

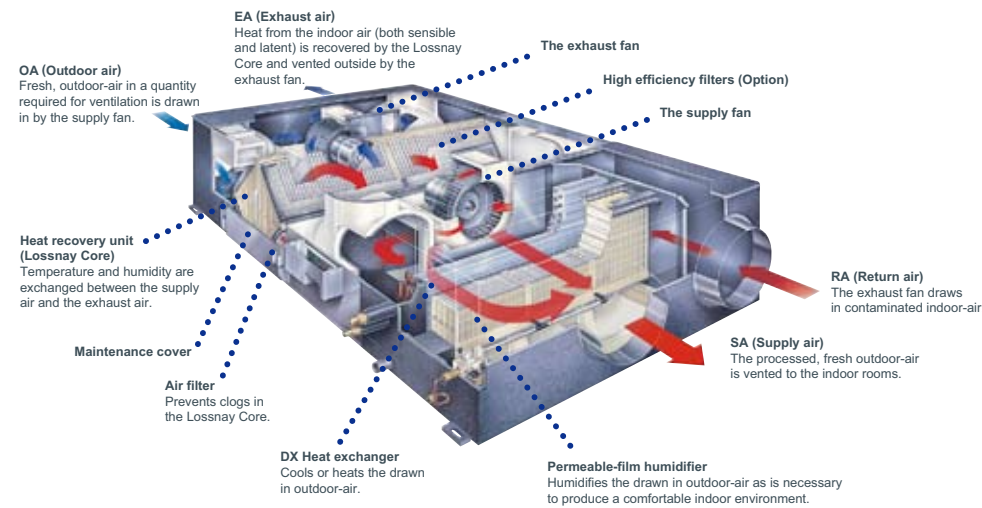
# OA Processing Units

## RDH3 Series



### Ideal Indoor-Air Quality — For Your Comfort and Health

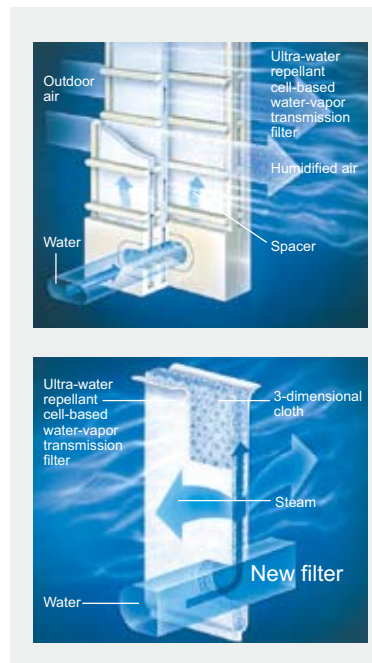
The OA (outdoor-air) Processing Unit creates an optimum indoor-air environment at an unparalleled rate of cost efficiency providing substantial energy savings. Forced air ventilating and humidifying functions unique to this system keep indoor-air fresh and free of contaminants preventing “sick building syndrome” and the spread of airborne viruses such as the flu. Another novel feature of the OA Processing Unit is the “Lossnay core,” a heat-exchange unit that functions to transfer heat efficiently, cutting ventilation load by as much as 70%. This special combination of functionality and performance designed to ensure users ample comfort and year-round health which cannot be found anywhere else on the market.



### New Permeable Film Humidifier (RDH3 model)

#### Comfortable Level of Humidity for Exceptionable Air Quality

The OA Processing Unit is equipped with a new permeable film humidifier developed and patented by Mitsubishi Electric. Steam transmission efficiency has been improved remarkably by lowering the resistance of the material. The use of a 3-layer film that allows only the transfer of steam prevents the production of white powder, so there is no need for the use of a water purifier.



#### Highly Efficient Humidification

Improvements in the system of airflow patterns and water injection techniques have resulted in a substantial increase in humidifying volume.

