

Core 600i

Transforming Indoor Air Quality Management



RENSAIR



rensair.com

Experience an excellent Indoor Air Quality environment

Our award-winning Core 600i air purifier delivers an excellent Indoor Air Quality (IAQ) environment, cleaning up to 600m³ of air per hour.

Core 600i continuously cleans indoor air through HEPA and active carbon filtration, technologies recommended by health authorities worldwide.

A powerful centrifugal fan generates a hemispherical intake of dirty air from above and around the unit's 360 degree circumference. The dirty air initially passes through pre-filters that capture larger particles, before being forced below into the H13 HEPA and active carbon filter chamber to be purified.

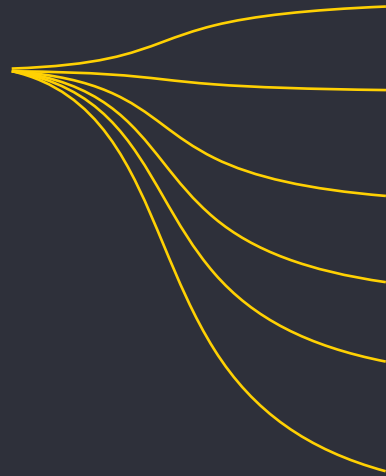
Out flowing clean air is distributed evenly at 360 degrees in a uniform, outward radial jet motion that penetrates the entire room. Toroidal air flow causes particle precipitation in a room.

The UVC lamp constantly illuminates the H13 HEPA filter, inactivating any trapped pathogens and mould.

Rensair's air purifiers are quick to install and simple to operate. Maintenance can be carried out in a straightforward and safe manner, not requiring specialist staff.



Air quality data at your fingertips



The Core 600i carries out live air monitoring

High quality sensors measure the Indoor Air Quality, registering various parameters such as PM_{2.5}, CO₂ and TVOCs

Calibrating sensors with regularly maintained and high-end reference instruments ensures accuracy

The air sensor has a life span that is greater than 10 years

Live data drives the required air purification rate to ensure that IAQ standards are met (e.g. BREEM, LEED, WELL etc.)

IAQ data is accessible on Rensair Cloud, an easy to navigate cloud based software platform



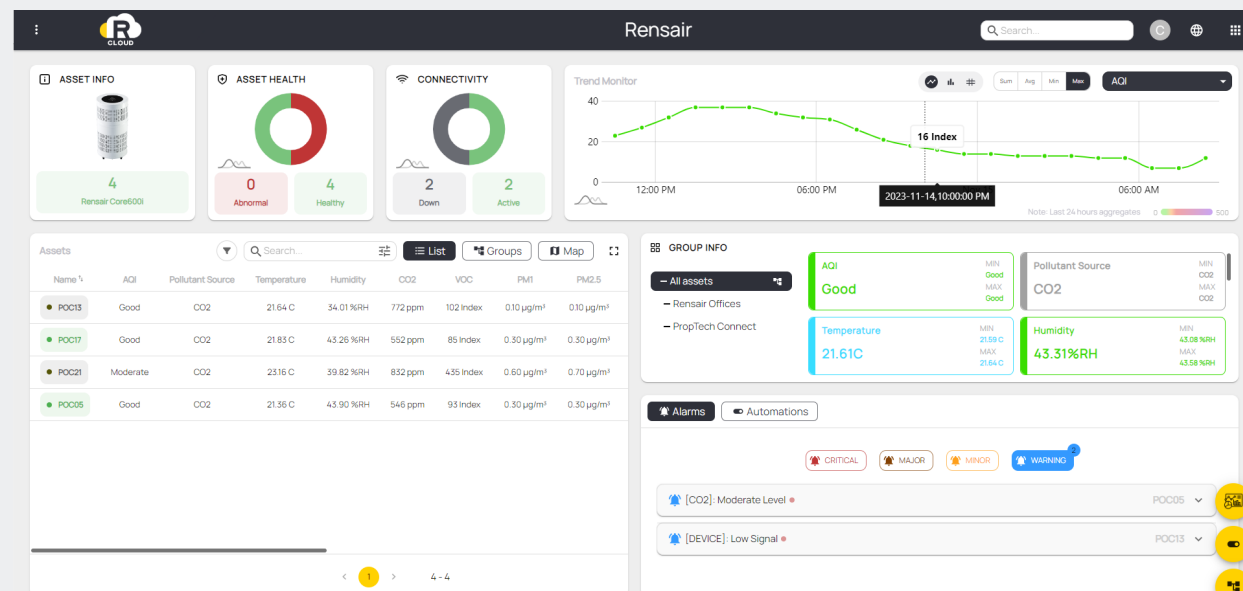
Rensair Cloud

Transform your indoor air quality management



General dashboard

Overview of assets' information including accessibility, air quality trends, location, health and alarms



