



DB Commercial Air Conditioning System

DRV

DUNHAM-BUSH VRF SYSTEM

50/60Hz R410a



MILESTONE



DUNHAM-BUSH PROFILE

Dunham-Bush, one of the world's top commercial air conditioning manufacturers, has long been committed to offering creative solutions for the customer's requirements over its nearly 120 years history in the HVAC/R. Dunham-Bush offers a complete range of HVAC/R products such as large chillers, unitary, airside system, and cooling towers for residences, commercial buildings and industrial facilities, and even disaster area. Dunham-Bush is striving to be the leader in the commercialization of green technologies. Today, by utilizing our global network of sales and service offices, Dunham-Bush is offering our value-added products and solutions to all corners of the world.



1894

Built in USA as a professional manufacturer of HVACR equipment

1904

Developed the first air compressor system.

1906

The second Dunham-Bush factory

1924

Developed the first air conditioning system

1930



CHINA



MALAYSIA

Today and Beyond

The tradition of innovative thinking continues.

2013

New compressor R&D center was founded in UK to engage in high tier compressor technology

2008

Dunham-Bush launched its new logo to match its new global brand & business strategy.

1998

Dunham-Bush built the factory in Kajang, Malaysia. Later built Global Headquarters there in 2000.

1996

Hartford Compressors Incorporated was built in USA.

1995

Dunham-Bush Yantai Co. Ltd. was jointly built by Dunham-Bush Group and Yantai Moon Group.

1967

Patented the technology to use a screw compressor for refrigeration/cooling.

1965

Developed the first centrifugal chiller.

1956

Engaged in the research, development and production of high standard products.

1948

The factory in West Hartford, Connecticut, USA was built.

1935

Factory in Morden, Great Britain was built to produce heating products.

Manufactured the first air cooled air conditioner.

First reciprocating compressor.

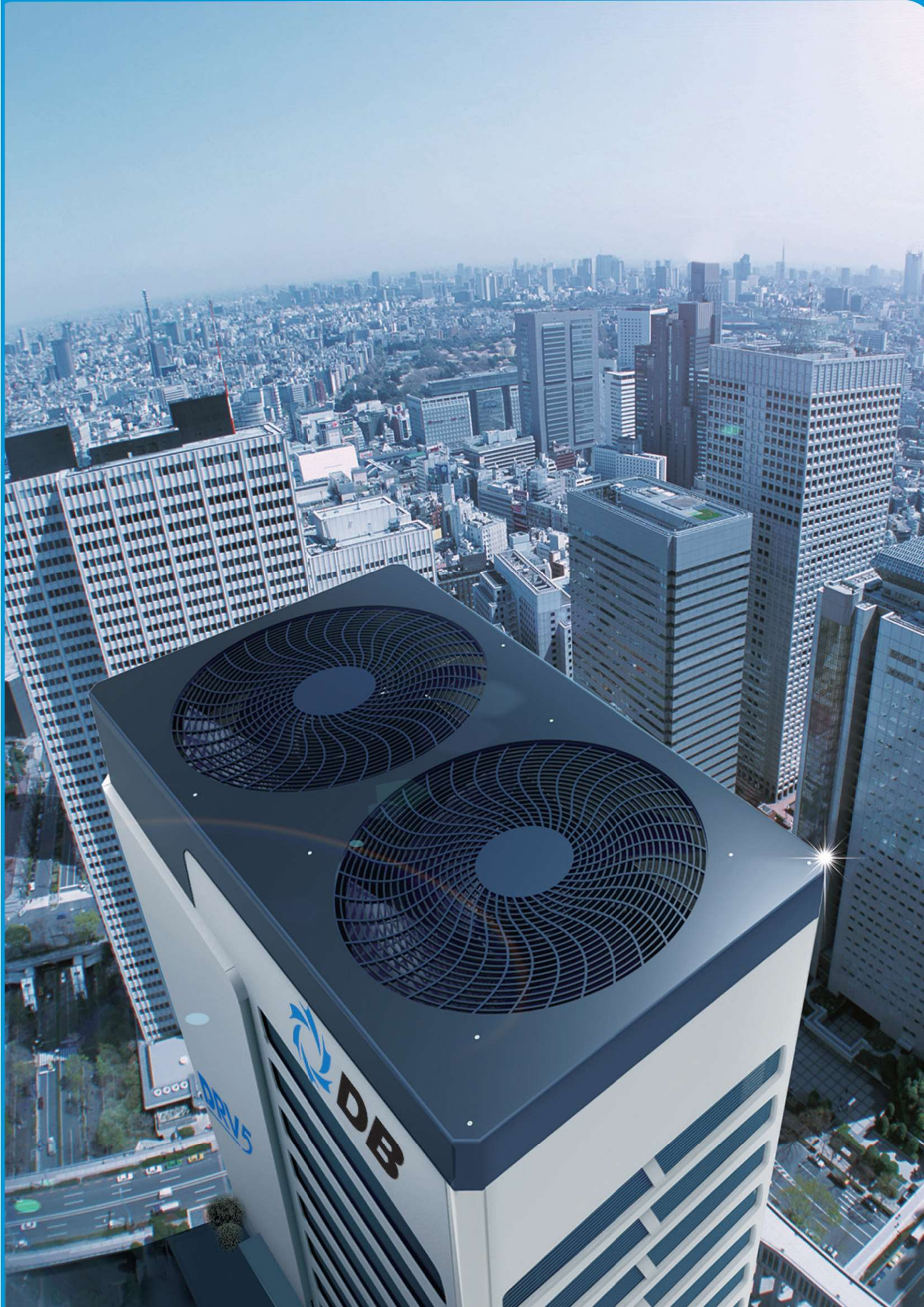
Company was built.