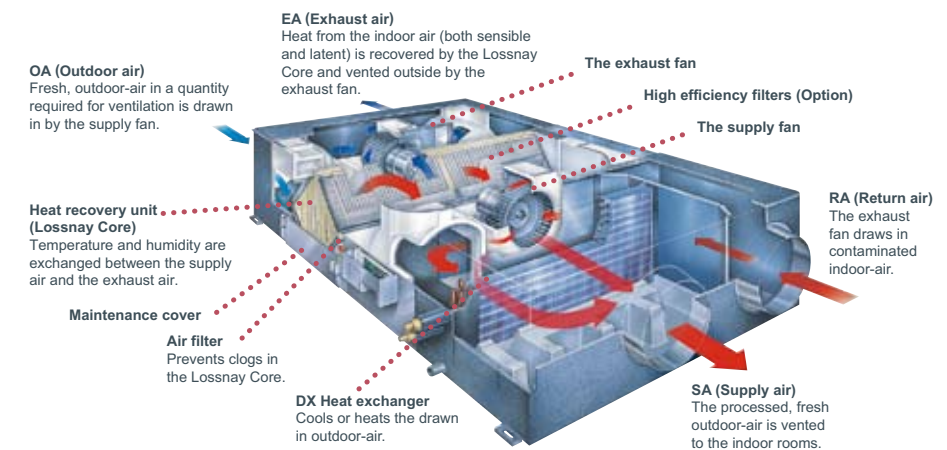
## RD3 Series

### A Total Air Conditioning Package Manifesting Remarkable Power

#### Lossnay Ventilation and Air Conditioning

1. When the load is light ⇒ Main air conditioning
2. When the load is heavy ⇒ Supplemental air conditioning

The OA (outdoor-air) Processing Unit creates an optimum environment while providing substantial energy savings. The OA Processing Unit comprises forced air ventilation, heat recovery, heating and cooling, and air purification. This total air conditioning system keeps indoor air fresh and comfortable all year round, and keeps it free of contaminants preventing ailments such as sick building syndrome. Inside the OA Processing Unit is the Lossnay Core, a heat-exchange unit that transfers heat efficiently, cutting ventilation load by as much as 70%. A remarkable product found nowhere else, this special combination of functionality and performance contained within a single unit ensures users ample comfort, good health, and energy savings.

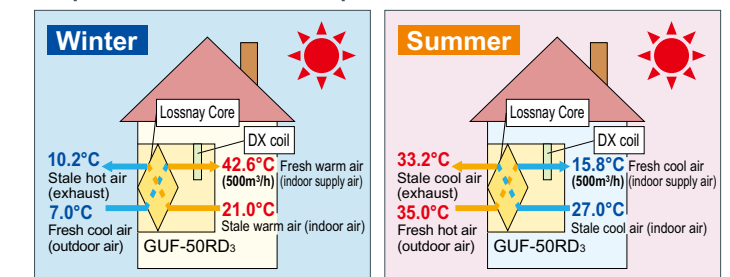


### The Air Conditioning Function

#### Two Units in One

Along with Lossnay ventilation, the OA Processing Unit is really two units in one, functioning as the main air conditioner when the load is light and adding supplemental air conditioning when the load is heavy. Also, with ventilation and air conditioning integrated, space is saved and installation expense kept to a minimum. What's more, the air temperature in any room can be perfectly adjusted to the desired

#### Temperature simulation (Example : GUF-50RD3)



temperature of the occupants via the OA Processing Unit, which can be used as the indoor unit of the CITY MULTI air conditioning system. The heat recovery function maximizes efficiency and saves energy, benefiting the environment and helping companies cut costs. It also reduces the refrigerant load and lowers the amount of horsepower required by the outdoor unit.

