Information Update

PVCTI16 - Issue 2 - March 2025

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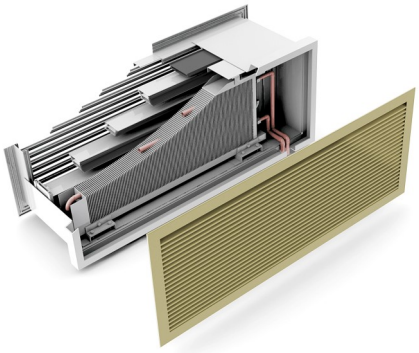
THERMAL WINDOW AIRCOOL SPECIFICATION DOCUMENT

Product Description:
The Passivent Thermal Window Aircool has been specifically designed to supply buildings with tempered, fresh air during cooler weather. The unit also provides a fresh air inlet in warmer conditions, when warming is not required. The unit will provide fresh air ventilation throughout the year and a secure night cooling strategy in warmer weather.



Wall version shown
Note: Pipework not supplied

Construction Details:
External Louvres: Frame and weather louvres are extruded aluminum powder coated to standard RAL color to suit with 4mm black polypropylene insect screen.

Internal louvre: Double skin aluminum louvre blades with ABS thermal break and blade compression seals. Actuator provided with terminal block and removable aluminum cover for ease of maintenance. Actuators can be mounted on either left or right hand side of the louvre viewed from internal side. Right hand side is standard.

Heating coil: Copper tubes and 0.2mm thick aluminum fins within a galvanised steel frame. 15mm outside diameter copper stub tube, for pipework connection, by others. Internal temperature sensor supplied within unit (to be wired to actuator terminal block).

Sleeve: Constructed of aluminum sheet to suit unit depth. 2" channel to allow for pipework entry, includes 75mm cut out.

Cover Grille: Frame and blades are extruded aluminum and supplied to RAL9016 gloss (white). Other colours are available upon request.

Performance data:
Internal frame and louvres when closed achieve a Class 1 rating when tested to BS 476: Part 7: 1987.
Weatherability rating to BS6375: Part 1 – 1000 Pascal's.
External louvres provide 98.6% rain rejection when independently tested at BSRIA using the BS EN 13030:2001.
Tested to BS 6375: Part 1: 1989 the closed ventilators provide an air leakage of 9.7m^3/hour/m^2 at 50 Pa pressure.
0.54m^3/hour/m^2 at a more realistic operating pressure of 2 Pa.
Appraised under BS EN ISO 9001.
Aircool louvre with heating coil overall inflow Cd value of 0.35.
All Aircool louvres have a U-value of 0.86W/m²K through the motorised blades when closed in the vertical position (window mounted).
Percentage ventilation free area ranges from 22 - 43% dependent of product size.

Available Sizes:
Heights of 280 mm up to 1505mm.
Lengths of 515 mm up to 3000mm.
Maximum 3m^2 with maximum height of 1505mm
Minimum glazing thickness 24mm.
Maximum glazing thickness 36mm.
Depth front to back (including cover grille) 345 mm, plus glazing thickness (i.e. 28mm glazing = 373mm deep unit).

Standard Actuator (supplied with product):
24V Modulating (0-10V signal).

Options:
External weather louvres can be provided with additional support mullions to resist vandal attack.
Actuators can be mounted on either left or right hand side of the louvre viewed from internal side. Right hand side is standard.
Acoustic versions available.

Cover Grille Options:
1 way and heavy duty.

NOTE: The water flow controls package is not supplied by Passivent, the chosen controls company must ensure they are compatible with the product, this includes the internal temperature sensor (NTC10K3A1). Adequate water temperature must be supplied via the boiler house controls during periods of low external temperature for frost protection. A heating control valve required as part of the controls package by others.

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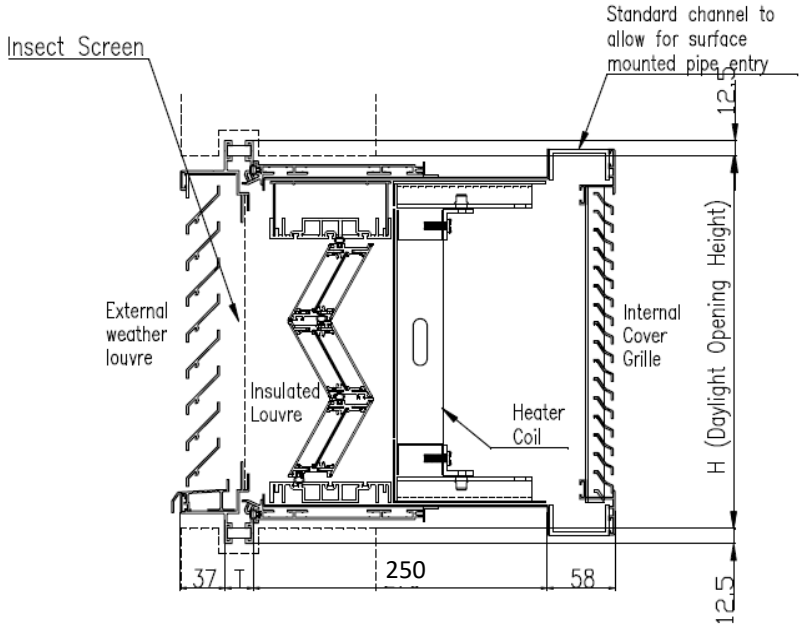
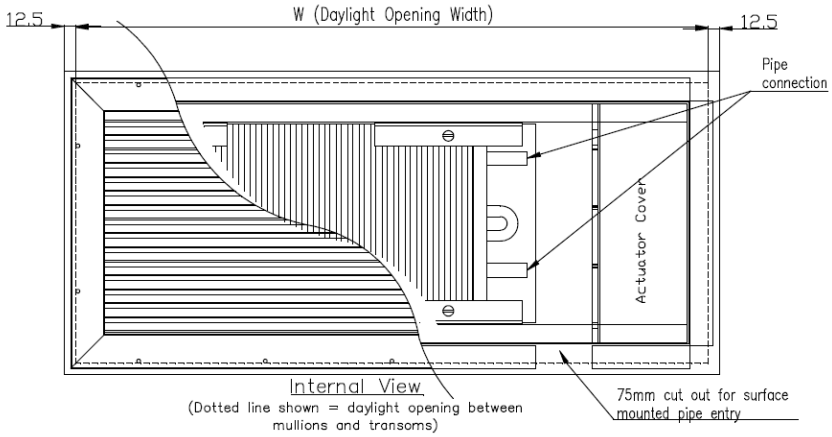
Technical Drawing:

Side View



Front View
(wall opening shown dotted)



NOTE: Heating valve cannot be mounted inside Aircool louvre.
Should be mounted upstream on pipe work e.g., above suspended ceiling.
Additional support required.