

Caloris - vertical



Data Sheet

Colt-Caloris combines all the advantages of VRF and heat pump technologies, with a safe, highly efficient water based system. Colt-Caloris is an ideal alternative to both conventional air conditioning and reverse cycle heat pump systems.

The Colt-Caloris Vertical Model is most suited to where no ceiling void is available, such as a reception area, staircase, or in an office or corridor. It can be positioned underneath windows owing to its low height of less than 500mm. This unit is completely self contained and incorporates an integral grille and control unit for simple installation and occupier usage.

Colt-Caloris consists of a series of heat pumps and generally a central external heat pump which are all connected together by a neutral water loop. Using water as the heat source eliminates the need for any refrigerant to be piped around the building, and permits installation in buildings of any size or shape since there are no limitations on water pipe length.

With refurbishment projects installation is simple, particularly when replacing existing heating systems. Simply replace existing radiators with Caloris units, utilising the existing flow and return pipework. Central heat pump units can be omitted completely if a separate heat injection source such as a boiler and a heat rejection source such as a cooling tower are provided instead. The system offers individual or zone control. It has been designed with simplicity of installation in mind, and since it emits low noise it is particularly suitable for hotels and offices.



Colt-Caloris has many advantages over conventional air conditioning systems, including:

- Attractive modern appearance with low height and width construction.
- It provides fully independent local climate control of the internal space – can both heat and cool the building.
- The system can be so configured that units cool down the internal space on the warmer part of the building, and transfer the heat to units on the cooler side of the building.
- There are no limitations on water pipe length.
- Its decentralised configuration means that the system can be easily modified to suit future alterations to the building.
- There is no refrigerant needed to be circulated between the heat pumps.
- The pipework requires no insulation thus a reduction in installation costs.



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	Size 1	Size 2	Size 3
Application	Hotel/Office	Hotel/Office	Office

Cooling Performance @ 25 °C, RH 50%, water 20/26 °C

Cooling Capacity	1703 W	2230 W	3360 W
Compressor Power Input	450 W	442 W	572 W
COP Compressor Input Only	3.78	5.05	6.40
Unit COP (according to EN 255-2)	3.40	4.21	5.55

Air Side Heat Exchanger

Model / Type	3/8" Curved Cu - tube with shaped aluminium fins		
Air Qty (Sleep)	250 m³/h 70 l/s	250 m³/h 70 l/s	342 m³/h 95 l/s
Air Qty (Standard)	340 m³/h 95 l/s	340 m³/h 95 l/s	670 m³/h 186 l/s
Air Qty (Turbo)	500 m³/h 140 l/s	650 m³/h 180 l/s	972 m³/h 270 l/s
Standard Static Pressure	0 Pa	0 Pa	0 Pa
Maximum Static Pressure	10 Pa	10 Pa	10 Pa
Operating Temp	15 - 30 °C	15 - 30 °C	15 - 30 °C

Noise Data (cooling mode at standard power)

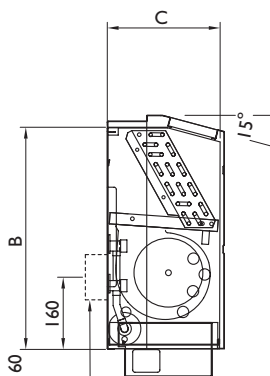
Sound Power (Lw)	50.5 dB (A)	49 dB (A)	50 dB (A)
Typical LpA*	39 - 44.5 dB (A)	38 - 42 dB (A)	41.5 - 45 dB (A)
Typical NR*	33 - 38	35 - 41	39 - 43

Dimensions & Weights

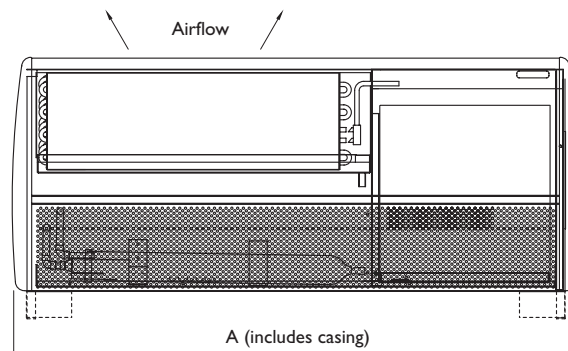
Length A	1025 / 967	1250 / 1192	1375 / 1317
Height B	519 / 491	519 / 491	519 / 491
Width C	259 / 249	259 / 249	259 / 249
Weight	61 / 55	70 / 63	82 / 74

with casing / without casing

* The exact sound pressure values will depend upon environmental conditions in the space. Sound power levels are based on measurements taken in a fully reverberant acoustic chamber. Capacities have been measured in accordance with EN 14511.



Rear optional fresh air intake 100 mm



A (includes casing)

	Size 1	Size 2	Size 3
Application	Hotel/Office	Office	Office

Heating Performance @ 20 °C, water 20/15 °C

Heating Capacity	2230 W	2350 W	3370 W
Compressor Power Input	600 W	543 W	696 W
COP Compressor Input Only	3.72	4.33	4.84
Unit COP (according to EN 255-2)	3.53	3.72	4.29

Water Side Heat Exchanger

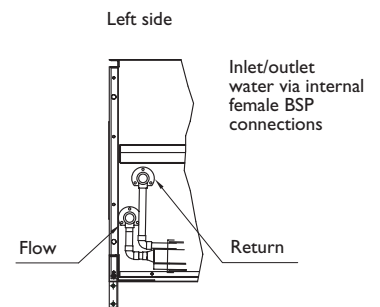
Model / Type	Finned and grooved spiral shell-in-tube		
Water Connections	15mm	15mm	15mm
Water - Nominal Flow	0.100 l/s 6.0 l/min	0.106 l/s 6.4 l/min	0.133 l/s 8.0 l/min
Waterside - Differential Pressure	1.3 kPa	1.5 kPa	2.0 kPa
Waterside - Max Pressure	10 bar	10 bar	10 bar
Water Capacity	2.0 L	2.4 L	2.8 L
Operating Temp	12 - 30 °C	12 - 30 °C	12 - 30 °C

Heat Pump

Compressor Type	Low noise cradle hermetic horizontal rotary		
CFC - Free Refrigerant	R407C	R407C	R410A
Refrigerant Quantity	0.49 kg	0.79 kg	1.10 kg

Electrical Data

Power Supply (V / ph / Hz)	230/1/50	230/1/50	230/1/50
Total Absorbed Power @ 30°C	0.7 kW	0.7 kW	0.8 kW
Nominal Current Compressor/Fan	2.9 / 0.25 A	2.8 / 0.4 A	3.4 / 0.5 A
Max Starting Current	16 A	16 A	16 A
Minimum External/Internal Fuse	10 A	10 A	10 A
Max No. Units off 13 Amp Supply	3	3	2



Left side

Inlet/outlet water via internal female BSP connections