

### Danfoss A/S

6430 Nordborg Denmark /R nr.: 20 16 57 15

Telephone: +45 7488 2222 Fax: +45 7449 0949

## **EU DECLARATION OF CONFORMITY**

# Danfoss A/S

Danfoss Drives A/S

declares under our sole responsibility that the

Product category: Frequency Converter

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, 150, 160, 200, 250, 315, 355, 400, 450, 500, 560, 630, 710, 800, 900, 1M0, 1M2

Character ZZ: T2, T5, T6, T7

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

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

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 + A1:2017

Adjustable speed electrical power drive systems – Part 5-1:

Safety requirements – Electrical, thermal and energy.

EMC Directive 2014/30/EU

EN61800-3:2004 + A1:2012

Adjustable speed electrical power drive systems - Part 3: EMC

requirements and specific test methods.

RoHS Directive 2011/65/EU including amendment 2015/863.

EN50581: 2012

Technical documentation for the assessment of electrical and electronic products with respect to the restriction of

hazardous substances

Date: 2019.07.01
Place of issue:

Graasten, DK

Signature:

Name: Leo B. Lauritsen
Title: Head of P400 Group

Date: 2019.07.01
Place of issue:

Approved by

Signature:

Name: Michael Termansen
Title: VP, Design Center Denmark

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

For products including available Safe Torque Off (STO) function according to unit typecode on the nameplate: **X, B or R 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 safetyrelated 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.

MS 220 DA / MCB112 Code noc. 13681137
Motor protection inside

CAUTION: See manual for additional instruction  $E_x$  || (2) G [Ex e] [Ex d] [Ex n] || (2) D [Ex tb][Ex tc]

PTB 14 ATEX 3012U

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