

Gas- and Oil-Fired Central Furnaces – Minimum Heating Efficiencies

Appliance	Rated Input (Btuh)	Minimum Efficiency (%)	
		AFUE	Thermal Efficiency
Weatherized gas central furnaces with single phase electrical supply	<225,000	81%	—
Non-weatherized gas and oil central furnaces with single phase electrical supply	<225,000	80%	—
Weatherized oil central furnaces with single phase electrical supply	<225,000	78%	—
Non-weatherized oil central furnaces with single phase electrical supply	<225,000	83%	—
Gas central furnaces	≥225,000	—	80%
Oil central furnaces	≥225,000	—	81%

Table 4-1 of 2016 Residential Compliance Manual (based on the California Appliance Efficiency Regulations Title 20, Tables E-4 and E-6)

Heat Pump – Minimum Heating Efficiencies

Single-phase air source heat pumps

Configuration	Size (Btuh)	Minimum Heating Efficiency
Packaged	<65,000 Cooling Capacity	8.0 HSPF
Split	<65,000 Cooling Capacity	8.2 HSPF
Space-constrained packaged	<65,000 Cooling Capacity	7.4 HSPF
Space-constrained split	<65,000 Cooling Capacity	7.4 HSPF
Small Duct High Velocity	<65,000 Cooling Capacity	7.7 HSPF

Note – HSPF: Heating Season Performance Factor

Adapted from Table 4-3 of 2016 Residential Compliance Manual (based on Title 20)

(Smaller) Central Air Conditioners and Heat Pumps — Minimum Cooling Efficiencies

Appliance	Type	Size (Btuh)	SEER Effective 1/1/2015	EER Effective 1/1/2015
Central Air Conditioners ^A	Split System	<45,000	14.0	12.2
		≥45,000 and <65,000	14.0	11.7
	Single Package	<65,000	14.0	11.0
Central Air Source Heat Pumps	Split System	<65,000	14.0	NR
	Single Package	<65,000	14.0	NR
Space Constrained Air Conditioner	Split System	<65,000	12.0	NR
	Single Package	<65,000	12.0	NR
Space Constrained Heat Pump	Split System	<65,000	12.0	NR
	Single Package	<65,000	12.0	NR
Small Duct, High Velocity Air Conditioner	All	<65,000	12.0	NR
Small Duct, High Velocity Heat Pump	All	<65,000	12.0	NR

A Central split system air conditioners and central single package air conditioners installed on or after January 1, 2015 must comply with the minimum SEER and EER requirements of [Table 4-6](#) in the Residential Compliance Manual regardless of date of manufacturer.

Adapted from [Table 4-6](#) from 2016 Residential Compliance Manual (based on [Title 20 Table C-2](#) and Federal Appliance Standards)

Federally Regulated Residential Water Heaters — Minimum Domestic Hot Water (DHW) Efficiencies

Product Class	Rated Storage Volume	Energy Factor (EF ^B)
Gas-fired Water Heater	≥20 gal and ≤55 gal	0.675-(0.0015*V _s)
	>55 gal and ≤100 gal	0.8012 – (0.00078*V _s)
Oil-fired Water Heater	≤50gal	0.68-(0.0019*V _s)
Electric Water Heater ^A	≥20 gal and ≤55 gal	0.96-(0.0003*V _s)
	>55 gal and ≤120 gal	2.057 – (0.00113*V _s)
Tabletop Water Heater	≥20 gal and ≤100 gal	0.93-(0.00132*V _s)
Instantaneous Gas-fired Water Heater	<2 gal	0.82 – (0.0019*V _s)
Instantaneous Electric Water Heater	<2 gal	0.93-(0.00132*V _s)
Grid-Enabled Water Heaters	>75 gal	1.061-(0.00168* V _s)

Note – V_s: Rated Storage Volume – the water storage capacity of a water heater (in gallons).
A For electric storage water heaters > 55 gallons, the efficiency level suggests performance comparable to a heat pump water heater.
B Or equivalent **uniform energy factor**.

From [Table 5-4](#) of the 2016 Residential Compliance Manual (per U.S. Department of Energy)



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