

**ELECTRICAL AUTOMATION
SYSTEMS TOWARDS INTELLIGENT
AND ENERGY EFFICIENCY
APPLICATIONS**

Musse Mohamud Ahmed



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APPLICATIONS

Musse Mohamud Ahmed

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CHAPTER 33

FAN EFFICIENCY GRADE (FEG) DEVELOPMENT STAGES

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33.1 Fan Efficiency Grade (FEG)

The fan efficiency grade (FEG) is defined as areas between two adjacent efficiency limits. The limits are shaped to follow the efficiency dependence on the fan size. It is used as an indicator of the capacity of a fan to convert fan shaft power to fan air power. The FEG for a given fans is determined from peak total efficiency (pTE) and the impeller diameter using the curves shown in Fig 33.1 below.

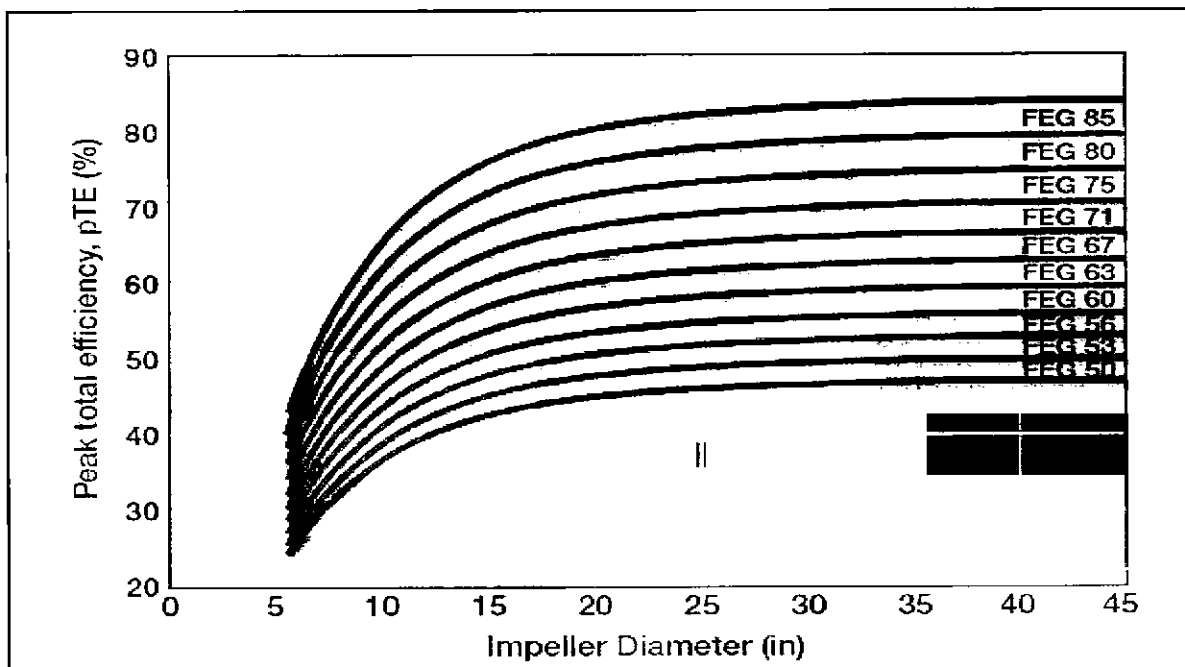


Figure 33.1: FEG Curves are used to Classify Fans by Their Energy Efficiency

These curves are constructed so that fans in a given geometric series should all have the same FEG regardless of fan size. This FEG applies to a fan without any drive components (for bare shaft fans).