

# HVAC Efficiency Requirements

## TVA EnergyRight for Business & Industry

VARIABLE REFRIGERANT MULTI-SPLIT HEAT PUMPS							
Size (Btu/h)	System Type	Minimum Efficiency Levels					
		SEER	SEER2	IEER	COP*	HSPF	HSPF2
< 65,000 Btu/h (single-phase)	Multi-split System	14	13.3			8	6.8
≥ 65,000 Btu/h and < 135,000 Btu/h				14.1	3.4		
≥ 135,000 Btu/h and < 240,000 Btu/h				13.5	3.3		
≥ 240,000 Btu/h and < 760,000 Btu/h				12.5	3.2		

UNITARY HEAT PUMPS							
Size (Btu/h)	System Type	Minimum Efficiency Levels					
		SEER	SEER2	IEER	COP*	HSPF	HSPF2
< 65,000 Btu/h (single-phase)	Split System	14	13.3			8	6.8
	Single Package	14	13.3			8	6.7
≥ 65,000 Btu/h and < 135,000 Btu/h	Split System & Single Package			14.1	3.4		
≥ 135,000 Btu/h and < 240,000 Btu/h				13.5	3.3		
≥ 240,000 Btu/h and < 760,000 Btu/h				12.5	3.2		

PACKAGED TERMINAL HEAT PUMPS & AIR CONDITIONERS (PTHP/PTAC)			
Capacity (Btu/h)	Minimum Efficiency Levels		
	EER		COP
6,000	11.9		3.3
7,000			
8,000			
9,000	11.3		3.2
10,000			
11,000	10.7		3.1
12,000			
13,000	10.1		3.0
14,000			
15,000	9.5		2.9
16,000			
17,000			
18,000			

All Non-CEE Advanced Tier HVAC units must exceed deemed program efficiency requirement tables on pages 3 and 4. Any CEE Advanced Tier HVAC units must meet or exceed deemed program efficiency requirement tables on page 4. Except for air-cooled chillers, equipment must exceed only one of the efficiency categories listed in the efficiency standards tables, based on the size of the unit. Air-cooled chillers must meet or exceed both efficiency categories listed in the efficiency standard table on page 4.

All equipment must meet AHRI standards (210/240, 320 or 340/360), be listed by a Nationally Recognized Testing Laboratory (ETL, UL, etc.), and use a minimum ozone depleting refrigerant (e.g., HCFC or HFC).

\*Many heat pumps list two COP ratings: one which applies to an outdoor temperature of 47°Fdb and 43°Fwb and another which applies to an outdoor temperature of 17°Fdb and 15°Fwb. The COP stanard listed in the table applies only to the COP rating at an outdoor temperature of 47°Fdb and 43°Fwb.

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HIGH EFFICIENCY AIR-COOLED CHILLERS		
Size (Ton)	Minimum Efficiency Levels	
	IPLV	EER
< 150	19	10.4
≥ 150	19.3	10.4

UNITARY A/C UNITS					
Size (Ton)	Size (kBtu/h)	System Type	Minimum Efficiency Levels		
			SEER	SEER2	IEER
< 3.75	< 45	Split System	14	13.3	
< 3.75	< 45	Single Package	14	13.4	
≥ 3.75 to < 5.4	≥ 45 to < 65	Split System & Single Package	14	13.4	
≥ 5.4 to < 11.25	≥ 65 to < 135				14.8
≥ 11.25 to < 20	≥ 135 to < 240				14.2
≥ 20 to < 63.3	≥ 240 to < 760				13.2
≥ 63.3	≥ 760				12.5

UNITARY A/C UNITS - CEE ADVANCED TIER						
Size (Ton)	Size (kBtu/h)	System Type	Minimum Efficiency Levels			
			SEER	SEER2	IEER	EER
< 5.4	< 65	Split System	18	17.1		13
< 5.4	< 65	Single Package	17	16.3		12.5
≥ 5.4 to < 11.25	≥ 65 to < 135	Split System & Single Package			18	12.6
≥ 11.25 to < 20	≥ 135 to < 240				17	12.2
≥ 20 to < 63.3	≥ 240 to < 760				14.5	10.8

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