


HOW TO BECOME AN ENERGY HERO.



CAMFIL
Opakfil ES
OPGP-F7-0592/0592/0296-ES-25-B00

www.eurovent-certification.com
AIR FILTERS

F7

EN779:2012

Nominal airflow:	0.944 m ³ /s
Initial efficiency 0.4 µm:	44 %
Minimum efficiency 0.4 µm:	44 %
Annual Energy Consumption:	782 kWh/annum

A+


A

B

C

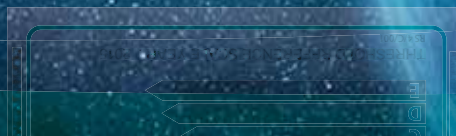
D

E



A+
2015

THRESHOLD REFERENCE SCALE YEAR : 2015
RS 4/C/001



SAVE ENERGY, MONEY AND THE PLANET

Using the right air filter will not only help you save more energy. It will also help you save money and maintain healthy indoor air quality. And with the implementation of Eurovent's new and objective system for classifying energy efficiency, it will now be easier for you to find the right air filter for the lowest energy usage and highest indoor air quality.

Today, all air filters can be graded from A+ to E. Grade A+ stands for the lowest energy consumption and E for the highest. The classification, based on EN779:2012, will give you a better understanding of annual energy consumption, initial efficiency and minimum efficiency.

The energy consumption of air filters has become the focus of attention as energy prices increase, and as demands to reduce CO2 emissions get tougher. In the past, air filters were classified only by their average efficiency. The new energy classification is far more precise.

Be the energy hero – choose a filter that saves energy, money and maintains good indoor air quality.

Put your supplier to the test!

Many suppliers do not test their filters properly, making it impossible for customers to compare different brands. At Camfil, we test all our filters to guarantee a high standard of quality. Does your air filter supplier have what it takes?

- Is the supplier certified by Eurovent?
- Are there labels on all boxes?
- Are all tests based on EN 779:2012?
- Is there a test protocol for validation?

Be the energy hero of your company.
Choose a filter that saves energy and
maintains good indoor quality.



THE STANDARD

The energy consumption of air filters can be determined as a function of the volume flow rate, the fan efficiency, the operation time and the average pressure drop. Due to dust loading during operation, the pressure drop of an air filter constantly increases. The related energy use during a certain period of time can be calculated from the integral average of the pressure drop over the same period.

CALCULATION AND CLASSIFICATION

The standard measures both filtration efficiency and pressure drop as a function of dust loading. A representative energy consumption level is calculated using the mean pressure drop difference averaged over the course of dust loading. On the basis of these figures, the energy performance of a filter over an operating period of one year is simulated in a laboratory. This representative energy value is used for a classification of air filters into energy classes.

$$W = \frac{q_V \cdot \overline{\Delta p} \cdot t}{\eta \cdot 1000}$$

The calculation used in the energy efficiency classification, by Eurovent document 4/21 – 2014.

ANNUAL ENERGY CONSUMPTION FOR FILTER CLASSES

Filter class 2015	M5	M6	F7	F8	F9
ME	-	-	ME ≥ 35%	ME ≥ 55%	ME ≥ 70%
	MM=250 g ASHRAE			MF=100 g ASHRAE	
A+	0 – 450 kWh	0 – 550 kWh	0 – 800 kWh	0 – 1000 kWh	0 – 1250 kWh
A	>450 kWh – 600 kWh >	550 kWh – 650 kWh	>800 kWh – 950 kWh	>1000 kWh – 1200 kWh	>1250 kWh – 1450 kWh
B	>600 kWh – 700 kWh	>650 kWh – 800 kWh	>950 kWh – 1200 kWh	>1200 kWh – 1500 kWh	>1450 kWh – 1900 kWh
C	>700 kWh – 950 kWh	>800 kWh – 1100 kWh	>1200 kWh – 1700 kWh	>1500 kWh – 2000 kWh	>1900 kWh – 2600 kWh
D	> 950 – 1200 kWh	> 1100 kWh – 1400 kWh	> 1700 kWh – 2200 kWh	> 2000 kWh – 3000 kWh	> 2600 kWh – 4000 kWh
E	>1200 kWh	>1400 kWh	>2200 kWh	>3000 kWh	>4000 kWh

Energy class: according to Eurovent RS-4/C/001-2015.