Products.



DUNHAM-BUSH CHINA

Founded in Yantai in 1995, Dunham-Bush China adhered to the innovation system of focusing on customers' demands to drive global research & design, and superior quality manufacturing. Nowadays we Dunham-Bush China are creating innovative cooling solutions appropriate to the individual requirements of commercial buildings, schools, hospitals, airports, factories and residences. No matter where you are, what we deliver is the same: high performing, highly engineered cooling solutions developed to take on the challenges of the 21st century.



DRV5



FEATURES & BENEFITS

Leadership in technology

Maximum single module 26HP Maximum combination 104HP

With large capacity full DC inverter compressors, DRV 5 can reach single module 26HP, maximum combination 104HP.

Max. 4 module combination up to **104HP**



Max. single module up to **26HP**



8-16HP

18-26HP

Single module 8-26HP

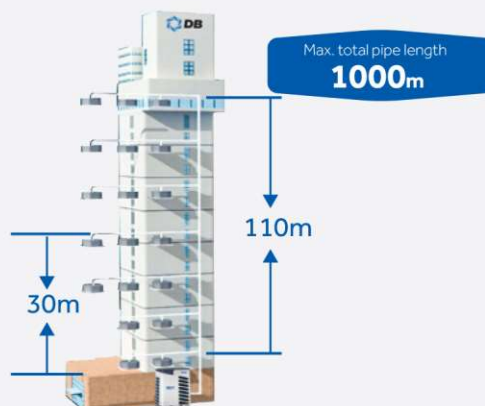
Super efficiency with full DC inverter compressor and Speedless inverter DC-motor

Outdoor unit matches efficient variable-speed DC-motor, driven by sine wave, wider efficiency range and torque range, motor efficiency is increased by 17%. Air fan of outdoor unit can achieve 0-91Hz stepless frequency control, matches up inverter with stepless compressor, the durability and stability of the compressor are guaranteed, fault can be reduced.



Total pipe length 1000m, height drop 110m

Longer piping length and higher level differences allow for more flexible design with little limitations.



New one-piece of four-way heat exchanger

Heat exchanger area can be wide raised, the efficiency of the whole machine is improved.

primary four-way heat exchange



heat exchange area $660 \times 1690 \times 2 = 2.23\text{m}^2$

common three-way heat exchange



heat exchange area $1400 \times 1770 = 2.47\text{m}^2$

Dunham-Bush new four-way heat exchanger



Heat transfer efficiency increased by **30%**

heat exchange area $1260 \times 2294 = 2.89\text{m}^2$

Flexible Vortex disk

The unit matches by flexible vortex inverter DC-compressor, realized full inverter of compressor, efficiency is 5% higher than that of conventional scroll compressors.



