

Modifications to the Eurovent Energy Efficiency Classification for Air Filters



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EN779:2012 CLASSIFIES, EUROVENT VERIFIES

The classification of an air filter has no value if it is not verified by an independent party. Eurovent therefore carries out an annual, independent assessment to verify the promised performance of air filters, in accordance with EN779:2012. As a result, Eurovent certifies the filtration efficiency, pressure drop and energy efficiency. Manufacturers that participate in Eurovent, including AAF, are entitled to display the Eurovent logo: proof that their air filters live up to the promise based on the EN779:2012 classification.

For 2014, the Eurovent Energy Efficiency Classification has undergone several modifications. The modifications comprise the energy efficiency classification itself and the design of the energy label. Air filters that were A rated in 2013 remain A rated in 2014, but as from now on in bright blue instead of dark green.

Keywords: Eurovent certification, Eurovent Guideline 4/11, energy efficiency, energy label, energy use, air filters, filter class, EN 779.

Eurovent, certification of air filters

Eurovent Certification is the European association for certifying performance of air-conditioning and refrigeration products according to European and international standards. One certification programme is geared towards air filters, which are classified and sold as medium and fine filters M5, M6 and F7 up to and including F9, as defined in the EN779:2012 standard. Thanks to certification, customers have the assurance that installed air filters actually provide the performance claimed by the manufacturers.

Energy Efficiency Classification of air filters

Eurovent conducts independent tests not only to measure the performance in terms of filtration efficiency and pressure drop, but also the energy efficiency. For this purpose, Eurovent introduced a new method in 2011 under the name Guideline 4/11: the Energy Efficiency

Classification of Air Filters for General Ventilation Purposes. This method helps customers select the most energy-efficient air filters. Eurovent bases its calculation on a test airflow rate of 3400 m³/h, a fan efficiency of 50% and an annual operating time of 6000 hours. The annual energy consumption measured is compared to the limits set for each filter class.

With this method Eurovent can validate the claims of manufacturers concerning annual energy consumption of air filters. The findings are awarded energy labels showing the Eurovent energy logo.



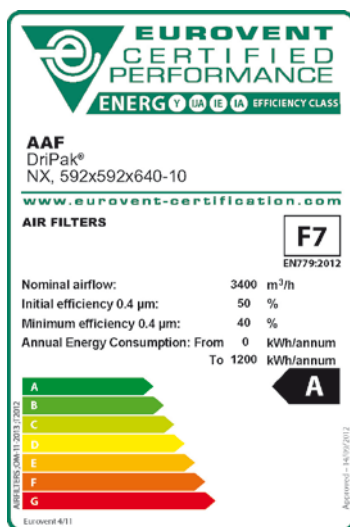
DriPak® NX synthetic pocket filter with A label.

Table 1. Eurovent energy classes of filters based of the new filter classification in EN 779.

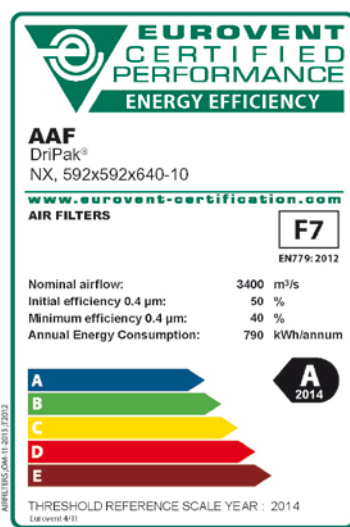
| Filter class EN779:2012 | | M5 | M6 | F7 | F8 | F9 |
|-------------------------|---------|-------------------------------|-------------------|-------------------|-------------------------------|-------------------|
| ME | | - | - | ME ≥ 35% | ME ≥ 55% | ME ≥ 70% |
| | | M _m = 250 g ASHRAE | | | M _f = 100 g ASHRAE | |
| 2014 | 2013 | | | | | |
| A | = A | 0 - 650 kWh | 0 - 800 kWh | 0 - 1200 kWh | 0 - 1600 kWh | 0 - 2000 kWh |
| B | ≈ B + C | > 650 - 950 kWh | > 800 - 1100 kWh | > 1200 - 1700 kWh | > 1600 - 2300 kWh | > 2000 - 3000 kWh |
| C | ≈ D + E | > 950 - 1250 kWh | > 1100 - 1400 kWh | > 1700 - 2200 kWh | > 2300 - 3000 kWh | > 3000 - 4000 kWh |
| D | ≈ F + G | > 1250 - 1550 kWh | > 1400 - 1700 kWh | > 2200 - 2700 kWh | > 3000 - 3700 kWh | > 4000 - 5000 kWh |
| E | = G | > 1550 kWh | > 1700 kWh | > 2700 kWh | > 3700 kWh | > 5000 kWh |

Modified classification of energy efficiency with class limits for the annual energy consumption. Including comparison between energy label in 2014 and 2013.

Source: Eurovent Guideline 4/11 2014. ME = Minimum Efficiency according to EN779:2012.



Energy label 2013



Energy label 2014

MAIN CHANGES SUMMARIZED:

- 5 Energy classes instead of 7
- Class A remains best, class E is worst
- New color coding of energy classes
- Mentioning of exact kWh values
- Introduction year now included

Important guideline changes for 2014

For 2014, the Eurovent Energy Efficiency Classification has undergone several modifications, comprising the energy classification itself as well as the design of the energy label. The most notable changes are summarized below.

The number of energy classes has gone down from 7 to 5 classes. Class A remains the best level and class E has become the worst level; energy classes F and G have been removed. Also the limits between the energy efficiency classes have been modified with the exception of energy class A.

New design of the energy label

The new 2014 energy label will show a different color coding of the energy classes. Class A is from now on displayed in blue instead of green and the worst class, now being E, is in brown instead of in red. In contrast to the 2013 energy label, which showed energy consumption ranges (e.g. 0 - 1200 kWh for an A rated class F7

filter), the 2014 energy label includes the exact energy consumption of the air filter. This makes it easier for customers to distinguish between an average A rated filter and an excellent A rated filter. The differences in annual energy costs between various A-label air filters could run as high as several tens of euros per filter per year. A bright blue filter pays for itself quickly simply as a result of its energy savings.

Only for Eurovent certified manufacturers

Not all manufacturers of air filters are allowed to display the new Eurovent energy label; it is restricted to air filter manufacturers officially certified by Eurovent. This means that only the new energy labels including the original Eurovent logo give the assurance that the performance is independently validated. A summary of the modifications to Eurovent Guideline 4/11 for 2014 can be found on: <http://www.slideshare.net/aafeurope/eurovent-guidelines-411-2014>. ■