

Air Handling Unit – Direct Expansion

S-AIRME



**MITSUBISHI ELECTRIC
HYDRONICS & IT COOLING SYSTEMS**

AIR HANDLING UNIT

Air Handling Units matched with Mitsubishi Electric Mr Slim R32 outdoor units.

833 l/s ~ 5550 l/s of airflow

The Mitsubishi Electric s-AIRME is a range of compact, preconfigured air handling units (AHUs), that efficiently deliver cooling, heating, dehumidification and humidification of up to 100% outdoor air.

The s-AIRME range has multiple different sizes, in two different versions. The standard version features economiser dampers to regulate outdoor air and return air. Whereas the advanced heat recovery version features a heat recovery core to reduce running costs even further.

s-AIRME units connect to proven Mitsubishi Electric Mr Slim R32 Outdoor Units to provide capacities from 12kW to 180kW.

**Mixed Flow
(MF)**



**Heat Recovery
(HR)**



High Efficiency Performance



*1 Cooling: Outside 32°C 50% RH / Inside 27°C 50% RH / Mix 100%. Outside Air s-AIRME-G07 07500 (MF version).

*2 Heating: Outside 7°C 85% RH / Inside 20°C 50% RH / Mix 100%. Outside Air s-AIRME-G07 10000 (MF version).

*3 Tested in laboratories at an American University over a 24 hour period.

Key Features

Matched Package with Mr Slim R32 Outdoor Units

The s-AIRME range is designed to work in perfect synergy with Mitsubishi Electric Mr Slim R32 outdoor units. The result is an integrated, easy to implement package that is reliable, highly efficient, with reduced environmental impact.

Compact and Superior Structure

s-AIRME has a unique self-supporting structure without aluminium profiles. The result is a very compact AHU, which reduces required plant space simplifying retrofits. The unique construction also improves air tightness and reduces thermal bridging, increasing overall efficiency.

Unparalleled Efficiency

EC Plug Fans with brushless motors and economiser dampers on the “MF” version accurately control air volume and fresh air mixing, ensuring maximum efficiency. Whereas the “HR” version incorporates a plate heat exchanger to recover heat from the exhaust air, providing class-leading performance.

Fully Autonomous or Integrated Controls

s-AIRME has a fully autonomous plug-and-play controls package with the stylish AIR3000TOUCH+ controller. Time and costs are saved by not having to use a complicated third-party control system. The s-AIRME system can also connect to central controllers or a BMS system if required.

Better Indoor Air Quality

s-AIRME is equipped as standard with G4 grade prefilters and F7 grade bag filters to ensure good indoor air quality. For further improved air quality and better productivity, the s-AIRME can be equipped with:

- Upgraded filters (F7 and F9)
- Electrostatic filter (99% dust removal)^{*3}
- Deodorising charcoal filters
- HEPA final filters (H14)
- UV lamp (anti-bacterial and anti-allergen)



