MODEL NAME	ECOVOLT EVAIR F50
PRODUCT TYPE	MIXED AIR TO WATER HEAT PUMP FOR SPACE HEATING/ DOMESTIC HOT WATER AND CONTINUOUS MECHANICAL EXTRACT

EcoVolt
INNOVATION IN ENERGY

ECOVOLT **EVAIR F50**



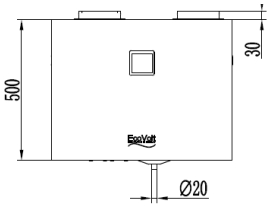
5 kW

ErP A+++

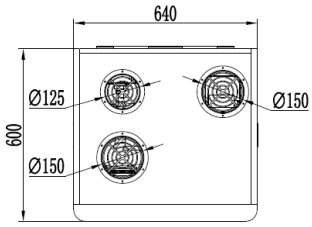
R290
REFRIGERANT

NZEB
COMPLIANT

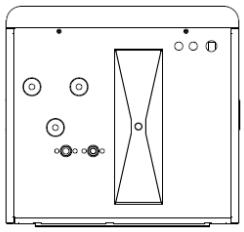
TÜV SÜD



FRONT VIEW



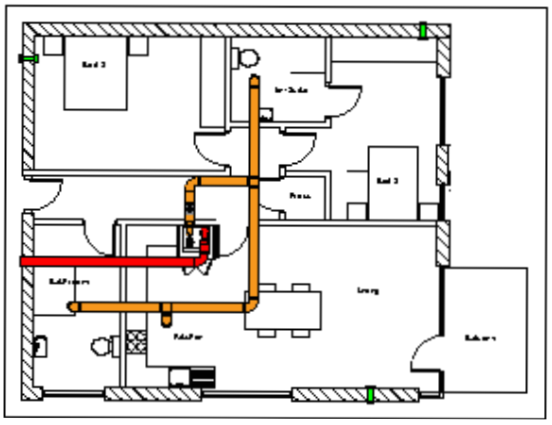
PLAN VIEW



UNDERSIDE VIEW

MODEL	WEIGHT (KG)	DIMENSIONS (MM)	POWER SUPPLY
EVAir F50	69	500H x 640W x 600D	230V / 50Hz

OVERVIEW OF EXHAUST AIR SCENARIO



When used as an exhaust air heat pump where there is only one duct allowed in the design, it is very important that the airflow and compressor settings are set correctly to avoid over ventilation, discomfort and excess heat loss.

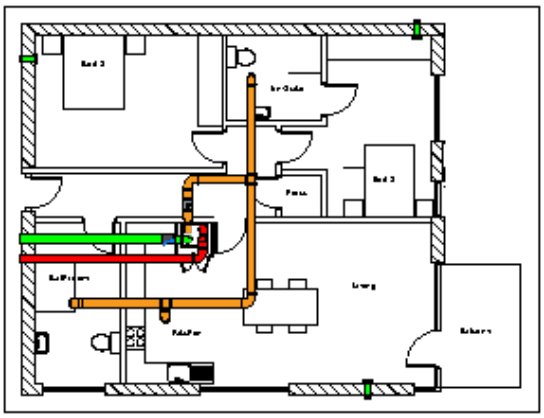
The EVAir F50 has been tested to the correct standard (A20/12) across 5 different airflows that suits the Part F ventilation rates. The 5 airflows are 90/m3/hr, 115m3/hr, 150m3/hr, 190m3/hr and 350m3/hr.

The capacity and COP of the EVAir F50 have been optimised to fulfil the energy demand for all new buildings to the current building regulations without the requirement to engage an electric resistive element for space heating back up.

Ventilation compliance is achieved on both trickle and boost rates by setting the variable fan speed. The minimum boost rates are controlled by an automatic humidistat.

The DHW cylinder can be placed under the EVAir F50 and can be installed in spaces approx 800mm X 800mm.

OVERVIEW OF MIXED AIR FLOW



The EVAir F50 can be used as a mixed airflow heat pump where there would be an additional fresh air duct allowed for in the design.

