

XCHANGE Energy Recovery

XCM-COMPACT MULTIFLOW ERV

XCM425P1 Technical Data



Technical Specifications

Nominal Airflow

Supply Air (l/sec)	425
Return Air (l/sec)	425

Supply Fan

Fan Type	EC Plug Fan
Fan Motor	EC External Rotor
Motor Power (Watts)	500
External Static (Pa)	250
Fan Diameter	250
Motor Start	Soft Start
Control Input	0-10V DC
Motor Protection	Thermal Overload

Exhaust Fan

Fan Type	EC Plug Fan
Fan Motor	EC External Rotor
Motor Power (Watts)	500
External Static (Pa)	250
Fan Diameter	250
Motor Start	Soft Start
Control Input	0-10V DC
Motor Protection	Thermal Overload

Electrical

Supply Fan (A)	1.6
Exhaust Fan (A)	1.6
Nominal Run Current (A)	3.2
Maximum Full Load (A)	4.6
Volt/Phase	240V/1ph
Connection	Lead & Plug

Controls

0-10V DC (Fan Control)	Included
24V AC Control	Included
Fan Fault	Only Available if Requested

Heat Exchanger

*Rated at standard conditions of 35.5° db/24.0° wb

Enthalpy Media	Standard (Model XCM425P1E)
Sensible Media	Available (Model XCM425P1S)
Corrosion Resistant Media	Available
Velocity (m/sec)	1.77
Pressure Drop (Pa)	112.3
Kw Recovered (Cooling)*	5.79
Kw Recovered (Heating)*	7.43

Cabinet Construction

Casing	Galvanised Metal
Insulation Thickness (mm)	15/25
Hanging Brackets	Included

