

JIS

JAPANESE INDUSTRIAL STANDARD

Electric vacuum cleaners

 **JIS C 9108**—1992

Translated and Published

by

Japanese Standards Association

In the event of any doubt arising,
the original Standard in Japanese is to be final authority.



JAPANESE INDUSTRIAL STANDARD

J I S

Electric vacuum cleaners

C 9108-1992

1. Scope

This Japanese Industrial Standard specifies electric vacuum cleaners for household with a rated power consumption of not less than 100 W but not more than 700 W (hereafter referred to as vacuum cleaners) in which back pressure of a blower driven by a motor is utilized. However, this standard is not applicable to vacuum cleaners which have a self-travelling mechanism, those which have a rotating brush mechanically connected to the blower motor, those to which a floor suction fitting is directly attached so that the floor suction fitting or the path thereof is not separable, those require piping work and those capable of being charged.

Remarks 1. The following Standards are cited in this Standard:

JIS A 5705-P.V.C. Floor Tiles

JIS C 3301-Rubber Insulated Flexible Cords

JIS C 3306-Polyvinyl Chloride Insulated Flexible Cords

JIS C 8303-Plugs and Receptacles for Domestic and Similar
General Use

JIS K 2240-Liquefied Petroleum Gases

JIS K 5400-Testing Methods for Paints

JIS K 7202-Method of Rockwell Hardness Test for Plastics

JIS S 6006-Pencils and Colored Pencils

JIS Z 8731-Methods of Measurement and Description of
A-Weighted Sound Pressure Level

2. The units and numerical values shown in { } in this Standard are based on the traditional unit system, and are appended for informative reference.

2. Definitions

For the purpose of this standard, the following principal definitions shall apply:

- (1) standard condition for measurement The standard condition for measurement is such condition that the appended hose is connected, straight and in a natural state, to the suction port of a vacuum cleaner body fitted with new dust (collecting) bag or filter, the extension tube is attached to the front end of the bent tube of hose, and the front opening of the extension tube is placed 10 cm or more apart from any obstacle with the opening being fully opened. For a vacuum cleaner appended with either one of a hose or an extension tube only, only the accessory is connected and so arranged, for a vacuum cleaner without any accessory, the floor suction fitting or the path thereof is removed and so arranged, that respective front openings lie 10 cm or more apart from any obstacle with the openings being fully opened.
- (2) standard load condition Such a condition of a vacuum cleaner that the vacuum cleaner is operated under the standard condition for measurement. For a vacuum cleaner whose floor suction fitting is electrically loaded, this means such a condition that the floor suction fitting is connected and the cleaner is operated with the end opening apart from the obstacle by 10 cm or more.
- (3) aerodynamic power The power calculated in accordance with 4. of Annex 1 by using the measured values of air volume and vacuum.
- (4) suction power The maximum aerodynamic power obtained from the aerodynamic power curve given in 5. of Annex 1.
- (5) rated power consumption The electric power consumed by a vacuum cleaner under the standard load condition when the rated voltage at rated frequency is applied, which is marked on the appliance by the manufacturer.
- (6) maximum load current The maximum current which flows steadily when a vacuum cleaner is operated under the standard load condition, the rated voltage, rated current being applied.
- (7) floor transfer type A type of vacuum cleaner the body of which is transferred on a floor by pulling the hose while it is in use.
- (8) broom type A type of vacuum cleaner the handle and floor suction fittings of which are integrated with its body ready for service.
- (9) portable type A type of vacuum cleaner the body of which is suspended from human shoulder or held by hand while in use.

3. Classification

The vacuum cleaners are classified into the following three types:

- (1) Floor transfer type
- (2) Broom type
- (3) Portable type

4. Rated voltage and rated frequency

The rated voltage of vacuum cleaners shall be single phase a.c. not exceeding 300 V, and the rated frequency shall be 50 Hz (exclusive), 60 Hz (exclusive), or 50/60 Hz (in common).

5. Performance

5.1 Voltage fluctuation A vacuum cleaner shall continue its operation without trouble when subjected to the test of 8.3.

5.2 Starting A vacuum cleaner shall start irrespective of the position of the motor rotor when subjected to the test of 8.4.

5.3 Power consumption The power consumption of a vacuum cleaner shall fall within $\pm 15\%$ from the rated power consumption when the test of 8.5 is carried out.

5.4 Temperature The temperature shall not exceed the appropriate value given in Table 1 when the test of 8.6 is carried out.

Table 1. Temperature

Unit: °C

Place of measurement		Temperature
Winding	Class A insulation	100
	Class E insulation	115
	Class B insulation	125 (120)
	Class F insulation	150 (140)
	Class H insulation	170 (165)
Rectifier (ones used in a.c. power supply side circuit only)	Selenium	75
	Germanium	60
	Silicone	135
Contact of fuse clip		90
Carrying handle (that operated by man during service is excluded)	Metals, ceramics and glass	65
	Others	80