

DET NORSKE VERITAS

TYPE APPROVAL CERTIFICATE

CERTIFICATE NO. E-10495

This Certificate consists of 3 pages

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

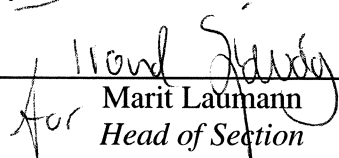
Manufactured by
Frico AB
PARTILLE, Sweden

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
IEC 61892-3

Application
Electric space heaters

Rated power	300W - 1000W
Rated voltage	230V & 400V
Enclosure	IP44

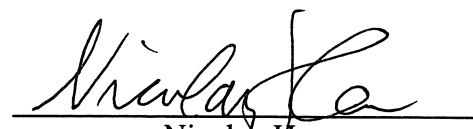
Place and date
Høvik, 2010-12-21
for DET NORSKE VERITAS AS

for 
Marit Laumann
Head of Section



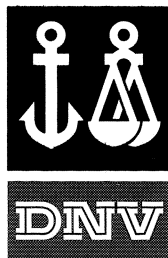
Local Office
Gothenburg

This Certificate is valid until
2014-12-31


Nicolay Horn
Surveyor *Swedish*

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-10495
File No.: 826.20
Job Id: 262.1-006733

Product description

Fan heater with the following types and sizes:

Type:	Power	Voltage	Frequency	Ingress Protection
TWT10321	300W	230V 1 ph	50 - 60Hz	IP 44
TWT10521	500W	230V 1 ph	50 - 60Hz	IP 44
TWT11021	1000W	230V 1 ph	50 - 60Hz	IP 44
TWT10331	300W	400V 3 ph	50 - 60Hz	IP 44
TWT10531	500W	400V 3 ph	50 - 60Hz	IP 44
TWT11031	1000W	400V 3 ph	50 - 60Hz	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:

“ThermoWarmfor” datasheet for Frico AB space heater of type TWT.

Nemco Test Report no. E10215.00 dated 2010-10-12, SEMKO type test report no. 813722-1 dated 2007-06. SEMKO test nos. SE-56183, SE-56184 & SE-56185 dated 2008-11-04. SEMKO report no. 715512/M dated 2008-10-09.

Tests carried out

Type tests in according to IEC 60335-2-30, IEC 61892-3.

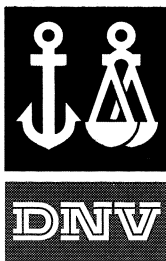
Marking of product

TWT – Frico – 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 least every second year.

END OF CERTIFICATE