

Danfoss A/S

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EU DECLARATION OF CONFORMITY

Danfoss A/S
Danfoss Drives

declares under our sole responsibility that the product VLT® AQUA Drive series

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1 V		uco.

FC-202XYYYZZ******************

Where:

Character X: N or P

Character YYY: K25, K37, K55, K75, 1K1, 1K5, 2K2, 3K0, 3K7, 4K0, 5K5, 7K5, 11K, 15K, 18K, 22K, 30K, 37K, 45K, 55K, 75K, 90K, 110, 132, 160, 200, 250, 315, 355, 400, 450, 500, 560, 630,

710, 800, 900, 1M0, 1M2, 1M4

Character ZZ: S2, S4, T2, T4, T6, T7

Covered by this declaration is in conformity with the following directive(s), standard(s) or other normative document(s), provided that the product is used in accordance with our instructions.

Low Voltage Directive 2014/35/EU

EN61800-5-1 (2007)

Adjustable speed electrical power drive systems – Part

5-1: Safety requirements - Electrical, thermal and

energy.

EMC Directive 2014/30/EU

EN61800-3:2005 + A1:2012

Adjustable speed electrical power drive systems - Part

3: EMC requirements and specific test methods.

RoHS Directive 2011/65/EU

EN50581: 2012

Technical documentation for the assessment of electrical and

electronic products with respect to the restriction of

hazardous substances.

The meaning of the 39 characters in the type code string can be found in appendix 00729776.

Date: Issued by Date: Approved ny
Signature
Name: Leo Birkkjær Lauritsen
Title: Head of Connectivity, UI and 3rd Party
Products

Date: Approved ny
Signature
Name: Michael Termansen
Title: VP, Design Center DK and DE

Danfoss only vouches for the correctness of the English version of this declaration. In the event of the declaration being translated into any other language, the translator concerned shall be liable for the correctness of the translation.

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^{*} may be any number or letter indicating drive options which do not impact this DoC.



FC-202 EU Declaration of Conformity

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For products including available Safe Torque Off (STO) function according to unit typecode on the nameplate: **T or U at character 18 of the typecode**.

Machine Directive 2006/42/EC

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

Other standards considered:

EN ISO 13849-1:2015 (Safe Stop function, PL d (MTTFd=14000 years, DC=90%, Category 3) EN/IEC 61508-1:2011, EN/IEC 61508-2:2011 (Safe Stop function, SIL 2 (PFH = 1E-10/h, 1E-8/h for specific variants, PFD = 1E-10, 1E-4 for specific variants, SFF>99%, HFT=0))

EN/IEC 62061:2005 + A1:2013 (Safe Stop function, SILCL 2)

EN/IEC 60204-1:2006 + A1:2009 (Stop Category 0)

Safety of machinery - Safety-related parts of control systems - Part 1: General principles for design
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
Safety of machinery - Functional safety of
safety-related electrical, electronic and
programmable electronic control systems
Safety of machinery - Electrical equipment of

machines - Part 1: General requirements

For products including ATEX option, it requires STO function in the products. The products can have the VLT PTC Thermistor Card MCB112 installed from factory (2 at character 32 in the typecode), or it can be separately installed as an additional part.

2014/34/EU - Equipment for explosive atmospheres (ATEX)

Based on EU harmonized standard:

EN 50495: 2010

Safety devices required for safe functioning of equipment with respect to explosion risks.

 $\begin{array}{c} \text{MS 220 DA / MCB112} & \text{Code noz.1160B1137} \\ \text{Motor protection inside} \\ \\ \hline & \text{CAUTION: See manual} \\ \text{for additional instruction} \\ \hline & \textbf{E}_{\textbf{x}} & \text{II (2) G [Ex e] [Ex d] [Ex n]} \\ \text{II (2) D [Ex tb][Ex tc]} \\ \\ \text{PTB 14 ATEX 3012U} \end{array}$



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Notified Body:

PTB Physikalisch-Technische Bundesanstalt, Bundesallee 100, 38116 Braunschweig, has assessed the conformity of the "ATEX certified motor thermal protection systems" of Danfoss FC VLT Drives with Safe Torque Off function and has issued the certificate PTB 14 ATEX 3012U

Note: Under explosion protection aspects, the electronic tripping path is equivalent to an electromechanical

switch-off (see EN 60079-14:2014 Chapter 11.2.1, 11.3.4, 11.4.1, 11.5.1, 11.6.1).

Further information can be found in manufacturers declarations: EU Declaration of conformity 00730213 A.1, 00730215 A.1 and 00730217 A.1 or newer / Manufacturers declaration 00596226 A.9 or newer.