ENGINEERING TOMORROW

Fact Sheet

VLT® AutomationDrive FC 302 Active Front End

The Danfoss VLT® AutomationDrive FC 302 Active Front End is one of the cleanest, highest performing cabinet drives in the market. While the applications for a Active Front End are many and varied, the primary reasons for choosing an AFE are few: Power regeneration and/or harmonic mitigation. Regardless of the reason for selecting a VLT® AutomationDrive FC 302 Active Front End, one drive can fill both requirements.

Cabinet drives

The Danfoss VLT® Active Front End is available as cabinet drives that ensures low-frequency compatibility in the harmonics and EMC frequency spectrum independent of end-user installation.

Cabinet drives warrants performance in the end-user installation; efficiency, harmonics, and EMC.

- High efficiency, consistent with all other Danfoss drives
- Total Harmonic Current Distortion (THiD) of 5%
- Continued high performance of EMC compliance to EN 61800-3 cat. C3/ EN 55011 class A2
- Available as a cabinet drive in IP 21 and IP 54 enclosures. The Active Front End is also available with a stainless steel back-channel to be corrosion resistant against the salt levels in the air.
- Wide variety of factory installed options to suit your application needs

Well-known product

Active Front End commissioning procedures, control and communication interfaces are all the same as the existing product families:

- VLT® AutomationDrive FC 302
- VLT® AQUA Drive FC 202
- VLT® HVAC Drive FC 102

Easy to program, using the same award--winning Local Control Panel as all other Danfoss VLT® drives. Standard USB access through the cabinet door on all Active Front End drives for easy connection to the MCT 10 programming software.

All service components are accessible from the front of the drive, with minimal additional component removal.

Back-channel cooling

All of the Active Front End drives use the proven back-channel cooling concept that removes 80 % of the heat generated by the drive, while keeping the air away from sensitive components sealed to protection class IP 54. This allows the cooling air to be removed from the control room, saving money on operating expenses by reducing the need for air conditioning.

Optional 200 mm pedestal: Easy cable routing to mains/motor side through pedestal or removal for cable routing under the floor while back-wall cooling is applied.

Only 3% boost voltage to reduce stress on the motor insulation.

Power regeneration

Mission profile		
Area	**Application**	**Benefits**
Cyclic operation with braking	– Cranes – Centrifuges	– Eliminate need of traditional brake resistors to reduce heat energy
Long time braking	– Downhill conveyors – Turbines – Other large inertia loads	– Clear energy saving in regenerating power back to the mains – Long hauls of motors generating while maintaining speed control

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Danfoss VLT Drives, 4401 N. Bell School Rd., Loves Park, IL 61111, Tel. +1 (815) 639-8600 (main),
Tel. +1 (800) 432-6367 (24 Hour Service for Drives), Fax +1 (815) 639-8000, www.danfossdrives.com, Email: salesinformation@danfoss.com

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