### **Single Room Solutions**

Single-Zone Systems

Home Comfort & Light Commercia			
(	VRF		
(	РТАС		





Art Cool™ Gallery



Art Cool™ Premier

Available in a variety of indoor unit styles

Multi V IV (Air Source)

Variable Refrigerant Flow (VRF)

Home Comfort & Light Commercial

PTAC

ENERGY STAR<sup>®</sup> Certified

Quick and easy to install

Attractive designs



Multi F, Multi-Room Solutions

Multi-Zone Systems

Home Comfort & Light Commercia

VRF

PTAC



Multi F MAX supports anywhere from 2 to 8 indoor units

### Multi V Water IV

Multi F MAX Outdoor Unit

Variable Refrigerant Flow (VRF)







Heat pump and heat recovery systems available Three phase power Energy-efficient up to 24.2 IEER Geothermal or tower cooled Low life cycle cost / high ROI LG central control or BMS integration System supports 6-48 nominal tons

**U**LG



Heat pump and heat recovery systems available Three phase power Energy-efficient up to 38.5 IEER Low life cycle cost / high ROI LG central control or BMS integration System supports 6-42 nominal tons







Low sound levels (as low as 17dB - Art Cool™ Premier sleep mode)

Powerful performance in cooling and heating: up to 27.5 SEER and 12.5 HSPF

High Static Ducted

Dual, tri, guad, and eight zone systems available Energy-efficient inverter operation: up to 22.0 SEER Space-saving indoor units

### PTAC

### Packaged Terminal Air Conditioner





Variable Refrigerant Flow (VRF)

Home Comfort & Light Commercial





Quiet operation

High energy efficiency

- Advanced features include Energy saver mode and Freeze protection
- Digital control display
- Dip switch setting for temperature limiting GoldFin<sup>™</sup> anti-corrosion protection treatment for condenser coil

### Multi V Space

#### Variable Refrigerant Flow (VRF)





Heat pump system available Single phase power Compact design, ideal for condo/tenant finish out

Mounts on external wall, maintenance access from inside LG central control or BMS integration

System supports up to 9 indoor units



Single phase power Compact design, ideal for residential and light commercial LG central control or BMS integration System supports from 1-9 indoor units 3, 4 and 4.4 nominal tons

### Multi V Indoor Units and Options

#### Variable Refrigerant Flow (VRF)



Floor Mounted Units and Ceiling High Static Ducted and Vertical/ Dedicated Outdoor Air Unit Mounted Cassettes Horizontal Air Handler





Air Handling Unit (AHU) Modules

Full range of ducted and non-ducted indoor unit styles for unrivaled design flexibility Extend VRF technology to exiting AHUs using the AHU Modules Several air technologies options for outside air including DOAS and ERV Ability to produce hot water by repurposing heat absorbed from the air (Hydro Kit) Available with a wide range of LG wired, wireless, central and BMS controls Includes the industry's only picture frame air conditioner, LG Art Cool™ Gallery

# LG Air Conditioning Systems

Product Portfolio





### Introduction

The LG Electronics USA Air Conditioning Systems business is based in Alpharetta, GA. A 2016 ENERGY STAR® Partner of the Year, LG is committed to be a sustainable and responsible organization and offers a full selection of systems that are a ENERGY STAR® rated for 2016, with many that are ENERGY STAR® Most Efficient 2016. LG is a leading player in the global air conditioning market, manufacturing both commercial and residential air conditioners and building management solutions. From consumer and individual units to industrial and specialized air conditioning systems, LG provides a wide range of products for heating, ventilating and air conditioning. For more information, please visit www.lghvac.com.

## **Solutions**

#### Home Comfort & Light Commercial

LG's home comfort and light commercial air conditioning systems are made up of two or more units: an outdoor unit and one or more indoor units that bring conditioned air to the room. Compact refrigerant lines run between the units, minimizing the need for bulky ductwork.



### Available in two configurations:

Single Zone Systems 3/4 - 3.5 tons

Multi Zone (Multi F) Systems Dual/Tri/Quad Zones (1.5 - 3 tons) Multi F Max - Up to 8 Zones (4 - 5 tons)

#### Benefits

#### Fast Installation

With little to no costly ductwork, these systems can be installed in a variety of applications.

#### **Quiet & Efficient Technology**

Choose one of many ENERGY STAR® qualified systems for more energy savings while enjoying personalized comfort that operates quietly and efficiently using inverter technology that allows the system to adjust with demand.

#### Room by Room Control

With individual controllers for each indoor unit, these systems offer more consistent temperatures and better room by room control for personalized comfort in all zones.

#### Improved Air Quality

3M<sup>™</sup> Micro protection filters reduce dust and microscopic particles including pollen, pet dander and odors and primary washable filters are anti-fungal.

#### Attractive Design

Make a personalized statement in any room with the exclusive LG Art Cool<sup>TM</sup> Gallery or choose from a variety of elegant looks to enhance any interior decor.

#### Powerful Performance Range

Select models provide powerful heating performance down to  $-13^{\circ}F$  and many models come standard with low ambient cooling abilities.

