower AHU costs
The VLT® HVAC Drive is born with a built-in Smart Logic Controller and 4 auto tune PID controllers to control air handling functions with fans, valves, and dampers. The building managements DDC's is thereby released and valuable data points (DP) are saved.

Extends BMS capacity
When integrated into the BMS network, all the HVAC Drive I/O points are available as remote I/O's to extend BMS's capacity. For example, room temperature sensors (Pt1000/Ni1000) can be directly connected.

Resonance Monitoring
By pressing a few buttons on the Local Control Panel the drive is set to avoid frequency bands at which connected fans create resonances in the ventilation system. This improves building comfort.

Intelligent AHU functions
The VLT® HVAC Drive handles logical rules and input from sensors, real-time functionality, and timer-related actions. This enables the HVAC Drive to control:

- Weekend and working-day operations
- Cascaded P-PI for temperature control
- Multi-zone pressure control
- Flow balancing between fresh and outlet air

  – just to mention a few examples.

Belt Monitoring
From the relation between current and speed, the VLT® HVAC Drive reliably recognize a broken belt. Lack of air flow is this way detected immediately, without dp-switches across the fan.
First cost and down-time is reduced.

Fire Override Mode
In Fire Override Mode the VLT® HVAC Drive will not react on control signals, warnings or alarms. It will continue its reliable operation as long as possible and run - eventually - until self-destruction.

Stairwell Pressurization
In the case of fire, the VLT® HVAC Drive can maintain a higher level of air pressure in stairwells than in other parts of the building and ensure that fire escapes remain free of smoke.