

(Effective until July 1, 2020)

WAC 51-11C-403232 Table C403.2.3(2)—Minimum efficiency requirements—Electrically operated unitary and applied heat pumps.

**Table C403.2.3(2)
Minimum Efficiency Requirements—Electrically Operated Unitary and Applied Heat Pumps**

Equipment Type	Size Category	Heating Section Type	Subcategory or Rating Condition	Minimum Efficiency	Test Procedure ^a
Air cooled (cooling mode)	< 65,000 Btu/h ^b	All	Split System	14.0 SEER	AHRI 210/240
			Single Packaged	14.0 SEER	
Through-the-wall, air cooled (cooling mode)	≤ 30,000 Btu/h ^b	All	Split System	12.0 SEER	
			Single Packaged	12.0 SEER	
Small duct high velocity, air cooled	< 65,000 Btu/h ^b	All	Split System	11.0 SEER	
Air cooled (cooling mode)	≥ 65,000 Btu/h and < 135,000 Btu/h	Electric Resistance (or None)	Split System and Single Package	11.0 EER 12.2 IEER	AHRI 340/360
		All Other	Split System and Single Package	10.8 EER 12.0 IEER	
	≥ 135,000 Btu/h and < 240,000 Btu/h	Electric Resistance (or None)	Split System and Single Package	10.6 EER 11.6 IEER	
		All Other	Split System and Single Package	10.4 EER 11.4 IEER	
	≥ 240,000 Btu/h	Electric Resistance (or None)	Split System and Single Package	9.5 EER 10.6 IEER	
		All Other	Split System and Single Package	9.3 EER 10.4 IEER	
Water source (cooling mode)	< 17,000 Btu/h	All	86°F entering water	12.2 EER	ISO 13256-1
	≥ 17,000 Btu/h and < 65,000 Btu/h	All	86°F entering water	13.0 EER	
	≥ 65,000 Btu/h and < 135,000 Btu/h	All	86°F entering water	13.0 EER	
Ground water source (cooling mode)	< 135,000 Btu/h	All	59°F entering water	18.0 EER	
Ground water source (cooling mode)	< 135,000 Btu/h	All	77°F entering water	14.1 EER	
Water-source water to water (cooling mode)	< 135,000 Btu/h	All	86°F entering water	10.6 EER	ISO 13256-2
			59°F entering water	16.3 EER	
Ground water source brine to water (cooling mode)	< 135,000 Btu/h	All	77°F entering fluid	12.1 EER	
Air cooled (heating mode)	< 65,000 Btu/h ^b	—	Split System	8.2 HSPF	AHRI 210/240
		—	Single Package	8.0 HSPF	
Through-the-wall, (air cooled, heating mode)	≤ 30,000 Btu/h ^b (cooling capacity)	—	Split System	7.4 HSPF	
		—	Single Package	7.4 HSPF	
Small-duct high velocity (air cooled, heating mode)	< 65,000 Btu/h ^b	—	Split System	6.8 HSPF	
Air cooled (heating mode)	≥ 65,000 Btu/h and < 135,000 Btu/h (cooling capacity)	—	47°F db/43°F wb Outdoor Air	3.3 COP	AHRI 340/360
			17°F db/15°F wb Outdoor Air	2.25 COP	
	≥ 135,000 Btu/h (cooling capacity)	47°F db/43°F wb Outdoor Air	3.2 COP		
		17°F db/15°F wb Outdoor Air	2.05 COP		
Water source (heating mode)	< 135,000 Btu/h (cooling capacity)	—	68°F entering water	4.3 COP	ISO 13256-1

Equipment Type	Size Category	Heating Section Type	Subcategory or Rating Condition	Minimum Efficiency	Test Procedure ^a
Ground water source (heating mode)	< 135,000 Btu/h (cooling capacity)	—	50°F entering water	3.7 COP	
Ground source (heating mode)	< 135,000 Btu/h (cooling capacity)	—	32°F entering fluid	3.2 COP	
Water-source water to water (heating mode)	< 135,000 Btu/h (cooling capacity)	—	68°F entering water	3.7 COP	ISO 13256-2
		—	50°F entering water	3.1 COP	
Ground source brine to water (heating mode)	< 135,000 Btu/h (cooling capacity)	—	32°F entering fluid	2.5 COP	

For SI: 1 British thermal unit per hour = 0.2931 W, °C = [(°F) - 32]/1.8.

- a Chapter 6 of the referenced standard contains a complete specification of the referenced test procedure, including the reference year version of the test procedure.
- b Single-phase, air-cooled air conditioners less than 65,000 Btu/h are regulated by NAECA. SEER values are those set by NAECA.

[Statutory Authority: RCW 19.27A.025, 19.27A.160, and 19.27.074. WSR 16-03-072, § 51-11C-403232, filed 1/19/16, effective 7/1/16. Statutory Authority: RCW 19.27A.020, 19.27A.025 and chapters 19.27 and 34.05 RCW. WSR 13-04-056, § 51-11-403232 (codified as WAC 51-11C-403232), filed 2/1/13, effective 7/1/13.]

Reviser's note: The brackets and enclosed material in the text of the above section occurred in the copy filed by the agency.

(Effective July 1, 2020)

WAC 51-11C-403232 Table C403.3.2(2)—Minimum efficiency requirements—Electrically operated unitary and applied heat pumps.

