

SPLIT ROOFTOP DOAS



ARND30UDBE4



LG Split Rooftop Dedicated Outdoor Air System (DOAS) units provide 100% outdoor air in heating, cooling and dehumidification modes. Working with LG VRF systems, the LG Split Rooftop DOAS unit provides a complementary system solution to condition code-required outdoor air.

Specifications		Unit	ARND30UDBE4 ^{1,3}	
Cooling Mode Performance	Capacity	Btu/h	200,000	
	Capacity	lb/h	105	
Heating Mode Performance	Capacity	Btu/h	135,000	
	Cooling Max	°F DB/WB	122 °F	
Entering Air	Heating Min	°F DB	5 °F	
	Refrigerant Type		R410A	
Unit Data	Refrigerant Control		EEV	
	Sound Power	dB(A)	75	
	Dimensions (W×H×D)	in	147-3/32 x 54-13/64 x 61-45/64	
	Net Unit Weight	lbs	2,326	
	Shipping Weight	lbs	2,348	
	Communication Cable ³	No. x AWG	4 x 18	
Fan	Type		3D Plug	
	Motor	(HP/RPM)	10 / 1,800	
	Motor/Drive		BLDC Direct	
	Airflow Rate	CFM	2,000 - 3,000	
	External Static Pressure	in wg	2.0	
Piping	Liquid Line (OD)	in	1/2 Brazed	
	High Pressure Vapor (OD)	in	3/4 Brazed	
	Low Pressure Vapor (OD)	in	1-1/8 Brazed	
Condensate	Condensate Line (OD)	in	1	
	MCA	A	24.8	13.3
Electrical Data	MOP	A	35	20
	Power Supply ²	V / Hz / Ø	208-230/60/3	460/60/3
Filter	Outdoor ⁴		2" Merv8 (4)(25"×25")	

Accessories

LG Rooftop DOAS units are highly customizable with many accessories available to meet your application needs. To design an LG Rooftop DOAS unit and determine which accessory models are appropriate, use the LG CAPS (Computer-Aided Product Selection) software available through myLGHVAC.com.

1. Corrosion coating on all coils for 10,000 hrs. (Salt-Spray Test Method).
2. Voltages are selectable between 208, 230, or 460 volts (all 3ø).
3. Convertible Horizon/Vertical Duct Connection.
4. Field–Supplied 4 inch MERV 8, MERV 13, & MERV 14 filtration are optional.



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WHY DOAS?

The LG Dedicated Outdoor Air System (DOAS) includes the Rooftop DOAS option and conditions fresh outdoor air indoors, without sacrificing energy efficiency. This system is designed specifically for LG VRF systems and integrates seamlessly with LG VRF controls. It can be used in a variety of applications like schools, offices, retail stores, hotels, and multi-family housing.



ENERGY EFFICIENT

Double Heat Recovery

Designed with double heat recovery coil, the compressor load is reduced and less energy is used, which saves money.



COST EFFECTIVE

VRF, DOAS and Controls

The LG inverter compressor and double heat recovery coil effectively and vertically align VRF equipment, DOAS, and controls in the building.



ECO-FRIENDLY

Avoid Fossil Fuel

LG DOAS allows builders to avoid using precious fossil fuels that are either hard to obtain or banned in new construction.



EASY INSTALLS & CONTROL

Built-in HRUs

Built-in Heat Recovery Units require less installation labor. In addition, the controls are accessible remotely for an easier consumer experience.



FLEXIBLE

Seamless Integration

The Indoor split and Rooftop split DOAS are designed specifically for use with LG Multi V outdoor units and integrate seamlessly with LG VRF controls.

ROOFTOP DOAS



AR-DC**_**A
AR-DE**_**A
AR-DR**_**A



The LG Rooftop DOAS product line ranges from 3 to 70 Tons in cooling capacity and up to 18,000 CFM of airflow capacity. Rooftop DOAS units are highly configurable to meet any local design requirement such as heating options including indirect gas furnace with modulating gas controls, SCR controlled electric, or hot water coil options. Available with inverter scroll or digital scroll compressors, split systems, bottom or side discharge.

