



TYPE APPROVAL CERTIFICATE

Certificate No. : ATN30856-AC001

Initial Approval : 28th July, 2014.

Product : Frequency Converter

Manufacturer : Vacon Plc
Runsorintie 7, 65380 Vaasa, Finland

Product Description : Variable speed drives for asynchronous motors

- Type : NXP, NXA, NXN, NXI, NXS series

" See Appendix 1 "

Approval Condition : " See Appendix 1 "

THIS IS TO CERTIFY that the above-mentioned product has been approved in accordance with the relevant requirement of this Society's Rules and / or of the recognized standards as follows and entered in the "List of Approved Manufacturers and Type Approved Equipment".

Pt. 6, Ch. 2, Art. 301 of the Rules for Classification, Steel Ships.

This Certificate is valid until 27th July, 2019.

Issued at Busan, Korea on 28th July, 2014.



KOREAN REGISTER OF SHIPPING

*General Manager of
Class Equipment Team*

Note : 1 : The approval will be automatically suspended and the Certificate become invalid from the expiry date of the Certificate in the event that the extension has not been granted or the renewal of the Certificate is not underway.

2 : The manufacturer should notify this Society of any modification or changes that may affect the validity of this Certificate.

Appendix 1

Product Description and/or Approval Condition

Certificate No : ATN30856-AC001

Date of Issue : 28th July, 2014.

1. Product Description :

Variable speed drives for asynchronous motors
- Type : NXP, NXA, NXN, NXI, NXS series

1) NXS industrial drive

- Rated voltage & motor power ;
 - 208 ~ 240 V, 3 phase : 0.37 ~ 75 kW
 - 380 ~ 500 V, 3 phase : 0.75 ~ 400 kW
 - 525 ~ 690 V, 3 phase : 2.2 ~ 560 kW
- Frame (Air cooled) : FR4 ~ FR12
- Degree of protection : IP 00, IP 21 & IP 54

2) NXP High Performance Drive

- Rated voltage & motor power ;
 - 208 ~ 240 V, 3 phase : 0.30 ~ 75 kW
 - 380 ~ 500 V, 3 phase : 0.75 ~ 1500 kW
 - 525 ~ 690 V, 3 phase : 2.2 ~ 2000 kW
- Frame (Air cooled) : FR4 ~ FR14, FI9 ~ FI13
- Degree of protection : IP 00, IP 21 & IP 54

3) NXP Liquid Cooled Drive

- Rated voltage & motor power ;
 - 380 ~ 500 V, 3 phase : 7.5 ~ 5150 kW
 - 525 ~ 690 V, 3 phase : 5.5 ~ 5300 kW
- Frame (Liquied cooled) : CH3, CH4, CH5, CH61, CH62, CH63, CH64, CH72, CH74
- Degree of protection : IP 00

* Remark :

- a) NXP can be substituted by NXA, NXN & NXI by application selection.
- b) All drive can be accompanied with external components as follows.
 - brake chopper, brake resistors, AC chokes, filters(SIN-, RFI-, DUT-, LCL)

2. Documentation :

1) Test reports :

- EMC test reports no. 228338-1, 231330-1, 234713-1 issued by SGS
- Environmental test reports no. VTT-S-00992-09 issued by VTT
- FR6 & FR8 Damp heat test report issued by VACON
- FR6 Vibration test report issued by Centria
- Other test data for CH3 ~ CH7, FR4 ~ FR14

2) Circuit diagrams & outline drawings for CH3 ~ CH7, FR4 ~ FR14

3) User Manual

- Vacon NX Inverters FI4~8 User Manual
- Vacon NX Inverters FI9~14 User Manual
- Vacon NXP IP00 Modules FR10~14 Installation Manual
- Vacon NXP Liquid Cooled Drives User Manual
- Vacon NXS NXP User Manual

4) Brochure, Product Statements & Quality Certificates

3. Approval Condition

- 1) This approval is granted on the basis of the test reports & submitted documents.
- 2) The product or packing is to be marked with manufacturer name and type designation on a suitable position.
- 3) The actual installation is to be designed to Manufacturer's manual & KR Rule Pt. 6, Ch. 1 & 2.
- 4) If the converters are used as parts of the motor controller which drive essential auxiliaries specified in KR Rule Pt. 5, Ch. 1, 102 and exceed the output 7.5 kW, Individual Product Certification is required for the motor controller.

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