

Responding to your call for comments from manufacturers concerning the criteria for ENERGY STAR Qualified Residential Ventilating Fans – Minimum Efficacy Levels.

We support the current criteria listed in Table 1 at the present time, and would like to see this version take effect October 1, 2003.

The following comments concern only the multiport fans – not the inline duct fans. Concerning the remote multiport fans, we believe the MELs (minimum efficacy levels) are too high for the application. Multiport fans must operate at a higher static pressure to perform their function. Our cursory review of our own and competitive units leads us to believe there will be few if any, certainly less than 25%, of the products in the market that will meet the MEL of 2.8 cfm/watt selected for the surface mount and inline duct fans. We are not prepared at this time to make a specific recommendation for the MEL for the multiport fans, but we ask that this number be reviewed within one year and revised after a study can be made of the models available.

Multiport fans that operate continuously at the minimum ASHRAE Standard 62 levels, are often installed in apartment buildings, where the power consumed per dwelling is significantly less than would be obtained with individual bathroom fans or inline duct fans that would meet the ENERGY STAR criteria. Viewed from this perspective, with the MEL set too high, the lower power per dwelling product would be discouraged in favor of higher power consuming products. In addition, in the product quality offerings from American ALDES, as one manufacturer, the product life of the multiport fans extends up to 15 or 20 years of continuous operation. If ENERGY STAR is conceived to encourage conservation of resources, including manufacturing and end-of-life issues as well as year by year operating cost, appropriate consideration should be given to the multiport fans in their own category. These fans should be rated for airflow and power at higher static pressures than surface mounted fans or inline duct fans.

Why do these fans require a higher pressure rating than inline duct fans or surface mount fans? In contrast to surface mount fans or single inlet and outlet inline duct fans, multiport fans need to be choked on the different intake runs for the purpose of balancing the airflows and assuring airflow at the most remote locations from the fan.

Surface mount and inline duct fans should not be choked--there is never a need to restrict airflow intentionally on these products. Unfortunately, because of the nature of the installation (long duct runs, use of too small diameter or flexible duct and exterior vent caps that restrict airflow) and the low rating points used to certify these fans, in the real world they often perform at higher pressures than the certified values. This fact is recognized by the inclusion of Installed Fan Performance with minimum rated airflow performance at 0.25" w.g. with values of 60 to 70% of the certified airflows at 0.1 w.g. We note that there is no such allowance for the inline fans or multiport fans in the current set of criteria, nor are we advocating for it.

We request only that the airflow and power at 0.4"w.g. be used to characterize the multiport fans, as this is the minimum working pressure that should be used for the design of multiport ventilation systems. If it turns out that it is not possible to obtain certified data at this rating point, then we could be forced to fall back to the same approach used for the surface mount fans and range hoods, as to minimum installed fan performance. This is certainly not a desirable situation.

To summarize, we ask that the MEL for multiport fans be reconsidered after a review of product offerings from various manufacturers, and that this MEL be obtained from data at a higher rating point, such as 0.4" w.g.

Thank you for the opportunity to respond to this Final Draft Version 2.0.

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