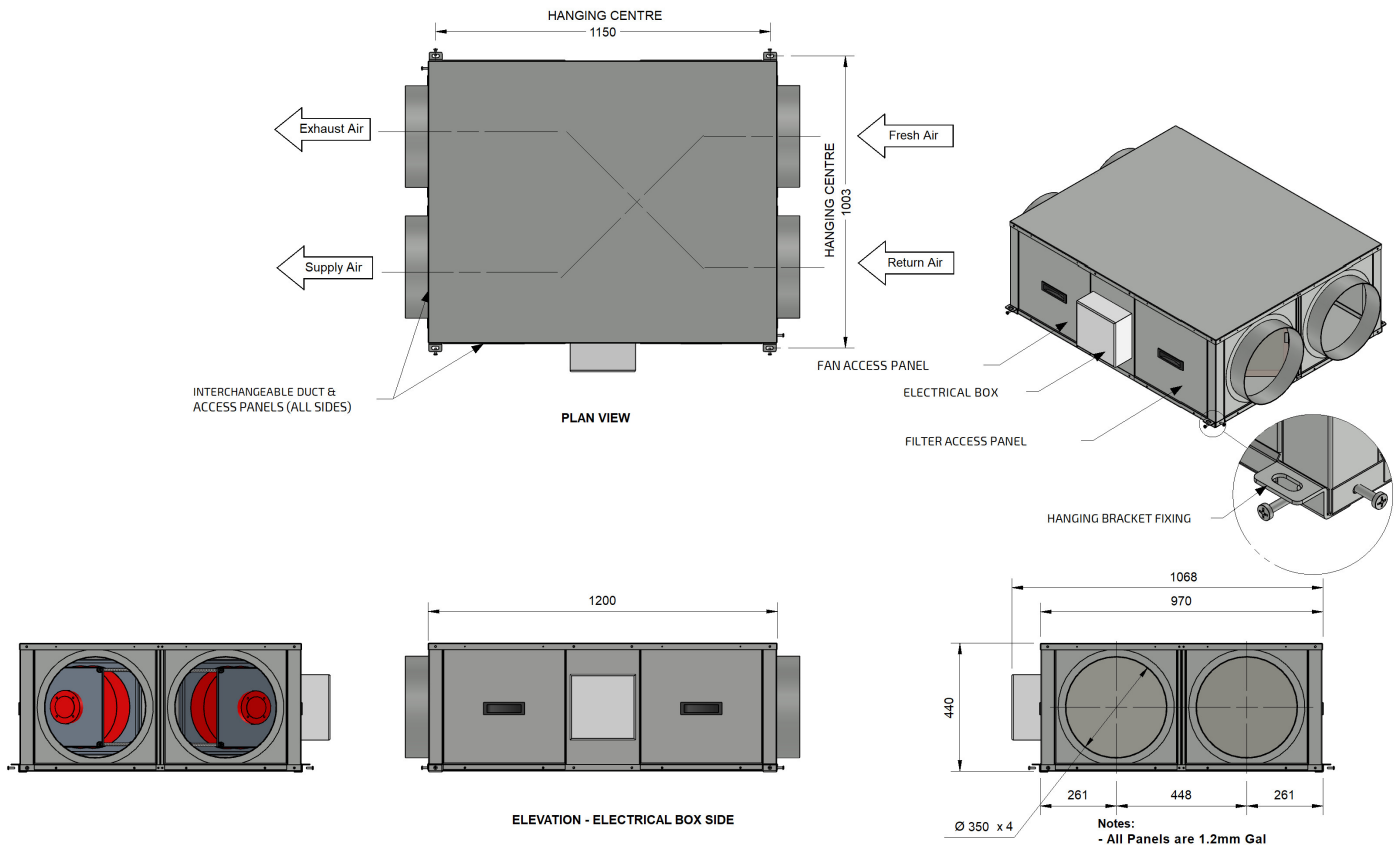
Filters

Type	45mm V Form Panel - G4
Disposable / Washable	Disposable
Size L x W x D (mm)	595 x 395 x 45
Number of Filters	2

Options

Hot Water Coil	Available (Model XCC425)
Chilled Water Coil	Available (Model XCC425)
Internal Drain Tray	Available (Model XCM425P1-T)

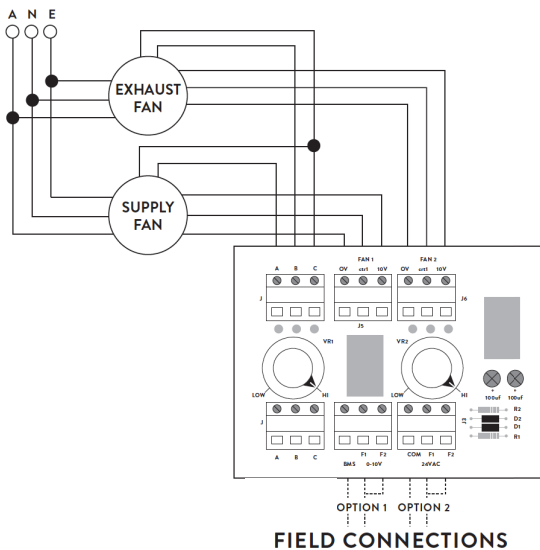
