

### TYPE APPROVAL CERTIFICATE No. ELE146815XG

This is to certify that the product below is found to be in compliance with the applicable requirement of the RINA type approval system.

Description FREQUENCY CONVERTERS

Type VACON 100 and VACON 100X models

Applicant VACON Ltd.

RUNSORINTIE 7
65380 VAASA

FINLAND

Manufacturer VACON Ltd.

Place of manufacture SEE ATTACHMENT

Reference standards RINA Rules Pt.C, Ch.3, Sec. 6 and IEC 61800-3; IEC 61800-5-1

Issued in HAMBURG on March 8, 2016. This Certificate is valid until March 7, 2021

RINA Services S.p.A. Giuseppe Russo

This certificate consists of this page and 1 enclosure

## TYPE APPROVAL CERTIFICATE No. ELE146815XG

Enclosure - Page 1 of 1 VACON 100 and VACON 100X models

#### **Product Description:**

Multiple purpose frequency converter for AC applications.

#### Models/Versions:

VACON 100 and VACON 100X

#### Technical data:

See Vacon100.pdf and Vacon-100-x-20-x-brochure-DPD01196B-english.pdf

#### Marking of Product:

See Vacon100.pdf and Vacon-100-x-20-x-brochure-DPD01196B-english.pdf

#### **Approval Conditions:**

See test reports

#### Test Reports:

- MR5 Vacon100 Cold.pdf
- MR5\_Vacon100\_DampHeatCyclic.pdf
- MR5 Vacon100 DryHeat.pdf
- MR7 Vacon100 Cold.pdf
- MR7\_Vacon100\_DampHeatCyclic.pdf
- MR7\_Vacon100\_DryHeat.pdf
- 9031F649.pdf
- 4609F2CA.pdf
- F44181FB.pdf
- B2790525.pdf
- BDDD450C.pdf
- C2EF177B.pdf

#### Operating Instructions/Additional Documentation:

- Vacon100.pdf
- Vacon100\_presentation\_Aug.ppt
- Vacon-100-x-20-x-brochure-DPD01196B-english.pdf
- Vacon-100-100-FLOW-Drive-Switch-Installation-instr.pdf
- Vacon-100-Enclosed-Drives-Installation-Manual-DPD01666B-UK.pdf
- Vacon-100-IP00-Drives-Installation-Manual-DPD01665B-UK.pdf
- Vacon-100-Marine-Installation-Guide-DPD01773A-UK\_11.8.pdf
- Vacon-100-Wall-Mounted-Drives-Installation-Manual-DPD01711F-UK.pdf
- Vacon-100-X-Graphical-Keypad-Installation-Manual-D.pdf
- Vacon-100-X-Installation-Manual-DPD00534H-UK.pdf
- Vacon-100-X-Mains-Switch-Installation-Manual-DPD00.pdf
- Vacon-100-X-Optional-Heater-Arctic-Option-Installa.pdf

# TYPE APPROVAL CERTIFICATE No. ELE146815XG Enclosure - Page 2 of 2 VACON 100 and VACON 100X

#### Reference Documents:

- CB Certificate Safety MR10-12-ED.pdf
- CB Certificate Safety MR4.pdf
- CB Certificate Safety MR5.pdf
- CB Certificate Safety MR6.pdf
- CB Certificate Safety MR7.pdf
- CB Certificate Safety MR8.pdf
- CB Certificate Safety MR8ED.pdf
- CB Certificate Safety MR9.pdf
- CB Certificate Safety MR9ED.pdf
- CB-EMC Certificate MR4.pdf
- CB-EMC Certificate MR5.pdf
- CB-EMC Certificate MR6.pdf
- CB-EMC Certificate MR7.pdf
- CB-EMC Certificate MR8.pdf
- CB-EMC Certificate MR9.pdf
- EC Type-Examinination Certificate for Vacon100.pdf
- MR10ED 500 V.pdf
- MR10ED 690 V.pdf
- MR12ED 500 V.pdf
- MR12ED 690 V.pdf
- MR8ED 500 V.pdf
- MR8ED 690 V.pdf
- MR9ED 500 V.pdf
- MR9ED 690 V.pdf
- Vacon-VTT-ATEX-048X-EN.pdf

#### **Quality Certificates:**

- 2\_Vacon Oyj 90011400118001 2015-2018 FIEN.pdf
- 4 Vacon Oyj 90011400118001 2015-2018 FIEN.pdf
- 6\_Vacon Oyj 90011400118001 2015-2018 FIEN.pdf
- IMS\_CertificateVaconsrl\_eng.pdf

#### Places of Manufacture:

VACON Ltd VACON S.R.L.
Runsorintie 7 Via Roma 2
65380 Vaasa 39014 Postal
Finland Italy

#### Remarks:

-This approval is granted only on the basis of positive outcome of verifications on board to be carried out according to the all above mentioned remarks and to all other applicable RINA Rules.

-Any modification / upgrade of the firmware installed in the system is to be communicated; functional test and spot check are to be carried out and witnessed by a RINA Surveyor, to give evidence of the correct function of the system.

-Flame retardant test (IEC 60092-101 or IEC 60695 11-5) has not been carried out. See IEC 61800-5-1 chapter 4.4.3. for details, material is of flammability class 5VA according to IEC 60695-11-20. This has been proven by datasheets.

HAMBURG March 8, 2016

0

Mr Mr

RINA Services S.p.A. Via Corsica, 12 - 16128 Genova Tel +39 010 53851 Fax +39 010 5351000