AIR3000TOUCH+



Mr. SLIM
Outdoor Units

Specifications



Air Handling Unit – Mixed Flow (MF) Version

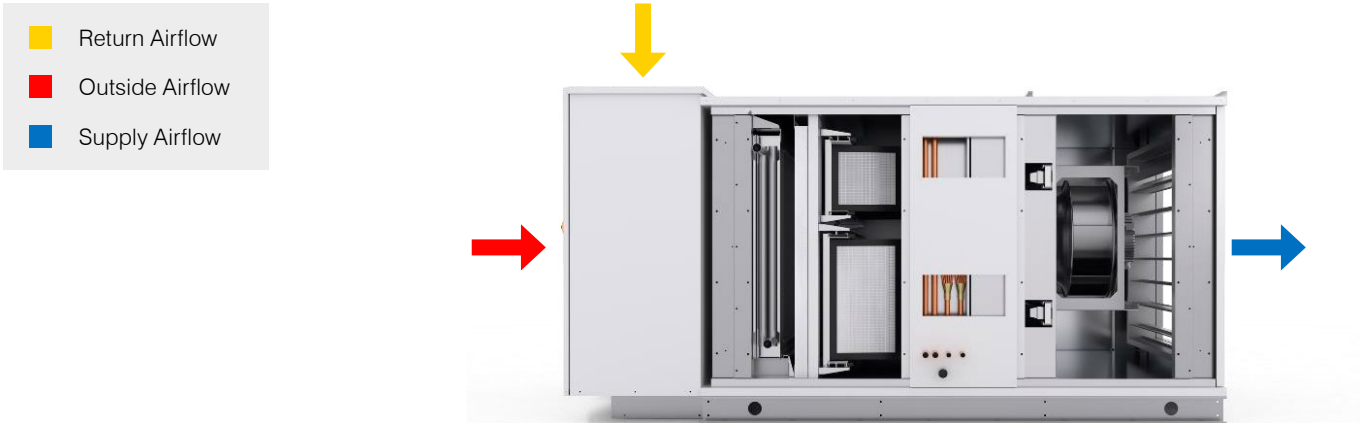
MODEL			3000	5000	7500	10000	12500	15000	20000
OUTDOOR UNITS									
Quantity			1 or 2	1 or 2	1 or 2	2 or 3	2 to 4	2 to 4	3 to 5
NOMINAL COOLING (INTERNAL & EXTERNAL UNITS)									
Total Capacity (1)	min ~ max	kW	11.50 ~ 23.20	22.90 ~ 39.10	28.30 ~ 57.40	46.30 ~ 69.20	51.20 ~ 92.20	56.70 ~ 115.00	84.80 ~ 143.00
Sensible Cooling (1)	min ~ max	kW	9.58 ~ 15.30	16.60 ~ 23.60	20.00 ~ 32.30	33.40 ~ 44.40	36.00 ~ 58.70	39.30 ~ 64.40	61.80 ~ 82.80
Power Consumption (1)	min ~ max	kW	3.67 ~ 6.43	6.33 ~ 9.17	6.42 ~ 11.30	11.60 ~ 16.60	12.20 ~ 22.00	13.10 ~ 27.30	18.60 ~ 34.40
EER (1)			3.12 ~ 4.53	3.62 ~ 4.51	4.41 ~ 5.07	3.98 ~ 4.85	4.02 ~ 4.19	4.20 ~ 4.76	4.16 ~ 4.81
NOMINAL HEATING (INTERNAL & EXTERNAL UNITS)									
Total Capacity (2)	min ~ max	kW	11.50 ~ 22.80	23.0 ~ 39.30	27.60 ~ 55.40	45.90 ~ 68.80	50.6 ~ 91.7	55.3 ~ 111.0	83.3 ~ 139.0
Power Consumption (2)	min ~ max	kW	3.07 ~ 6.17	4.97 ~ 7.84	5.14 ~ 9.99	9.38 ~ 13.30	9.70 ~ 18.10	10.30 ~ 21.00	14.60 ~ 25.80
COP (2)			3.61 ~ 5.39	4.38 ~ 5.58	5.00 ~ 5.55	4.81 ~ 5.92	5.07 ~ 5.22	4.70 ~ 5.35	5.36 ~ 5.70
AHU SUPPLY FANS									
Quantity			1	1	1	1	1	1	2
Nominal Supply Airflow		l/s	833	1388	2083	2778	3472	4167	5556
Available Static Pressure (3)		Pa	300						
SOUND POWER									
AHU (4)		dB(A)	78 to 79	87 to 88	73 to 74	75 to 76	78	81	79
SIZE AND WEIGHT									
Dimensions L x W x H (5)		mm	2510 x 1025 x 965	2510 x 1425 x 965	2510 x 1525 x 1180	2610 x 1825 x 1235	2610 x 2025 x 1320	2610 x 2225 x 1430	2610 x 2525 x 1510
Weight (5)	max	kg	340 ~ 350	440 ~ 460	500 ~ 520	530 ~ 560	700 ~ 720	790 ~ 840	900 ~ 950

(1) ODU Condition (cooling) 32°C 50%RH, Air on AHU coil 27°C 50% RH & 100% OA.
(2) ODU Condition (heating) 7°C 85%RH, Air on AHU coil 20°C 50% RH & 100% OA.
(3) Available static pressure for standard configuration (pressure drops resulting from any available accessories not included).
(4) Sound power based on measurements performed in accordance with ISO 3744.
(5) The weight and dimensions given refer to the standard unit without accessories.

