

DEDICATED OUTDOOR AIR SYSTEM APPLICATION GUIDE

Manufacturer	Greenheck	Greenheck	UCA	UCA	LG	LG	LG	Innovent
Model	RV	RVE	Omega Air	Alpha Air	AR-DE	ARND	Multi-V HCA	C-Series
Airflow Range (CFM)	500-18,000	500-18,000	150-3000	100-500	800-18,000	1500,2000 ⁽³⁾	400-4,000	250-250,000
Nominal Capacity (Tons)	5-70 ⁽⁷⁾	5-70 ⁽⁷⁾	1-15	2.8 ⁽¹²⁾	5-70	10,12.5	5-25 ⁽¹⁴⁾	1-400 ⁽¹¹⁾
Packaged DX ⁽⁹⁾	Yes	Yes	Yes	Yes	Yes	No	No	Yes
Split System DX	Yes	Yes	Yes	No	No	Yes	Yes	Yes
Condenser Type ⁽²⁾	Remote CO	Remote CO	Remote CU	Integral DCU	Integral CU	Remote VRF CU	Remote VRF CU	Remote CU or CO
Modulating HGRH ⁽¹⁾	Yes	Yes	Yes	Yes ⁽¹³⁾	Yes	Yes	Yes	Yes
Digital Compressor	Yes	Yes	Yes	No	Yes	No	No	Yes
Inverter Compressor	Yes	Yes	No	No	Yes	Yes	Yes	Yes
Air Source Heat Pump	Yes	Yes	No	Yes ⁽¹³⁾	Yes	Yes	Yes	Yes
Electric Heat ⁽⁸⁾	Yes	Yes	Yes	No	Yes	No	Yes	Yes
Gas Heat ⁽¹⁰⁾	Yes	Yes	No	No	Yes	No	No	Yes
Energy Recovery	No	Yes	No	Dual Path ⁽¹³⁾	Yes	No	No	Yes ⁽⁴⁾
Cabinet Construction	2" DW	2" DW	2" DW	2" DW	2" DW	2" DW	2" DW	2", 4" DW
VFD or ECM Supply Fan	ECM	ECM	ECM	ECM	ECM	VFD	ECM	VFD
Controller ⁽⁵⁾	LCD MP	LCD MP	LCD MP	LCD MP	LCD MP	Touchscreen MP	Touchscreen MP	Multiple/Custom
BACnet Interface	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
LonWorks Interface	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Factory Mounted AFMS ⁽⁶⁾	Yes	Yes	No	No	Yes	No	No	Yes

- Hot Gas Re-Heat (HGRH); units with remote CO include factory piped HGRH with compressors indoor section reducing field piping cost and HGRH line losses; see refrigerant piping guidelines for line loss limits
- All models are air cooled; either condensing unit (CU) with compressor in outdoor section or condenser only (CO) with compressor in indoor section; DCU = ducted condenser
- LG ARND Available in two fixed sizes; max 4 indoor DOAS units per system, heat recovery only, combo ratio 50-110%; also available is 3,000 cfm split RTU with energy wheel model ARND30UDBE4
- Available in sensible or enthalpic plates, energy wheels, run-around coils or heat pipes
- Microprocessor (MP); factory programmed with embedded Web UI; BACnet MSTP or IP optional all models
- For options with yes, AFMS will be thermal dispersion type; for options with no, an optional field mounted packaged AFMS and Motorized damper may be added, Greenheck Model AM-23-TD
- ASHP range is 5-30 tons; chilled water cooling optional; partial re-circ available; up to 16:1 modulating gas heat turndown
- SCR modulating control; available for supplemental re-heat and with single point power
- Omega Air unit integral condenser is self contained indoor either air cooled or water cooled (ducted intake and exhaust)
- Omega Air and HCA units available with steam or hot water heating
- Innovent provides custom DX solutions in split or packaged systems with design flexibility to meet high demand/precision dehumidification applications and provide direct drop in replacement for any existing equipment by any manufacturer
- Capacity varies due to energy recovery conditions; rated capacity above is at 95/78 OA, 75/62 WB, 74/60 LAT @ 42% RH; see UCA specific psych chart and published data
- See Alpha Air airflow path diagram and datasheet
- Capacity is based on airflow limits of the MagicAire HCA AHU; expanded capacity and custom options available utilizing LG AHU Kits and York Solution Air Handlers; model HCA AHU includes optional factory mounted HEPA/Rigid filters, UV, anti-microbial inner
- Unit Cutsheets and Engineering are located here:



