

STANDARDS AUSTRALIA/STANDARDS NEW ZEALAND

Amendment No. 1
to
AS/NZS 3823.1.3:2005
Performance of electrical appliances—Airconditioners and heat pumps
Part 1.3: Water-source heat pumps—Water-to-air and brine-to-air heat pumps—
Testing and rating of performance (ISO 13256-1, Ed. 01 (1998) MOD)

CORRECTION

The 2005 edition of AS/NZS 3823.1.3 is amended as follows; the amendment(s) should be inserted in the appropriate place(s).

SUMMARY: This Amendment applies to the Clauses 4.1.3.1, 4.1.3.2, 4.1.4.1, 4.1.4.2, Table 5, 6, 7, 8 and Appendix D Paragraph 3.1.

Published on 22 September 2011.

Approved for publication in New Zealand on behalf of the Standards Council of New Zealand on 22 August 2011.

Clause 4.1.3.1

Delete existing Clause and *replace* with the following:

4.1.3.1 If no fan is provided with the heat pump, a fan power adjustment is to be included in the effective power input to the heat pump, using the following formula:

$$\phi_{fa} = \frac{q \times \Delta p}{\eta}$$

where

ϕ_{fa} is the fan power adjustment, in watts;

η = 0,3 by convention;

Δp is the measured static pressure difference across the indoor refrigerant to air heat-exchanger, in pascals;

q is the nominal airflow rate, in cubic metres per second.

This value shall also be added to the measured heating capacity and subtracted from the measured cooling capacity.

AMDT
No. 1
SEP
2011

Clause 4.1.3.2

Delete existing Clause and *replace* with the following:

4.1.3.2 If a fan is an integral part of a heat pump, only the portion of the fan power required to overcome the internal resistance shall be included in the effective power input to the heat pump. The fraction which is to be excluded from the total power consumed by the fan shall be calculated using the following formula:

$$\phi_{fa} = \frac{q \times \Delta p}{\eta}$$

where

ϕ_{fa} is the fan power adjustment, in watts;

η = 0,3 by convention;

Δp is the measured external static pressure difference, in pascals;

q is the nominal airflow rate, in cubic metres per second.

This value shall also be subtracted from the measured heating capacity and added to the measured cooling capacity.

Clause 4.1.4.1

Delete existing Clause and *replace* with the following:

4.1.4.1 If no liquid pump is provided with a heat pump, a pump power adjustment is to be included in the effective power consumed by the heat pump, using the following formula:

$$\phi_{pa} = \frac{q \times \Delta p}{\eta}$$

where

ϕ_{pa} is the pump power adjustment, in watts;

η = 0,3 by convention;

Δp is the measured liquid static pressure difference across the refrigerant to liquid heat exchanger, in kilopascals;

q is the nominal liquid flow rate, in litres per second.
