



# DET NORSKE VERITAS

## TYPE APPROVAL CERTIFICATE

CERTIFICATE NO. **E-13401**

This is to certify that the  
**Accommodation Heater**

with type designation(s)  
**Fan Heater EVN 3, 6 & 9 kW**

Issued to  
**Thermo Byggvarme A/S**  
**SLEMMESTAD, Norway**

is found to comply with  
**Det Norske Veritas' Rules for Classification of Ships and Mobile Offshore Units**

Application  
**For use in dry accommodation areas and offshore units.**

**Rated power 3 - 9 kW**  
**Rated voltage 230 - 440 V**  
**Enclosure IP 44**

This Certificate is valid until **2018-06-30**.

Issued at **Høvik** on **2014-06-12**

DNV local station: **Oslo Maritime and CAP**

Approval Engineer: **Nicolay Horn**



for **Det Norske Veritas AS**

Digitally Signed By: **Laumann, Marit**

Location: **DNV Høvik, Norway**

Signing Date: **2014-06-16**

**Marit Laumann**  
**Head of Section**

This Certificate is subject to terms and conditions overleaf. Any significant change in design or construction may render this Certificate invalid.

The validity date relates to the Type Approval Certificate and not to the approval of equipment/systems installed.

If any person suffers loss or damage which is proved to have been caused by any negligent act or omission of Det Norske Veritas, then Det Norske Veritas shall pay compensation to such person for his proved direct loss or damage. However, the compensation shall not exceed an amount equal to ten times the fee charged for the service in question, provided that the maximum compensation shall never exceed USD 2 million. In this provision "Det Norske Veritas" shall mean the Foundation Det Norske Veritas as well as all its subsidiaries, directors, officers, employees, agents and any other acting on behalf of Det Norske Veritas.

## Name and place of manufacturer

UAB Stansefabriken  
Pasiles 10  
LT-20194 Ukmerge  
Lithuania

## Product description

Electrical fan heater for fixed installation with brand name EVN.

Type/sizes: 3, 6 or 9 kW; 230, 400 or 440 volt, 50/60 Hz, IP 44. Built-in safety release in case of fan failure or other overtemperature effects.

Technical info:

Type	Supply voltage	Effect (kilowatts)	Heating element voltage	Fan supply voltage
EVN 3 – 23	230 (3ph)	3	230	230
EVN 6 – 23	230 (3ph)	6	230	230
EVN 9 – 23	230 (3ph)	9	230	230
EVN 3 – 40	400 (3ph)	3	230 (1ph + n)*	230 (1ph + n)
EVN 6 – 40	400 (3ph)	6	230 (1ph + n)*	230 (1ph + n)
EVN 9 – 40	400 (3ph)	9	230 (1ph + n)*	230 (1ph + n)
EVN 3 – 44	440 (3ph)	3	254 (1ph + n)	230 via trafo
EVN 6 – 44	440 (3ph)	6	254 (1ph + n)	230 via trafo
EVN 9 – 44	440 (3ph)	9	254 (1ph + n)	230 via trafo

\* can also be ordered with 400 volt elements

## Application/Limitation

For use onboard ships and offshore units.

## Type Approval documentation

ECS "Factory Inspection Report doc. No. CIG 023 issued 2009-05.  
Datasheet Miniconductors 100-K / 100-KR  
EU Declaration of Conformity dated 2013-10-03  
Nemko "Letter of confirmation" dated 10.06.2010.  
Nemko Test report no. 131278/Vib01, rev 01 issued 15.02.2010. Nemko letter "Measuring temperature of heating elements dated 24.02.2010.  
Witness testing 18.09.1998.  
NEMKO statement no. 199551121/02 of 16.04.1996. NEMKO sertifikat A97155.  
DNV report 55021084, of 15.04.1998  
Construction layout details and schematic diagram.

## Tests carried out

Type tests in accordance with IEC 60335-2-30, Failure simulation, temperature increase, vibration test, design inspection, EN 55014 (EMC emission), EN60555-2/ -3 (supply harmonics), EN 50082-1 (EMC immunity).

## Marking of product

Manufacturers label with information regarding type number, kilowatts, voltage and more.

### **Periodical assessment**

The scope of the periodical assessment is to verify that the conditions stipulated for the Type approval is complied with and that no alterations are made to the product design or choice of materials.

The main elements of the survey are:

- Inspection on factory samples, selected at random from the production line (where practicable)
- Review of type approval documentation
- Review of possible change in design, materials and performance
- Ensuring traceability between manufacturer's product type marking and Type Approval Certificate.

Survey to be performed at least every second year.

END OF CERTIFICATE