Cabinet Chassis Size	02	12 ¹	22 ¹	32	35
Model Numbers ^{1,2}	AR-DR02-03A AR-DR02-04A AR-DR02-05A AR-DR02-06A AR-DR02-07A	AR-DC12-05A AR-DC12-07A AR-DC12-10A AR-DC12-12A AR-DC12-15A AR-DE12-05A AR-DE12-07A AR-DE12-10A AR-DE12-12A AR-DE12-15A AR-DR12-05A AR-DR12-07A AR-DR12-10A AR-DR12-12A AR-DR12-15A	AR-DC22-15A AR-DC22-17A AR-DC22-20A AR-DC22-25A AR-DC22-30A AR-DE22-15A AR-DE22-17A AR-DE22-20A AR-DE22-25A AR-DE22-30A AR-DR22-15A AR-DR22-17A AR-DR22-20A AR-DR22-25A AR-DR22-30A	AR-DE32-25A AR-DE32-30A AR-DE32-40A AR-DE32-50A AR-DR32-25A AR-DR32-30A AR-DR32-40A AR-DR32-50A	AR-DC35-30A AR-DC35-40A AR-DC35-50A AR-DC35-60A AR-DC35-70A AR-DE35-30A AR-DE35-40A AR-DE35-50A AR-DE35-60A AR-DE35-70A AR-DR35-30A AR-DR35-40A AR-DR35-50A AR-DR35-60A AR-DR35-70A
Nominal Tons	3, 4, 5, 6, 7	5, 7.5, 10, 12.5, 15	15, 17.5, 20, 25, 30	25, 30, 40, 50	30, 40, 50, 60, 70
Airflow	Minimum (CFM)	500	800	2,250	3,900
	Maximum (CFM)	2,500	5,750	9,550	16,000
Cooling Components	Inverter Scroll	Standard	Standard	Standard	Standard
	Digital Scroll	Not Available	Not Available	Not Available	Not Available
	Modulating Hot Gas Reheat	Optional	Optional	Optional	Optional
Indirect Gas Furnace	Minimum (MBH)	75	100	300	600
	Maximum (MBH)	200	300	500	1,200
	Turndown	up to 16:1	up to 16:1	up to 16:1	up to 10:1
Electric Heat	Minimum (KW)	4	15	35	50
	Maximum (KW)	60	60	120	200
	SCR Modulation	Standard	Standard	Standard	Standard
Hot Water Heat	Not Available	Optional	Optional	Optional	Optional

Accessories

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1. AR-DR unit types include cooling and heating. AR-DE unit types include cooling, heating, and an ERV wheel. AR-DC unit type includes ERV (fiber or polymer).
2. Voltages are selectable between 208, 230, or 460 volts (all 3ø).
3. Air-Source Heat Pump option is available for the 12 and 22 DOAS cabinet chassis size, up to 30 Tons, with inverter compressors as standard.

About LG Electronics Air Conditioning Technologies

The LG Electronics USA Air Conditioning Technologies business is based in Alpharetta, Georgia. LG is a leading player in the global air conditioning market, manufacturing both commercial and residential air conditioners and providing total sustainability 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.

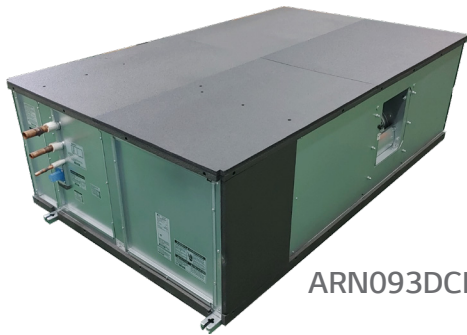
Visit www.lghvac.com for more information.

About LG Electronics U.S.A., Inc.