Installation friendly

Auto addressing indoor units

Outdoor units can address indoor units automatically, greatly reducing labor.



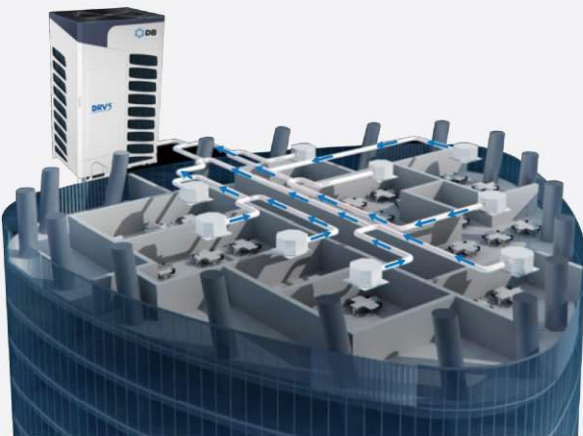
Automatic oil balancing

Without oil balancing pipe, the oil is balanced automatically. This simplifies system design and improves reliability.



Piping refrigerant storage technology

Advanced refrigerant control technology, the refrigerant is stored in the indoor and outdoor machine piping, remove the high pressure tank, less refrigerant filling in unit, high efficiency.



New appearance of patented design

Design of hidden screw, one-piece streamline air grille, practical and beautiful. Large diameter fan of 700mm, large air flow, low noise figure, improved heat transfer efficiency, originate rotation type service door, easy to operate.



FEATURES & BENEFITS

Super comfort

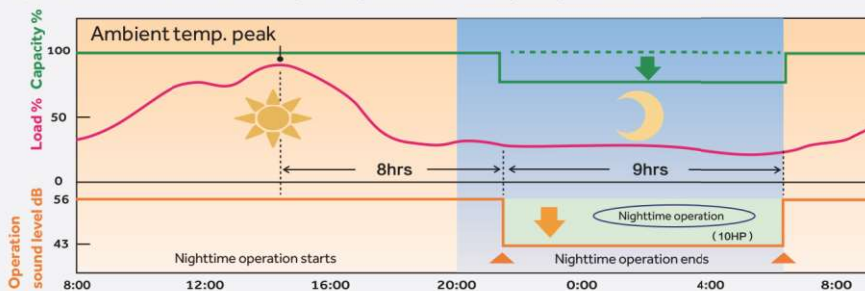
Quick cooling and heating

Start up and reaching maximum output in short time, realizing quick cooling and heating.



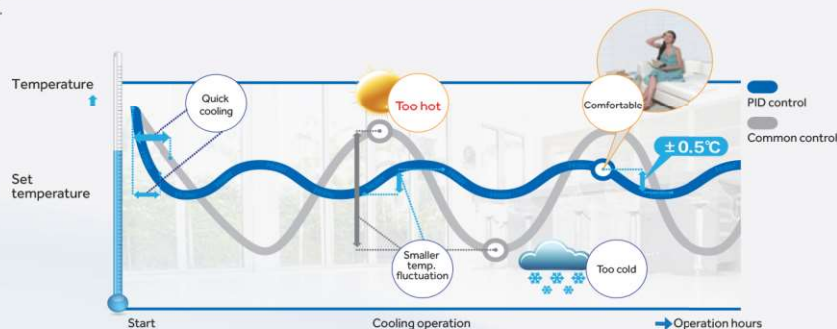
Nighttime quiet operation at 10dB(A) reduced sound level

When quiet operation is required, this function can be configured by outdoor PCB to greatly reduce sound level.



Precise temperature control at $\pm 0.5^{\circ}\text{C}$

With twin pressure sensors and twin EEVS, the refrigerant volume can be adjusted automatically to realize precise temperature control, improving indoor comfort.



Intelligent defrosting technology

According to system status to intelligently judge if defrosting is required, improving indoor comfort.



