

# TYPE APPROVAL CERTIFICATE

**This is to certify:****That the Power supply unit**

with type designation(s)  
**ODS-750, ODS-1500 & ODS-3000**

Issued to

**Anda-Olsen AS**  
**ÅLESUND, Norway**

is found to comply with

**DNV GL rules for classification – Ships, offshore units, and high speed and light craft**

**Application :**

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

<b>Voltage output</b>	<b>120 - 230 VAC</b>
<b>Power</b>	<b>750 - 3000 VA</b>
<b>Temperature class</b>	<b>A</b>
<b>Vibration class</b>	<b>A</b>
<b>Humidity class</b>	<b>B</b>
<b>Degree of protection</b>	<b>A</b>

Issued at **Høvik** on

for **DNV GL**

This Certificate is valid until .

DNV GL local station: **Ålesund**

Approval Engineer: **Nicolay Horn**

**Marta Alonso Pontes**  
**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.

LEGAL DISCLAIMER: Unless otherwise stated in the applicable contract with the holder of this document, or following from mandatory law, the liability of DNV GL AS, its parent companies and subsidiaries as well as their officers, directors and employees ("DNV GL") arising from or in connection with the services rendered for the purpose of the issuance of this document or reliance thereon, whether in contract or in tort (including negligence), shall be limited to direct losses and under any circumstance be limited to 300,000 USD.



Job Id: **262.1-016168-2**  
Certificate No: **TAE0000447**

### Name and place of manufacturer

PREMIUM S.A. Assessment  
Hospitalet de Liobregat, Barcelona  
SPAIN

### Product description

DC / AC sine wave inverter with selectable output frequency (50 / 60 Hz) and adjustable output voltage.

#### ODS-750

Model	Input voltage	Output voltage	Power rating
7071 / 7271	12 Vdc	230 Vac	750 VA
7073 / 7273	24 Vdc	230 Vac	750 VA
7074 / 7274	36 Vdc	230 Vac	750 VA
7075 / 7275	48 Vdc	230 Vac	750 VA
7076 / 7276	72 Vdc	230 Vac	750 VA
7077 / 7277	110 Vdc	230 Vac	750 VA
7081 / 7281	12 Vdc	120 Vac	750 VA
7083 / 7283	24 Vdc	120 Vac	750 VA
7084 / 7284	36 Vdc	120 Vac	750 VA
7085 / 7285	48 Vdc	120 Vac	750 VA
7086 / 7286	72 Vdc	120 Vac	750 VA
7087 / 7287	110 Vdc	120 Vac	750 VA

#### ODS-1500

Model	Input voltage	Output voltage	Power rating
7111	12 Vdc	230 Vac	1200 VA
7113	24 Vdc	230 Vac	1500 VA
7114	36 Vdc	230 Vac	1500 VA
7115	48 Vdc	230 Vac	1500 VA
7116	72 Vdc	230 Vac	1500 VA
7117	110 Vdc	230 Vac	1500 VA
7121	12 Vdc	120 Vac	1500 VA
7123	24 Vdc	120 Vac	1500 VA
7124	36 Vdc	120 Vac	1500 VA
7125	48 Vdc	120 Vac	1500 VA
7126	72 Vdc	120 Vac	1500 VA
7127	110 Vdc	120 Vac	1500 VA

#### ODS-3000

Model	Input voltage	Output voltage	Power rating
7153	24 Vdc	230 Vac	2400 VA
7154	36 Vdc	230 Vac	3000 VA
7155	48 Vdc	230 Vac	3000 VA
7156	72 Vdc	230 Vac	3000 VA
7157	110 Vdc	230 Vac	3000 VA
7163	24 Vdc	120 Vac	2400 VA
7164	36 Vdc	120 Vac	2500 VA
7165	48 Vdc	120 Vac	2500 VA
7166	72 Vdc	120 Vac	2500 VA
7167	110 Vdc	120 Vac	2500 VA

## Application/Limitation

For use on bridge, in control rooms and dry accommodation areas onboard ships and offshore units.  
To be installed in an enclosure with an IP degree in accordance with DNV rules with respect to location.

## Type Approval documentation

Authorization letter, Material declaration

Drawings: ODS-3000 3000VA DC/AC inverter, ODS-1500 1500VA DC/AC inverter, ODS-750 450...750 VA DC/AC Inverter

Test reports: DELTA Report no. DANAK-19/12614 "Test for Marine Type Approval of Inverter 24Vdc/230Vac 750VA with alarm"

## Tests carried out

Type tests according to IACS E10:2006 and IEC 60945:2002 and Corrigendum 1:2008:  
Performance test, power supply failure, power supply variations, Excessive conditions – reverse polarity, Excessive conditions – excessive voltage, Low temperature (cold), Dry heat, Damp heat, Insulation resistance, High voltage, Vibration, Electrostatic discharge, Radiated radio frequency interference, Conducted low frequency, Conducted radio frequency interference, Fast transients – burst, Slow transients – surge, Radiated emission, Conducted emission, Compass safe distance, IP2X

## Marking of product

Premium, model number, input voltage, output voltage, maximum current and serial number with the production date and series

## 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 assessment are:

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

Assessment to be performed at 2 and 3.5 year and at renewal.

END OF CERTIFICATE