



LPCP

Chilled Water Air Handling Units

1,000-25,000 CFM

LPCP Series 50 Hz

TRANE
TECHNOLOGIES

TT Air Engineering



Feature and Benfit

Economical design to suite for commercial application

The fully assembled LPCP air handler offers a large selection of configuration to meet a wide range of cooling and ventilating requirements. LPCP is ideally Hitablishments.

High efficiency performance

Trane engineered fan and heat transfer system provides maximum cooling and airflow while minimizing vibration, acoustic level and power consumption.

Complete product selection program

LPCP is furnished with complete product selection program to ease the product selection process and also generates performance data in professional format for project submission.

Minimum instal ation cost

The modular casing concept creates an easy way for installation, which will help to minimize field labor cost.

Suitable for retrofit, renovation and replacement

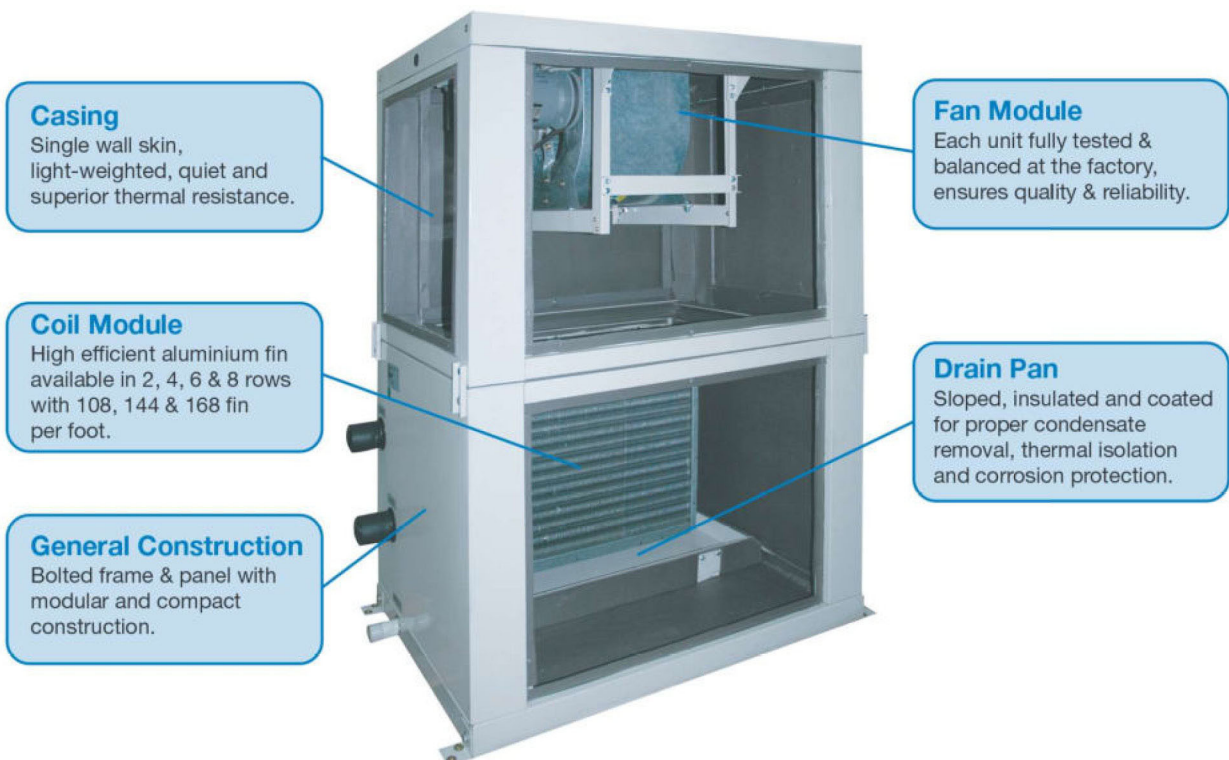
LPCP is designed to have compact casing to suite the need for retrofit, renovation and replacement market. Small footprint also ensures economical use of building space.

Excellent condensate management

Sloping drainpan allows for total condensate removal. A unique feature developed to prevent stagnant water in air handling unit.

Sturdy construction

LPCP is sturdily constructed based on a specially designed rigid frame and reinforcement. This means modules can be stacked in a vertical air handler configuration, but also allows removal of panel for unlimited access.