DRV 5 T1 380~415V



DV08IMVEVA
DV10IMVEVA
DV12IMVEVA
DV14IMVEVA
DV16IMVEVA



DV18IMVEVA
DV20IMVEVA
DV22IMVEVA
DV24IMVEVA
DV26IMVEVA

Model			DV08IMVEVA	DV10IMVEVA	DV12IMVEVA	DV14IMVEVA	DV16IMVEVA	
Combination model			/	/	/	/	/	
Capacity								
Capacity	Capacity range	HP	8	10	12	14	16	
	Cooling	kW	25.2	28.0	33.5	40.0	45.0	
	Heating	kW	27.0	31.5	37.5	45.0	50.0	
Electrical parameters								
Power supply		Ph/V/Hz	3/380-415/50/60	3/380-415/50/60	3/380-415/50/60	3/380-415/50/60	3/380-415/50/60	
Electrical parameters	Cooling	Rated power input	kW	5.60	6.80	8.40	10.90	11.80
		Max power input	kW	12.000	12.900	13.800	16.400	19.200
		Rated current	A	9.45	11.48	14.18	18.40	19.92
		Max current	A	20.26	21.78	23.30	27.69	32.41
	Heating	Rated power input	kW	5.20	6.30	8.00	10.30	11.20
		Max power input	kW	10.90	12.20	12.50	15.10	18.40
		Rated current	A	8.78	10.64	13.51	17.39	18.91
		Max current	A	18.40	20.60	21.10	25.49	31.06
EER			4.50	4.12	3.99	3.67	3.81	
COP			5.19	5.00	4.69	4.37	4.46	
SEER			7.50	7.33	7.20	6.85	6.40	
SCOP			5.50	5.45	5.30	5.12	4.55	
Performance								
Air flow (H)		m ³ /h	11000	11000	12000	13500	13500	
Sound pressure level (H)		dB(A)	56	56	59	59	60	
Sound power level (H)		dB(A)	67	67	70	70	71	
Installation								
External dimensions(W/D/H)		mm	980/750/1690					
Shipping dimensions(W/D/H)		mm	1070/850/1838					
Net/Shipping weight		kg	224/250			244/270		
Compressor type			DC INV. SCROLL	DC INV. SCROLL	DC INV. SCROLL	DC INV. SCROLL	DC INV. SCROLL	
Compressor brand			MITSUBISHI ELECTRIC	MITSUBISHI ELECTRIC	MITSUBISHI ELECTRIC	MITSUBISHI ELECTRIC	MITSUBISHI ELECTRIC	
Compressor quantity			1INV	1INV	1INV	1INV	1INV	
Refrigerant type			R410A	R410A	R410A	R410A	R410A	
Refrigerant charge		kg	8.5	8.5	8.5	10	10	
Refrigerant liquid pipe		mm	9.52	9.52	12.7	12.7	12.7	
Refrigerant gas pipe		mm	19.05	22.22	25.4	25.4	28.58	
Max.total pipe lenth		m	1000	1000	1000	1000	1000	
Max. pipe length(Equivalent/Actual)		m	260/220	260/220	260/220	260/220	260/220	
Max drop between I.U.&O.U (O.U down/up) *1		m	110/90	110/90	110/90	110/90	110/90	
Standard drop between .U.&O.U (O.U up/down) *2		m	50/40	50/40	50/40	50/40	50/40	
Max drop between I.U *3		m	30	30	30	30	30	
Standard drop between I.U *4		m	18	18	18	18	18	
External static pressure		Pa	110	110	110	110	110	
Connection ratio								
Connectable indoor unit ratio		%	50-130	50-130	50-130	50-130	50-130	
Maximum number of indoor units			13	16	20	24	27	
Working temp.								
Cooling		°C	-5~53					
Heating		°C	-23~21					

Max drop between I.U.&O.U *1
Standard drop between I.U.&O.U *2
Max drop between I.U. *3
Standard drop between I.U. *4

If the height difference between the outdoor and the indoor units is from 50 to 110m, you MUST contact your local distributor/dealer for individual design and production. Standard design and production in the factory.
If the height difference between the indoor units is from 18 to 30m, you MUST contact your local distributor/dealer for individual design and production. Standard design and production in the factory.

