

TYPE APPROVAL CERTIFICATE

This is to certify:**That the Class B Recesses for Light Fittings, Ventilation Units and similar**

with type designation(s)

Cabin Units CUS-25/C, CUS-25/N, CUS-35/C, CUS-35/N, CUT-25/C, CUT-35/C, CUR-25/C, CUR-35/C, CUR-25N, CUR-35N

Issued to

**Johnson Controls Denmark ApS
Højbjerg, Denmark**

is found to comply with

DNV GL offshore standards**DNV GL rules for classification – Ships****DNV GL statutory interpretations DNVGL-SI-0364 – SOLAS interpretations****Application :****Ventilation units approved for use in a B-0/B-15 ceiling****Product(s) approved by this certificate is/are accepted for installation on all vessels classed by DNV GL.**Issued at **Høvik** on **2017-11-30**This Certificate is valid until **2022-06-30**.for **DNV GL**DNV GL local station: **Aalborg**Approval Engineer: **Piotr Orzechowski**

**Mårten Schei-Nilsson
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.



Product description

"Cabin Units CUS-25/C, CUS-25/N, CUS-35/C, CUS-35/N, CUT-25/C, CUT-35/C, CUR-25/C, CUR-35/C, CUR-25N, CUR-35N"

Ventilation cabin units fitted into B-0/B-15 ceilings. The cabin units consist of an insulated attenuator box and air supply diffuser fitted with or without heating element, air flow regulator etc. as specified in the drawings mentioned under type approval documentation. The box is fastened to the ceiling with M6 x 12 bolts and 4 x 11 steel rivets.

Additional insulation is fitted between the bottom of the cabin unit and unexposed side of ceiling according to instruction manual.

Cut out in ceiling is approximately Ø210 mm for all types.

Manufactured at the premises of: Wenling City Ruantong Shipping Equipment Manufacturing Co. Ltd, Xinhe Town, Wenling, P.R. China,

Application/Limitation

Cabin Unit Type	Maximum size (L x W x H)	Maximum weight
CUS-25/C, CUS-25/N, CUT-25/C:	450 x 450 x 135 mm	10,0 kg
CUR-25/C:	550 x 450 x 135 mm	11,2 kg
CUR-35/C:	690 x 450 x 175 mm	15,2 kg
CUS-35/C, CUS-35/N, CUT-35/C:	600 x 450 x 175 mm	12,0 kg
CUR-25N	553 x 450 x 135 mm	10,0 kg
CUR-35N	690 x 450 x 135 mm	12,5 kg

The cabin units are approved for use in approved B-0/B-15 class continuous/non-continuous ceilings, depending on the type, when mounted as per the manufacturer's drawings. See drawings mentioned under Type Approval documentation.

The manufacturer of the ceiling is responsible to document that the structural and thermal integrity is maintained after fitting the cabin units into the ceiling.

Minimum distance between the recesses (cut outs) should not be less than 200 mm.

The arrangement is subject for approval in each case.

Each product is to be supplied with its manual for installation, use and maintenance.

Type Approval documentation

Certification in accordance with Class Programme DNVGL-CP-0338, October 2017.

Test Reports No.FT08230, FT08231 and FT08233 all dated 17 November 2008 from Far East Fire Testing Centre, Shanghai, China.

Drawings for Cabin Units CUS-25/C, CUS-25/N, CUS-35/C, CUS-35/N, CUT-25/C, CUT-35/C, CUR-25/C, CUR-35/C, CUR-25N (Rev. 01, dated 2007-05-07), CUR-35N (Rev. 01, dated 2007-05-10) from Johnson Controls.

Installation drawings No. 005(6) for CUS-25/C, CUS-35/C, CUT-25/C, CUT-35/C, CUR-25/C, CUR-35/C, and CUR-25N-001 (Rev. 01, dated 2007-05-08), CUR-35N-001 (Rev. 01, dated 2007-05-07) from Johnson Controls.

Tests carried out

Tested according to IMO FTPC Part 3 and in compliance with IMO 2010 FTP Code Ch. 8.



Job Id: **262.1-007555-4**
Certificate No: **TAF00000U5**

Marking of product

The product or packing is to be marked with name of manufacturer, type designation and fire-technical rating.

Periodical assessment

DNV GL's surveyor is to be given permission to perform Periodical Assessments at any time during the validity of this certificate and at least every second year. The arrangement is to be in accordance with procedure described in Class Programme DNVGL-CP-0338, Section 4.