

CECD1-12-22

IECC: TABLE C403.3.2(12), TABLE C403.3.2(13), 6 AHRI, AHRI Chapter 06

Proponents: John Bade, representing ICC Commercial HVACR & water heading subcommittee

2024 International Energy Conservation Code [CE Project]

Revise as follows:

TABLE C403.3.2(12) ELECTRICALLY OPERATED DX-DOAS UNITS, SINGLE-PACKAGE AND REMOTE CONDENSER, WITHOUT ENERGY RECOVERY—MINIMUM EFFICIENCY REQUIREMENTS^b

EQUIPMENT TYPE	SUBCATEGORY OR RATING CONDITION	MINIMUM EFFICIENCY	TEST PROCEDURE ^a
Air cooled (dehumidification mode)	—	4.0 <u>3.8</u> ISMRE <u>2</u>	AHRI 920
Air-source heat pumps (dehumidification mode)	—	4.0 <u>3.8</u> ISMRE <u>2</u>	AHRI 920
Water cooled (dehumidification mode)	Cooling tower condenser water	4.9 <u>4.7</u> ISMRE <u>2</u>	AHRI 920
	Chilled water	6.0 ISMRE	
Air-source heat pump (heating mode)	—	2.7 <u>2.05</u> ISCOP <u>2</u>	AHRI 920
Water-source heat pump (dehumidification mode)	Ground source, closed <u>and open</u> loop ^b	4.8 <u>4.6</u> ISMRE <u>2</u>	AHRI 920
	Ground water source	5.0 ISMRE	
	Water source	4.0 <u>3.8</u> ISMRE <u>2</u>	
Water-source heat pump (heating mode)	Ground source, closed <u>and open</u> loop ^b	2.0 <u>2.13</u> ISCOP <u>2</u>	AHRI 920
	Ground water source	3.2 ISCOP	
	Water source	3.5 <u>2.13</u> ISCOP <u>2</u>	

- a. Chapter 6 contains a complete specification of the referenced standards, which include test procedures, including the reference year version of the test procedure.
- b. ~~This table is a replica of ASHRAE 90.1 Table 6.8.1-13 Electrically Operated DX-DOAS Units, Single Package and Remote Condenser, without Energy Recovery—Minimum Efficiency Requirements. For minimum efficiency compliance purposes, open loop systems shall be rated using closed-loop test conditions.~~

TABLE C403.3.2(13) ELECTRICALLY OPERATED DX-DOAS UNITS, SINGLE-PACKAGE AND REMOTE CONDENSER, WITH ENERGY RECOVERY—MINIMUM EFFICIENCY REQUIREMENTS^b

EQUIPMENT TYPE	SUBCATEGORY OR RATING CONDITION	MINIMUM EFFICIENCY	TEST PROCEDURE ^a
Air cooled (dehumidification mode)	—	5.2 <u>5.0</u> ISMRE ₂	AHRI 920
Air-source heat pumps (dehumidification mode)	—	5.2 <u>5.0</u> ISMRE ₂	AHRI 920
Water cooled (dehumidification mode)	Cooling tower condenser water	5.3 <u>5.1</u> ISMRE ₂	AHRI 920
	Chilled water	6.6 ISMRE	
Air-source heat pump (heating mode)	—	3.3 <u>3.2</u> ISCOP ₂	AHRI 920
Water-source heat pump (dehumidification mode)	Ground source, closed <u>and open loop</u> ^b	5.2 <u>5.0</u> ISMRE ₂	AHRI 920
	Ground water source	5.8 ISMRE	
	Water source	4.8 <u>4.6</u> ISMRE ₂	
Water-source heat pump (heating mode)	Ground source, closed and open loop ^b	3.8 <u>3.5</u> ISCOP ₂	AHRI 920
	Ground water source	4.0 ISCOP	
	Water source	4.8 <u>4.04</u> ISCOP ₂	

- a. Chapter 6 contains a complete specification of the referenced standards, which include test procedures, including the reference year version of the test procedure.
- b. ~~This table is a replica of ASHRAE 90.1 Table 6.8.1-14 Electrically Operated DX-DOAS Units, Single Package and Remote Condenser, with Energy Recovery—Minimum Efficiency Requirements. For minimum efficiency compliance purposes, open loop systems shall be rated using closed-loop test conditions.~~

AHRI

Air-Conditioning, Heating, & Refrigeration Institute
~~2111~~ 2311 Wilson Blvd, Suite ~~500~~ 400
 Arlington, VA 22201

AHRI

Air-Conditioning, Heating, & Refrigeration Institute
 2111 Wilson Blvd, Suite 500
 Arlington, VA 22201

~~920—2015~~:ANSI/AHRI 920-2020 Performance Rating of DX-Dedicated Outdoor Air System Units with Addendum 1:

Reason: To ensure marketplace consistency with DOE’s adoption of ISMRE2 and ISCOP2 levels based on AHRI 920-2020, this committee drafted proposal includes the following changes:

1. Updates existing IECC 2021 ISMRE and ISCOP standards to ISMRE2 and ISCOP2 standards consistent with the Department of Energy final rule, published in the Federal Register on November 1, 2022. (87 FR 65651)
 - a. Note: The effective date of this rule was January 3, 2023. Compliance with the standards established for DX-DOASes in this final rule is required on and after May 1, 2024, so no date was proposed herein as standards will already be federally effective upon publication of UECC 2025.
2. For the four equipment classes covered by 90.1, but not considered by DOE, this proposal harmonizes with Addendum cv of ASHRAE Standard 90.1-2019, changing ISMRE and ISCOP standards to ISMRE2 and ISCOP2 standards based on an industry analysis. Four of these equipment classes were be combined into two.
3. Adds AHRI Standard 920-2020 to Normative References in Section 6

Cost Impact: The code change proposal will neither increase nor decrease the cost of construction. This change is not expected to change the cost of construction.