

Project Name

AIR PURIFIER, HEATER AND COOLING FAN

Designer

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Description of innovation social values

- product category
- formal and functional features
- problems solved by innovation
- user
- field of application

Description of technical features

- operation
- technology

Dimensions

Materials

Certification

Benefits for environment

Benefits for human being

Acceptance of Terms

Product category : Quality of Life

Develop an innovative comfort appliance entirely focusing on human comfort and well-being through the application of technological expertise and know-how on PCS.

Multi-functional air purifier, heater and cooling fan

When set to "Heat" mode, the appliance cleans the indoor air before heating it and releasing in the room with a gentle, enveloping airflow. When set to "cool" mode, the appliance cleans the indoor air before releasing in the room with a gentle, enveloping airflow.

Engineering of standard portable appliances for personal heating/cooling doesn't usually consider either the human body perspective or the indoor air quality. Not considering the first aspect can result in the product to deliver aggressive and uncontrolled jets of air or create hotspots. Not considering the second aspect can result in a poor indoor air quality. By studying the factors that determine thermal comfort for users when using personal comfort systems, and by providing the product with a double layer anti-particulate air-filter we met both challenges. A new method to measure the perceived effect of air flow on human body has been developed in collaboration with Politecnico di Torino Thanks to the 3D ComfortAir Technology, a totally innovative technology, the product guarantees human comfort and well-being in a holistic way.

The product exclusive 3D Comfort Air Technology guarantees the ideal airflow able to gently envelop the person head-to-toe in a clean, warm or cool comfort zone.

Operation- The unit features "Heat" or "Cool" modes.

Air-purification is always on, both in heat and cool modes.

When the product is set to "Heat", a thermostat permits to set a desired target temperature and the selection of up to 6 fan speed levels. Heat is provided by a highly efficient ceramic heating element with 2 heating power levels.

Cooling fan mode allows the setting of up to 10 fan speeds.

To optimize energy consumption in "Heat" mode, Eco function is available.

The product is also equipped with countdown timer, motorized oscillation, and adjustable airflow direction.

All the functions are easily activated by the ergonomic remote control.

Technology – The product exploits the Coanda effect to shape, guide and control the air-flow along the curved, patented shape of its body. This principle of the physics of fluids allows for the creation of a 3-dimensional comfort zone of evenly distributed clean, warm or cool air, resulting, for the user, in a gentle, enveloping feeling of head-to-toe wellbeing without draughts or hotspots.

The exclusive 3D Comfort Air Technology combines a 360 dual-layer particulate air-filter cleaning up the air from allergens and pollutants with a custom designed brushless fan motor. The air-filter can remove up to 99,9%* of allergens or pollutants (*Third party organization test on MPPS particles to EN 1822.2010. 99,9% efficiency referred to small particles of 5 µm at 60 m³/h – cooling fan speed 5). The custom-designed motor allows for the effective processing and releasing of the airflow.

Height 837mm - Ø 262mm

PC – ABS - Plastics

INTERNATIONAL: IEC 60335-2-30:2009 used in conjunction with IEC 60335-1:2010; incl. COR1:2010 and COR2:2011, AMD1:2013

AUSTRALIA: AS/NZS 60335.2.30: 2015 A1; AS/NZS 60335.2.30: 2004 A1

JAPAN: IEC 60335-2-30:2009 used in conjunction with IEC 60335-1:2010; incl. COR1:2010 and COR2:2011, AMD1:2013; IEC 60335-2-65:2002 incl. AMD1:2008 and AMD2:2015 - J60335-1(H27) – Safety of household and similar electrical appliances - Part 1: General requirements; - J60335-2-30(H29) – Safety of household and similar electrical appliances – Part 2: Particular requirements: for room heaters (technically equivalent to IEC 60335-2-30:2009); - J60335-2-65(H20) – Safety of household and similar electrical appliances - Part 2: Particular requirements for air-cleaning appliances (technically equivalent to IEC 60335-2-65:2002).

USA: UL 1278:2014 Ed.4 + Amendment - **CANADA:** CSA E60335-2-30 + Amendment; CSA C22.2 60335-1:2011 Ed.1

Its performance is optimal also from an environmental perspective, because thanks to the 3D Comfort Air technology, a clean, warm or cool zone is generated only where needed i.e around the consumer, in a fast and effective way avoiding overheating and overcooling effects.

Thanks to the new technology, the human body is enveloped in clean warm or cool air head-to-toe, in an even and gentle manner, with no areas of localized discomfort (such as hot or cold hotspots) or aggressive, uncontrolled jets of air. The air purification function improves the indoor air quality effectively reducing risks of headaches, eye irritation, allergies and fatigue.

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