



The INDOOR Air Conditioning People

**Meets ASHRAE 90.1 Efficiency Levels
(13 SEER < 65 MBH / 11.2 EER > 65 MBH)**



R-410a
Refrigerant

- Horizontal Self-Contained or Split Systems
- 2 to 8 Tons
- Air-Cooled
- Water-Cooled
- Heat Pump (Air- or Water-Source)
- Chilled Water Air Handler



www.unitedcoolair.com

Ultra-Flexible Split-able Indoor Air Conditioning Systems

United CoolAir has set the standards for these units since 1988. The next generation C13 –Series is one of the most versatile horizontal indoor air conditioning systems available today! Roofs on buildings have gotten to be very crowded places for equipment. The INDOOR use of the C13-Series provide many freedoms and benefits. Sloped roofs, those with “living roofs” and the general appearance of structures can be improved with the use of an indoor air conditioner. There is no roof loading to contend with and also no vandalism or storm issues.

Flexibility and Efficiency

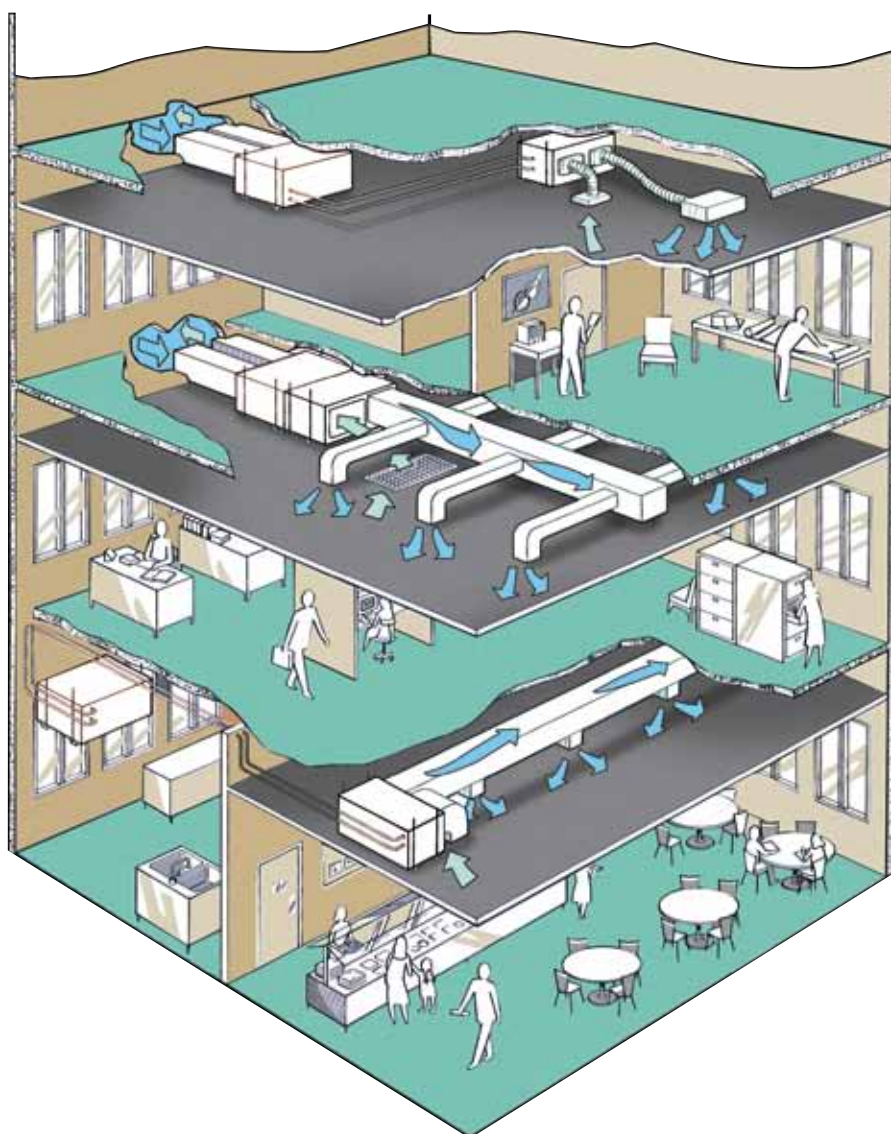
Flexibility and efficiency are paramount in today’s buildings. The C13-series can be installed as a single packaged system or they can be split. The units can be ceiling mounted or slab mounted. Being able to tailor the units with a wide range of options and different air path configurations provide additional installation flexibility. The heat of rejection can be accomplished with air or water as the transfer medium. The ability to split the units, either for installation or simply to move the unit into location, are assets that are extremely beneficial for historical sites and for renovation or replacement projects.

The system efficiency has been elevated to the current industry requirements. Premium efficiency motors are coupled with field-adjustable belt drive blowers to help “tune” the unit installation. Draw-through air flow for the coils helps to optimize the heat transfer ability of the coils. Scroll compressor technology, time proven off the shelf components and R-410a refrigerant provide dependable operation.

