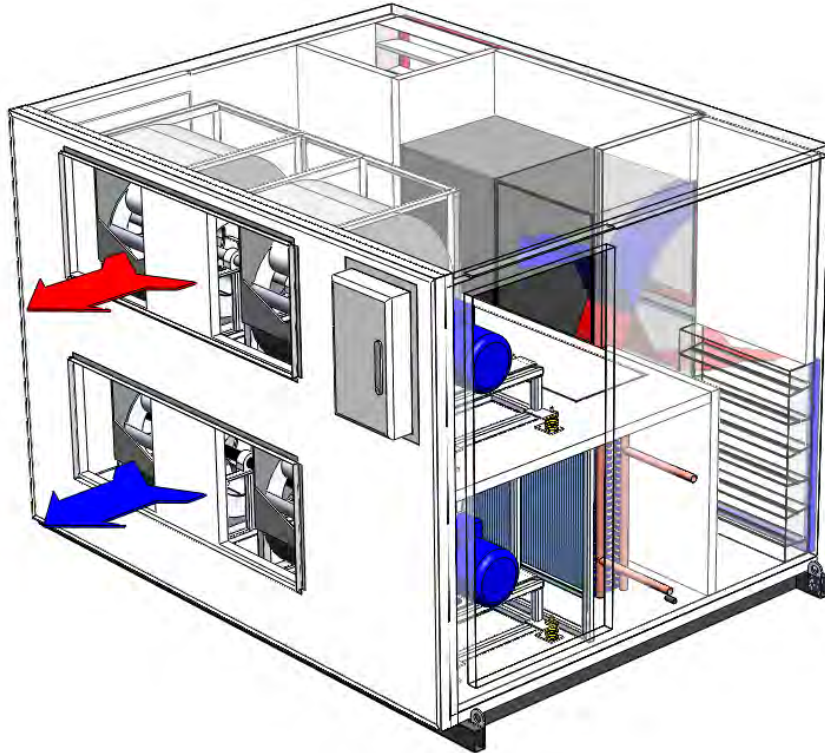


### Next Air Handling Unit with Energy Recovery System 2000L/s – 8000L/s



The Rooftop/Plant Room Heat and Energy Recovery Outdoor Air Handling Unit range are designed to be used when high but only partial fresh air quantities are required. They are designed to handle up to 50% of outdoor air with built-in Economy Cycle dampers as standard to optimise energy efficiency and significantly improve indoor air quality.

#### Energy Efficient Construction

- Cabinets are constructed of 50 mm BHP Colourbond Sandwich panel, for best practice insulation.
- Purpose built UV treated polymer joiners are used to eliminate heat loss through the body of the unit.
- The Counter flow Enthalpy heat exchanger that will be incorporated into the unit will reclaim up to 75% of the energy from the exhaust stale air, therefore saving up to 75% of the cost to heat or cool outdoor air. Counter flow Sensible heat exchanger with 80% efficiency on sensible only is available at no additional cost.
- Air Change units are designed with extremely large access doors to ensure that all parts are accessible for servicing and replacement.





### Features

- Built-in Economy Cycle as standard for energy saving optimisation
- Two staged or fully modulating Return Air Bypass (RABP) damper to satisfy return air-outdoor air proportion requirement
- 4 row chilled water coil can be included at no additional cost
- Slope drain tray for positive gravity drainage eliminating the need to tilt the unit on installation
- A choice of top or bottom discharge for plant room / roof space fitting optimisation
- Unit 4000 L/s and over incorporates direct coupled fans, therefore eliminating the need for pulleys and belts
- All fans are spring mounted and canvas connected to fully eliminate vibration being transmitted into the unit
- Supply and exhaust air three phase fan motors are controlled with separate VSD controllers with benefits including;
  - i. Ramped starting of fan motors, leading to a prolonged life of all fan and motor components and eliminate starting power / amperage spikes.
  - ii. Dramatically reduced commissioning times as airflow is tuned simply by adjusting fan speed through VSD control panel or by analogue inputs for modulating fan speed.
  - iii. Easy integration to a BMS system
  - iv. BACNet Module for high level interface
  - v. Saves running costs by precisely controlling power needed to the motor



# PRODUCT RANGE: HERO AHU

## Options



### Options

#### **6 or 8 Rows Cold Water coil**

Maximise cooling capacity to a fully customized 6 or 8 row cold water coils

#### **Hot Water Coil**

Fully custom made hot water coil for heating or reheat requirement

#### **High Static Fan Upgrade**

Fan upgrades available for high flow or high external static pressure drops.

