NEW REGULATION (UE) N. 1253/2014 ERP-2016/2018

REGULATION UE N. 1253/2014
WHAT IS IT ?

This regulation, as implementation of the
Directive 2009/125/CE
defines the specifications for
the eco-friendly design of the units

WHAT NEEDS TO BE DONE ?

1. All the units invoiced and delivered starting from 01/01/2016 have to comply with this regulation.
2. If there are any offers already issued which will be invoiced/delivered after 01/01/2016, they need to be checked and, if not complying, they have to be aligned with this regulation.
3. All the offers issued from 01/01/2016 will have to comply to the Regulation.

WHAT UNITS HAVE TO COMPLY TO THIS REGULATION?

Ventilation Units “VU”

Residential Ventilation Units “RVU”

Non-resitential Ventilation Units “NRVU”

Maximum flow rate

Unidirectional Ventilation Units “UVU”

Bidirectional Ventilation Units “BVU”

Equivalent Ventilation Unit Model

DEFINIZIONI

Ventilation Units “VU” :

electricity driven appliance equipped with at least one impeller, one motor and a casing and intended to replace utilized air by outdoor air in a building or a part of a building;

Unità di ventilazione residenziale» (UVR) :

Ventilation unit where:

- the maximum flow rate does not exceed 250 m^3/h;
- the maximum flow rate is between 250 and 1 000 m^3/h, and the manufacturer declares its intended use as being exclusively for a residential ventilation application;

DEFINIZIONI

Non-residential Ventilation Unit “NRVU” :

ventilation unit where the maximum flow rate of the ventilation unit exceeds 250 m^3/h, and, where the maximum flow rate is between 250 and 1 000 m^3/h, the manufacturer has not declared its intended use as being exclusively for a residential ventilation application;

Maximum Flow Rate :

is the declared maximum air volume flow rate of a ventilation unit that can be achieved with integrated or separately co-supplied controls at standard air conditions (20 °C) and 101 325 Pa, where the unit is installed complete (e.g. including clean filters) and according to the manufacturer's instructions, for ducted RVUs the maximum flow is related to the air flow at 100 Pa of external static pressure difference, and for non-ducted RVUs to the air flow at the lowest achievable total pressure difference to be chosen from a set of values of 10 (minimum)-20-50-100-150-200-250 Pa, whichever is equal or just below the measured pressure difference value;

DEFINIZIONI

Unidirectional Ventilation Unit “UVU” :

ventilation unit producing an air flow in one direction only, either from indoors to outdoors (exhaust) or from outdoors to indoors (supply), where the mechanically produced air flow is balanced by natural air supply or exhaust;

Bidirectional Ventilation Unit “BVU” :

ventilation unit which produces an air flow between indoors and outdoors and is equipped with both exhaust and supply fans;

Equivalent Ventilation Unit Model:

ventilation unit with the same technical characteristics according to the applicable product information requirements, but placed on the market as a different ventilation unit model by the same manufacturer, authorized representative or importer.

WHAT UNITS ARE NOT SUBJECT TO COMPLY TO THIS REGULATION

- Units that include a heat exchanger and a heat pump to recover heat or to allow heat transferring or extraction which is addictional to the device for heat recovery system.
- ATEX units (indicated exclusively as operating in potentially explosive atmosphere as defined in the Directive 94/9/CE).
- Classified as exhaust kitchen hoods.
- Units that work with complete recirculation.

WHAT UNITS ARE NOT SUBJECT TO COMPLY TO THIS REGULATION

•Units working :

- At operating temperatures above 100°C
- At operating room temperatures for the motor that starts the fan, if placed outside the air flow, above 65°C
- With motor outside the air flow with flowing air temperature or operating room temperature of the motors below -40°C
- At a supply tension above 1.000 V c.a. 0
  1500V c.c
- In toxic environments, highly corrosive or inflammable or in environments with abrasive substances.

WHAT UNITS ARE NOT SUBJECT TO COMPLY TO THIS REGULATION

- Units designed exclusively to be used in emergency situations, for short periods, which comply with the basic specification for the construction works in terms of safety in case of fire of the Regulation (UE) n. 305/2011 of the European Parliament and Counsel
- Units with one single fan (extraction units without filters).
  The regulation says: if it's axial or centrifugal fans equipped only with a box complying with the Regulation (UE) n. 327/2011;

WHAT ACTUALLY CHANGES

1. The minimum efficiency of the heat recovery systems (plate and rotary) is minimum 67% for 2016 and 73% from 2018.
2. The minimum efficiency for run-around coil heat recovery is 63%.
3. All plate heat exchangers must have a by-pass system.
4. All rotary heat exchangers must have an inverter.
5. All fans/motors must have an inverter.
6. The internal value of SFPint < of the value SFPlimit.

ErP-Stage				January 2016	January 2018
Heat recovery system (HRS) BVU with a regulator device				demanded	demanded
HRS BVU heat recovery effiency η [%]			Run-around coil system	63	68
			Plate heat exchangers, rotary heat exchanger, miscellaneous	67	73
Filter differential pressure monitoring				–	demanded
Fan speed regulation				demanded	demanded
Fan efficiencies UVU η [%]			P_{sys} ≤ 30 kW	$6{,}2 \times \ln(P_{sys}) + 35$	$6{,}2 \times \ln(P_{sys}) + 42$
			P_{sys} > 30 kW	56,1	63,1
Internal SFP-Value reference configuration [W/(m³/s)]	BVU				
		Run-around coil system	q < 2 m³/s	1700+E–300 × q/2–F	1600+E–300 × q/2–F
			q ≥ 2 m³/s	1400+E–F	1300+E–F
		Plate heat exchangers, rotary heat exchanger, miscellaneous	q < 2 m³/s	1200+E–300 × q/2–F	1100+E–300 × q/2–F
			q ≥ 2 m³/s	900+E–F	800+E–F
	UVU			250	230
HRS-Efficiency bonus E [W/(m³/s)]			Run-around coil system	(η–0,63) × 3000	(η–0,68) × 3000
			Plate heat exchangers, rotary heat exchanger, miscellaneous	(η–0,67) × 3000	(η–0,73) × 3000
Filter correction value F [W/(m³/s)]			Reference configuration	0	0
			Filter M5 is missing	160	150
			Filter F7 is missing	200	190
			Filters M5 + F7 are missing	360	340

WHO IS INTERESTED BY THIS REGULATION ?

Producers/Constructors
Distributors

SAMP is aware of their responsibility as producer to ensure that all products invoiced and delivered starting from 01/01/2016 and installed in one of the Countries members of the EU shall respect the Guidelines of the UE 1253/2014 - ErP 2016/18 Regulation.
With the beginning of 2018 approaching, we please ask you to verify that all the offers already issued which will become effective starting from 01/01/2018 comply to the second phase of the above mentioned Regulation.

We ask you to please contact SAMP to verify the offers already issued and for any need or doubt.
You can also consult the extract of the Regulation here below attached more details.