* All the specifications are tested under nominal condition(in cooling, indoor temp. is 27°C DB/19°C WB, Outdoor temp. 35°C DB/24WB, in heating, indoor temp. is 20°C DB, in heating, outdoor temp. is 7°C DB/6°CWB)

DRV 5 T1 380~415V



DV08IMVEVA
DV10IMVEVA
DV12IMVEVA
DV14IMVEVA
DV16IMVEVA



DV18IMVEVA
DV20IMVEVA
DV22IMVEVA
DV24IMVEVA
DV26IMVEVA

Model			DV18IMVEVA	DV20IMVEVA	DV22IMVEVA	DV24IMVEVA	DV26IMVEVA	
Combination model			/	/	/	/	/	
			/	/	/	/	/	
			/	/	/	/	/	
			/	/	/	/	/	
Capacity	Capacity range	HP	18	20	22	24	26	
	Cooling	kW	50.4	56.0	61.5	68.0	73.5	
	Heating	kW	56.5	61.5	69.0	73.0	82.5	
Power supply			Ph/V/Hz	3/380-415/50/60	3/380-415/50/60	3/380-415/50/60	3/380-415/50/60	
Electrical parameters	Cooling	Rated power input	kW	14.30	15.10	16.50	17.60	18.80
		Max power input	kW	21.400	25.100	28.500	29.100	33.000
		Rated current	A	24.14	25.49	27.86	29.71	31.74
		Max current	A	36.13	42.37	48.11	49.13	55.80
	Heating	Rated power input	kW	13.40	14.60	15.40	16.80	17.70
		Max power input	kW	17.70	22.70	25.50	26.50	30.40
		Rated current	A	22.62	24.65	26.00	28.36	29.88
		Max current	A	29.88	38.32	43.05	44.74	51.32
	EER			3.52	3.71	3.73	3.86	3.91
	COP			4.22	4.21	4.48	4.35	4.66
	SEER			6.50	6.35	6.20	6.03	5.86
	SCOP			4.65	4.55	4.40	4.26	4.15
Performance	Air flow (H)	m ³ /h	17000	17000	18000	18000	19000	
	Sound pressure level (H)	dB(A)	61	61	61	62	62	
	Sound power level (H)	dB(A)	72	72	72	73	73	
External dimensions(W/D/H)		mm	1410/750/1690					
Shipping dimensions(W/D/H)		mm	1515/850/1838					
Net/Shipping weight		kg	287/317	370/400				
Compressor type			DC INV. SCROLL	DC INV. SCROLL	DC INV. SCROLL	DC INV. SCROLL	DC INV. SCROLL	
Compressor brand			MITSUBISHI ELECTRIC	MITSUBISHI ELECTRIC	MITSUBISHI ELECTRIC	MITSUBISHI ELECTRIC	MITSUBISHI ELECTRIC	
Compressor quantity			1INV	2INV	2INV	2INV	2INV	
Refrigerant type			R410A	R410A	R410A	R410A	R410A	
Refrigerant charge		kg	10	10	10	10	10	
Refrigerant liquid pipe		mm	15.88	15.88	15.88	15.88	15.88	
Refrigerant gas pipe		mm	28.58	28.58	28.58	28.58	28.58	
Max.total pipe lenth		m	1000	1000	1000	1000	1000	
Max. pipe length (Equivalent/Actual)		m	260/220	260/220	260/220	260/220	260/220	
Max drop between I.U.&O.U (O.U down/up) *1		m	110/90	110/90	110/90	110/90	110/90	
Standard drop between I.U.&O.U (O.U up/down) *2		m	50/40	50/40	50/40	50/40	50/40	
Max drop between I.U *3		m	30	30	30	30	30	
Standard drop between I.U *4		m	18	18	18	18	18	
External static pressure		Pa	110	110	110	110	110	
Connection ratio	Connectable indoor unit ratio	%	50-130	50-130	50-130	50-130	50-130	
	Maximum number of indoor units		30	33	36	40	43	
Working temp.	Cooling	°C	-5-53					
	Heating	°C	-23-21					

Max drop between I.U.&O.U *1
Standard drop between I.U.&O.U *2
Max drop between I.U. *3
Standard drop between I.U. *4

If the height difference between the outdoor and the indoor units is from 50 to 110m, you MUST contact your local distributor/dealer for individual design and production.
Standard design and production in the factory.
If the height difference between the indoor units is from 18 to 30m, you MUST contact your local distributor/dealer for individual design and production.
Standard design and production in the factory.