#### **Backward Curved Fans**

Backward curved fans for optimised fan efficiency and quietness

#### **Vertical Discharge**

Choice of horizontal or vertical discharge to suit plant space and ducting requirement

#### **Corrosion Resistant**

Corrosion resistant packaging available for harsh and corrosive environments

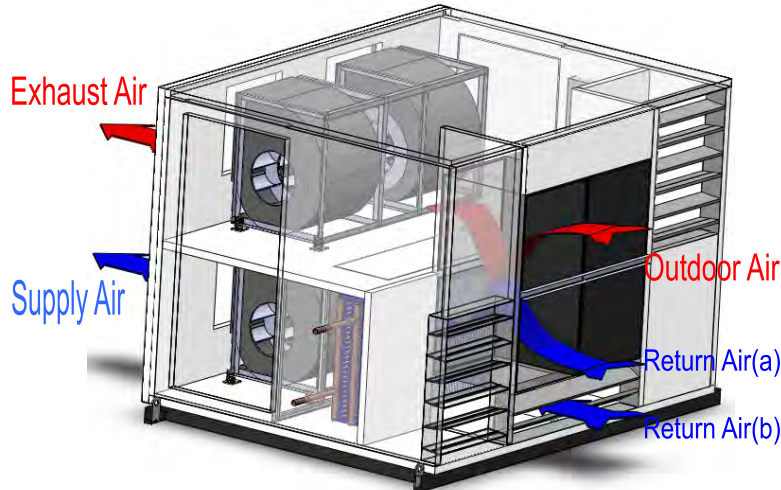
#### **Sensible Only Heat Exchanger**

80% sensible transfer efficiency for dry climates or any specialist applications



### NEXT-AHU 2000

## NEXT AIR HANDLING UNIT WITH ENERGY RECOVERY SYSTEM



- High Efficiency Counter Flow Air-Air Heat Exchangers
- 0-50% OA Application
- Built-In Economy Cycle as Standard
- Choice of Staged or Modulating RABP Damper
- 4 Rows Chilled Water Coil as Standard
- Direct Drive Fan & Motor
- Independent SA & EA VSD Driven Fans
- HVAC-series VSD's for BMS High Level Interface
- Choice of Horizontal or Vertical Discharge
- 50mm Double Skin Sandwich Panel Cabinets with Purpose built UV treated polymer joiners for maximum thermal insulation
- Large access doors for servicing

Return Air(a) – Return Air to Heat Exchanger  
Return Air(b) – Return Air bypass Heat Exchanger

AIRFLOW	
Outdoor Air	0 - 1000 L/S
Supply Air - Nominal	2000 L/S
Exhaust Air	0 - 1000 L/S
Supply Air Fan ESP	200 Pa
Exhaust Air Fan ESP	200 Pa

HEAT EXCHANGER		
	Sensible	Latent
Enthalpy Type Efficiency	75%	75%
Sensible Type Efficiency	80%	0

CHILLED WATER COIL	
Number of Rows	4
FH / FL	571mm / 1600mm
Fin / m	Up to 550
Capacity	Designed to Duty
Max Water Pressure Drop	40 kPa

SUPPLY AIR FAN	
Fan Type	Forward Curve Centrifugal
Max Fan Speed	1500 RPM
Motor Power	3.0 kW
Motor Poles	4

EXHAUST AIR FAN	
Fan Type	Forward Curve Centrifugal
Max Fan Speed	1500 RPM
Motor Power	3.0 kW
Motor Poles	4

ELECTRICAL POWERING	
Voltage / Phase / Hz	415 / 3 / 50
<b>Running Current in Amps (L1 / L2 / L3)</b>	
Full Load Amps	12.4 / 12.4 / 12.4
Starting Current	N/A (Soft Start)

