



NIPPON KAIJI KYOKAI

TYPE APPROVAL CERTIFICATE FOR AUTOMATIC DEVICES AND EQUIPMENT

Certificate No. TA25002M

This is to certify that the undernoted product(s) has/have been approved in accordance with the requirements specified in Chapter 1, Part 7 of "Guidance for the Approval and Type Approval of Materials and Equipment for Marine Use" and the relevant Society's Rules.

This certificate is issued to

Applicant:

Danfoss Drives Oy

Manufacturer:

Danfoss Drives Oy

Place of Manufacturing:

Runsorintie 7 Vaasa 65380, FINLAND

Product description:

Frequency Converter

Model:

iC7-60SL Liquid Cooled System Drives

Approval No.:

25A035

Valid until:

14 October 2030

The details are described in the attached sheet(s).

Issued at Tokyo on 14 October 2025.

S. Oishi

General Manager

Machinery Department

Note: The manufacturer, if desired, is requested to apply to the Society for renewal prior to the expiration date.

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Attached sheet -1/2 to the Certificate No. TA25002M

Specification & documents:

1. Particulars:

Supply voltage range:	07: 525-690VAC (640-1100V DC)	
	B5: 380-500VAC (465 - 830VDC)	
Frequency:	45 - 66 Hz	
Voltage variation:	AC +10%, -15%, DC ±0%	
Output frequency:	0 - 599 Hz	
Number of phases	3	
Temperature range in operation:	0 - 60 °C (power units)	
	0 - 55 °C (control units)	

2. Documents and Test Reports: Operating Guide iC7 Series Liquid-cooled System Modules HELES22000152-1, 18 May 2018 00775653, 9 May 2022 Danfoss iC7-60SL Marine High Voltage Test, 16 Sep. 2024 EUFI29-21002279-T1, 10 Jun. 2021 299288-1, 6 May 2020

- To be continued -

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Attached sheet -2/2 to the Certificate No. TA25002M

Test items & approval conditions:

1. Test items:

(Applied testing items are marked with X.)

ENVIRONMENTAL TESTS (IACS UR E10 Rev.9 Basis)		Mark
External examination		X
Operation test and performance test		X
Electric power supply failure test		
Power supply fluctuation test	Electric	X
1 ower suppry fructuation test	Pneumatic and Hydraulic	
Insulation resistance test		
High voltage test		
Pressure test (Pneumatic and Hydraulic)		
Dry heat test (Temperature $70^{\circ}\text{C} \times 16 \text{ h}$)		X
Damp heat test		
Vibration test (Acceleration ± 1.0 g)		
Inclination test		
Cold test (Temperature $5^{\circ}C \times 2$ hours)		
Salt mist test		
Electrostatic discharge immunity test		
Radiated radio frequency immunity test		
Conducted low frequency immunity test		
Conducted high frequency immunity test		
Burst / Fast transient immunity test		
Surge immunity test		
Radiated emission test		
Conducted emission test		
Flame retardant test		

2. Approval condition:

The product is not allowed to be installed on open deck.

The product is to be installed in Special Power Distribution Zone subject to agreement with the manufacturer and customer in accordance with IEC 60533.