GREENHECK
QR CODE



LG
QR CODE



INNOVENT
QR CODE



UNITED COOL AIR
QR CODE

SELECTION GUIDE FOR ENERGY RECOVERY



PACKAGED VENTILATION SYSTEMS & MAKE-UP AIR

Binder Tab	Model	Energy Recovery		Heating Options					Cooling Options					Low Sound Condenser Fans	Blower Type			Performance		
		Energy Wheel	Energy Core	Hot Water	Indirect Gas	Electric	Wrap-Around Heat Pipe	Water Source Heat Pump	Chilled Water	Evaporative Cooling	Water Source Heat Pump	Split Direct Expansion (DX)	Packaged Direct Expansion (PDX)		Forward-Curved	Backward-Inclined	Airfoil Plenum	Minimum Volume (cfm)	Maximum Volume (cfm)	Maximum Static Pressure (in. wg)

ENERGY RECOVERY VENTILATORS

Pre-Conditioners	ERM	✓																	600	10,000	-
	MiniVent	✓													✓				150	850	1
	ERV	✓													✓				500	12,000	1.5
	ERVe	✓													✓				1,000	6,000	1
	MiniCore		✓												✓				300	1,000	1
With Cooling & Heating	ECV		✓												✓				500	5,000	1
	ERCH	✓		✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓				1,000	10,000	1.75
	ERT	✓		✓		✓	✓	✓	✓	✓	✓	✓	✓	✓		✓			2,000	10,000	1.75

PACKAGED VENTILATION SYSTEMS (DEDICATED OUTDOOR AIR SYSTEMS)

Packaged Ventilation Systems	RV			✓	✓	✓				✓								✓	800	18,000	3
	RVE	✓		✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	800	18,000	3



Binder Tab	Model	Airflow Options		Heating Options					Cooling Options					Low Sound Condenser Fans	Mounting Options		Blower Type			Combo Curb	Performance		
		Variable Air Volume	Recirculation	Direct Gas	Indirect Gas	Steam	Hot Water	Electric	None	Chilled Water	Evaporative Cooling	Split Direct Expansion (DX)	Packaged Direct		Indoor	Outdoor	Forward-Curved	Mixed Flow Plenum	Direct Drive Backward-Curved		Minimum Volume	Maximum Volume	Maximum Static Pressure (in. wg)

MAKE-UP AIR

Direct Gas-Fired	DG	✓		✓							✓				✓	✓	✓	✓	800	15,000	2
	DGX	✓	✓	✓					✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	800	48,000	4
	TSU	✓	✓	✓							✓			✓	✓	✓	✓	✓	33,000	64,000	3
	VSU	✓	✓	✓										✓	✓	✓	✓	✓	800	64,000	3
Indirect Gas-Fired	IGX	✓	✓		✓				✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	800	15,000	3
	KSFD														✓	✓	✓	✓	300	2,000	2.5
Coil Heating / No Heat	KSFB	✓													✓	✓	✓	✓	1,000	10,250	2.5
	MSF	✓													✓	✓	✓	✓	500	5,300	3
	MSX	✓	✓			✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	800	48,000	4
	TSF	✓													✓	✓	✓	✓	33,000	64,000	3



Selection Guide for Air Handlers and Fan Coils

Binder Tab	Model	Applications							Drive Type		Blower Type		Construction Options		Heating Options			Cooling Options		Filters			Performance		
		Schools	Office Buildings	Hospitals	Clean Rooms	High-end Residential	Conference Centers	Retrofit Project	Direct Drive	Belt Drive	Forward Curve	Backward Inclined	Low Profile Design	Modular Construction	Steam	Hot Water	Electric	Direct Expansion (DX)	Chilled Water	2-inch - 30% Efficient	4-inch - 65% Efficient	4-inch - 95% Efficient	Minimum Volume (cfm)	Maximum Volume (cfm)	Maximum Static Pressure (in. wg)

AIR HANDLERS AND FAN COILS

Air Handlers & Fan Coils	LFC	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	400	5,000	4.0
	MSCF	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	400	5,000	4.5
	VFCD	✓	✓			✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	400	4,000	1.5
	VFC	✓	✓			✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	400	4,000	3.3



LFC

MSCF

VFCD

VFC

Building Value in Air.