



 Nortek ready for the ErP Directive - ErP fact sheet

“The impact of Ecodesign cannot be emphasized enough”.

Andrew Field
Sales Manager
Nortek Global HVAC





Introduction

The first of January 2018, a significant phase in the implementation of EU Directive 2015/1188 will come into effect. The so-called Ecodesign directive has significant consequences for manufacturers, distributors and installers of heating equipment.

“The impact of Ecodesign cannot be emphasized enough” states Andrew Field, Sales Manager for Nortek Global HVAC. “These guidelines introduce strict norms for energy related products. From 2018, any product that does not comply with these requirements, may no longer be marketed and sold within the EU.

Essentially, all affected products need to comply with either Lot 20 or Lot 21, plus the motor efficiency ErP regulation. Requirements will apply to both new installations and replacements of existing systems. An impact that cannot be ignored.

Products manufactured by Nortek Global HVAC are also affected by the new Directive. This is why Nortek has prepared this fact sheet that summarizes the new requirements, the affected products, the consequences and the timing of the Ecodesign Directive.

“Since the Directive was announced, Nortek has worked tirelessly to offer customers heating and cooling systems that not only comply with the requirements, but that also limit costs and inconveniences for the customer as much as possible,” Andrew continues. “What’s more, our experts are ready to advise distributors, installers and users about the Directive.”

What is the ErP Directive?

The Ecodesign regulation 2015/1188 and the implementing Directive 2009/125/EC constitute the EU policy that aims to improve the energy efficiency and other environmental performance criteria of energy-related products (ErP).

The Ecodesign directive tightens the energy specifications appliances need to meet and phases out inefficient appliances. It is part of the EU’s 2020 goals, which aim to reduce greenhouse gas emissions by 20% and energy consumption by 20%. Specifically, the goal of the directive is to save more than 4.1 billion GJ in energy and 233 million tonnes in CO₂ emissions by 2025.

How does it affect construction & installation professionals ?

- / Divided into product families or “lots,” the regulation defines minimum energy efficiency and environmental values for different heating technologies with significant energy saving potential.
- / Any product that does not comply with the requirements cannot be marketed and sold within the EU.
- / The new standards apply to both new installations and replacements of existing systems.

Which products are covered ?

Lot 20: radiant

- / gas fired overhead radiant tube heaters
- / gas fired luminous plaque heaters

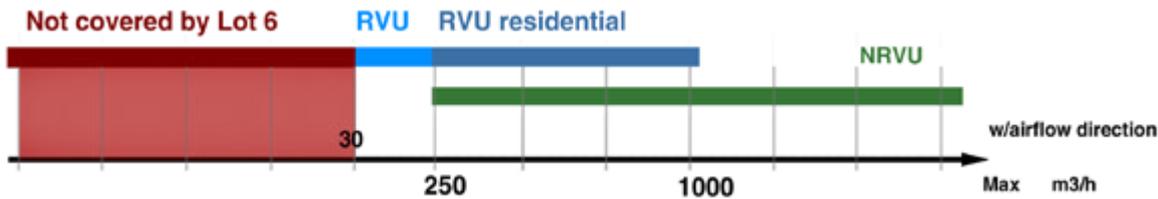
Lot 21: warm air

- / warm air heaters using gaseous or liquid fuels
- / air handling units (AHUs)
- / heating and cooling coils with human comfort as their primary purpose
- / not covered by this lot: air curtains

Lot 6: ventilation

- / includes any appliance that operates on full or partial fresh air
- / residential units/RVU (airflow < 250 m³/h)
- / non-residential units/NRVU (airflow > 1000 m³/h)
 - uni-directional ventilation units (single fan)
 - bi-directional ventilation units (two or more fans)
- / Not covered by this lot:
 - ventilation units with an electric power less than 30W per air stream or axial/centrifugal fans only equipped with a housing.
 - ventilation units designed specifically to work in cases of emergency, units used in a potentially explosive atmosphere, and units designed to move air to extreme temperatures i.e. above 100°C or below -40°C.
 - AHUs that provide heating/cooling and operate on 100% return air. They fall into Lot 21.

Lot 6: ventilation



ErP requirements explained

Lot 20: radiant

- / minimum seasonal efficiency, which combines radiant efficiency, thermal efficiency and electrical power consumption, of 74%.
- / NO_x emissions not exceeding 200mg/kWh input based on gross calorific value

Lot 21: warm air

- / minimum seasonal efficiency of 72% (calculated from air flow temperature rise, thermal efficiency and electrical power consumption)
- / NO_x emissions not more than 100mg/kWh input

Lot 6: ventilation

- / units must meet internal specific fan power (SFP) levels and feature high efficiency fans that have the ability to be speed-controlled.
- / bi-directional units must be fitted with a high efficiency heat recovery system - HRS plate heat exchanger or thermal wheel. Heat recovery performance must be minimum 67% in 2016 and 73% in 2018.
- / the implementation of SFP will, in most cases lead to an increase in the physical size of AHUs.

When does it go into effect?

Lot 20: radiant

1/1/2018

Lot 21: warm air

Tier 1:

- / Minimum seasonal efficiency of 72%: 1/1/2018
- / Maximum NO_x levels <= 100mg/kWh input: 1/9/2018

Tier 2:

- / Minimum seasonal efficiency of 78%: 2021
- / Maximum NO_x emission <=70mg/kWh input: 2021

Lot 6: ventilation

in effect since 1/1/2016. More stringent on 1/1/2018

Product literature

Gas fired radiant heaters and some other commercial heating appliances are excluded from mandatory energy labelling under Regulation 2015/1186 as they are directly planned and purchased by HVAC professionals.

However, product literature and manufacturer web sites must indicate the seasonal efficiency and NO_x emissions for each product or system.

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