LPCP Quick Select Guide

The LPCP air handling unit is easy to select by using quick selection guide table below.

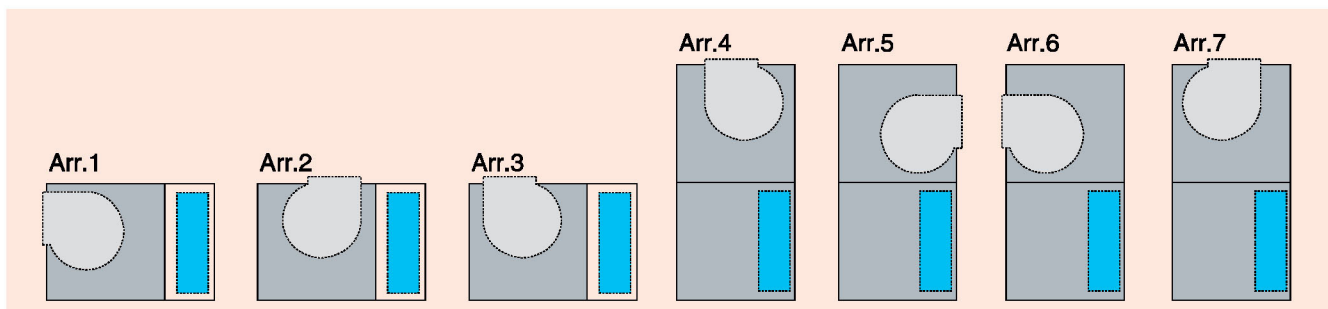
LPCP QUICK SELECTION GUIDE

Unit Model	Coil Face Area	Air flow at 500 fpm	Total Cooling Capacity		External Static Pressure	Dimensions				Shipping Weight	Water Pressure Drop	Water Flow Rate	Water Inlet / Outlet Connection Size
						Unit	L	W	H				
Unit Size	ft ²	cfm	MBH	Tons	in.wg.	Arr.	mm	mm	mm	kg	ft.wg.	GPM	Inch
LPCP02	2.08	1,040	33.3	2.8	1.2	HDT VDT	866 508	870	508 1,016	133 137	1.2	6.6	1 1/2
LPCP03	3.00	1,500	47.1	3.9	1.2	HDT VDT	1,031 674	810	673 1,348	136 171	0.8	9.4	1 1/2
LPCP04	4.00	2,000	66.1	5.5	1.2	HDT VDT	1,031 674	990	673 1,348	185 192	2.1	13.2	1 1/2
LPCP06	5.99	2,995	102.2	8.5	1.2	HDT VDT	1,133 774	1,135	775 1,548	253 269	3.7	20.4	1 1/2
LPCP08	8.00	4,000	106.4	8.9	1.2	HDT VDT	1,133 774	1,430	775 1,548	311 335	1.4	21.3	2
LPCP10	10.00	5,000	138.3	11.5	1.2	HDT VDT	1,220 720	1,500	963 1,924	372 412	1.5	27.7	2
LPCP12	11.67	5,835	162.5	13.5	1.2	HDT VDT	1,220 720	1,500	1,095 2,190	449 486	1.5	32.5	2
LPCP14	13.61	6,805	205.5	17.1	1.2	HDT VDT	1,220 720	1,700	1,095 2,280	487 526	2.5	41.1	2
LPCP17	16.53	8,265	267.5	22.3	1.2	HDT VDT	1,300 800	2,007	1,140 2,280	577 627	4.6	53.5	2 1/2
LPCP21	20.42	10,210	348.0	29.0	2.0	HDT VDT	1,300 800	2,413	1,140 2,280	672 722	8.5	69.6	2 1/2
LPCP25	25.00	12,500	440.9	36.7	2.0	HDT VDT	1,549 850	2,770	1,130 2,260	834 895	12.3	88.2	2 1/2
LPCP31	30.00	15,000	521.6	43.5	2.0	HDT VDT	1,580 880	2,770	1,350 2,700	1,016 1,030	11.5	104.3	2 1/2
LPCP35	35.00	17,500	610.5	50.9	2.0	HDT VDT	1,700 1,000	2,770	1,514 2,845	1,119 1,182	11.8	122.1	2 1/2
LPCP40	40.00	20,000	701.3	58.4	2.0	HDT VDT	1,700 1,000	2,770	1,704 3,034	1,220 1,284	12.9	140.3	2 1/2
LPCP45	45.40	22,500	829.6	69.1	2.0	HDT VDT	2,500 -	2,770	2,047 -	1,600 -	21.0	165.9	2 1/2
LPCP50	50.40	25,000	887.7	74.0	2.0	HDT VDT	2,500 -	2,770	2,207 -	1,727 -	12.5	177.5	2 1/2