SOUND POWER LEVEL		
	In Duct (Supply)	External (Supply)
Hz	dB	dB
63	88.5	75.2
125	84.5	76.3
250	87	82.9
500	79.7	78.2
1000	79.7	79.2
2000	78.7	78.6
4000	76.4	76.3
8000	71	71
Lw – tot	92.6	87.4
LwA-tot	85.8 dBA	84.8 dBA

### OPTIONAL:

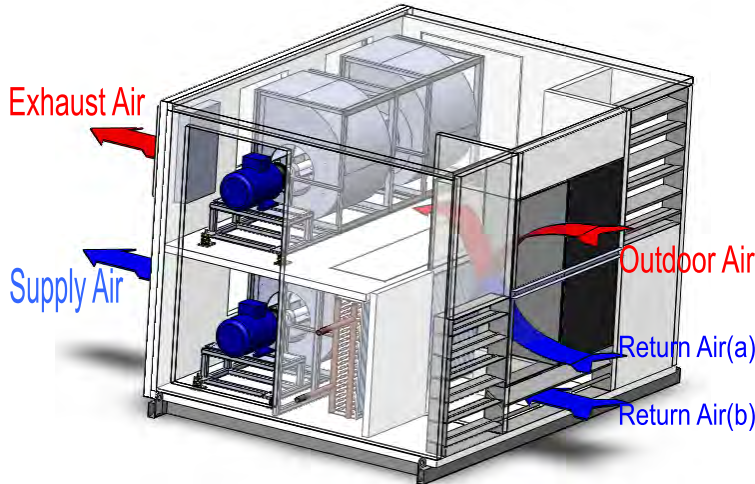
- Up to 8 Rows Hot Water Coil
- 6 or 8 Rows Chilled Water Coil
- Corrosion Resistant Unit
- Backward Curved Centrifugal Fan
- CO<sub>2</sub> Sensors

### NOTES:

- All Return & Outdoor Air Filters are to be supplied by installing contractor.

### NEXT-AHU 4000

## NEXT AIR HANDLING UNIT WITH ENERGY RECOVERY SYSTEM



Return Air(a) – Return Air to Heat Exchanger  
Return Air(b) – Return Air bypass Heat Exchanger

- High Efficiency Counter Flow Air-Air Heat Exchangers
- 0-50% OA Application
- Built-In Economy Cycle as Standard
- Choice of Staged or Modulating RABP Damper
- 4 Rows Chilled Water Coil as Standard
- Direct Coupled Fan & Motor
- Independent SA & EA VSD Driven Fans
- HVAC-series VSD's for BMS High Level Interface
- Choice of Horizontal or Vertical Discharge
- 50mm Double Skin Sandwich Panel Cabinets with Purpose built UV treated polymer joiners for maximum thermal insulation
- Large access doors for servicing

AIRFLOW	
Outdoor Air	0 - 2000 L/S
Supply Air - Nominal	4000 L/S
Exhaust Air	0 - 2000 L/S
Supply Air Fan ESP	300 Pa
Exhaust Air Fan ESP	300 Pa

ELECTRICAL POWERING	
Voltage / Phase / Hz	415 / 3 / 50
Running Current in Amps (L1 / L2 / L3)	
Full Load Amps	28.4 / 28.4 / 28.4
Starting Current	N/A (Soft Start)

HEAT EXCHANGER		
	Sensible	Latent
Enthalpy Type Efficiency	75%	75%
Sensible Type Efficiency	80%	0

SOUND POWER LEVEL		
	In Duct (Supply)	External (Supply)
Hz	dB	dB
63	90.3	78.8
125	95.4	88.7
250	89.2	86.2
500	86.4	85.4
1000	83.6	83.3
2000	83.6	83.5
4000	82.3	82.2
8000	77.9	77.9
Lw – tot	98.1	93.5
LwA-tot	90.8 dBA	90 dBA

CHILLED WATER COIL	
Number of Rows	4
FH / FL	762mm / 2400mm
Fin / m	Up to 550
Capacity	Designed to Duty
Max Water Pressure Drop	40 kPa

SUPPLY AIR FAN	
Fan Type	Forward Curve Centrifugal
Max Fan Speed	1400 RPM
Motor Power	7.5 kW
Motor Poles	4

