CHAPTER 1 - CONSERVATION AND EFFICIENCY: BUILDING ENVELOPE

500

501.03 AIR CONDITIONING DESIGN PARAMETERS

Silver Sa'fa

INTENT

To achieve better thermal comfort and energy efficiency in buildings.

REQUIREMENT

1. For all new air conditioned buildings, heat load must be calculated in accordance with the following design parameters.

   A. Outdoor Condition of the Building

Table 501.03 (1): Air conditioning Design Parameters (Outdoor Condition)

Dry Bulb Temperature	46°C (115° F)
Wet Bulb Temperature	29°C (85° F)
Dubai City Location Latitude	(North Latitude) 25° N
Extent of Variation in the temperature on the day of design (Outdoor Daily Range)	13.8°C (25° F)

   B. Indoor Condition of the Building

Table 501.03 (2): Air conditioning Design Parameters (Indoor Condition)

Dry Bulb Temperature	24°C (75° F)
Relative Humidity	50 +/- 5%

- The heat transfer coefficients used in the calculations for roofs, walls and glazed areas must be the actual design coefficients or as set out in *Regulation 501.01: Minimum Envelope Performance Requirements.*
- When diversity factors to be used in heat load calculations are not known, the coefficients indicated in the latest edition of ASHRAE Fundamentals guide can be used.

   C. The safety factor applied must be no greater than:

Table 501.03 (3): Air conditioning Design Parameters (Safety Factor)

Sensible Heat	10%
Latent Heat	5%