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Manufacturers Declaration
Certificate of Conformity

The below listed national and international directives/standards were observed during the design of the VLT® HVACDrive series FC-102, VLT® AQUA Drive series FC-202 and VLT® AutomationDrive series FC-301 & FC-302, VLT® Automation VT Drive series FC-322

Directive/standard/norm	Description
Europe	
Low Voltage Directive 2006/95/EC	
EN/IEC 61800-5-1 : 2007 (all relevant parts)	Adjustable speed electrical power drive systems -Part 5-1: Safety requirements – Electrical, thermal and energy
EMC Directive 2004/108/EC	
EN 61800-3 : 2004 (relevant parts) EN55011 EN/IEC61000-6-1/2 EN61000-3-2 (IEC61000-3-2) EN61000-3-12(IEC61000-3-12)	Adjustable speed electrical power drive systems Part 3: EMC requirements and specific test methods
Functional Safety:	
EN ISO 13849-1:2008 (Safe Stop function, PL d (MTTF$_d$ = 14000 years, DC=90%, Category 3)	Safety of machinery - Safety-related parts of control systems - Part 1: General principles for design
EN/IEC 61508-1:2010, EN/IEC 61508-2:2010 (Safe Stop function, SIL 2 (PFH = 1e^{-10}, SFF>99%, HFT=0))	Functional safety of electrical/electronic/ programmable electronic safety-related systems Part 1: General requirements Part 2: Requirements for electrical/ electronic / programmable electronic safety-related systems
EN/IEC 61800-5-2:2007 (Safe Stop function conforms with STO – Safe Torque Off, SIL 2 Capability)	Adjustable speed electrical power drive systems - Part 5-2: Safety requirements - Functional
EN/IEC 62061:2005 (Safe Stop function, SILCL 2)	Safety of machinery - Functional safety of safety-related electrical, electronic and programmable electronic control systems
EN 60204-1 (Stopping Category 0, Unintended Restart Protection)	Safety of machinery - Electrical equipment of machines - Part 1: General requirements

North America

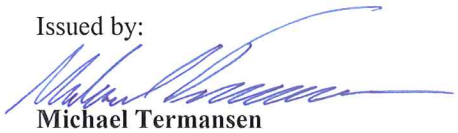
UL 508C (all relevant parts)	Power Conversion Equipment
CAN/CSA-C22.2 No. 14-05 * (all relevant parts) * Certified by UL	Industrial Control Equipment

Miscellaneous standards/norms:

Danfoss Corporate Guideline: 500B0430 **ISTA**, procedure 1A and 1	Guideline for Transportation test (Packaging)
Danfoss Corporate Guideline: 500B0432, Sinus Vibration, curve V (IEC 68-2-6, test Fc) Random vibration, curve E / F	Guideline for Vibration test
IEC 61800-2 (1998) Adjustable Speed Electrical Electrical Power Drive Systems General Requirements – Rating Specifications for Low Volt Adjustable Frequency a.c. Power Drive Systems	
IEC 60068-2-64 Vibration, random, broad-band	Environmental testing - Part 2-64: Tests - Test Fh: Vibration, broadband random and guidance
VDE 0160 Mains transients test pulse, class 1/2	
Operation: EN50178 (section 6.1, table 7)(IEC 721-3-3) Temperature (Class 3K3), Relative humidity (Class 3K3), Air pressure (Class 3K3)	Electronic equipment for use in power installations
Storage: EN 50178 (section 6.1, table 7)(IEC 721-3-1) Temperature (Class1K4) Relative humidity (Class 1K3) Air pressure (Class 1K4)	Electronic equipment for use in power installations
During transportation: EN 50178 (section 6.1, table 7)(IEC 721-3-2) Temperature (Class 2K3) Relative humidity (Class 2K3) Air pressure (Class 2K3)	Electronic equipment for use in power installations

The conditions for observing the above mentioned directives/standards/norms, see the Operation Instruction or Design Guide for the specific product series.

Issued by:



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