Technical Drawings – XCM425P1



Dimensions	
Height (mm)	440
Width (mm)	970
Length (mm)	1200
Weight (Kg)	110
Access Clearance (mm)	600 (Controls & Filter Access)
Access Clearance (mm)	600 (Filter Access)

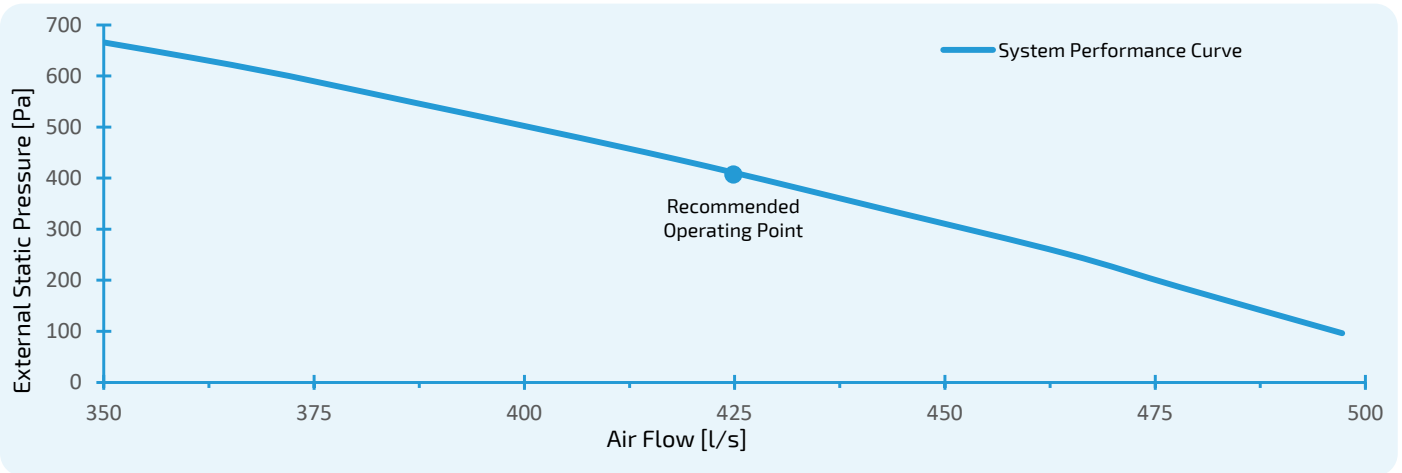
Duct Sizes	
Exhaust Air (mm)	350 Ø
Return Air (mm)	350 Ø
Supply Air (mm)	350 Ø
Fresh Air (mm)	350 Ø

