



Back-channel cooling with Rittal IP66 enclosure key to success in Amsterdam high power application

A company in Amsterdam required a 315 kW VLT® high power drive for a fan application used in the pneumatic conveying of dry fertilizer product. The customer's industrial atmosphere created problems with dust, humidity and corrosion. In the past, a competitor had supplied drives for this application, but the customer had problems with the volume of air and contaminants flowing through the drive for cooling purposes. This caused continuous maintenance and reliability issues. The customer then switched to another competitor, but they were still looking for a better solution.

The customer visited an exhibition and saw a Danfoss IP00 high power drive mounted in an IP66 Rittal enclosure with an air conditioning unit. With 85% of the heat losses transferred through the back channel and exhausted to the outside of the enclosure, the air conditioning unit only has to remove the other 15% of losses inside the sealed enclosure. This installation approach solved the dust, humidity and corrosion problems caused by competitors' cooling designs.

Conformal coated PCBs also were an important selling feature to the customer. For further corrosion protection, the IP00



Drive prior to shipping to customer

The air conditioning unit is mounted in the left door.

To the right the IP00 315kW drive is mounted with the back channel cooling duct.

units can be ordered with a stainless steel back channel, nickel-plated heatsinks, and an upgraded fan.

After being very impressed with the Danfoss drive features, the customer

was brought to an installation site where another customer was already using more than 50 high power drives and was very satisfied.

The great sales effort and a very positive



customer reference—along with the right product features—secured the opportunity.

The customer is now using Danfoss and they are replacing old competitor units with the Danfoss solution.

Potential sales for this year are projected to be \$100,000 Euros.

Contact:

Lei Gommers
Sales Manager
Netherlands

Colin Johnson
Product Marketing Manager
High Power Drives
Loves Park, IL, USA



Back channel cooling exhausts 85% of the heat loss out the back of the enclosure. The air conditioning unit removes the remaining 15% of the heat loss without exposing the drive to dust, humidity or corrosive contaminants from the outside air.