

**WAC 51-11C-403237 Table C403.3.2(7)—Minimum efficiency requirements—Water chilling packages.**

**Table C403.3.2(7)  
Minimum Efficiency Requirements—Water Chilling Packages<sup>a,b</sup>**

| Equipment Type   | Size Category             | Units  | Path A  |          | Path B    |          | Test Procedure <sup>c</sup> |
|--|---------------------------|--------|---|----------|-----------|----------|-----------------------------|
|  |                           |        | Full Load   | IPLV     | Full Load | IPLV     |                             |
| Air-cooled chillers  | < 150 tons                | EER    | ≥ 10.100  | ≥ 13.700 | ≥ 9.700   | ≥ 15.800 | AHRI 550/590                |
|  | ≥ 150 tons                | EER    | ≥ 10.100  | ≥ 14.000 | ≥ 9.700   | ≥ 16.100 |                             |
| Air cooled without condenser, electrically operated        | All capacities            | EER    | Air-cooled chillers without condensers shall be rated with matching condensers and comply with the air-cooled chiller efficiency requirements |          |           |          |                             |
| Water cooled, electrically operated, positive displacement | < 75 tons                 | kW/ton | ≤ 0.750   | ≤ 0.600  | ≤ 0.780   | ≤ 0.500  |                             |
|  | ≥ 75 tons and < 150 tons  | kW/ton | ≤ 0.720   | ≤ 0.560  | ≤ 0.750   | ≤ 0.490  |                             |
|  | ≥ 150 tons and < 300 tons | kW/ton | ≤ 0.660   | ≤ 0.540  | ≤ 0.680   | ≤ 0.440  |                             |
|  | ≥ 300 tons and < 600 tons | kW/ton | ≤ 0.610   | ≤ 0.520  | ≤ 0.625   | ≤ 0.410  |                             |
|  | ≥ 600 tons                | kW/ton | ≤ 0.560   | ≤ 0.500  | ≤ 0.585   | ≤ 0.380  |                             |
| Water cooled, electrically operated, centrifugal           | < 150 tons                | kW/ton | ≤ 0.610   | ≤ 0.550  | ≤ 0.695   | ≤ 0.440  |                             |
|  | ≥ 150 tons and < 300 tons | kW/ton | ≤ 0.610   | ≤ 0.550  | ≤ 0.695   | ≤ 0.400  |                             |
|  | ≥ 300 tons and < 400 tons | kW/ton | ≤ 0.560   | ≤ 0.520  | ≤ 0.595   | ≤ 0.390  |                             |
|  | ≥ 400 tons                | kW/ton | ≤ 0.560   | ≤ 0.500  | ≤ 0.585   | ≤ 0.380  |                             |
| Air cooled, absorption single effect                       | All capacities            | COP    | ≥ 0.600   | NR       | NA        | NA       | AHRI 560                    |
| Water cooled, absorption single effect                     | All capacities            | COP    | ≥ 0.700   | NR       | NA        | NA       |                             |
| Absorption double effect, indirect fired                   | All capacities            | COP    | ≥ 1.000   | ≥ 1.050  | NA        | NA       |                             |
| Absorption double effect, direct fired                     | All capacities            | COP    | ≥ 1.000   | ≥ 1.000  | NA        | NA       |                             |

For SI: 1 ton = 3517 W, 1 British thermal unit per hour = 0.2931 W, °C = [(°F) - 32]/1.8.

NA = Not applicable, not to be used for compliance;  
NR = No requirement.

- a The centrifugal chiller equipment requirements, after adjustment in accordance with Section C403.3.2.2 or Section C403.3.2.3, do not apply to chillers used in low-temperature applications where the design leaving fluid temperature is less than 36°F. The requirements do not apply to positive displacement chillers with leaving fluid temperatures less than or equal to 32°F. The requirements do not apply to absorption chillers with design leaving fluid temperatures less than 40°F.
- b Compliance with this standard can be obtained by meeting the minimum requirements of Path A or B. However, both the full load and IPLV shall be met to fulfill the requirements of Path A or B.
- c Chapter 12 of the referenced standard contains a complete specification of the referenced test procedure, including the referenced year version of the test procedure.

[Statutory Authority: RCW 19.27A.025, 19.27A.045 and chapter 19.27 RCW. WSR 20-21-080, § 51-11C-403237, filed 10/19/20, effective 2/1/21. Statutory Authority: RCW 19.27A.020, 19.27A.025, 19.27A.160 and chapter 19.27 RCW. WSR 19-24-040, § 51-11C-403237, 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-403237, 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, § 51-11C-403237, 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.