Wiring Diagram



- OPTION 1**
0-10V DC CONTROL VIA CONNECTION TO BMS
0V = STOP / 1.5V = START / 10V = FULL SPEED
- OPTION 2**
24V AC ENABLE REGULATE FAN SPEED VIA POTS
EXTERNAL 24V PROVIDED BY OTHERS
- Do not turn main power on/off to enable/disable the unit operation. This must be done through the control circuit.
- FAN FAULT NOT AVAILABLE.

Fan Performance Data

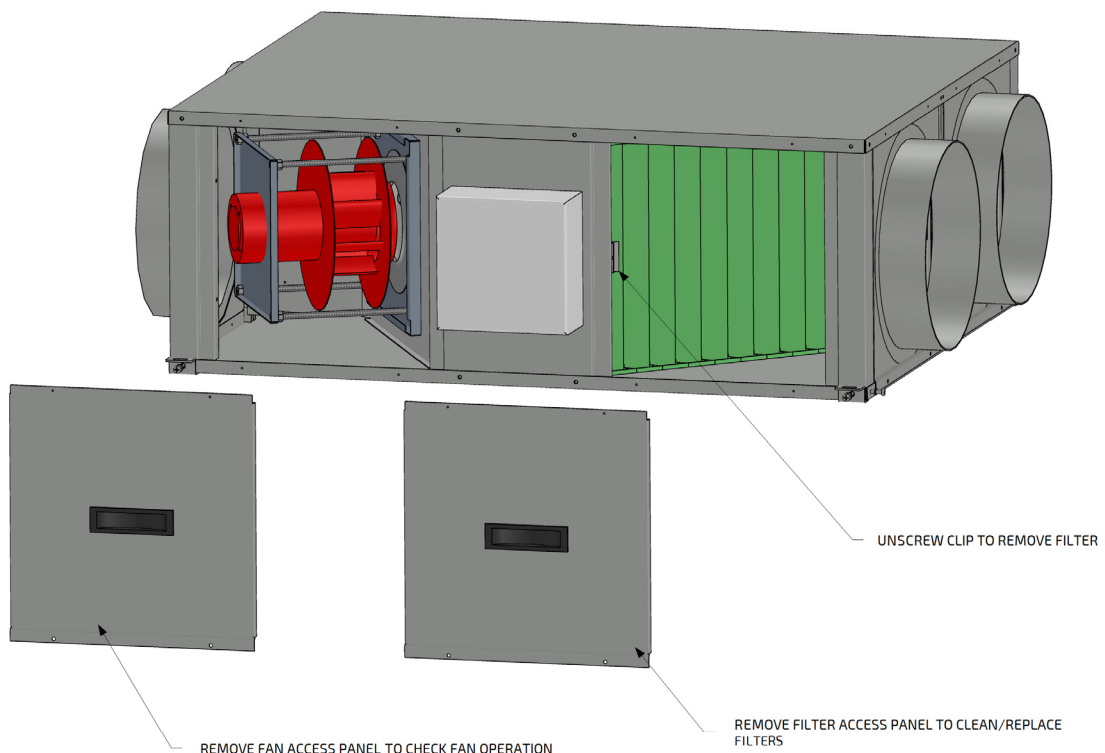


Sound Power Levels*

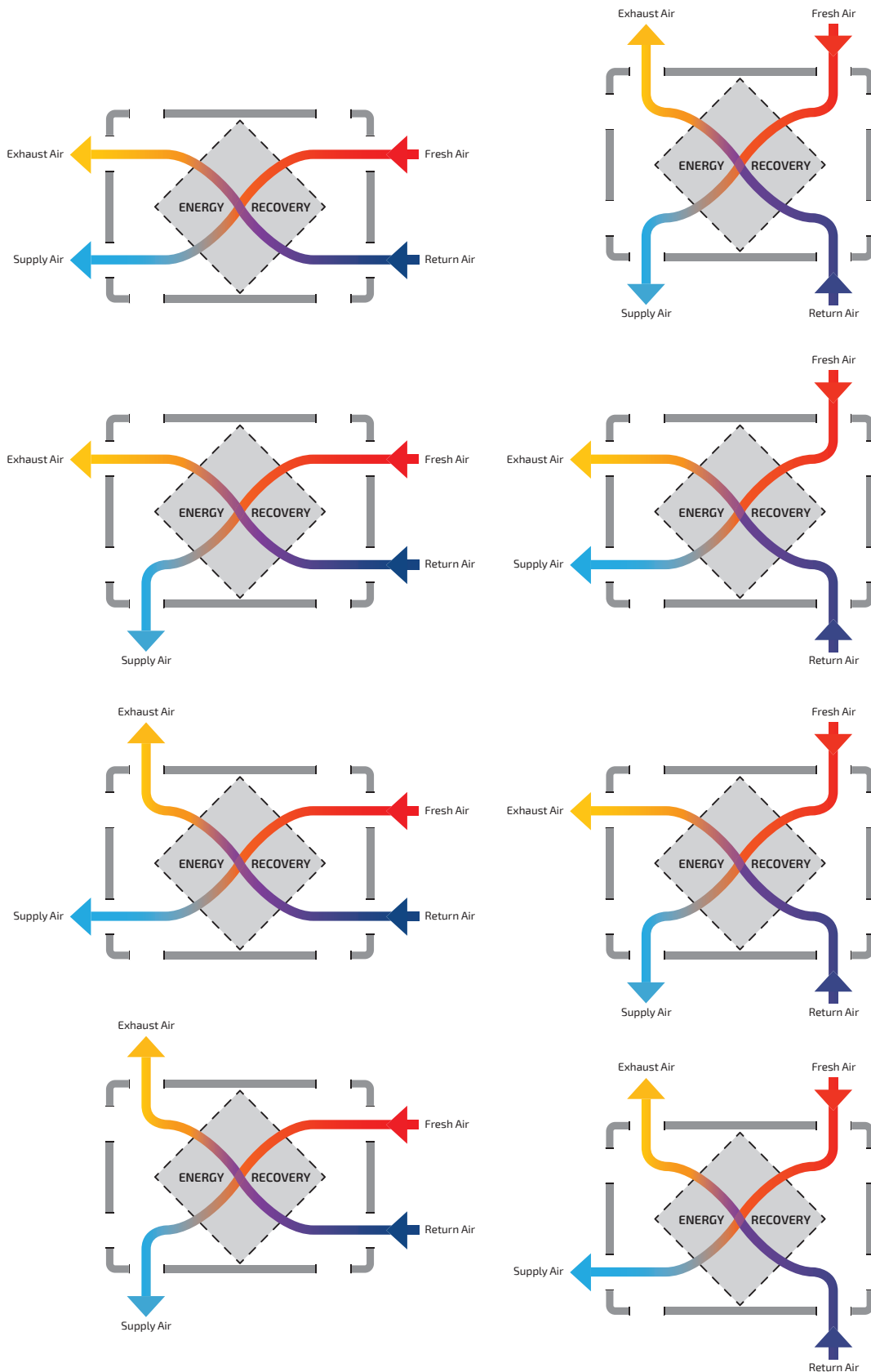
Inlet Rating dB		Outlet Rating dB	
63 Hz	69	63 Hz	71
125 Hz	62	125 Hz	64
250 Hz	69	250 Hz	71
500 Hz	78	500 Hz	80
1k Hz	70	1k Hz	72
2k Hz	63	2k Hz	65
4k Hz	53	4k Hz	55
8k Hz	62	8k Hz	64
LwA	80	LwA	82

* Sound Power Levels Recommended Operating Point.

