Certificate no.:
TAP000031V

TYPE APPROVAL CERTIFICATE

This is to certify:

that the Flexible Hoses of Non-Metallic Material with Permanently Fitted Couplings

with type designation(s)
GH100 + Fire Sleeve 624

issued to
Danfoss Power Solutions II GmbH
Baden-Baden, Baden-Württemberg, Germany

is found to comply with
DNV rules for classification – Ships Pt.4 Ch.6 Piping systems
DNV class programme DNV-CP-0183 – Type approval – Flexible non-metallic hoses

Application:

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

Temperature range:	**-40°C to + 175°C**
Max. working press.:	**28 bar / 400 psi**
Sizes:	**DN 6 to DN 19**

Issued at **Hamburg** on **2026-01-28**
This Certificate is valid until **2031-01-27**.
DNV local unit: **Augsburg**

for **DNV**

Approval Engineer: **Christian Kaemmer**

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 AS, its parent companies and their subsidiaries as well as their officers, directors and employees ("DNV") 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 USD 300 000.

Product description

GH100 - Series:
Flexible non-metallic hose consisting of hydrogenated rubber inner tube, aramid braid reinforcement, and polyester braid cover.

Sleeve 624:
Single layer braided fiberglass tubing impregnated and overlaid with a special fuel, lube oil, and hydraulic oil-resistant silicone rubber, fire resistant.

Materials:

Inner Tube:	Hydrogenated rubber
Reinforcement:	Aramid braid
Cover:	Polyester braid
Coupling:	Carbon steel

Size and pressure range:

Part Number **GH100**	Hose I.D.		Hose O.D.		Maximum working pressure	
	mm	inch	mm	inch	[bar]	[psi]
GH100-4	6.4	¼”	13.3	0.52	28	400
GH100-6	9.5	3/8”	16	0.63	28	400
GH100-8	12.7	½”	19.4	0.76	28	400
GH100-10	15.9	5/8”	23.8	0.94	24	350
GH100-12	19	¾”	27.4	1.08	24	350

Type of Coupling: 1G OTC

Production place

- Danfoss Power Solutions II GmbH, Dr. Reckewegstr. 1, D-76532 Baden-Baden, Germany

Responsibility
Danfoss Power Solutions II GmbH, Baden-Baden takes the responsibility that the design and production of the hoses, hose end fittings and manufacturing of hose assemblies are in compliance with Rules, Standards and/or Regulations listed on page 1 of this certificate.

Application/Limitation
Hose assemblies covered by this type-approval certificate are type approved for diesel fuel, biodiesel fuel, gasoline oil, crude oil and lubricating oil.

GH100-hose in combination with Sleeve 624 is classified as fire resistant acc. to ISO 15540.

Flexible hoses are only to be used in short lengths where it is necessary due to vibrations or flexible mounting of the machinery. The hoses shall not be used where permanent piping is possible/required.

Installation
The hose assemblies must only be fitted in places where they are always accessible. Flexible hoses are not to be used on boiler fronts. It must be possible to shut off from the system all flexible hoses used in systems for compressed air, fresh water cooling applications, lube oil, fuel oil and petroleum base hydraulic oil. The cover on hoses for gaseous applications shall be pin-pricked.

For temperatures below 0°C the supplementary material requirements acc. to DNV-Rules “Ships /Metallic Materials” Part 2 chapter 2 section 5 item 4 are to be observed.

Type Approval documentation

Tests carried out

Production testing
All hose assemblies shall be subject to a pressure test at 1.5 times the maximum working pressure and shall be delivered with the pressure test report with reference to the type approval certificate.

Marking of product
For traceability to this type approval, each hose assembly is to be marked with:

Manufacturer's name	Danfoss
Type, Nominal Diameter	GH100-8, DN12
Maximum working pressure M.A.W.P.	28 BAR (400 PSI)
Date Code	4Q25
Temperature Rating	-40°C to +150°C

Periodical assessment
For retention of the Type Approval, a DNV Surveyor shall perform periodical assessment to verify that the conditions for the Type Approval are complied with. Refer to the Class Programme DNV-CP-0338, Sec.4.

To check the validity of this certificate, please look it up in https://approvalfinder.dnv.com