- Full DC inverter compressors
- Maximum Single module 26HP
- Maximum combination 104HP
- Total pipe length 1000m
- Height drop 110 m

Model			DV28IMVEVA	DV30IMVEVA	DV32IMVEVA	DV34IMVEVA	
Combination model			DV14IMVEVA	DV14IMVEVA	DV16IMVEVA	DV16IMVEVA	
			DV14IMVEVA	DV16IMVEVA	DV16IMVEVA	DV18IMVEVA	
			/	/	/	/	
			/	/	/	/	
Capacity	Capacity range	HP	28	30	32	34	
	Cooling	kW	80.0	85.0	90.0	95.4	
	Heating	kW	90.0	95.0	100.0	106.5	
Electrical parameters	Power supply	Ph/V/Hz	3/380-415/50/60	3/380-415/50/60	3/380-415/50/60	3/380-415/50/60	
	Cooling	Rated power input	kW	21.80	22.70	23.60	26.10
		Max power input	kW	32.800	35.600	38.400	40.600
		Rated current	A	36.80	38.32	39.84	44.06
		Max current	A	55.37	60.10	64.83	68.54
	Heating	Rated power input	kW	20.60	21.50	22.40	24.60
		Max power input	kW	30.20	33.50	36.80	36.10
		Rated current	A	34.78	36.30	37.82	41.53
		Max current	A	50.98	56.55	62.13	60.94
	EER			3.67	3.74	3.81	3.66
	COP			4.37	4.42	4.46	4.33
	SEER			6.97	6.71	6.50	6.56
	SCOP			5.15	4.81	4.55	4.60
	Performance	Air flow (H)	m ³ /h	27000	27000	27000	30500
Sound pressure level (H)		dB(A)	62	62.5	63	63.5	
Sound power level (H)		dB(A)	73	73.5	74	74.5	
Installation	External dimensions(W/D/H)	mm	980×750×1690+980×750×1690			980×750×1690+1410×750×1690	
	Shipping dimensions(W/D/H)	mm	1070/850/1838+1070/850/1838			1070/850/1838+1515/850/1838	
	Net/Shipping weight	kg	244/270+244/270	244/270+244/270		244/270+287/317	
	Compressor type		DC INV. SCROLL	DC INV. SCROLL	DC INV. SCROLL	DC INV. SCROLL	
	Compressor brand		MITSUBISHI	MITSUBISHI	MITSUBISHI	MITSUBISHI	
			ELECTRIC	ELECTRIC	ELECTRIC	ELECTRIC	
	Compressor quantity		2INV	2INV	2INV	2INV	
	Refrigerant type		R410A	R410A	R410A	R410A	
	Refrigerant charge	kg	20	20	20	20	
	Refrigerant liquid pipe	mm	15.88	19.05	19.05	19.05	
	Refrigerant gas pipe	mm	28.58	31.8	31.8	31.8	
	Max.total pipe lenth	m	1000	1000	1000	1000	
	Max.pipelength(Equivalent/Actual)	m	260/220	260/220	260/220	260/220	
	Max drop between I.U.&O.U (O.U down/up) *1	m	110/90	110/90	110/90	110/90	
	Standard drop between .U.&O.U (O.U up/down) *2	m	50/40	50/40	50/40	50/40	
	Max drop between I.U *3	m	30	30	30	30	
	Standard drop between I.U *4	m	18	18	18	18	
External static pressure	Pa	110	110	110	110		
Connection ratio	Connectable indoor unit ratio	%	50-130	50-130	50-130	50-130	
	Maximum number of indoor units		47	50	53	56	
Working temp.	Cooling	°C	-5~53				
	Heating	°C	-23~21				

* All the specifications are tested under nominal condition(In cooling, indoor temp. is 27°C D9/19°C WB; Outdoor temp 35°C DB/24WB; In heating, indoor temp. is 20°C DB; In heating, outdoor temp. is 7°C DB/6°CWB)