Filter and Fan Access



Ductwork Connections



RETURN AIR: Air that is drawn from conditioned areas.

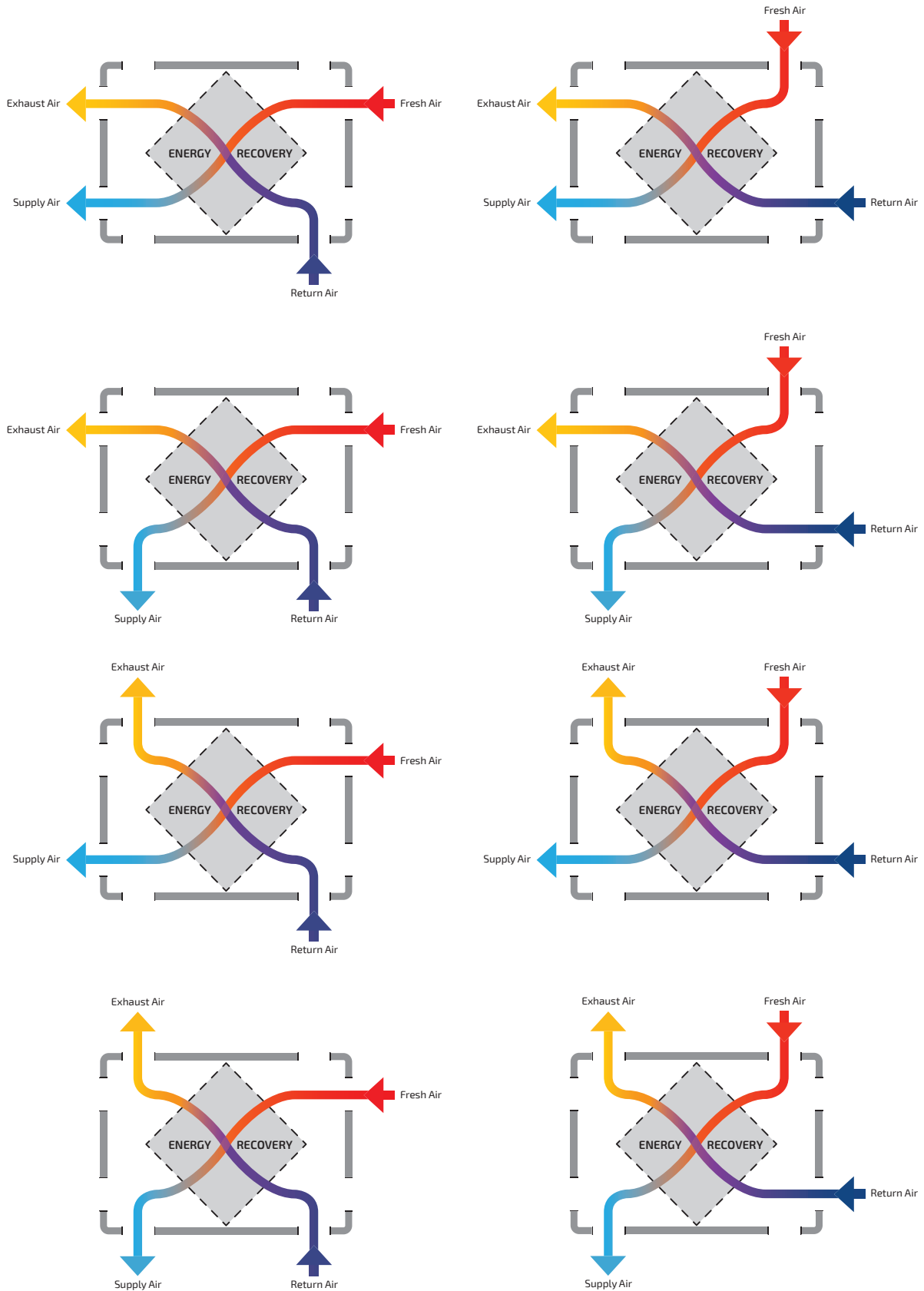
EXHAUST AIR: Ducted to outside the building or into the roof space if adequate ventilation to the outside air is available.

FRESH AIR: Use a fresh air cowl or grill to introduce fresh air.

SUPPLY AIR: Connect to the airconditioning system or directly into the conditioned area.

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