Applications

- Offices
- Retail Spaces
- Schools
- Industrial
- Areas separate from main locations
- Add-ons
- Electrical equipment rooms
- Limited access areas
- Renovations
- Replacements
- Historic Sites

Refrigerant Line Lengths Up To 250 Equivalent Feet*



** Contact your local representative for requirements and limitations.*

C13-Series Horizontal



- **Air-Cooled**
- **Water-Cooled**
- **Chilled Water Air Handler**
- **Heat Pump (Air- or Water-Source)**



The C13 Series Horizontal air conditioner is designed as a flexible ducted indoor air conditioning system for commercial cooling applications. It is available in three cabinet sizes with capacities from 2 – 8 tons. An indoor condensing section is standard along with multiple air path configurations. Units are manufactured using readily available components, simplifying lifetime maintenance. Other quality features include filter driers, sight glasses and stainless steel evaporator drain pan, now double sloped for positive condensate removal. The split-able design minimizes ductwork by allowing the condensing section installation away from the evaporator (close to an outside wall, air shaft or any location suitable for heat rejection) without the loss of factory charge.

	Tons	2	3	4	5	6	8
Air-Cooled	SEER	14.5	13.5	14.3	13	---	---
	EER	---	---	---	---	13	12
Total (a)	BTUH	24,490	36,920	46,280	58,620	75,840	90,395
Sensible (a)	BTUH	17,460	26,650	34,560	42,550	55,290	67,690
COP (Air-Air Heat Pump)		3.7	3.5	4.0	3.8	3.9	3.7
Heating Capacity	47 DB / 43 WB	23,410	34,200	42,760	57,800	72,055	84,740
	17 DB / 15 WB	14,940	22,650	27,635	37,345	44,845	55,682
Condenser Air	CFM	1600	2000	2500	2900	4000	5200
	Std. ESP	0.25					
Evaporator Supply Air (Air- or Water-Cooled)	CFM	800	1200	1600	2000	2400	3200
	Std. ESP	0.25					
Water-Cooled	EER	16.7	16.3	18.1	16.6	16.8	17.3
Total (a)	BTUH	25,210	37,910	48,350	61,675	78,260	94,535
Sensible (a)	BTUH	17,800	27,030	35,465	43,785	56,440	69,335
COP (Water-Air Heat Pump)		4.7	5.1	5.3	4.9	5.1	5.1
Heating Capacity		28,880	44,500	54,665	71,700	89,130	108,845
Estimated Weights	Air-Cooled	725	730	1,055	1,075	1,575	1,610
	Water-Cooled	580	590	860	885	1,190	1,260
Dimensions (Inches) (e)	Length (c)	55		61		70-1/2	
	Length	83		91		113-1/2	
	Width (d)	59		67		73-1/2	
	Height	23-1/8		26-1/8		33-1/8	
Available Voltages	208/230-1-60	•	•	•	•	•	•
	208/230-3-60	•	•	•	•	•	•
	460-3-60	•	•	•	•	•	•

(a) Capacities are gross values and are not adjusted for motor heat. Units rated using standards 210/240 and 340/360.

(b) Net Operating weight is for basic unit only. Options will add weight.

(c) Length is for basic water-cooled unit. Actual length may be more dependent upon options selected.

(d) Allow 36" clearance on each side.

(e) Refer to United CoolAir web site at www.untedcoolair.com for specific unit detail drawings.

C13-Series Features

Cabinet

Cabinets include galvanized steel construction with a double-sloped stainless steel drain pan in the evaporator section. Unit is mounted on channels to accommodate hanging rods for ceiling/slab floor mounting.

Evaporator and Condenser

Oversized coils for low pressure drop and reliability using draw through airflow design for optimal coil performance.

Motors and Blowers

Blower motors are premium efficiency with ball bearing construction with keyed shafts and pulleys. Variable pitch sheave design provides flexibility in external static pressure requirements. The unit motors have a rigid base and are mounted on adjustable motor mounts.

Refrigeration Circuits

Units include scroll compressors and adjustable expansion valves with external equalizers, sightglass/moisture indicators and filter driers.

Electrical

Independent electrical control panels in the evaporator and condensing sections allow independent wiring when field split (single power supply only for non-split packaged units). Separate oversized transformers eliminate low voltage control problems over long splits. All compressors are protected by high and low pressure controls in the circuit, and an air switch on the evaporator blower provides added safety when electric heat is included. Each individual component has its own contactor.

Multi-Stage Operation

Reduces power consumption when full tonnage is not required. Available on 6 and 8 ton units (two compressors).

Serviceability

Removable side panels enhance serviceability, installation and inspection without the need of lowering and inspecting the unit. Schrader valves are provided in the condensing section for field testing.

Partial List of Options

- Painted Cabinet
- Electric Heat
- Condensate Pump (externally mounted)
- Upgraded Motors, Evaporator or Condenser
- Flooded Condenser (Down to -30°F)
- Hot Gas Bypass
- VFD for Low Ambient
- MagnaCool Package (Humidifier, Reheat and Microprocessor Controls)
- Electrofin Coil Coating
- Suction Line Accumulator
- Liquid Receivers
- Economizer (Air or Water)
- Double Wall
- Auxiliary Coils (Steam, Hot Water or Chilled Water)
- Hot Gas Reheat
- Head Pressure Control Valves (water-cooled units)

Let United CoolAir Configure a Unit For You!

FACTORY TESTED - Each unit is functionally run-tested to verify control and component operation.

LIMITED WARRANTY - United CoolAir units are backed by a 1 (one) year limited warranty on parts and a 5 (five) year limited warranty on the compressor (labor not included). Maintenance items such as filters and belts are excluded under this limited warranty.



The INDOOR Air Conditioning People



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