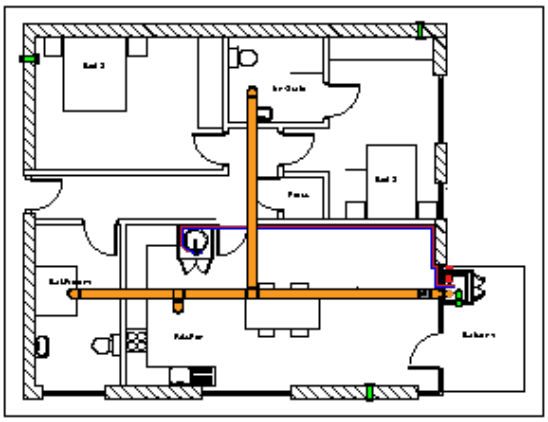
This will allow the EVAir F50 to operate with higher airflows and higher heating capacities while maintaining the Part F ventilation rates.

A configuration of a mechanical damper on the fresh air intake duct and a volume control damper on the extract duct ensures no over ventilation, discomfort or excess heat loss occurs in the property while using a combination of internal exhaust air and external fresh air.

Ventilation compliance is achieved on both trickle and boost rates by setting the variable fan speed. The minimum boost rates are controlled by an automatic humidistat.

The DHW cylinder can be placed under the EVAir F50 and can be installed in spaces approx 800mm X 800mm.

OVERVIEW OF AIR SOURCE HEAT PUMP



The EVAir F50 has the capability to be used as an air source heat pump where space or safety concerns for heat pumps on balconies are an issue.

The unit can be wall hung on a balcony outside with the exhaust ducting vented outside the optional enclosure. The flow and return pipework can be brought from the DHW cylinder out through the property and connected into the EVAir F50.

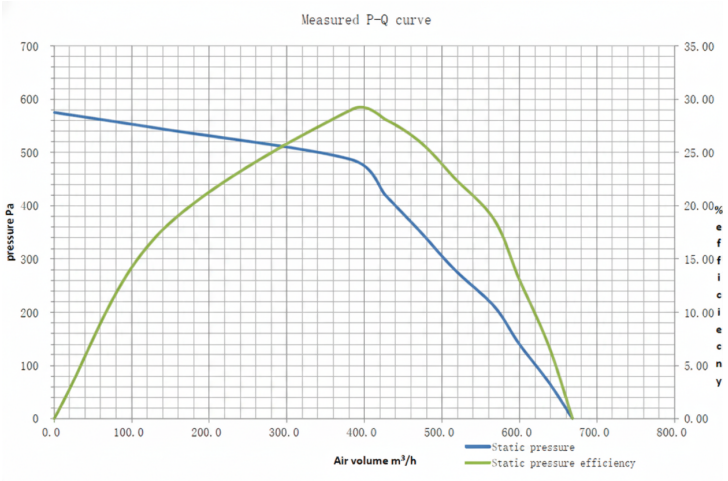
The EVAir F50 can also be installed indoors and used as an indoor air source heat pump where 2 ducts are fitted to the external leaf.

The ventilation function can also be used utilising volume control dampers to ensure Part F rates are maintained. The DHW cylinder can be located in a sperate location/plant room away from the EVAir F50

TECHNICAL TABLE

REFRIGERANT	R290
FAN TYPE	EC VARIABLE SPEED
COMPRESSOR TYPE	GMCC INVERTER
MAX HEATING CAPACITY (DHW+ IMMERSION)	8 KW
MAX HEATING CAPACITY (HEATING +OPTIONAL FLOW HEATER)	5 KW + 3KW
DUCT SIZES	EXTRACT – 125 MM SUPPLY & EXHAUST – 150 MM
VENTILATION	CMEV
CONTROLLER	LCD TOUCHSCREEN
WIFI + 4G	BUILT-IN
REMOTE SERVICE LOGIN	BUILT-IN
APP	AVAILABLE
ENERGY MONITORING	BUILT-IN
MOUNTING TYPE	WALL
COLOUR	WHITE – RAL 9010
VOLTAGE	230V / 50HZ
MAX CURRENT	18 A

FAN PERFORMANCE CURVE



HEAT PUMP PERFORMANCE