NOTE:

- Above cooling capacities based on standard air flow rate and following conditions:
Chilled water temperature: Entering 45°F and Leaving 55°F.
Entering air condition: 80°FDB / 67°FWB.
- Above unit weight shall include forward curved fan section, 4 row 144 fin/foot cooling coil section (1/2" copper tube/aluminium fin), flat filter section (include media).
- LPCP02-06 are based on coils with turbulators.
- Product design and specification are subject to change without notice.

Fan Arrangement



Mechanical Specifications



Proportional Thermostat (Option)



TPICCV Valve (Option)



Trane Control Valve (Option)



AHU Starter Panel (Option)



Electric Heater (Option)



Drip Eliminator (Option)



Aluminium Filter (Option)



Synthetic Filter (Option)

Casing Construction

LPCP product line consists of horizontal and vertical configuration. Both configurations have the option of either horizontal or vertical discharge. All sections are insulated with Polyethylene foam insulation. Access panels are available on both sides of casing for fan and mixing box section (optional).

Fan Module

The vibration levels of the complete fan assembly (fan wheel, motor and drives assembled as a whole system) had checked and dynamically balanced in the factory as per ISO 1940.

Fan is double-width, double-inlet, and multiblade type. Fan is forward curved (FC) as required for stable operation, low noise and optimum energy efficiency. Fan had equipped with bearings with an L-50 life (average life) of 200,000 hours. The fan had designed in accordance to AMCA standard.

Motor is TEFC (Totally Enclosed Fan Cooled), 3-phase induction motor, 50 or 60 Hz, IP55 and class F insulation. Motor had mounted integral to a fan assembly furnished by the unit manufacturer. Motor had mounted inside the unit casing on a slide base to permit adjustment of drive belt tension.

Coil Module

All coils are highly efficient aluminum fins, which are mechanically bonded to 1/2 inch seamless copper tubing. Capacity, pressure drop and selection procedure had designed in accordance with ARI Standard 410. Coil casing is galvanized steel. Coils had leak tested at 380 psig. The header had constructed of round steel pipe with BSPT external threaded. All headers had fitted with air venting and water drainable plug.

Drain Pan

Coil had provided with an insulated galvanized sloping drain pan to allow for proper condensate removal. The galvanized drain pan is light gray powder-painted for corrosion protection.

Filter

Filters are available with 2 inch aluminium washable filter.

Option

Trane Proportional Thermostat monitors the adjustable control valve by 0-10 vdc signal, 15°C - 30°C temperature setting and connectable with the external sensor

“TPICCV” Trane Pressure Independent Characterized Control Valves ZOption - 5 Years Warranty combines a differential pressure regulator with a 2-way control valve which supplies a specific constant flow each degree of valve opening regard less of pressure variation in the system. Recommend to use with Trane Thermostat for precise temperature control.

Trane Control Valve controls the opening and closing of the pipe in the HVAC system for room temperature monitor. Recommend to use with Trane Thermostat for precise temperature control. *Control valve option cannot be factory installed inside unit. It will be provided separately.

Trane AHU Starter Panel particularly controls the HVAC system. Integrated with motor and compressor protection system, reliable according to UL/IEC/ NEMA standard and easy to install.

Mixing Section

The mixing sections are constructed of heavy gauge galvanized steel with two opposed blade dampers. A drive shaft is provided on the damper that can be used with an actuator.

Other options are also available as listed:

- Painted Casing
- Drip Eliminator
- Electric Heater
- Elastometric Close Cell Insulation
- Backward Curved fan
- 2 inch Synthetic Filter
- 2 inch Throwaway Filter
- 15 or 21 inch Bag Filter
- 4 or 12 inch cartridge Filter



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