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

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**Technical specification for multi-connected split air condition
system**

多联机空调系统工程技术规程
(English Translation)

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1.0.1

This specification is formulated in order to standardize the design, construction and acceptance of multi-connected split air condition system to make it advanced in technology, economically reasonable, safe and applicable and guarantee the engineering quality.

1.0.2

This specification is applicable to the design, construction and acceptance of air conditioning system in newly built, renovated and expanded industrial and civil buildings, with variable refrigerant flow and multi-connected split air conditioning unit as the main cold source.

1.0.3

The design, construction and acceptance of multi-connected split air conditioning system shall not only comply with this specification, but also meet current relevant standards of the nation.

2.0.1 multi-connected split air conditioning system

direct expansion air conditioning system which adapts to the load change of each room by changing the refrigerant flow where one (set of) air (water) source refrigeration or heat pump unit is equipped with multiple indoor units

2.0.2 the minimum allowable values of IPLV (C)

minimum allowable value of the performance coefficient [IPLV (C)] of the comprehensive refrigeration part of the multi-connected split air condition (heat pump) unit under the test conditions of specified refrigeration capacity

2.0.3 air-to-air energy recovery equipment

equipment combination capable of ventilating the air conditioning areas while recovering energy of exhaust air

2.0.4 equivalence length

pipe length of refrigerant piping plus the equivalence length of fittings such as elbows and branches

3.1.1

The multi-connected split air conditioning system may be adopted according to the scale, type, load characteristics and parameter requirements of the building as well as the climate

zone where the building is located, if it is confirmed to be reasonable by comparison of technology, economy and safety.

3.1.2

Multi-connected split air conditioning system should not be used at the following areas or places where:

- 1 The operating performance coefficient in winter is less than 1.8 when the air source multi-connected split air conditioning system is used for heating;
- 2 There are severe vibration and much oil pollution and steam;
- 3 Electromagnetic waves or high-frequency waves are generated.

Note: Operating performance coefficient in winter = Total heat supply (W)/ Total input power (W) of outdoor air conditioner in winter when calculating temperature

3.1.3

The equipment performance indexes of multi-connected split air conditioning system shall meet the current relevant standards of the nation.

3.1.4

Buildings with multi-connected split air conditioning systems should be equipped with mechanical ventilation systems; when a mechanical exhaust system is provided, a heat recovery device should be provided.

3.1.5

Residential buildings with multi-connected split air conditioning systems shall be equipped with household metering devices, and public buildings should be equipped with metering devices by floors or houses.

3.1.6

The construction drawing design documents of multi-connected split air conditioning system engineering shall meet the following requirements:

1. The construction drawing design documents shall be mainly construction drawings, and shall include drawing list, design and construction instructions, main equipment list, air conditioning system diagram, plan and detail drawing, etc.
2. The design depth shall meet the requirements of the current relevant provisions of the nation.

3.2.1

The outdoor air calculation parameters shall meet the relevant requirements of the current national standard GB 50019 Code for design of heating, ventilation and air conditioning.

3.2.2

Indoor calculation parameters of comfort air conditioner shall be in accordance with those specified in Table 3.2.2.