### VRF

A Variable Refrigerant Flow (VRF) System is a water source or air source air conditioning system comprised of an outdoor unit and multiple indoor units connected by refrigerant piping and little to no ductwork. The integrated controls allow system operation without the addition of an expensive building management system. VRF systems support flexible design options based on the building requirements.



# A VRF System is a single refrigerant circuit with:

One Outdoor Unit (ODU) 3 to 42 tons (Air-cooled) 3 to 48 tons (Water-cooled)

- Multiple Indoor Units (IDU)
- 5,000 to 96,000 Btu/h Varying Ducted and Nonducted Styles Available from 1-64 indoor units per system

#### Benefits

#### Enhanced Efficiency

Minimize Energy consumption and reduce energy losses with LG VRF systems.

#### Support New Construction or Renovations

Ideal for shell and core projects, minimize ductwork and reduce interstitial ceiling space requirements, lowering construction costs. Eliminate or reduce mechanical rooms and shafts to maximize usable square footage. Installation requirements are flexible and may allow for the use of existing ductwork for renovations.

#### Flexible Style and Design

With industry leading piping capabilities, LG VRF can adapt to a wide range of building applications. Outdoor units have smaller footprints for constrained roofs and are lighter weight to reduce costs for structural requirements. Choose from multiple indoor unit types to fit the demand and aesthetic look of each zone.

#### Independent Zone Control

Be comfortable everywhere – heat and cool only the zones in use and with heat recovery, heat and cool different areas simultaneously.

#### Sustainability

Engineered for sustainability, LG VRF provides opportunities to claim numerous LEED®EA-1 credits (location dependent).

#### Multi V<sup>™</sup> IV Air-Cooled System





Ideal for Space Constrained Roofs

Due to our policy of innovation, some specifications may be changed without notification LG Air Conditioning Systems products are ceritified by AHRI to AHRI Standard 210/240

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Only applies to certain models, please see unit specifications for details.

# Technology

## Innovation



Maximize your guests' comfort with LG's quiet PTAC air conditioners, while enjoying LG's 13.3 EER ratings when your electric bill comes.

PTAC



# Multiple capacity models available in Heat/Cool and Heat Pump

208-230V 7,500 – 15,000 Btu/h 265V 9,000 – 12,000 Btu/h

Benefits

#### Energy Efficient

LG PTAC models have efficiency ratings up to 13.3 EER, translating into energy savings.

#### **Quiet Operation**

The hallmark of LG's line of PTAC products is quiet operation, with indoor sound pressure levels down to 45dBA.

#### Gold Fin<sup>™</sup> Anti-Corrosion Protection

Gold Fin Anti-Corrosion Protection protects the condensing coil from the corrosive effects of outside air and extends the operating life with routine maintenance. The patented process is standard on all LG PTAC models.

#### Warranty and Service

LG provides local warranty support and service with LG technicians throughout the United States, giving you peace of mind that your investment is protected.

#### **Easy Installation**

The 42" wide industry standard size makes installation easy and economical, whether for new construction or replacement of existing units.

### School Building Energy Analysis

56%		
28%	Atlanta, GA	
56%		
22%	Chicago, IL	
75%		

C LG Multi Y DOAS vs. baseline DOAS<sup>2</sup>
Compared to the LED® baseline ASHRAE Standard 90.1-2007 System 4.

Compared to the LEED® baseline ASHRAE Standard 90.1-2007 packaged rooftop heat pump (PSZ-HP)

Case Study – ES-AD-001-US 013B21 – Trane Trace 700 model

2 Compared to the baseline DOAS; ASHRAE Standard 90.1 minimum efficiency Case Study – WP-EnergyEfficiencyAnalysis\_w\_LG-DOAS-4-15 – eQuest 3.65 model

#### Office Building Energy Analysis



### Energy Cost Savings (%)

41%

- Low Rise Office Building Multi V IV Heat Recovery vs. Packaged Rooftop Heat Pump<sup>1</sup>
   Multi-Story Research Office Building LG Multi V Water IV Heat Recovery vs. Packaged VAC with Reheat<sup>3</sup>
- 1 Compared to the LEED® baseline ASHRAE Standard 90.1-2007 System 4, packaged rooftop heat pump (PSZ-HP)
- Case Study VRF-WP-EL-001-US 013L13 Carrier HAP model
- 3 Compared to the LEED® baseline, ASHRAE STD 90.1 Sys 5: Packaged VAV with Reheat Case Study ES-MultiVWaterIV\_EnergyAnalysis-08-14 EnergyPro5.1

#### Markets / Application for LG HVAC Solutions

- Hospitality Hotels, Motels, Resorts
- Retail Stores, Shopping Centers
- Office Office Spaces

Education - K12, Universities, Dormitories

Health Care - Nursing Homes, Doctor's Office

Multi-family - Apartments, Condos, Assisted Living

Remote / Trouble Areas

Data Server Room, 24 hrs operation

Business Centers, Fitness Areas

Mechanical / Elevator Equipment Rooms

