

Ecodesign Directive

Engineering Solutions



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Ecodesign Directive

The Facts...

REASONS

Ecodesign directive is integral to the European Union's commitment to reaching a 20% reduction in greenhouse gas emissions and energy consumption by 2020.

DIRECTIVES

Energy related products (ErP) Directive 2009/125/EC offers guidance on the use of energy related products and continued efficiency improvement to them.

The Erp Directive comes into force by law (2015 No469) on 1st January 2016.

ECODESIGN DIRECTIVE LOT6

Relates to the minimum performance requirements for ventilation products and is included in part L building regulations.

CHANGES

The changes apply to both residential and non-residential ventilation units.

Residential ventilation units with a maximum airflow of more than 250 m³/H and in the case of residential ventilation units exclusively intended for residential use only ventilation 250-1000m³/H maximum airflow.

Non-residential ventilation units with bidirectional airflow having supply and exhaust air fans, more than 250m³/H.

PLATE EXCHANGERS

Minimum efficiency 67% from 01/01/2016

Minimum efficiency 73% from 01/01/2018

NOTE 1 The efficiency is based on balanced air flows.

NOTE 2 Plate exchanger heat recovery devices must have a thermal bypass facility.

ROTARY THERMAL RECOVERY WHEEL

Minimum efficiency 67% from 01/01/2016

Minimum efficiency 73% from 01/01/2018

NOTE 1 Thermal rotary wheels can have variable speed control or stop wheel control.

NOTE 2 The efficiency is based on balanced airflows.

RUN AROUND COIL SYSTEM

Minimum efficiency 63% from 01/01/2016

Minimum efficiency 68% from 01/01/2018

EXEMPTIONS

- Agricultural applications.
- Professional kitchens.
- Machine exhaust.
- Paper production, foundries, heat dissipation applications.
- Air Handling Units exclusively working with recirculating air.
- Unit which include a heat exchanger and a heat pump for heat recovery (EU No 1253/2014 article 1.1(g)). This does not constitute Air Handling Units with a direct expansion heating/cooling heat pump coil with external heat pump condensing unit.
- Bidirectional unit with a total electric power input less than 30W.
- Atex see directive 94/9/EC.
- Unit specifically for operating for emergency use and for short periods of time (i.e. fire or smoke evacuation units) see regulation (EU No 305/201).
- Motors out of Airstream with operating temperatures in excess of 65°C or lower than -40°C.

- Toxic, highly corrosive or flammable environments or if in contact with abrasive substances.
- Process ventilation applications as below:
 - Swimming pools
 - Data centres/server rooms
 - Machine exhaust systems
 - Only a fan with housing (regulation 327/2011)
 - Units working with moved air temperature 100°C or -40°C
- Air Handling Units Supplied to Non European Union Member Countries.

NOTES

- Mixing boxes on their own do not constitute heat recovery.
- Air Handling Units containing a heat pump heating/cooling connected to a remote heat pump condensing unit are not exempt and are to be included.

DECLARATION OF PERFORMANCE

For all residential ventilation units it is mandatory to carry a Declaration Of Performance (DOP) energy label (1253/2014).

It is however not mandatory for non-residential ventilation units, as the manufacturer furnishes the mechanical services designer with information on ErP compliance.

Envirofresh 70 Quiet. Out Performing ErP 2016



Envirofresh 70 Quiet

Low Energy, Air Source Heat Pump System,
Silenced with Acoustic Treatment as
used in Hundreds of Projects



Benefits

- Meets TM52 for Schools
- Meets BB93 Feb 2015
- Renewable Energy Source
- BMS Controls Installed in Unit
- Factory Pre-Commissioned
- Heating and Cooling from One Source
- 50% Less CO² Production than a Gas Boiler
- Low Energy Consumption
- Reduced Site Installation Cost
- No External Condensing Units, Pipework or wiring
- Low Noise Emissions with Silenced Compressors
- High Specification UKAS Certified Low Breakout Casework
- No Loss of Heating Capacity at Low Temperatures
- Room Heating and Cooling available at Reduced Air Volumes
- Tempered Air Supply without Defrosting
- No Increase in Footprint over Standard AHUs
- More Pleasant External Appearance than Condensing Unit or Chiller Installations



University of
Salford
MANCHESTER

BSRIA

Product Range...

- Single Cased Extract Unit VSI
- Twin Fan Extract Units VTI and ITU
- Classvent Units
- Flat Series Void Units FPVU
- Packaged Void Units PVU
- Vertical Air Handling Units
- AH Series Modular AHU's
- IDG Series Indirect Gas Fired AHU's
- DG Series Direct Gas Fired AHU's
- HOSP Health Care Specification Hygiene AHU's
- AHW Welded Frame and Stainless Units
- TWHR Heat Reclaim AHU's containing Thermal Wheels
- AHR Heat Recovery AHU's containing Recuperators
- Freshcool Cooling only Packaged Units
- Envirofresh Packaged Heat Pump Units
- Attenuators and Anti-vibration Mounts
- Acoustic Enclosures and Screens
- Flat Pack Build and Refurbishment
- Planned Maintenance and Site Repairs

Other Associated Literature...

- Sound Advice for Ventilation Plant in Schools.
By David Pinchbeck

Air Handling Units Acoustic Insulation Performance test Report

- BSRIA Envirofresh Performance Test Report



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