Options and Accessories

- AHU Coil corrosion treatments
 - AHU Copper / copper coil
 - Preheat elements / water coil
 - Reheat elements / water coil
 - Silencer
 - Smoke detector
 - Various filter grades
- IAQ equipment
 - Humidification
 - Dehumidification
 - Refrigerant safety dampers
 - Night purge
 - CO₂ control
 - Intake air rain hood and weatherproof
- Mineral wool insulation (fireproof)
 - High static fans
 - Various fan speed control settings
 - BMS Interface Modbus / BACnet
 - Energy management software
- Touch screen wall controller
 - KIPLINK (Wi-Fi user interface)
 - Electrical panel light and socket

MF: Mixing and Free Cooling



Specifications



Air Handling Unit – Heat Recovery (HR) Version

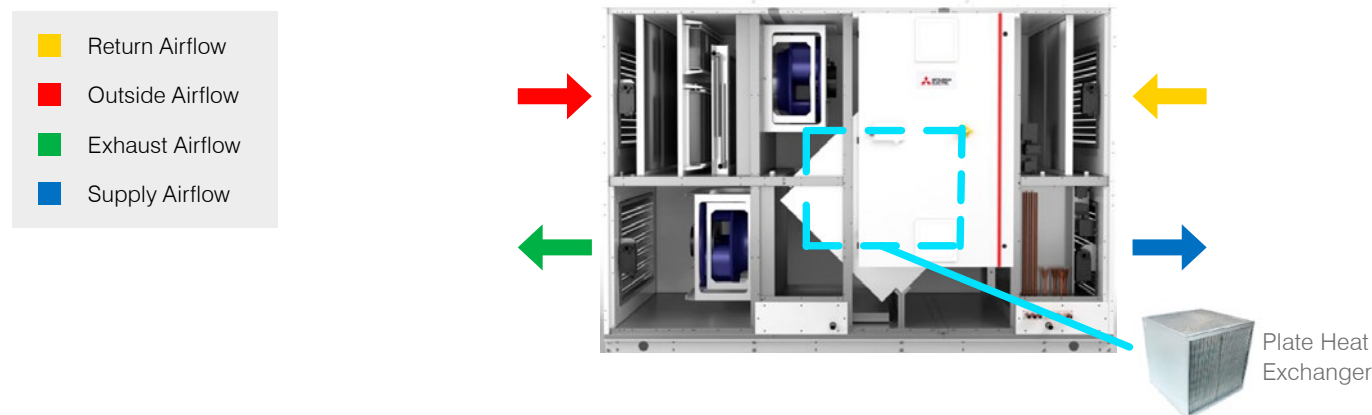
MODEL			3000	5000	7500	10000	12500	15000	
OUTDOOR UNITS									
Quantity			1 or 2	2	2 or 3	3 or 4	4 or 5	4 to 6	
NOMINAL COOLING (INTERNAL & EXTERNAL UNITS)									
Total Capacity (1)		min ~ max	kW	26.20 ~ 34.20	42.60 ~ 60.90	60.40 ~ 85.60	86.00 ~ 121.00	106.0 ~ 151.00	121.0 ~ 180.00
Sensible Cooling (1)		min ~ max	kW	15.20 ~ 17.50	25.20 ~ 28.40	34.50 ~ 42.30	48.10 ~ 56.50	62.10 ~ 71.00	68.70 ~ 85.00
Power Consumption (1)		min ~ max	kW	6.82 ~ 7.76	11.40 ~ 13.60	14.00 ~ 19.20	19.80 ~ 25.00	26.40 ~ 31.70	27.40 ~ 37.80
EER (1)				3.84 ~ 4.56	3.70 ~ 4.46	3.97 ~ 4.47	4.04 ~ 4.84	4.02 ~ 4.76	3.99 ~ 4.77
NOMINAL HEATING (INTERNAL & EXTERNAL UNITS)									
Total Capacity (2)		min ~ max	kW	32.00 ~ 42.10	52.50 ~ 70.10	73.90 ~ 101.00	104.00 ~ 141.00	130.00 ~ 175.00	150.00 ~ 214.00
Power Consumption (2)		min ~ max	kW	6.36 ~ 7.93	11.70 ~ 14.10	13.40 ~ 19.50	19.60 ~ 26.10	25.50 ~ 31.00	26.90 ~ 39.20
COP (2)				4.58 ~ 5.79	4.31 ~ 5.31	4.71 ~ 5.50	4.68 ~ 5.74	4.79 ~ 5.82	4.75 ~ 5.69
AHU SUPPLY / RETURN FANS									
Quantity				1 / 1	1 / 1	1 / 1	1 / 1	1 / 1	2 / 2
Nominal Supply Airflow			l/s	833	1388	2083	2778	3472	4167
Available Static Pressure (3)			Pa	300					
SOUND POWER									
Supply Fan (4)			dB(A)	81	89	76	77 to 78	80	78
Return Fan (4)			dB(A)	78	88	73	75	78	75
SIZE AND WEIGHT									
Dimensions L x W x H (5)			mm	2950 x 1385 x 1675	2950 x 1785 x 1675	3200 x 1885 x 2200	3650 x 2185 x 2280	3775 x 2385 x 2480	3946 x 2585 x 2480
Weight (5)		max	kg	750 ~ 760	950 ~ 970	1250 ~ 1270	1600 ~ 1630	1750 ~ 1800	2100 ~ 2150

