



LPCP

Chilled Water Air Handling Units

1,000-25,000 CFM

LPCP Series 50 Hz

TRANE
TECHNOLOGIES





Feature and Benefit

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 suited for commercial buildings.

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 installation 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

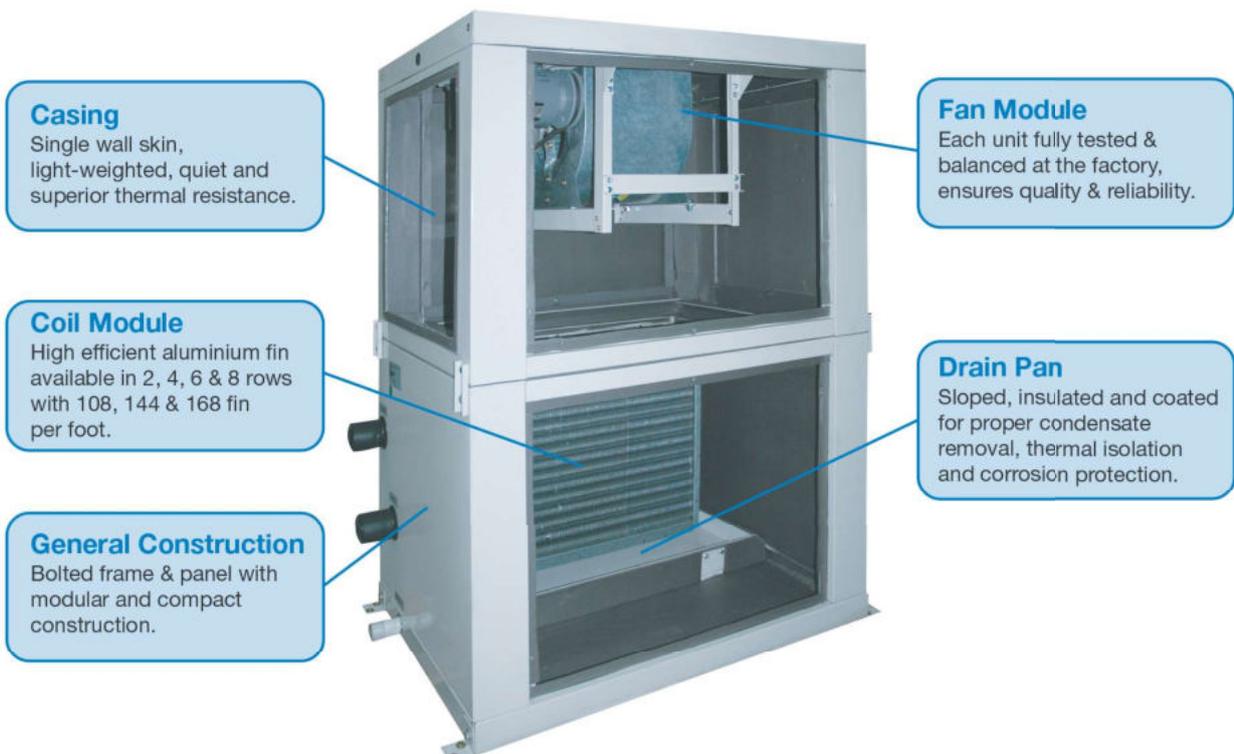
LPCP is designed to have compact casing to suite the need for retrofit, renovation and replacement market. Small footprint also ensures economical use of building space.

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.

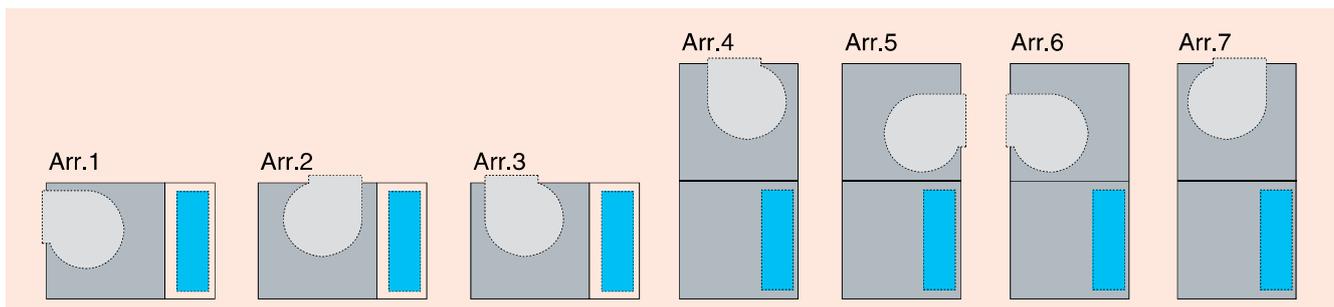
LPCP QUICK SELECTION GUIDE

| 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



เทรน (ประเทศไทย)

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