



**Most Efficient  
2021**  
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## Recognition Criteria Ceiling Fans

### Scope

*Included products:* Residential ceiling fans, standard ceiling fans, low-mount HSSD, and hugger ceiling fans, as defined below, are eligible for ENERGY STAR® Most Efficient recognition in 2021.

**Residential Ceiling Fan:** A non-portable device designed for home use that is suspended from the ceiling for circulating air via the rotation of fan blades.

**Standard Ceiling Fan:** A low-speed small-diameter ceiling fan that is not a very-small-diameter ceiling fan, highly-decorative ceiling fan or belt-driven ceiling fan; for which the lowest point on fan blades is greater than 10 inches from the ceiling.

**Hugger Ceiling Fan:** A low-speed small-diameter ceiling fan that is not a very-small-diameter ceiling fan, highly-decorative ceiling fan or belt-driven ceiling fan; for which the lowest point on the fan blades is less than or equal to 10 inches from the ceiling.

**Low-Mount High-Speed Small-Diameter Ceiling Fan:** A ceiling fan that is not very-small-diameter, highly-decorative, or belt driven, is less than or equal to seven feet in blade span and is considered safe for mounting in a residential setting (i.e. between 7 and 10 feet from the ground) per UL 507<sup>1</sup>. The blade thickness must be greater than or equal to 1/8 inch at the edge and a maximum tip speed within the applicable limits in each direction as specified in the table below:

Airflow Direction	Blade Edge Thickness (t)		Tip Speed [feet/min]	
	[mm]	[inch]	>	≤
Downward-blowing	$4.8 > t \geq 3.2$	$3/16 > t \geq 1/8$	2,400	3,200
Downward-blowing	$t \geq 4.8$	$t \geq 3/16$	3,200	4,000
Upward-blowing	$4.8 > t \geq 3.2$	$3/16 > t \geq 1/8$	-	2,400
Upward-blowing	$t \geq 4.8$	$t \geq 3/16$	-	3,200

<sup>1</sup> UL Standard for Safety for Electric Fans, UL 507

## Recognition Criteria

- 1) Product must be ENERGY STAR certified consistent with applicable ENERGY STAR Partner Commitments and the requirements set forth in the current ENERGY STAR Program Requirements Product Specification for Residential Ceiling Fans, Version 4. Product performance must be certified by a certification body recognized by the U.S. Environmental Protection Agency (EPA).
- 2) Ceiling fans must meet the following applicable efficiency criteria per 10 CFR 430 Subpart B, Appendix U (cfm/W):

Ceiling Fan Type	Blade Span (D)* (inches)	Ceiling Fan Efficiency (CFM/W)**
Standard and Hugger Ceiling Fans	$19'' \leq D \leq 36''$	$\geq 1.03D + 60.43$
	$> 36''$	$\geq 3.88D - 42.17$
Low-Mount HSSD Ceiling Fans	All Blade Spans	$\geq 4.16D + 0.02$

*\*D is the ceiling fan blade span in inches*

*\*\*This is a weighted average efficiency in different modes,  
according to 10 CFR 430 Subpart B, Appendix U*

## Recognition Period

EPA will add qualifying models to the ENERGY STAR Most Efficient 2021 product list for ceiling fans from January 1, 2021 through December 31, 2021. The ENERGY STAR Most Efficient 2021 designation may be used in association with models recognized during this period for as long as the model remains on the market.