- (1) ODU Condition (cooling) 35°C 50%RH, Air on AHU coil 27°C 50% RH & 100% OA.
 (2) ODU Condition (heating) 7°C 85%RH, Air on AHU coil 20°C 50% RH & 100% OA.
 (3) Available static pressure for standard configuration (pressure drops resulting from any available accessories not included).
 (4) Sound power based on measurements performed in accordance with ISO 3744.
 (5) The weight and dimensions given refer to the standard unit without accessories.

Options and Accessories

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- Night purge
- CO₂ control
- Intake air rain hood and weatherproof
- Mineral wool insulation (fireproof)
- High static fans
- Various fan speed control settings
- BMS Interface Modbus / BACnet
- Energy management software
- Touch screen wall controller
- KIPLINK (Wi-Fi user interface)
- Electrical panel light and socket
- 3-way mixing box

HR-P: Heat Recovery – Plate Heat ex.





Black Diamond Technologies and Mitsubishi Electric – an Exclusive Partnership Since 1981

The Mitsubishi Electric Product Range has been exclusively distributed by 100% locally owned and operated Black Diamond Technologies Limited for over 40 years in New Zealand.

The combination of an internationally trusted brand with the comfort of a locally owned and operated company means that you will always get the best products, the best local service and the best local support.

Based in Wellington with a further 4 support offices throughout New Zealand, Black Diamond Technologies Limited is here to help.

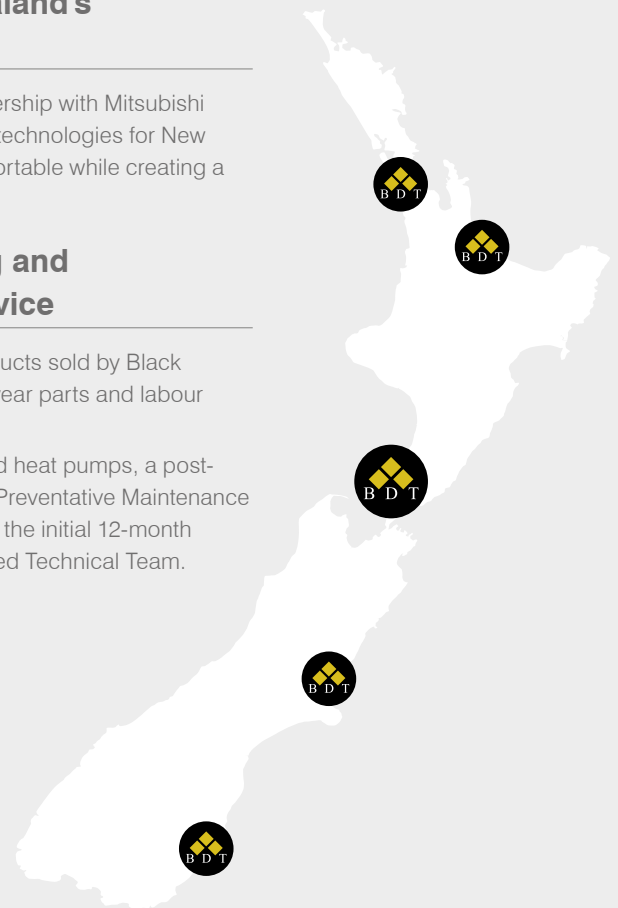
Our Vision – Creating New Zealand's Sustainable Future

Black Diamond Technologies Limited in partnership with Mitsubishi Electric, strives to develop and introduce new technologies for New Zealanders that will make our lives more comfortable while creating a greener tomorrow.

Peace of Mind Commissioning and Preventative Maintenance Service

Commercial chiller and heat pump HVAC products sold by Black Diamond Technologies are provided with a 1-year parts and labour warranty from the time of commissioning.

To validate the warranty on specific chillers and heat pumps, a post-commissioning Black Diamond Technologies Preventative Maintenance Service is required; this includes 4 site visits in the initial 12-month period and is carried out by our specially trained Technical Team.



For more information please visit our website
or call our Customer Service Team.

www.mitsubishi-electric.co.nz | 0800 784 382

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 **PLEASE LOOK AFTER THE ENVIRONMENT AND RECYCLE**