

ICS 27.200
CCS J73



**NATIONAL STANDARD OF THE
PEOPLE'S REPUBLIC OF CHINA**

GB/T 25857-2022

Replacing GB/T 25857-2010

**Low ambient temperature air source multi-connected heat
pump (air-conditioning) unit**

低环境温度空气源多联式热泵（空调）机组

Issued on: December 30, 2022

Implemented on: July 1, 2023

**Issued by: State Administration for Market Regulation;
Standardization Administration of China**

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Foreword

This document follows the rules of GB/T 1.1-2020 "Guidelines for Standardization Work Part

1. Structure and Drafting Rules for Standardization Documents" drafting. This document replaces GB/T 25857-2010 "Low ambient temperature air source multi-connected heat pump (air conditioner) unit", and GB/T 25857- Compared with.2010, except for structural adjustment and editorial changes, the main technical changes are as follows:

a) Changed the scope of application of the standard (see Chapter 1, Chapter 1 of the.2010 edition);

b) The definition of "low ambient temperature air source multi-connected heat pump (air conditioning) unit" has been changed, and "nominal heating capacity" and "nominal heating performance" have been added. The definitions of "energy coefficient", "low temperature heating coefficient of performance" and "configuration ratio" were deleted, and the definition of "heating comprehensive coefficient of performance" was deleted (see 3.1~ 3.5, 3.1, 3.2 of the.2010 edition);

c) Added "according to the structural form of the indoor unit", "according to the air supply type of the indoor unit", "according to the nominal heating capacity of the unit" and "according to the product function" Classification, delete the classification of "climate and environment by unit use" (see 4.1,

4.1 of the.2010 edition);

d) Changed the compilation requirements of the model (see 4.2,

4.2 of the.2010 edition);

e) The environmental conditions for the normal operation of the unit have been changed, and some test conditions have been adjusted (see 4.3.2, 4.3.3,

4.3.2 of the.2010 edition). 4.3.3, 4.3.4);

f) Changed the "General Requirements" of the unit, deleted some appearance requirements, coating requirements and material requirements, and deleted the uneven distribution of the unit In addition to the balance rate requirements, the heat preservation requirements, defrosting water requirements and test requirements of the unit are added, and the electromagnetic compatibility requirements are moved to the safety requirements (see 5.1, 5.3,

5.1 of the.2010 edition);

g) The tolerance requirements for the nominal heating (cooling) capacity have been changed, and the "heating power consumption", "low temperature heating power consumption" and "low temperature heating power consumption" have been changed. The performance requirements of "nominal cooling power consumption" (see 5.2,

1 Scope

GB/T 25857-2022 is the Chinese national standard on low ambient temperature air source multi-connected heat pump (air-conditioning) unit, in the field of energy and heat transfer engineering. The /T suffix marks it as a recommended standard: it is not compulsory by itself, but it becomes binding as soon as a contract, a tender or a customer specification calls it up - which in practice is how most foreign buyers meet it. It was issued on 30 December 2022 by the State Administration for Market Regulation; Standardization Administration of China, and has been in force since 1 July 2023. Classification: ICS 27.200, CCS J73. This page is published from the official record of the standard held by the Chinese standards administration: the identification, the dates, the classification and the issuing body are taken from there. The clause text, the tables and the numeric limits are in the document itself, which is delivered complete in English translation.

This document specifies the terms and definitions, types and Basic parameters, technical requirements, test methods, inspection rules and signs, packaging, transportation and storage. This document is applicable to multi-connected heat pump (air conditioner) units that can still operate as heat pump heating when the outdoor ambient temperature is as low as -25°C. Units designed with the outdoor ambient temperature lower than -25°C can be implemented as a reference.

2 Normative references

The contents of the following documents constitute the essential provisions of this document through normative references in the text. Among them, dated references For documents, only the version corresponding to the date is applicable to this document; for

undated reference documents, the latest version (including all amendments) is applicable to this document.

GB/T 191 Packaging, storage and transportation icon marks

GB/T 2828.1 Counting sampling inspection procedure Part

1. Batch-by-batch inspection sampling plan retrieved by acceptance quality limit (AQL)

GB 2894-2008 Safety Signs and Guidelines for Their Use

GB 4343.1 Electromagnetic Compatibility Requirements for Household Appliances, Electric Tools and Similar Appliances Part

3 Terms and Definitions

The following terms and definitions defined in GB/T 18837-2015 apply to this document.

3.1 heat pump (air-conditioning) unit A multi-connected heat pump (air conditioner) that uses a vapor compression refrigeration cycle driven by an electric motor and uses air not lower than -25°C as a cold (heat) source unit.

3.2 Under the specified nominal heating conditions, the sum of the heat sent by the unit to the enclosed space, room or area per unit time.

Note. The unit is watt (W).