EXHAUST AIR FAN	
Fan Type	Forward Curve Centrifugal
Max Fan Speed	1400 RPM
Motor Power	7.5 kW
Motor Poles	4

#### OPTIONAL:

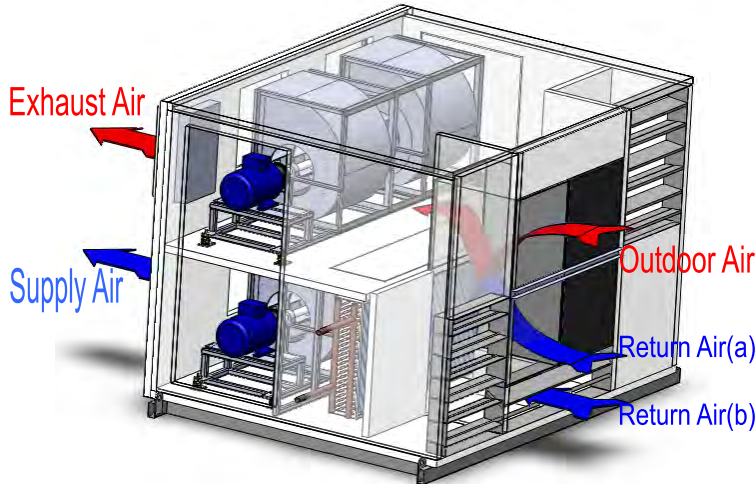
- Up to 8 Rows Hot Water Coil
- 6 or 8 Rows Chilled Water Coil
- Corrosion Resistant Unit
- Backward Curved Centrifugal Fan
- CO<sub>2</sub> Sensors

#### NOTES:

- All Return & Outdoor Air Filters are to be supplied by installing contractor.

### NEXT-AHU 6000

## NEXT AIR HANDLING UNIT WITH ENERGY RECOVERY SYSTEM



- High Efficiency Counter Flow Air-Air Heat Exchangers
- 0-50% OA Application
- Built-In Economy Cycle as Standard
- Choice of Staged or Modulating RABP Damper
- 4 Rows Chilled Water Coil as Standard
- Direct Coupled Fan & Motor
- Independent SA & EA VSD Driven Fans
- HVAC-series VSD's for BMS High Level Interface
- Choice of Horizontal or Vertical Discharge
- 50mm Double Skin Sandwich Panel Cabinets with Purpose built UV treated polymer joiners for maximum thermal insulation
- Large access doors for servicing

Return Air(a) – Return Air to Heat Exchanger  
Return Air(b) – Return Air bypass Heat Exchanger

AIRFLOW	
Outdoor Air	0 - 3000 L/S
Supply Air - Nominal	6000 L/S
Exhaust Air	0 - 3000 L/S
Supply Air Fan ESP	350 Pa
Exhaust Air Fan ESP	350 Pa

ELECTRICAL POWERING	
Voltage / Phase / Hz	415 / 3 / 50
<b>Running Current in Amps (L1 / L2 / L3)</b>	
Full Load Amps	42.4 / 42.4 / 42.4
Starting Current	N/A (Soft Start)

HEAT EXCHANGER		
	Sensible	Latent
Enthalpy Type Efficiency	75%	75%
Sensible Type Efficiency	80%	0

SOUND POWER LEVEL		
	In Duct (Supply)	External (Supply)
Hz	dB	dB
63	95.4	85
125	96.4	90.7
250	92.4	90
500	86.5	85.7
1000	85.2	85
2000	84.4	84.4
4000	84.3	84.3
8000	79	79
Lw – tot	100.4	95.8
LwA-tot	92.3 dBA	91.5 dBA

CHILLED WATER COIL	
Number of Rows	4
FH / FL	825mm / 3400mm
Fin / m	Up to 550
Capacity	Designed to Duty
Max Water Pressure Drop	40 kPa

SUPPLY AIR FAN	
Fan Type	Forward Curve Centrifugal
Max Fan Speed	1200 RPM
Motor Power	11 kW
Motor Poles	6

EXHAUST AIR FAN	
Fan Type	Forward Curve Centrifugal
Max Fan Speed	1200 RPM
Motor Power	11 kW
Motor Poles	6

