

High-efficiency HVAC drive sparks a campaign to woo financial bosses

DANFOSS HAS launched a new generation of dedicated HVAC drives with the aim of consolidating its position as market leader in this sector. The company claims to have 37% of the £11m UK market for HVAC drives and predicts that the new products, based on its VLT AutomationDrive, will boost this share.

In parallel with the launch, Danfoss is mounting a campaign to persuade corporate financial officers of the potential benefits of investing in energy-saving HVAC drives. According to Tony Pickering, Danfoss' senior director for drives in Northern Europe, the paybacks on these products "can be faster than almost any other way of investing capital".

He says that with electricity now costing around 6p/kWh, installations often pay for themselves within nine months and are "contributing to the bottom line in the same year as the investment". In some cases – such as a recent installation at Belfast Airport – the payback can come in less than six months.

The new VLT HVAC Drive, available in ratings from 1.1–450kW, has a claimed efficiency of 98%, compared to an industry average of 95–96%. This results in extra savings on top of its ability to run pumps or fans more efficiently.

The savings are boosted further

Going for growth: members of Danfoss' new HVAC drives family



by an "automatic energy optimiser" which monitors flux levels in the driven motor and varies the drive output to maintain an ideal motor magnetisation for the load. Richard Gray, Danfoss' HVAC sales manager for the Southern UK, says that this can deliver an extra 15% energy saving across the whole speed range, as well as cutting noise levels.

Other technologies built into the new HVAC drives include:

- "automatic motor adaptation", which tunes the inverter to the motor in two minutes;
- a "smart logic controller" with four auto-tune PID loops that simplify the control of air-handling functions such

as fan volume, valves and dampers;

- the ability to detect changes in current, relative to speed, which can be used to spot drive belt malfunctions, and to react by stopping the motor and raising an alarm;
- fire over-ride and stairwell pressurisation functions, that ensure that a drive will continue to work in the event of a fire – until it self-destructs, if necessary;
- the ability to schedule up to 20 preventive maintenance actions;
- an energy measurement tool that helps to identify potential energy-saving opportunities;
- a programmable display that can show up to five variables, such as

kVA, °C, kWh or kPa;

- a pump cascade controller, that shares running hours across a multi-pump system, to minimise wear; and
- a sleep mode, which boosts the system pressure and puts the drive into an energy-saving standby state when it detects low or no flow.

Diego Lopez, Danfoss' global director for HVAC sales, is confident that the new drive will help the company to expand its HVAC business at about 12% a year – twice the average growth rate for the HVAC market. He asserts that the new drive will offer users the lowest initial investment and the lowest cost-of-ownership in the sector.

John Martin, Danfoss' HVAC business manager for Northern Europe, predicts that the new drive could help to boost the company's HVAC sales in the UK from around £4m last year to some £5m in 2007.

To help achieve this goal, the company is launching a campaign aimed at getting the energy-saving message to financial officers in target organisations. This will include a series of seminars at 12 venues across the UK.

Like the AutomationDrives on which they are based, the HVAC drives will be built to order on Danfoss lines in Denmark and the US.

www.danfoss.co.uk/drives