Fleet Management

Grouping of devices for bulk control, trends monitoring and advanced analytics



Digital Twin

Detailed information of each device with configuration, control, latest readings and time series



Streaming Analytics

Historical data, comparisons, forecasts and exporting



Scheduling

Configurable recurring behavior and automations



Alarms and Notifications

Layered alarm system with detailed information (time, count, value, trigger) for any specific cause



Preventive Rules

User-defined rules and alarms to be triggered by any device or a group of devices



Hierarchical User Structure

Employ a hierarchical user structure in the IoT platform to grant granular access-levels and set user specific permissions.

Straightforward and intuitive connectivity

Wireless cellular based (LTE) connectivity	Provides reliable connection with the best possible security
Plug-and-use	Cellular connectivity included / No Wi-Fi required
Secure bi-directional communication	Uses light-weight and industry recognisable Message Queuing Telemetry Transport (MQTT) protocol encrypted using Transport Layer Security (TLS)
API controllable	Cloud-to-Cloud integration with RESTful API
BMS/BEMS	Integrates with existing BMS system to send real time IAQ readings
Cloud based Digital Twin	Allows for synchronising the device configuration during intermittent cellular connection (weak cellular signal)

The Core 600i has full connectivity which allows a tie up to a Building Management System(BMS) via:

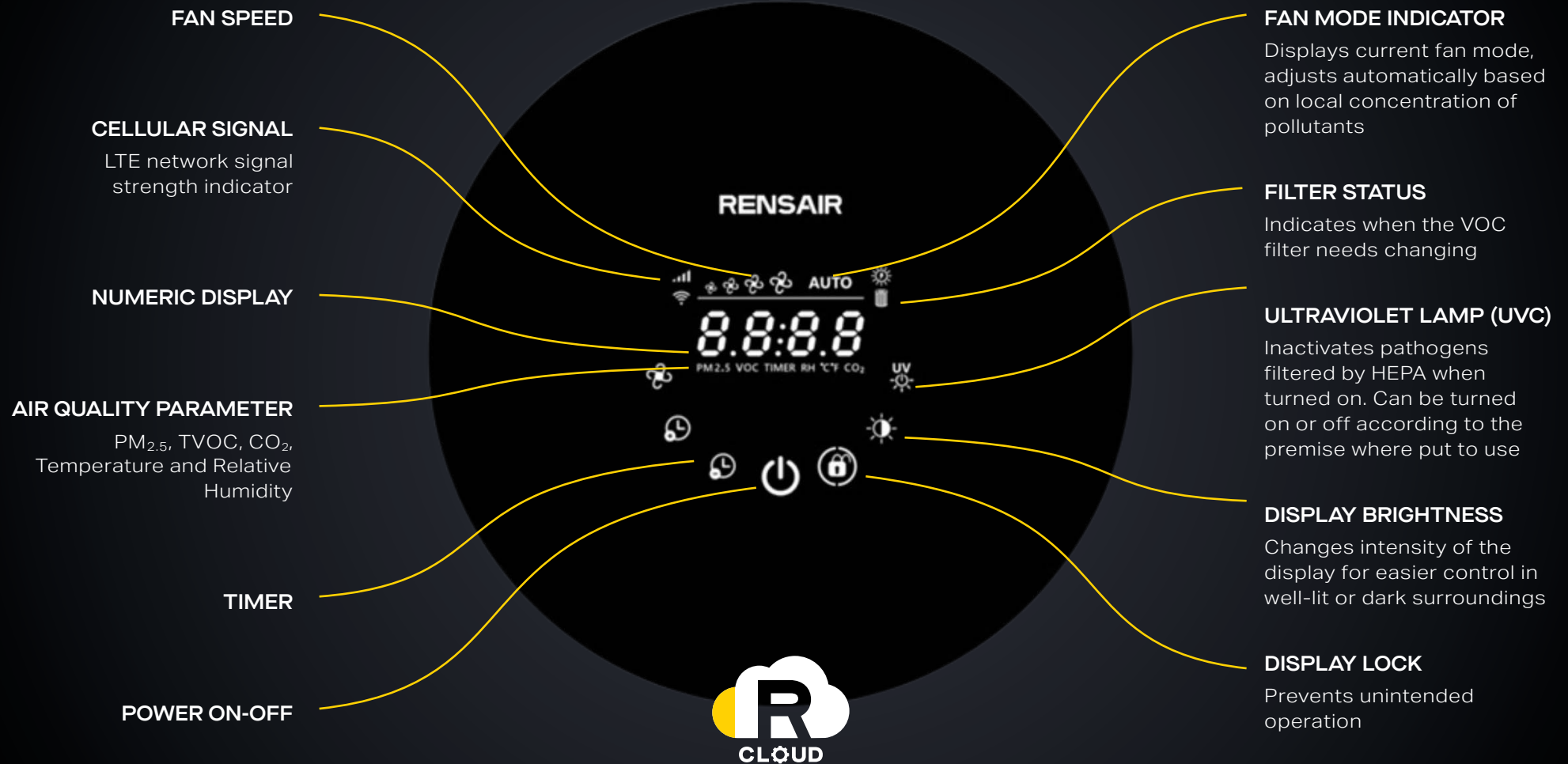
- Wireless communication - using Rensair Cloud, a cloud-to-cloud platform integration to the system
- Wired communication - using a gateway connector that will forward the data from the platform to the system