#### OPTIONAL:

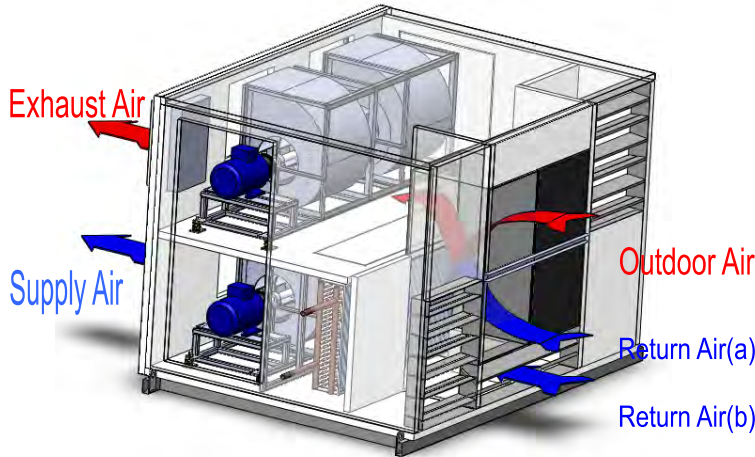
- Up to 8 Rows Hot Water Coil
- 6 or 8 Rows Chilled Water Coil
- Corrosion Resistant Unit
- Backward Curved Centrifugal Fan
- CO<sub>2</sub> Sensors

#### NOTES:

- All Return & Outdoor Air Filters are to be supplied by installing contractor.

### NEXT-AHU 8000

## NEXT AIR HANDLING UNIT WITH ENERGY RECOVERY SYSTEM



Return Air(a) – Return Air to Heat Exchanger  
Return Air(b) – Return Air bypass Heat Exchanger

- High Efficiency Counter Flow Air-Air Heat Exchangers
- 0-50% OA Application
- Built-In Economy Cycle as Standard
- Choice of Staged or Modulating RABP Damper
- 4 Rows Chilled Water Coil as Standard
- Direct Coupled Fan & Motor
- Independent SA & EA VSD Driven Fans
- HVAC-series VSD's for BMS High Level Interface
- Choice of Horizontal or Vertical Discharge
- 50mm Double Skin Sandwich Panel Cabinets with Purpose built UV treated polymer joiners for maximum thermal insulation
- Large access doors for servicing

AIRFLOW	
Outdoor Air	0 - 4000 L/S
Supply Air - Nominal	8000 L/S
Exhaust Air	0 - 4000 L/S
Supply Air Fan ESP	400 Pa
Exhaust Air Fan ESP	400 Pa

ELECTRICAL POWERING	
Voltage / Phase / Hz	415 / 3 / 50
Running Current in Amps (L1 / L2 / L3)	
Full Load Amps	57.4 / 57.4 / 57.4
Starting Current	N/A (Soft Start)

HEAT EXCHANGER		
	Sensible	Latent
Enthalpy Type Efficiency	75%	75%
Sensible Type Efficiency	80%	0

SOUND POWER LEVEL		
	In Duct (Supply)	External (Supply)
Hz	dB	dB
63	94.6	85.8
125	95.3	90.8
250	90	88.3
500	88.6	88.1
1000	84.2	84
2000	82.4	82.4
4000	80.6	80.6
8000	76.9	76.9
Lw – tot	99.3	95.4
LwA-tot	91.1 dBA	90.4 dBA

CHILLED WATER COIL	
Number of Rows	4
FH / FL	953mm / 3600mm
Fin / m	Up to 550
Capacity	Designed to Duty
Max Water Pressure Drop	40 kPa

SUPPLY AIR FAN	
Fan Type	Forward Curve Centrifugal
Max Fan Speed	1300 RPM
Motor Power	15 kW
Motor Poles	6

EXHAUST AIR FAN	
Fan Type	Forward Curve Centrifugal
Max Fan Speed	1300 RPM
Motor Power	15 kW
Motor Poles	6

#### OPTIONAL:

- Up to 8 Rows Hot Water Coil
- 6 or 8 Rows Chilled Water Coil
- Corrosion Resistant Unit
- Backward Curved Centrifugal Fan
- CO<sub>2</sub> Sensors

#### NOTES:

- All Return & Outdoor Air Filters are to be supplied by installing contractor.