

The Unico System®

M SERIES MODULAR AIR CONDITIONING AND HEAT PUMP FAN/COIL UNITS

For space-saving installations

The innovative Unico System allows central air conditioning and heating installation in applications where the highest comfort is the goal. The Unico System uses a specially designed indoor fan-coil unit matched to a conventional outdoor condensing unit or heat pump. The fan-coil unit distributes air through a system of small ducts with small jets discharging the air into the room. This provides quiet, uniform, and predictable air mixing and performance. The branch ducts, which are 2-inch (50 mm) or 2.5 inch (63 mm) inside diameter, are factory-insulated with gasket connections. The branch ducts are flexible and can be run over or around structural obstacles or through existing walls and closets where conventional duct will not fit. The main duct (plenum) is one-fourth the size of a conventional duct and is easier to seal and has less thermal losses. Older buildings can be air conditioned and heated with a Unico System without major renovations or sacrifice of space. Newer buildings, custom homes, and commercial applications will benefit from the tighter, smaller, and more efficient duct system that provides an affordable path to achieving an energy efficient building. Recommended for affordable LEED platinum certified homes.



The modular series Unico fan/coil units are for cooling and/or heating applications. They are available in four model sizes ranging between 1.5 and 5.0 nominal tons cooling and 20,000 to 100,000 Btu/h heating using the hot water coil. The unit is modular in construction to accommodate the widest range of options and configurations. The modules easily clamp together and are light enough for one person to install. They can be arranged in a horizontal, upflow, or downflow configuration. There are three basic modules: a cooling module (refrigerant or chilled water coil), a heating module (with hot water coil), and a blower module (with controls). The unit may be matched with most conventional condensing units or heat pumps of proper capacity. An optional multi-staged electric duct heater, up to 20 kW, mounts to the discharge of the blower to provide the most compact installation.

