

Danfoss A/S

6430 Nordborg Denmark CVR nr.: 20 16 57 15

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

EU DECLARATION OF CONFORMITY

Danfoss A/S

Vacon

declares under our sole responsibility that the VACON® NX Liquid-Cooled drives

Product category: Frequency Converter

Type designation(s): NXP 0000 5 A 0 N 1 YWV XXXXX ****

Characters can be replaced by following: Character NXP: NXP, NXB, NXA, NXN

 $Character\ 0000:\ 0016,\ 0022,\ 0031,\ 0038,\ 0045,\ 0061,\ 0072,\ 0087,\ 0105,\ 0144,\ 0168,\ 0170,\ 0205,\ 0208,\ 0261,\ 0300,\ 0325,\ 0385,\ 0416,\ 0460,\ 0502,\ 0520,\ 0590,\ 0650,\ 0730,\ 0750,\ 0820,\ 0920,\ 1030,\ 1150,\ 1180,\ 1300,\ 137$

1500, 1640, 1700, 1850, 2000, 2060, 2120, 2300, 2340, 2470, 2700, 2950, 3100, 3710, 4140

Character 5: 5, 6, 8 Character A: A, B, F, G

Character 0: 0 Character N: N, T Character 1: 0, 1

Character Y: I, S, Y, N, T, W, U, 2, 8

Character W: W, P Character V: F, G, S, V

Character XXXXX: Option board slots

Covered by this declaration is in conformity with the following directive(s), regulation(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]

EN 61800-5-1:2007 Adjustable speed electrical power drive systems – Part 5-1: Safety requirements – Electrical, thermal and energy

EN 61800-5-1:2007+A11:2021

EN 62477-1:2012+A12:2021

EN 62477-1:2012 Safety requirements for power electronic converter systems and

EN 62477-1:2012+A11:2014 equipment - Part 1: General EN 62477-1:2012+A1:2017

Date: Issued by Date: Approved by DocuSianed by: 2023.07.11 2023.07.11 Place of issue: Place of issue: Jarmo Tirkkonen Frank Hansen Helsinki Graasten Signature: 1D4642BDD96D44A... -497E5800CCB1482... Signature: Name: Iarmo Tirkkonen Name: Frank Hansen Title: Product owner Title: Head of Marine

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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Revision No: E1

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

EMC Directive [2014/30/EU]

EN 61800-3:2004 Adjustable speed electrical power drive systems - Part 3: EMC

EN 61800-3:2004+A1:2012 requirements and specific test methods

(only immunity)

RoHS Directive [2011/65/EU including amendment 2015/863]

EN IEC 63000:2018 Technical documentation for the assessment of electrical and

electronic products with respect to the restriction of hazardous

substances

Commission Regulation (EU) 2019/1781 under the Ecodesign Directive 2009/125/EC including amendment in Commission Regulation (EU) 2021/341

EN 61800-9-2:2017 Adjustable speed electrical power drive systems - Part 9-2:

> Ecodesign for power drive systems, motor starters, power electronics and their driven applications - Energy efficiency indicators for power drive systems and motor starters.

Machinery Directive 2006/42/EC

EN 61800-5-2:2007 Adjustable speed electrical power drive systems - Part 5-2: Safety

(Safe Stop function conforms with STO requirements - Functional

- Safe Torque Off, SIL 3 Capability)

Other standards considered:

EN 60204-1:2018 Safety of machinery - Electrical equipment of machines Part1:

General requirements (Stop category 0)

Vacon NXP3 control board equipped with OPT-AF. The following apply:

EN ISO 13849-1:2015 Safety of machinery — Safety-related parts of control systems –

Part 1: General principles for design (Category 3 / PL e)

DIN EN 81-20:2014-11 Safety rules for the construction and installation of lifts - Lifts for (SIL 3 and HFT 1)

the transport of persons and goods - Part 20: Passenger and goods

passenger lifts

Vacon NXP3 control board equipped with OPT-BL, OPT-BM, OPT-BN. The following apply:

EN ISO 13849-1:2015 Safety of machinery — Safety-related parts of control systems –

Part 1: General principles for design (Category 4 / PL e)

EN 61508-1 to -3:2010 Functional safety of electrical/ electronic/ programmable

(STO, SBC, SS1, SS2, SOS, SLS, SMS, SSR, SSM

electronic safety-related systems up to SIL 3 capability) Part 1: General reguirements

Part 2: Requirements for electrical/ electronic/ programmable

electronic safety-related systems Part 3: Software Requirements

EN 62061:2005+A1:2013+A2:2015

Safety of machinery - Functional safety of safety-related electrical,

electronic and programmable electronic control systems (Safe Stop function)

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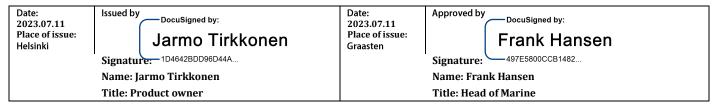
Electrical Equipment (Safety) Regulations 2016

BS EN 61800-5-1:2007 Adjustable speed electrical power drive systems – Part 5-1: Safety requirements – Electrical, thermal and energy BS EN 61800-5-1:2007+A1:2021

BS EN 62477-1:2012

BS EN 62477-1:2012+A11:2014 BS EN 62477-1:2012+A1:2017 BS EN 62477-1:2012+A12:2021 Safety requirements for power electronic converter systems and

equipment - Part 1: General



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Electromagnetic Compatibility Regulations 2016

BS EN 61800-3:2004 Adjustable speed electrical power drive systems - Part 3: EMC

BS EN 61800-3:2004+A1:2012 requirements and specific test methods

(only immunity)

The Restriction of the Use of Certain Hazardous Substances in Electrical and Electronic Equipment Regulations 2012 as amended

BS EN IEC 63000:2018 Technical documentation for the assessment of electrical and

electronic products with respect to the restriction of hazardous

substances

<u>UK Statutory Instrument 2021 No 745: The Ecodesign for Energy-Related Products and Energy Information Regulations 2021, Chapter 6 & Schedules 16-18.</u>

BS EN 61800-9-2:2017 Adjustable speed electrical power drive systems - Part 9-2:

Ecodesign for power drive systems, motor starters, power electronics and their driven applications - Energy efficiency indicators for power drive systems and motor starters.

Supply of Machinery (Safety) Regulations 2008

BS EN 61800-5-2:2007 Adjustable speed electrical power drive systems - Part 5-2: Safety

(Safe Stop function conforms with STO – Safe Torque Off, SIL 3 Capability)

requirements - Functional

Other standards considered:

BS EN 60204-1:2018 Safety of machinery - Electrical equipment of machines Part1:

(Stop category 0) General requirements

Vacon NXP3 control board equipped with OPT-AF. The following apply:

BS EN ISO 13849-1:2015 Safety of machinery — Safety-related parts of control systems –

(Category 3 / PL e) Part 1: General principles for design

BS DIN EN 81-20:2014-11 Safety rules for the construction and installation of lifts - Lifts for

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electronic safety-related systems
Part 3: Software Requirements

BS EN 62061:2005+A1:2013+A2:2015 Safety of machinery - Functional safety of safety-related electrical,

(Safe Stop function) electronic and programmable electronic control systems

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