

TYPE APPROVAL CERTIFICATE

This is to certify:**That the Class B Recesses for Light Fittings, Ventilation Units and similar**with type designation(s)
Cabin Unit Type ACU

Issued to

AF AeronMollier AS
FLEKKEFJORD, Norway

is found to comply with

DNV GL rules for classification – Ships**DNV GL offshore standards****DNV GL statutory interpretations DNVGL-SI-0364 – SOLAS interpretations****Application :****Ventilation units approved for use in class 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 **2019-03-22**This Certificate is valid until **2024-03-21**.for **DNV GL**DNV GL local station: **Stavanger, Region Norway**Approval Engineer: **Aleksandr Jegorov****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 Unit Type ACU"

Cabin units are installed in cut-outs in approved B-15 ceiling. The cabin units are fixed to the ceilings with 4 brackets each and covered with 50 mm "Rockwool Alu Wired Mat 105" or equal insulation on the pipe socket under each unit. The cabin units have to be fitted with preinsulated ducts.

For details of insulation see drawing mentioned under type approval documentation below.

The cabin units may also be manufactured at other premises based on information from the manufacturer. These premises are subject to audits according to the DNV GL's Class Programme DNVGL-CP-0338.

Application/Limitation

Ventilation units approved for use in class B-15 ceiling.

Following specifications are given:

Type	Ref. drawing	Weight
ACU1/ACU2 - Serie, 30C - w/regulation 500W/1000W	02-0200 Rev.06 – ACU1-C – 1 pipe ceiling 02-0210 Rev.05 – ACU2-C – 2 pipe ceiling 02-0320 Rev.06 – ACU1/ACU2 – 1 and 2 pipe ceiling mounted	14.7 kg
ACU1/ACU2 - Serie, 50C - w/regulation 1000W/1500W/P	02-0200 Rev.06 – ACU1-C – 1 pipe ceiling 02-0210 Rev.05 – ACU2-C – 2 pipe ceiling 02-0320 Rev.06 – ACU1/ACU2 – 1 and 2 pipe ceiling mounted	17.6 kg
ACU1 – Plenum 30C-P/50C-P	02-0200 Rev.06 – ACU1-C – 1 pipe ceiling 02-0202 Rev.06 – ACU2-C-P – 1 pipe ceiling - Plenum 02-0320 Rev.06 – ACU1/ACU2 – 1 and 2 pipe ceiling mounted	10.5/11.8 kg

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

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, September 2018.

Test Report No. 103020.83 dated 8 September 2009 from SINTEF NBL, Trondheim, Norway.

Assessment Report No.150101-40 Ver.1 dated 12 September from RISE Fire Research AS, Trondheim, Norway.

Tests carried out

Tested according to IMO FTP Code Part 3 (IMO Res. A.754(18)) and in compliance with IMO 2010 FTP Code Ch.8.

Marking of product

The product is to be marked with name of manufacturer and 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.