

ERRATA SHEET FOR ANSI/ASHRAE STANDARD 41.11-2020
Standard Methods for Power Measurements

January 8, 2022

The corrections listed in this errata sheet apply to ANSI/ASHRAE Standard 41.11-2020. The first printing is identified on the outside back cover as “Product Code: 86213 11/20”.

Page(s) Erratum

6-7 5.1 Steady-State Power Criteria for Test Points. Revise Section 5.1 as shown below. Changes highlighted in yellow. Delete the published Figure 1 as shown below and replace it with the new Figure 1.

(Note: Additions are shown in underline and deletions are shown in ~~strikethrough~~.)

[...]

Determine the mean offset, μ , of the sampled offset data, $(P_i - bt_i)$, using Equation 5-3, and then calculate the standard deviation, σ , using Equation 5-4.

$$\mu = \frac{1}{N} [\sum_{i=1}^N (P_i - bt_i)] \text{ W (hp)} \quad (5-3)$$

$$\sigma = \left[\left(\frac{1}{(N-2)} \right) \sum_{i=1}^N (P_i - bt_i - \mu)^2 \right]^{\frac{1}{2}} \text{ W (hp)} \quad (5-4)$$

The mean of the sampled powers, \bar{P} , is defined by Equation 5-5.

$$\bar{P} = \frac{1}{N} [\sum_{i=1}^N (P_i)] \text{ W (hp)} \quad (5-5)$$

\bar{P} , as determined by Equation 5-5, represents the steady-state mean power provided that one of the following criteria is satisfied:

a. Apply Equation 5-6 if $2\sigma \geq P_L$ where P_L is the specified operating tolerance limit for power, and if Equation 5-6 is satisfied by not less than 95% of the sampled powers.

The horizontal dotted lines, that are located 2σ above and below μ , are the boundaries of the 95% sampled powers scatter envelope.

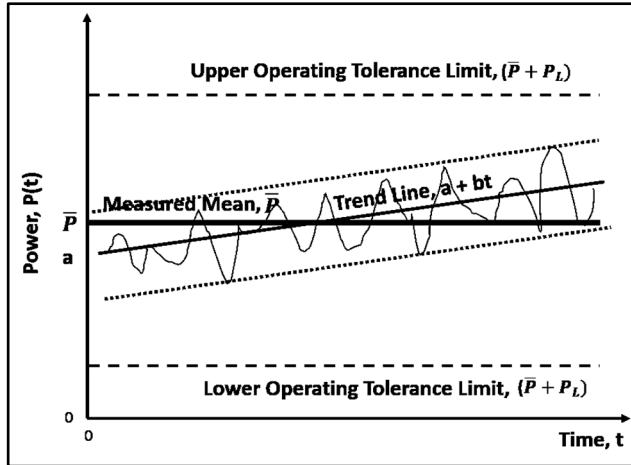
$$|P_i - \mu| \leq 2\sigma \text{ W (hp)} \quad (5-6)$$

b. Apply Equation 5-7 if $T_T \geq 2\sigma$ $P_L > 2\sigma$ where T_T P_L is the specified operating tolerance limit for power, and if Equation 5-7 is satisfied by not less than 95% of the sampled powers.

$$|P_i - \mu| \leq P_L \text{ W (hp)} \quad (5-7)$$

Informative Note: For further reading about this method of determining steady-state conditions, refer to Informative Annex A^{A3, A4}.

Published Figure 1:



New Figure 1:

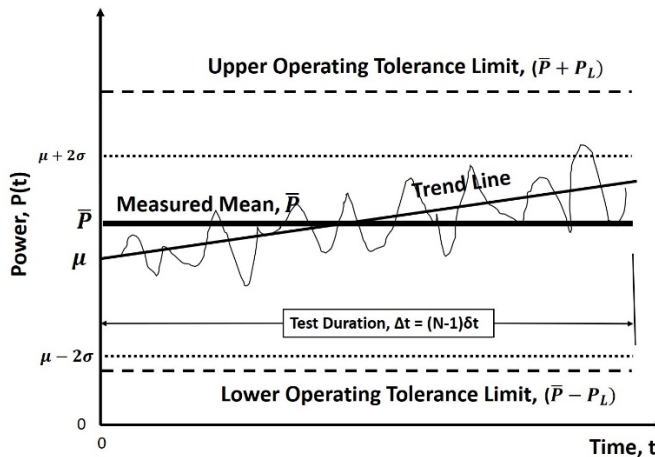


FIGURE 1: Illustration of the method for determining power criteria for test points

8 5.5.2 Steady-State Power Criteria for Targeted Set Points. Revise Equation 5-16 as shown below.

(Note: Additions are shown in underline and deletions are shown in ~~strikethrough~~.)

$$\underline{b\Delta t} \leq 0.50T_L \text{ W (hp)} \quad (5-16)$$

$$\underline{|b\Delta t|} \leq 0.50P_L \text{ W (hp)} \quad (5-16)$$