**Table C403.3.2(2)
Minimum Efficiency Requirements—Electrically Operated Unitary and Applied Heat Pumps**

Equipment Type	Size Category	Heating Section Type	Subcategory or Rating Condition	Minimum Efficiency	Test Procedure ^a
Air cooled (cooling mode)	< 65,000 Btu/h ^b	All	Split System	14.0 SEER	AHRI 210/240
			Single Packaged	14.0 SEER	
Through-the-wall, air cooled (cooling mode)	≤ 30,000 Btu/h ^b	All	Split System	12.0 SEER	
			Single Packaged	12.0 SEER	
Small duct high velocity, air cooled	< 65,000 Btu/h ^b	All	Split System	11.0 SEER	
Air cooled (cooling mode)	≥ 65,000 Btu/h and < 135,000 Btu/h	Electric Resistance (or None)	Split System and Single Package	11.0 EER 12.2 IEER	AHRI 340/360
		All Other	Split System and Single Package	10.8 EER 12.0 IEER	
	≥ 135,000 Btu/h and < 240,000 Btu/h	Electric Resistance (or None)	Split System and Single Package	10.6 EER 11.6 IEER	
		All Other	Split System and Single Package	10.4 EER 11.4 IEER	
	≥ 240,000 Btu/h	Electric Resistance (or None)	Split System and Single Package	9.5 EER 10.6 IEER	
		All Other	Split System and Single Package	9.3 EER 10.4 IEER	
Water to air, water loop (cooling mode)	< 17,000 Btu/h	All	86°F entering water	12.2 EER	ISO 13256-1
	≥ 17,000 Btu/h and < 65,000 Btu/h	All	86°F entering water	13.0 EER	
	≥ 65,000 Btu/h and < 135,000 Btu/h	All	86°F entering water	13.0 EER	
Water to air, ground water (cooling mode)	< 135,000 Btu/h	All	59°F entering water	18.0 EER	

Equipment Type	Size Category	Heating Section Type	Subcategory or Rating Condition	Minimum Efficiency	Test Procedure ^a	
Brine to air, ground loop (cooling mode)	< 135,000 Btu/h	All	77°F entering water	14.1 EER		
Water to water, water loop (cooling mode)	< 135,000 Btu/h	All	86°F entering water	10.6 EER	ISO 13256-2	
Water to water, ground water (cooling mode)	< 135,000 Btu/h	All	59°F entering water	16.3 EER		
Brine to water, ground loop (cooling mode)	< 135,000 Btu/h	All	77°F entering fluid	12.1 EER		
Air cooled (heating mode)	< 65,000 Btu/h ^b	—	Split System	8.2 HSPF	AHRI 210/240	
		—	Single Package	8.0 HSPF		
Through-the-wall, (air cooled, heating mode)	≤ 30,000 Btu/hb (cooling capacity)	—	Split System	7.4 HSPF		
		—	Single Package	7.4 HSPF		
Small-duct high velocity (air cooled, heating mode)	< 65,000 Btu/h ^b	—	Split System	6.8 HSPF		
Air cooled (heating mode)	≥ 65,000 Btu/h and < 135,000 Btu/h (cooling capacity)	—	47°F db/43°F wb Outdoor Air	3.3 COP		AHRI 340/360
			17°F db/15°F wb Outdoor Air	2.25 COP		
	≥ 135,000 Btu/h (cooling capacity)	—	47°F db/43°F wb Outdoor Air	3.2 COP		
			17°F db/15°F wb Outdoor Air	2.05 COP		
Water to air, water loop (heating mode)	< 135,000 Btu/h (cooling capacity)	—	68°F entering water	4.3 COP	ISO 13256-1	
Water to air, ground water (heating mode)	< 135,000 Btu/h (cooling capacity)	—	50°F entering water	3.7 COP		
Brine to air, ground loop (heating mode)	< 135,000 Btu/h (cooling capacity)	—	32°F entering fluid	3.2 COP		
Water to water, water loop (heating mode)	< 135,000 Btu/h (cooling capacity)	—	68°F entering water	3.7 COP	ISO 13256-2	
		—	50°F entering water	3.1 COP		
Brine to water, ground loop (heating mode)	< 135,000 Btu/h (cooling capacity)	—	32°F entering fluid	2.5 COP		

For SI: 1 British thermal unit per hour = 0.2931 W, °C = [(°F) - 32]/1.8.

^a Chapter 12 of the referenced standard contains a complete specification of the referenced test procedure, including the reference year version of the test procedure.

^b Single-phase, air-cooled air conditioners less than 65,000 Btu/h are regulated by NAECA. SEER values are those set by NAECA.

[Statutory Authority: RCW 19.27A.020, 19.27A.025, 19.27A.160 and chapter 19.27 RCW. WSR 19-24-040, § 51-11C-403232, filed 11/26/19, effective 7/1/20. Statutory Authority: RCW 19.27A.025, 19.27A.160, and 19.27.074. WSR 16-03-072, § 51-11C-403232, filed 1/19/16, effective 7/1/16. Statutory Authority: RCW 19.27A.020, 19.27A.025 and chapters 19.27 and 34.05 RCW. WSR 13-04-056, § 51-11-403232 (codified as WAC 51-11C-403232), filed 2/1/13, effective 7/1/13.]

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