## Specification

Model			GUF-50RDH <sub>3</sub> *3	GUF-100RDH <sub>3</sub> *3	GUF-50RD <sub>3</sub>	GUF-100RD <sub>3</sub>	
Power source			1-phase 220-240V 50Hz, 1-phase 220V 60Hz				
Cooling capacity	*1	kW	5.46 <1.83>	11.17 <3.85>	5.46 <1.83>	11.17 <3.85>	
	*1	kcal / h	4,700 <1,600>	9,600 <3,300>	4,700 <1,600>	9,600 <3,300>	
	*1	BTU / h	18,600 <6,200>	38,100 <13,100>	18,600 <6,200>	38,100 <13,100>	
Figure in < > is the recovery capacity by LOSSNAY core.							
Power input		kW	235-265	480-505	235-265	480-505	
Current input		A	1.15	2.20	1.15	2.20	
Heating capacity	*2	kW	6.18 <2.01>	12.50 <4.20>	6.18 <2.01>	12.50 <4.20>	
	*2	kcal / h	5,300 <1,700>	10,800 <3,600>	5,300 <1,700>	10,800 <3,600>	
	*2	BTU / h	21,100 <6,900>	42,700 <14,300>	21,100 <6,900>	42,700 <14,300>	
Figure in < > is the recovery capacity by LOSSNAY core.							
Power input		kW	235-265	480-505	235-265	480-505	
Current input		A	1.15	2.20	1.15	2.20	
Capacity equivalent to indoor unit			P32	P63	P32	P63	
Humidifying capacity		kg / h	2.7	5.4	-	-	
		lbs / h	6.0	12.0	-	-	
Humidifier			Permeable film humidifier				
External finish			Galvanized, with grey insulation sheet				
External dimension H x W x D		mm	317 x 1,016 x 1,288	398 x 1,231 x 1,580	317 x 1,016 x 1,288	398 x 1,231 x 1,580	
		in.	12-1/2 x 40 x 50-3/4	15-11/16 x 48-1/2 x 62-1/4	12-1/2 x 40 x 50-3/4	15-11/16 x 48-1/2 x 62-1/4	
Net weight		kg (lbs)	57 (126)	98 (217)	54 (120)	92 (203)	
Heat exchanger		LOSSNAY core	Partition, Cross-flow structure, Special preserved paper-plate.				
		Refrigerant coil	Cross fin (Aluminum fin and copper tube)				
FAN		Type x Quantity	SA: Centrifugal fan (Sirocco fan) x 1 EA: Centrifugal fan (Sirocco fan) x 1				
External static press.		Pa	125	135	140	140	
		mmH <sub>2</sub> O	12.7	13.8	14.3	14.3	
Motor type		Totally enclosed capacitor permanent split-phase induction motor, 4 poles, 2units					
Motor output		kW	-	-	-	-	
Driving mechanism		Direct-driven by motor					
Airflow rate (High value)		m <sup>3</sup> / h	500	1,000	500	1,000	
		L / s	139	139	139	139	
		cfm	294	589	294	589	
Sound pressure level (Low-High) (measured in anechoic room)		dB <A>	33.5-34.5	38-39	33.5-34.5	38-39	
Insulation material			Polyester sheet				
Air filter		Supplying air	Non-woven fabrics filter (Gravitational method 82%) & Optional part: High efficiency filter (Colorimetric method 65%)				
		Exhausting air	Non-woven fabrics filter (Gravitational method 82%)				
Protection device			Fuse				
Refrigerant control device			LEV				
Diameter of refrigerant pipe		Liquid	mm (in.)	ø6.35 (ø1/4) Flare	ø9.52 (ø3/8) Flare	ø6.35 (ø1/4) Flare	ø9.52 (ø3/8) Flare
		Gas	mm (in.)	ø12.7 (ø1/2) Flare	ø15.88 (ø5/8) Flare	ø12.7 (ø1/2) Flare	ø15.88 (ø5/8) Flare
Diameter of drain pipe		mm (in.)	VP25				

### Notes:

- \*1 Cooling : Indoor 27°CDB/19°CWB, Outdoor 35°CDB/24°CWB
- \*2 Heating : Indoor 20°CDB/13.8°CWB, Outdoor 7°CDB/16°CWB
- \*3 Available for limited countries. Please contact your local distributor for further information.