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ADVISORY COMMITTEE COMMENT FORM
FOR PROPOSED CODE CHANGES
(This form must be submitted electronically)

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1323, CE- 37

Proposed Code Change - Language

2012 IECC Chapter 4 COMMERCIAL ENERGY EFFICIENCY
Table 403.2.3(12) Air Conditioners and Condensing Units Serving Computer Rooms
Add the following Table, which is a reproduction of ASHRAE Table 6.8.1K:

~~TABLE 6.8.1K~~ Air Conditioners and Condensing Units Serving *Computers Rooms*

TABLE C403.2.3(12)

Equipment Type	Net Sensible Cooling Capacity[a]	Minimum SCOP-127[b] Efficiency Downflow units / Upflow units	Test Procedure
Air conditioners, air cooled	<65,000 Btu/h	2.20 / 2.09	ANSI/ASHRAE 127
	≥ 65,000 Btu/h and < 240,000 Btu/h	2.10 / 1.99	
	≥ 240,000 Btu/h	1.90 / 1.79	
Air conditioners, water cooled	<65,000 Btu/h	2.60 / 2.49	ANSI/ASHRAE 127
	≥ 65,000 Btu/h and < 240,000 Btu/h	2.50 / 2.39	
	≥ 240,000 Btu/h	2.40 /2.29	
Air conditioners, water cooled with fluid economizer	<65,000 Btu/h	2.55 /2.44	ANSI/ASHRAE 127
	≥ 65,000 Btu/h and < 240,000 Btu/h	2.45 / 2.34	
	≥ 240,000 Btu/h	2.35 / 2.24	
Air conditioners, glycol cooled (rated at 40% propylene glycol)	<65,000 Btu/h	2.50 / 2.39	ANSI/ASHRAE 127
	≥ 65,000 Btu/h and < 240,000 Btu/h	2.15 / 2.04	
	≥ 240,000 Btu/h	2.10 / 1.99	
Air conditioners, glycol cooled (rated at 40% propylene glycol) with fluid economizer	<65,000 Btu/h	2.45 / 2.34	ANSI/ASHRAE 127
	≥ 65,000 Btu/h and < 240,000 Btu/h	2.10 / 1.99	
	≥ 240,000 Btu/h	2.05 / 1.94	

a. net sensible cooling capacity: The total gross cooling capacity less the latent cooling less the *energy* to the air movement system. (Total Gross – latent – Fan Power)
b. sensible *coefficient of performance* (SCOP-127): a ratio calculated by dividing the net sensible cooling capacity in watts by the total power input in watts (excluding re-heaters and humidifiers) at conditions defined in ASHRAE Standard 127. The net sensible cooling capacity is the gross sensible capacity minus the *energy* dissipated into the *cooled space* by the fan *system*.

Proposed Code Change – Need and Reason

Reason: Data Centers are large users of energy because of large cooling loads and operating continuously. There needs to be minimum efficiency requirements for those systems.

Proposed Code Change – Cost/Benefit Analysis

The benefit of the proposed change is to establish minimum efficiency standards for Data Center cooling equipment, which represent large energy users because of their capacity and continuous operation.

Other Factors to Consider Related to Proposed Code Change

1. Is this proposed code change meant to:

Xchange language contained in a published code book? If so, list section(s). 2012 IECC Table identified above

☐ change language contained in an existing amendment in Minnesota Rule? If so, list Rule part(s).

delete language contained in a published code book? If so, list section(s).

☐ delete language contained in an existing amendment in Minnesota Rule? If so, list Rule part(s).

☐ neither; this language will be new language, not found in the code book or in Minnesota Rule.

2. Is this proposed code change required by a Minnesota Statute or new legislation? If so, please provide the citation to the Statute or legislation. No

3. Will this proposed code change impact other sections of a published code book or of an amendment in Minnesota Rule? If so, please list the affected sections or rule parts. No

4. Will this proposed code change impact other parts of the Minnesota State Building Code? If so, please list the affected parts of the Minnesota State Building Code. No

5. Who are the parties affected or segments of industry affected by this proposed code change? Designers, users, and equipment suppliers of Data Center cooling systems.

6. Can you think of other means or methods to achieve the purpose of the proposed code change? If so, please explain what they are and why your proposed change is the preferred method or means to achieve the desired result. No

7. Are you aware of any federal requirement or regulation related to this proposed code change? If so, please list the regulation or requirement. No