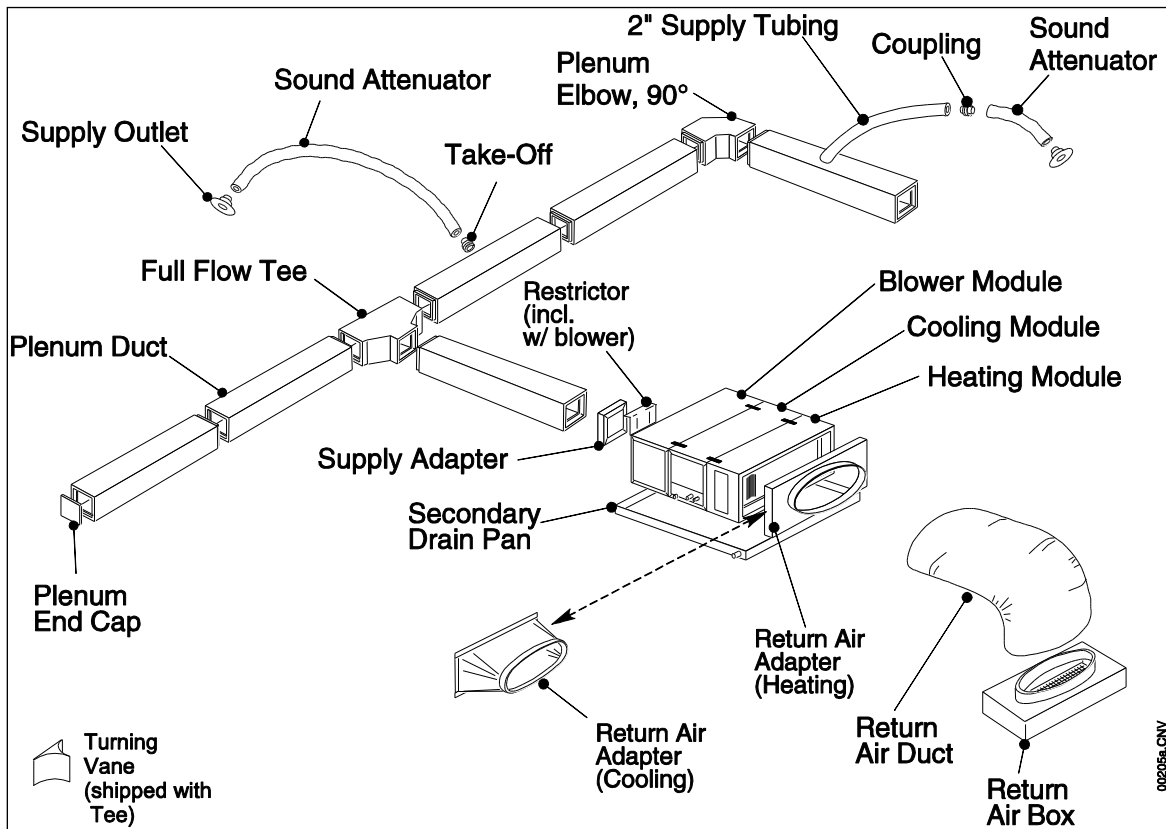


Cabinet construction is galvanized steel and fully insulated. The Unico System cooling module uses a thick copper tube/aluminum fin coil that produces superior moisture removal compared to a more conventional system. It comes standard with a corrosion resistant primary drain pan. The refrigerant coil module includes a thermostatic expansion valve and freeze protection controls for proper operation and to prevent icing. Water coils are equipped with a drain and a vent valve.

The blower module is available with a single or variable speed motor with direct-drive blower wheel. Single speed motors includes simple controls and are available only for 208-230V, single phase power. The variable speed motor includes the S.M.A.R.T. control board and is available for use with either 208-230 volt or 120 volt single phase power. The ducts, secondary drain pans, connectors, and fittings are ordered separately according to individual job requirements. Supply air outlets are available with a round or rectangular opening and with trim plates made of plastic (standard) or wide variety of wood species.

NOTE: The Unico System operates at a higher static pressure than conventional duct systems and has unique design and layout requirements for proper air distribution. It is important that the manufacturer's installation instructions be followed exactly to achieve maximum effectiveness.

Typical System (square main duct for illustrative purposes only)



Consult full catalog for exact model numbers.

BLOWER MODULE – 120 or 208/230 VOLT, 60 HZ, 1 PH (includes control box)

MFR. NO.	MOTOR		CFM @ 1.5" E.S.P.	DIMENSIONS H x W x D	SHIP WT. (LBS)
	HP	RPM			
M2430BL1-*	½	1700	600	17.5 x 25 x 13.75	62
M3036BL1-*	1	1700	800	17.5 x 30 x 13.75	72
M3642BL1-*	1	1700	1000	17.5 x 38 x 13.75	72
M4860BL1-*	1	1700	1250	17.5 x 38 x 13.75	85

* ST2=single speed 208-230V, EC1=variable speed 120V, EC2=variable speed 208-230V

COOLING COIL MODULE (air-conditioning or heat pump applications)

MFR. NO.	REFRIGERANT COIL**		CHILLED WATER COIL		DIMENSIONS H x W x D	SHIP WT. (LBS)
	OUTDOOR UNIT (TONS)		MFR. NO.	CAPACITY, BTUH		
M2430CL1-*	2 to 2½		M2430CL1-C	37,900	17.5 x 25 x 13.75	62
M3036CL1-*	2½ to 3		M3036CL1-C	54,600	17.5 x 30 x 13.75	78
M3642CL1-*	3 to 4		M3642CL1-C	54,600	17.5 x 38 x 13.75	78
M4860CL1-*	4 to 5		M4860CL1-C	69,000	17.5 x 38 x 24.00	90

* B or E style.

** Consult AHRI directory to select outdoor unit and for capacity and efficiency

HEATING COIL MODULE (includes hot water coil)

MFR. NO.	MAX CAPACITY, BTU/HR		DIMENSIONS H x W x D	SHIP WT. (LBS)
	120°F WATER	160°F WATER		
M2430CL1-H	27,700	50,100	17.5 x 25 x 12	20
M3036CL1-H	33,100	59,900	17.5 x 30 x 12	27
M3642CL1-H	45,200	81,800	17.5 x 38 x 12	27
M4860CL1-H	54,100	95,200	17.5 x 38 x 12	27