DNV·GL

Certificate No:
TAE000027A

TYPE APPROVAL CERTIFICATE

This is to certify:

That the Transformer

with type designation(s)
interMARINE ITR

Issued to
Intertrafo Oy
TURKU, Finland

is found to comply with
DNV GL rules for classification – Ships, offshore units, and high speed and light craft
DNV GL class programme DNVGL-CP-0394 – Type approval – Transformers - power and measurement

Application :

Products approved by this certificate are accepted for installation on all vessels classed by DNV GL.

Rating (kVA)	**0.05/0.1/0.15/0.2/0.25/0.3/0.4/0.5/0.63/0.75/0.8/1/1.6/2.4**
Primary voltage (V)	**up to 690**
Secondary voltage (V)	**up to 690**

Issued at **Høvik** on **2017-08-17**
This Certificate is valid until **2022-08-16**.
DNV GL local station: **Turku**

Approval Engineer: **Hanwee Low**

for **DNV GL**

Andreas Kristoffersen
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.

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Product description

1-phase isolation transformer for distribution and ship supply in marine environments.

Rated Power (kVA):	0.05/0.1/0.15/0.2/0.25/0.3/0.4/0.5/0.63/0.75/0.8/1/1.6/2.4
Primary voltage (V):	Up to 690
Secondary voltage (V):	Up to 690
Rated frequency(Hz):	47 – 63
Degree of protection:	IP 00
Environmental class:	E0
Ambient temperature:	45°C
Temperature class:	B (130°C) & F (155°C)
Cooling:	AN, Air Natural

Application/Limitation

End user is responsible for correct IP protection / enclosure wrt. location.

Type Approval documentation

Tests carried out

Tests are performed in accordance with DNVGL-CP-0394:

- Temperature test at full load
- Measurement of winding resistance
- Measurement of voltage ratio and vector
- Measurement of no-load loss and current
- Measurement of short circuit impedance and load loss
- Dielectric tests
- Measurement of voltage drop
- Measurement of insulation. resistance
- Vibration test

Marking of product

Each power transformer shall be provided with nameplate giving the following information:

- make, type, serial no.
- performance standard
- rated values for: output apparent power, voltage(s), frequency, current(s)
- thermal classification of insulation
- IP code of enclosure and termination box
- vector group of windings
- short circuit impedance value
- total mass.

Periodical assessment

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

The main elements of the assessment are:

- Inspection on factory samples, selected at random from the production line (where practicable)
- Results from Routine tests (RT) checked (if not available tests according to 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.

Periodical assessment is to be performed after 2 years and 3.5 years. A renewal assessment will be performed at renewal of the ceritifcate.

END OF CERTIFICATE