EUROVENT ENERGY EFFICIENCY LABEL

The new labeling system will be displayed on standard filter boxes. There are two different ways to display the label.

Full size 592 x 592 mm, to EN 15805 – filter class

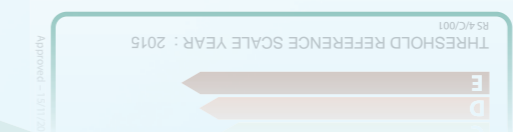
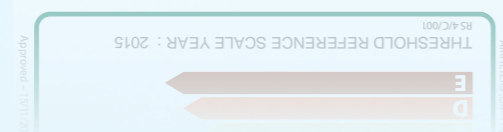
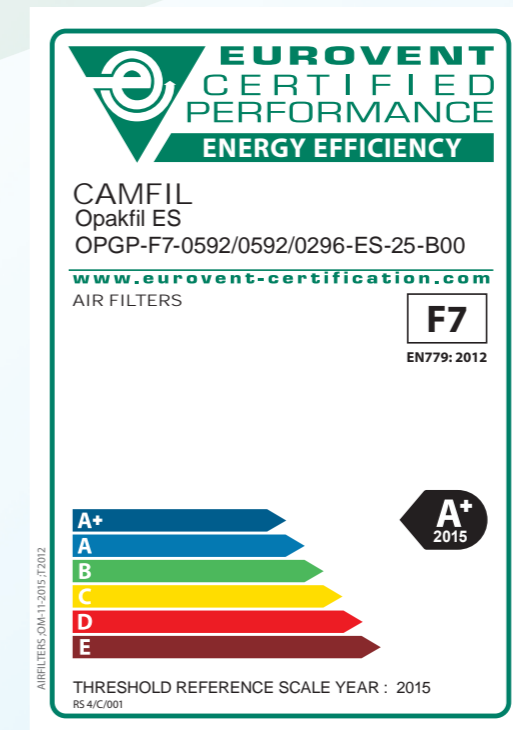
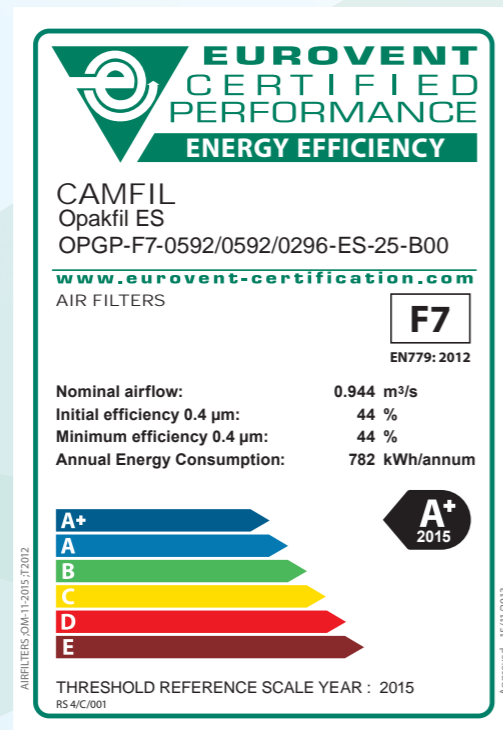
- Nominal air flow rate, m³/s
- Initial efficiency, % (F7-F9)
- Minimum efficiency, % (F7-F9)
- Annual Energy Consumption, kWh/annum – Energy class
- Certified values are found at: www.eurovent-certification.com

Other “family” sizes of standard filters

- Filter class, according to 592 x 592 mm
- Energy class, according to 592 x 592 mm

Width (mm)	Height (mm)
490	592
287	592
287	287
592	287
592	490
490	490

Example of label: Camfil’s Opakfil ES A+





CAMFIL IS THE WORLD'S LARGEST AND LEADING MANUFACTURER OF FILTERS AND CLEAN AIR SOLUTIONS

Camfil is the global industry leader in air filters and clean air solutions with 50 years of experience. Our solutions protect people, processes and the environment to benefit human health, increase performance, and reduce and manage energy consumption. Twenty-six manufacturing plants, six R&D sites and over 65 local sales offices worldwide provide service and support to our customers. The Camfil Group is headquartered in Sweden but more than 95 percent of sales are international. The Group has approximately 3,500 employees and sales close to SEK 5.0 billion.

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