Transferred data is encrypted with authenticated and protected identity.

The Core 600i can be used as a standalone unit, or in a modular fashion in larger spaces with multiple connected Core 600i units, each delivering its own large clean air envelope.



Core 600i panel



SPECIFICATIONS

DIMENSIONS	H:77cm, Ø37cm
DIMENSIONS IN BOX	H: 84cm x W: 43cm x D: 43cm
NET WEIGHT	18kg
GROSS WEIGHT (INCLUDING BOX)	21kg
COLOUR	White
HEPA FILTER	EU13 (EN 1822 class H13)
CE CERTIFIED (UK & EU)	220-240V, ~50Hz, IEC C14 to C13 connector to allow for different power plugs
LENGTH OF POWER CORD	3m
UVC lamp	18W, 254nm light

AIRFLOW

RENSAIR CORE AIRFLOW VOLUME	CADR M ³ /HOUR	NOISE LEVEL (dBA)	POWER USAGE (W)
Quiet	200	38	130
Low setting	300	47	150
Medium setting	450	54	200
High setting	600	59	250

Tolerance +/- 10%

VOC FILTER REMOVAL SCOPE

TYPE	REMOVAL SCOPE	CADR M ³ /HOUR
Particulate Matter	Pathogens (Virus & Bacteria), Dust, Pollen, Allergens etc.	600
Formaldehyde	Common dangerous gas	235
Alpha Pinene	Common dangerous gas	350
NOx	Pollution from vehicles	295
Ozone	Common dangerous gas	295

CONNECTIVITY

Cellular	Worldwide LTE, UMTS/HSPA+ and GSM/GPRS/EDGE coverage
Frequency bands	LTE FDD: B1/B2/B3/B4/B5/B7/B8/B12/B13/B18/ B19/B20/B25/B26/B28 LTE TDD: B38/B39/B40/B41 UMTS: B1/B2/B4/B5/B6/B8/B19 GSM: B2/B3/B5/B8
Wi-Fi & Bluetooth (optional)	(1) Complies with IEEE 802.11 b/g/n and Bluetooth 5.2 standards (2) 2.4 GHz

INDOOR AIR QUALITY PARAMETERS

PARAMETER	MEASUREMENT	RANGE	ACCURACY
Temperature	Capacitive Measurement Principle	Min -10°C, Max 50°C	±0.45°C ¹
Relative Humidity	Capacitive Measurement Principle	Min 0%, Max 100%	±4.5% ²
PM ₁ , PM _{2.5} , PM ₄ , PM ₁₀	Optical Particle Counting Technique	Min 0 µg/m ³ , Max 1000 µg/m ³	±5 µg/m ³ , +5% m.v. ³
CO ₂	Non-dispersive Infrared (NDIR)	Min 400 ppm, Max 2000 ppm	±50 ppm, +5% m.v. ⁴
TVOC	Dual-channel Electrochemical Gas Sensor	Min 0 ppm, Max 10 ppm	300 ppb, 30%
Formaldehyde	Dual-channel Electrochemical Gas Sensor	Min 0 ppm, Max 1 ppm	±30 ppb, ±10% reading

¹ Accuracy conditions 15 - 30°C, 50% RH

² Accuracy conditions 25°C, 30 - 70 %RH

³ m.v. means measured volume

⁴ The Accuracy value is valid in the range 0 - 2000 ppm

Certification

Rensair's air cleaning efficiency has been independently validated by world renowned scientific laboratories. Check Certification page for all validation tests.

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