



Marine & Offshore

Certificate number: 18826/D0 BV

File number: ACM 180/2301/04

Product code: 7152H

*This certificate is not valid when presented without the full attached schedule composed of 7 sections*

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## TYPE APPROVAL CERTIFICATE

*This certificate is issued to*  
**WITT & SOHN AG**  
 Pinneberg - GERMANY

*for the type of product*  
**ANTISPARKING AXIAL FANS**  
 N/NL, M/ML, X/XL, Y/YL, DVE<sub>x</sub>, PVE<sub>x</sub>

### Requirements:

- BUREAU VERITAS Rules for the Classification of Steel Ships
- BUREAU VERITAS Rules for the Classification of Offshore Units
- IBC Code

*This certificate is issued to attest that Bureau Veritas Marine & Offshore did undertake the relevant approval procedures for the product identified above which was found to comply with the relevant requirements mentioned above.*

**This certificate will expire on: 10 Nov 2028**

**For Bureau Veritas Marine & Offshore,**  
 At BV HAMBURG, on 10 Nov 2023,  
 Dirk Hoepfner

***This certificate was created electronically and is valid without signature***



This certificate remains valid until the date stated above, unless cancelled or revoked, provided the conditions indicated in the subsequent page(s) are complied with and the product remains satisfactory in service. This certificate will not be valid if the applicant makes any changes or modifications to the approved product, which have not been notified to, and agreed in writing with Bureau Veritas Marine & Offshore. Should the specified regulations or standards be amended during the validity of this certificate, the product(s) is/are to be re-approved prior to it/they being placed on board vessels to which the amended regulations or standards apply. This certificate is issued within the scope of the General Conditions of Bureau Veritas Marine & Offshore available on the internet site www.veristar.com. Any Person not a party to the contract pursuant to which this document is delivered may not assert a claim against Bureau Veritas Marine & Offshore for any liability arising out of errors or omissions which may be contained in said document, or for errors of judgement, fault or negligence committed by personnel of the Society or of its Agents in establishment or issuance of this document, and in connection with any activities for which it may provide.

The electronic version is available at: <http://www.veristarm.com/veristarnb/jsp/viewPublicPdfTypepec.jsp?id=jgb5cqhfwt>

BV Mod. Ad.E 530 June 2017

This certificate consists of 3 page(s)

## THE SCHEDULE OF APPROVAL

### 1. PRODUCT DESCRIPTION

**Axial Flow Fans type N/NL, M/ML, X/XL, Y/YL, DVE<sub>x</sub>, PVE<sub>x</sub>**

#### 1.1 Design and Type

- Explosion protected type / Impeller types: N, M, X, Y (adjustable pitch) / Drive type: coupling, belt or direct drive
- Inlet size 250 to 2800 mm & Casing thickness 1.5 to 16 mm
- Maximum working pressure : 0,1 bar
- Flow rate : 0,01m<sup>3</sup>/s to 100m<sup>3</sup>/s
- Temperature range : -40°C to +40°C

#### 1.2 Material specification

|          |   |
|----------|---|
| Casing   | Mild steel (1.0038, 1.0570), stainless steel (304, 316), sea water resistant (AlMg3, AlMg4.5) |
| Impeller | Cast aluminum alloy, seawater resistant (AlSi9, AlSi10, AlSi11, AlSi12)                       |

### 2. DOCUMENTS AND DRAWINGS

- Witt & Sohn Technical Guidelines & Product Description as provided on 28/08/2018
- Drawing N° A98-58-3 Design instructions & drawings dated 15/01/2013
- Drawing N° M98-32-4 dated 27/10/1998 and N° M97-16-4 dated 01/11/2006
- Drawing N° M99-75-4 Designs of axial fans dated 01/11/2006

*No departure from the above documents shall be made without the prior consent of the Society. The manufacturer must inform the Society of any modification or changes to these documents and drawings.*

### 3. TEST REPORTS

Not required.

### 4. APPLICATION / LIMITATION

- 4.1 - May be used as non-sparking fans approved in marine and offshore ventilation for hazardous or non-hazardous applications.
- 4.2 - Fans are to be suitably earthed to the hull in order to prevent electrostatic charges during operation.
- 4.3 - The installation on board is to be carried out in compliance with manufacturer's instructions and in accordance with the provisions of Bureau Veritas Rules and Regulations stated on the front page of this certificate.
- 4.4 - Electrical motors Ex protected and ordered will have to comply with the relevant class for the ship. The certificate for the motors will be provided for the ship Surveyor at each classification/visit. The certificate of the complete non-sparking fan, including running test at the factory, will be provided.
- 4.5 - For hazardous areas, ventilation fans shall be of non-sparking construction, complying with NR467, Pt C, Ch 4, Sec 1, [3.32].
- 4.6 - The use of stainless steel and aluminum alloys is restricted as per BUREAU VERITAS Rules NR467, Pt C, Ch 1, Sec 10, table 5.

### 5. PRODUCTION SURVEY REQUIREMENTS

- 5.1 - The products are to be supplied by **WITT & SOHN AG** in compliance with the type described in this certificate and in compliance with the requirements stated on the front page of this certificate.
- 5.2 - This type of product is within the category HBV of Bureau Veritas Rule Note NR320 and as such does not require a BV product certificate.
- 5.3 - **WITT & SOHN AG** has to make the necessary arrangements to have its works recognised by Bureau Veritas in compliance with the requirements of NR 320 for HBV products
- 5.4 - For information, **WITT & SOHN AG** has declared to Bureau Veritas the following production site:

**WITT & SOHN AG: Ziegeleiweg 38 D 25421 Pinneberg, Germany**

**6. MARKING OF PRODUCT**

The product shall be marked with at least:

- Manufacturer's name or logo
- Type designation and size
- Capacity

**7. OTHERS**

It is **WITT & SOHN AG**'s responsibility to inform shipbuilders or their sub-contractors of the proper methods of fitting, use and general maintenance of the approved equipment and the conditions of this approval.

*This certificate supersedes the Type Approval Certificate N° 18826/C0 BV issued by the Society.*

**\*\*\* END OF CERTIFICATE \*\*\***