ERRATA SHEET FOR ANSI/ASHRAE STANDARD 225-2020 Method for Performance Testing Centrifugal Refrigerant Compressors and Condensing Units

April 2, 2025

The corrections listed in this errata sheet apply to ANSI/ASHRAE Standard 225-2020. The first printing is identified on the outside back cover as "Product code: 86657 4/20".

(Note: Additions are shown in <u>underline</u> and deletions are shown in strikethrough.)

Page Erratum

5.8.1.1 Head Factor and Isentropic Efficiency for a Single-Stage Compressor.
 Revise Section 5.8.1.1 as shown below. Change is highlighted in yellow.
 (Note: Additions are shown in <u>underline</u> and deletions are shown in <u>strikethrough</u>.)

5.8.1.1 Head Factor and Isentropic Efficiency for a Single-Stage Compressor.

$$\eta = \frac{\left[\sum_{i=1}^{NS} \dot{m}_i (h_{3_{iS}} - h_{2_{iS}})\right]}{P} \times \underline{0.000392979} \ \underline{0.02931}$$

$$[\dots]$$
(4)

8 **5.8.1.1 Head Factor and Isentropic Efficiency for a Single-Stage Compressor.** Revise Section 5.8.1.1 as shown below. Changes are highlighted in yellow. (*Note: Additions are shown in <u>underline</u> and deletions are shown in <u>strikethrough</u>.)*

5.8.1.1 Head Factor and Isentropic Efficiency for a Single-Stage Compressor.

[...]

P = total power input to the UUT, kW (hpkW)

[...]

8 **5.8.1.2 Head Factor and Isentropic Efficiency for a Multistage Compressor.** Revise Section 5.8.1.1 as shown below. Change is highlighted in yellow. (*Note: Additions are shown in <u>underline</u> and deletions are shown in <u>strikethrough</u>.)*

5.8.1.2 Head Factor and Isentropic Efficiency for a Multistage Compressor.

$$[\dots]$$

$$\eta = \frac{\left[\sum_{i=1}^{NS} \dot{m}_i (h_{3_{iS}} - h_{2_{iS}})\right]}{P} \times \underline{0.000392979} \, \underline{0.02931}$$

$$[\dots]$$
(8)

Page Erratum

5.8.1.2 Head Factor and Isentropic Efficiency for a Multistage Compressor. Revise Section 5.8.1.2 as shown below. Change is highlighted in yellow.
 (Note: Additions are shown in <u>underline</u> and deletions are shown in <u>strikethrough</u>.)

5.8.1.2 Head Factor and Isentropic Efficiency for a Multistage Compressor.

[...]

 $P = \text{total power input to the UUT, kW}(\underline{hpkW})$

[...]

10 5.8.1.3 Head Factor and Isentropic Efficiency for a Two-Stage Compressor with Vapor Injection. Revise Section 5.8.1.3 as shown below. Change is highlighted in yellow.

(Note: Additions are shown in <u>underline</u> and deletions are shown in strikethrough.)

5.8.1.3 Head Factor and Isentropic Efficiency for a Two-Stage Compressor with Vapor Injection.

$$\eta = \frac{\left[\dot{m}_{1}\left(h_{3_{1S}}-h_{2_{1S}}\right)+\dot{m}_{2}\left(h_{3_{2S}}-h_{2_{2S}}\right)\right]}{P} \times \underline{0.000392979} \ \underline{0.02931} \qquad (12)$$

$$[\dots]$$

11 **5.8.1.3 Head Factor and Isentropic Efficiency for a Two-Stage Compressor with Vapor Injection.** Revise Section 5.8.1.3 as shown below. Change is highlighted in yellow.

(Note: Additions are shown in <u>underline</u> and deletions are shown in strikethrough.)

5.8.1.3 Head Factor and Isentropic Efficiency for a Two-Stage Compressor with Vapor Injection.

[...]

P = total power input to the UUT, kW (hp)

[...]

13 **5.8.1.4 Head Factor and Isentropic Efficiency for Compressors Connected in Series with Vapor Injection.** Revise Section 5.8.1.4 as shown below. Change is highlighted in yellow.

(Note: Additions are shown in <u>underline</u> and deletions are shown in <u>strikethrough</u>.)

5.8.1.4 Head Factor and Isentropic Efficiency for Compressors Connected in Series with Vapor Injection.

$$\left[\begin{array}{c} \dots \end{array} \right] \\ \eta = \frac{\left[\dot{m}_1 \left(h_{3_{1S}} - h_{2_{1S}} \right) + \dot{m}_2 (h_{3_{2S}} - h_{2_{2S}}) \right]}{P} \times \underline{0.000392979} \ \underline{0.02931} \tag{21}$$

[...]

14 **5.8.1.4 Head Factor and Isentropic Efficiency for Compressors Connected in Series with Vapor Injection.** Revise Section 5.8.1.4 as shown below. Change is highlighted in yellow.

(Note: Additions are shown in <u>underline</u> and deletions are shown in <u>strikethrough</u>.)

5.8.1.4 Head Factor and Isentropic Efficiency for Compressors Connected in Series with Vapor Injection.

[...]

P = total power input to the UUT, kW (hp)

[...]