

DNV

DET NORSKE VERITAS

TYPE APPROVAL CERTIFICATE

CERTIFICATE NO. E-9563
This Certificate consists of 3 pages

This is to certify that the
Accommodation Heater
with type designation(s)
ROBUST


Manufactured by
VEAB Heat Tech AB
Hässleholm, Sweden

is found to comply with
Det Norske Veritas' Rules for Classification of Ships, High Speed & Light Craft and Det Norske Veritas' Offshore Standards
IEC 60335-2-30 (2007-11)

Application
Electric fan heaters

Type	ROBUST
Rated power	3000W - 6000W
Rated voltage	230V - 440V
Enclosure	IP44



Place and date
Høvik, 2009-06-17
for DET NORSKE VERITAS AS


Marit Laumann
Head of Section



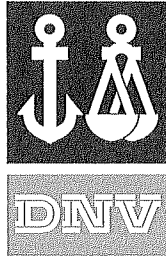
Local Office
DNV Malmö

This Certificate is valid until
2012-12-31


Nicolay Horn
Surveyor 

Notice: 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.



Cert. No.: E-9563
File No.: 826.20
Job Id: 262.1-006798

Product description

Fan heater with the following types and sizes:

Type:	Power	Voltage	Frequency	Ingress Protection
Robust V3	3000W	230V 1 ph	50 Hz	IP 44
Robust V3	3000W	400V 3 ph	50 Hz	IP 44
Robust V3,6	3600W	440V 3 ph	60 Hz	IP 44
Robust V5	5000W	230V 3 ph	50 Hz	IP 44
Robust V5	5000W	400V 3 ph	50 Hz	IP 44
Robust V6	6000W	440V 3 ph	60 Hz	IP 44

Application/Limitation

For dry and wet accommodation spaces. Only for fixed installation. Shall normally be protected with a top plate in accordance with our Rule Pt.4, Ch.8, Sec. 8, A 303. Installation is to be considered in each case.

Type Approval documentation

Technical info:

“VEAB Heat Tech AB ROBUST-V Installation and user instructions for Robust V.

SEMKO type test report no. 304902-01 dated 2004-04-26.

PACFORSK report “VEAB and FRICO fan – Vibration testing”, report no. 274 210 dated 2004-05-11. Letter from VEAB to DNV dated 2004-05-13 with technical data included.

Tests carried out

Type tests in according to IEC 60335-2-30, Vibration test.

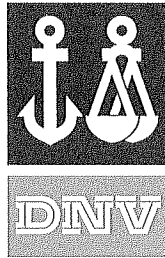
Marking of product

VEAB – Robust – type designation

Certificate retention survey

The scope of the retention/renewal survey 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:



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- Inspection on factory samples, selected at random from the production line (where practicable)
- Results from Production Sample Tests (PST) and Routines (RT) checked (if not available tests according to PST and RT to be carried out)
- 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 renewal only.

END OF CERTIFICATE