LG Electronics is a global innovator in technology and consumer electronics with a presence in almost every country and an international workforce of more than 75,000. LG's four companies – Home Appliance & Air Solution, Home Entertainment, Vehicle component Solutions and Business Solutions – combined for global sales of over USD 63 billion in 2021. LG is a leading manufacturer of consumer and commercial products ranging from TVs, home appliances, air solutions, monitors, service robots, automotive components and its premium LG SIGNATURE and intelligent LG ThinQ brands are familiar names world over.

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SPLIT COMPACT DOAS



ARN093DCR4



ARND153DCR4
ARND203DCR4



LG Split Compact Dedicated Outdoor Air System (DOAS) units provide 100% outdoor air in heating, cooling, and dehumidification modes. Working with LG VRF systems, the LG Split Compact DOAS unit optimizes energy savings and performance.

Specifications		Unit	ARND093DCR4	ARND153DCR4	ARND203DCR4 ⁴
Cooling Mode Performance	Capacity	Btu/h	70,000	120,000	143,100
Moisture Removal	Capacity	lb/h	33.0	55.0	67
Heating Mode Performance	Capacity	Btu/h	40,000	51,000	59,900
Entering Air	Cooling Max	*F DB/WB	122/78	122 / 78	122 / 78
	Heating Min	*F DB	14	(10)14 ⁴	14
	Refrigerant Type ¹		R410A	R410A	R410A
	Refrigerant Control		EEV	EEV	EEV
	Sound Power ²	dB(A)	60	75	72
Unit Data	Dimensions (WxHxD)	in	75 x 21-11/16 x 45	75 x 21-11/16 x 45	75 x 21-11/16 x 45
	Net Unit Weight	lbs	342	397	397
	Shipping Weight	lbs	381	437	437
	Communication Cable ³	No. x AWG	4 x 18	4 x 18	4 x 18
	Type		Sirrocco	3D Plug	3D Plug
Fan	Motor	(HP/W)	0.33 / 250	1 / 750	1 / 750
	Motor/Drive		ECM / Direct	ECM / Direct	ECM / Direct
	Airflow Rate ⁵	CFM	500 - 900	1,000 - 1,500	1,000 - 2,000
	External Static Pressure	in wg	1.0	2.0	1.5
	Liquid Line (OD)	in	3/8 Brazed	1/2 Brazed	1/2 Brazed
Piping	High Pressure Vapor (OD)	in	5/8 Brazed	7/8 Brazed	3/4 Brazed
	Low Pressure Vapor (OD)	in	3/4 Brazed	1-1/8 Brazed	1-1/8 Brazed
	Condensate	Condensate Line (OD)	in	1	1
Electrical Data	MCA	A	2.5	7.5	7.3
	MOP	A	15	15	15
	Power Supply	V / Hz / Ø	208-230/60/1	208-230/60/1	208-230/60/1
Filter	Outdoor		2" Merv 8 (25"x20")	2" Merv 8 (25" x 20")	2" Merv 8 (25" x 20")

Accessories

LG DOAS units are highly customizable with many accessories available to meet your application needs. To design an LG DOAS unit and determine which accessory models are appropriate, use the LG CAPS (Computer-Aided Product Selection) software available through myLGHVAC.com.

1. Take appropriate actions at the end of HVAC equipment life to recover, recycle, reclaim or destroy R410A refrigerant according to applicable regulations (40 CFR Part 82, Subpart F) under section 608 of CAA.
2. Sound power levels are tested under AHRI 260 Standard.
3. All communication cable to be minimum 18 AWG, 4-conductor; twisted, stranded, shielded and must comply with applicable local and national codes. Ensure the communication cable is properly grounded at the outdoor unit only. Do not ground the communication cable from the outdoor unit to the DOAS unit at any other point.
4. A maximum of (2) DOAS units connected to (1) ODU. A minimum 12 Ton ODU for (1) DOAS unit connection and minimum 30 Ton ODU for (2) DOAS unit connection.
5. Both ARND153DCR4 and ARND203DCR4 can be utilized for applications requiring CFM as low as 900CFM. A minimum 6-Ton unit or 8-Ton LG MV 5 HR unit is required based on the application.
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