



Certificate number: 14420/E0 BV

File number: ACM 135/101/1

Product code: 2104I

*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

Danfoss Power Solutions II GmbH

Baden-Baden - GERMANY

for the type of product

NON-METALLIC HOSES (FLEXIBLE PIPES) ASSEMBLIES

PTFE HOSES, type: 2807

Requirements:

BUREAU VERITAS Rules for the Classification of Steel Ships

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: 27 Jan 2031

For Bureau Veritas Marine & Offshore,

At BV HAMBURG, on 27 Jan 2026,

Heiko Lange

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.

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BV Mod. Ad.E 530 June 2017

This certificate consists of 3 page(s)

THE SCHEDULE OF APPROVAL

1. PRODUCT DESCRIPTION:

Flexible hoses, type: 2807

1.1 Identification and technical data:

Part number	O.D. max [mm]	Max. working pressure [bar]	Min. bending radius [mm]
2807-3	6.8	207	38.1
2807-4	8.2	207	50.8
2807-5	10.1	207	76.2
2807-6	11.6	172	101.6
2807-8	14.3	138	133.4
2807-10	16.8	103	165.1
2807-12	20.1	83	196.9
2807-16	26.9	69	228.6
2807-20	33.5	43	406.4

Temperature range: -73°C up to +260°C

1.2 Materials and components:

Inner Tube	PTFE
Reinforcement	Stainless steel wire braid with one blue aramid polyester tracer braid
Fittings	Steel or stainless steel

2. DOCUMENTS AND DRAWINGS:

According to following drawings and documents:

Drawing No.	Rev.	Designation
2807	U	HOSE
AF445859319075en-000103	September 2023	Manufacturer's catalog: PTFE Hose and Fittings

3. TEST REPORTS:

- 3.1 BUREAU VERITAS qualification tests performed in the manufacturer's own laboratory in the presence of a Society's Surveyor.
- 3.2 Test report no.: 224742 witnessed by an IACS member.
- 3.3 Flame test carried out by: WTD71.
- 3.4 Flame tests according to ISO 15540 carried out by AERO NAV Laboratories:
Test reports no. 3-4602-5 and 3-4602-6 on test sample No. 164, 166, 168, 194, 196.
The tests were carried out on the 2807 hose with crimped fittings and without a fire sleeve.
- 3.5 Impulse test and pressure tests including bursting test performed at Eaton Technical Center Maumee, Ohio / USA.
Test report no. 226683
- 3.6 Fire resistance test according to ISO 15540, Test reports no.: 2073.0IS0110/22 dd. 01/12/2022; 2074.0IS0110/22 dd. 01/12/2022 and 2075.0IS0110/22 dd. 01/12/2022, performed at LAPI S.p.A. Laboratory, Prato / ITALY.

4. APPLICATION / LIMITATION:

- 4.1 May be used for the following media: steam, compressor discharge and virtually all chemical applications
- 4.2 Before using on cargo piping system on board chemical tankers, the compatibility of materials with intended cargoes should be confirmed. The maximum working pressure for cargo piping system is not to exceed one fifth of the burst pressure.

- 4.3 End fittings as per manufacturer's catalogue. The hoses are to be entirely assembled in the manufacturer's workshop.
- 4.4 Taper threaded end connections are not to be used for liquid fuel or oil circuits in engine rooms nor any place containing an ignition source unless otherwise suitably screened at the Society's Surveyor satisfaction.
- 4.5 The hose assemblies are to be installed according to BUREAU VERITAS Rules and the manufacturer's instructions and requirements.
- 4.6 Flexible hoses assemblies for essential services or containing either flammable or toxic media are not to exceed 1.5 meters in length. A length greater than 1.5 meters may be accepted on a case-by-case basis by the Society, provided that the installation ensures the integrity of the hose is not compromised by any external factors, that hoses are only be used where necessary to accommodate relative movement between two moving parts, and that all hot surfaces that could be exposed in case of hose failure are appropriately heat-shielded.
- 4.7 The hose assemblies intended for use in piping systems where high levels of vibration are expected to occur in service are to be designed for the maximum expected forces due to vibration. Otherwise, this use is to be subject to special consideration by the Society for each case.
- 4.8 The use of stainless steel and / or grey cast iron is restricted according to BUREAU VERITAS Rules.

5. PRODUCTION SURVEY REQUIREMENTS:

- 5.1 The hoses are to be supplied by **Danfoss Power Solutions II GmbH** in compliance with the types and the requirements described in this certificate.
- 5.2 This type of product is within the category IBV of BUREAU VERITAS Rule Note NR320.
- 5.3 BUREAU VERITAS product certificate is required.
- 5.4 For information, **Danfoss Power Solutions II GmbH** has declared to BUREAU VERITAS the following production sites:
Hoses:
Eaton Corporation, Global Hose Division, Middlesex, North Carolina / USA
Couplings:
Danfoss Power Solutions II GmbH, Baden Baden / GERMANY and
Danfoss Power Solutions II, LLC, Van Wert, Ohio / USA
- 5.5 Each hose with end fittings is to be hydraulic pressure tested to 1.5 times the maximum working pressure under witnessing of a Society's Surveyor.

6. MARKING OF PRODUCT:

Each hose with end fittings is to be clearly marked as follows to avoid any wrong utilization:

- Manufacturer's name or logo
- Type designation
- Maximum working pressure
- Maximum and minimum working temperature
- Date of manufacture
- BUREAU VERITAS' marks

7. OTHERS:

- 7.1 It is **Danfoss Power Solutions II GmbH'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.
- 7.2 This certificate supersedes the Type Approval Certificate N° 14420/D1 BV issued on 15 Jul 2021 by the Society.

*** END OF CERTIFICATE ***