DNV·GL

Certificate No:
TAE00001U6

TYPE APPROVAL CERTIFICATE

This is to certify:

That the Battery (Accumulator)

with type designation(s)
Lead acid accumulators, system "BAE SECURA OGi" cells/block batteries

Issued to
BAE Batterien GmbH
Berlin, Germany

is found to comply with
DNV GL rules for classification – Ships, offshore units, and high speed and light craft

Application :

Product(s) approved by this certificate is/are accepted for installation on all vessels classed by DNV GL.

Issued at **Hamburg** on **2016-09-09**
This Certificate is valid until **2021-09-08**.
DNV GL local station: **Magdeburg**

Approval Engineer: **Maik Gagern**

for **DNV GL**

Duy Nam Le
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.

© DNV GL 2014. DNV GL and the Horizon Graphic are trademarks of DNV GL AS.

Job Id: **262.1-025430-1**
Certificate No: **TAE00001U6**

Product description

Lead Acid accumulators, system "BAE SECURA OGi"
OGi in accordance with IEC 60896-11: 2002
IEC 61427-1: 2013-04
IEC 61427-2: 2015-08
IEC 62485-2: 2010-06
EN 50272-2: 2001
OGi following DIN 40736-1: 2015-09
DIN 40737-3: 2015-09

Cells/block batteries: 200 Ah (C_{10}) up to 2400 Ah (C_{10}) / 25 Ah (C_{10}) up to 900 Ah (C_{10})
Stationary vented Lead Acid accumulators (VLA)
The single cells or block batteries can be combined to batteries with the desired voltage.

Application/Limitation

Application: The block batteries and cells are suitable for all stationary electrical installations, for UPS supplies as well as electrical units on board ships and marine facilities. At sufficient capacity also suitable for occasional electrical starting of combustion engines.
For charging conditions manufacturer's instruction shall be considered.

Type Approval documentation

Tests carried out

DNV GL Rules for Classification DNVGL-RU-0050, Edition 2016-01
DNV GL Class Guidelines DNVGL-CG-0339, Edition 2015-11
IEC 60896-21: 2004

Marking of product

Maker, Type of Cell or Block Battery, Capacity

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
- 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 after 3.5 years. A renewal assessment will be performed at renewal of the certificate.

END OF CERTIFICATE