DRV 5 T1 380~415V



DV08IMVEVA
DV10IMVEVA
DV12IMVEVA
DV14IMVEVA
DV16IMVEVA



DV18IMVEVA
DV20IMVEVA
DV22IMVEVA
DV24IMVEVA
DV26IMVEVA

Model			DV36IMVEVA	DV38IMVEVA	DV40IMVEVA	DV42IMVEVA	DV44IMVEVA	
Combination model			DV18IMVEVA	DV18IMVEVA	DV20IMVEVA	DV20IMVEVA	DV22IMVEVA	
			DV18IMVEVA	DV20IMVEVA	DV20IMVEVA	DV22IMVEVA	DV22IMVEVA	
			/	/	/	/	/	
			/	/	/	/	/	
Capacity	Capacity range	HP	36	38	40	42	44	
	Cooling	kW	100.8	106.4	112.0	117.5	123.0	
	Heating	kW	113.0	118.0	123.0	130.5	138.0	
Power supply		Ph/V/Hz	3/380-415/50/60	3/380-415/50/60	3/380-415/50/60	3/380-415/50/60	3/380-415/50/60	
Electrical parameters	Cooling	Rated power input	kW	28.60	29.40	30.20	31.60	33.00
		Max power input	kW	42.800	46.500	50.200	53.600	57.000
		Rated current	A	48.28	49.63	50.98	53.35	55.71
		Max current	A	72.26	78.50	84.75	90.49	96.23
	Heating	Rated power input	kW	26.80	28.00	29.20	30.00	30.80
		Max power input	kW	35.40	40.40	45.40	48.20	51.00
		Rated current	A	45.24	47.27	49.30	50.65	52.00
		Max current	A	59.76	68.20	76.64	81.37	86.10
	EER			3.52	3.62	3.71	3.72	3.73
	COP			4.22	4.21	4.21	4.35	4.48
	SEER			6.60	6.51	6.43	6.34	6.26
	SCOP			4.65	4.61	4.58	4.49	4.42
Performance	Air flow (H)	m ³ /h	34000	34000	34000	35000	36000	
	Sound pressure level (H)	dB(A)	64	64	64	64	64	
	Sound power level (H)	dB(A)	75	75	75	75	75	
External dimensions(W/D/H)		mm	1410×750×1690+1410×750×1690					
Shipping dimensions(W/D/H)		mm	1515/850/1838+1515/850/1838					
Net/Shipping weight		kg	287/317+287/317	287/317+370/400	370/400+370/400	370/400+370/400	370/400+370/400	
Compressor type			DC INV. SCROLL	DC INV. SCROLL	DC INV. SCROLL	DC INV. SCROLL	DC INV. SCROLL	
Compressor brand			MITSUBISHI ELECTRIC	MITSUBISHI ELECTRIC	MITSUBISHI ELECTRIC	MITSUBISHI ELECTRIC	MITSUBISHI ELECTRIC	
Compressor quantity			2INV	3INV	4INV	4INV	4INV	
Refrigerant type			R410A	R410A	R410A	R410A	R410A	
Refrigerant charge		kg	20	20	20	20	20	
Refrigerant liquid pipe		mm	19.05	19.05	19.05	19.05	19.05	
Refrigerant gas pipe		mm	38.1	38.1	38.1	38.1	38.1	
Max.total pipe lenth		m	1000	1000	1000	1000	1000	
Max. pipe length (Equivalent/Actual)		m	260/220	260/220	260/220	260/220	260/220	
Max drop between I.U.&O.U (O.U down/up) *1		m	110/90	110/90	110/90	110/90	110/90	
Standard drop between I.U.&O.U (O.U up/down) *2		m	50/40	50/40	50/40	50/40	50/40	
Max drop between I.U *3		m	30	30	30	30	30	
Standard drop between I.U *4		m	18	18	18	18	18	
External static pressure		Pa	110	110	110	110	110	
Connection ratio	Connectable indoor unit ratio	%	50-130	50-130	50-130	50-130	50-130	
	Maximum number of indoor units		59	63	64	64	64	
Working temp.	Cooling	°C	-5~53					
	Heating	°C	-23~21					

Max drop between I.U.&O.U *1
Standard drop between I.U.&O.U *2
Max drop between I.U. *3
Standard drop between I.U. *4

If the height difference between the outdoor and the indoor units is from 50 to 110m, you MUST contact your local distributor/dealer for individual design and production.
Standard design and production in the factory.

If the height difference between the indoor units is from 18 to 30m, you MUST contact your local distributor/dealer for individual design and production.
Standard design and production in the factory.

- Full DC inverter compressors
- Maximum Single module 26HP
- Maximum combination 104HP
- Total pipe length 1000m
- Height drop 110 m

Model			DV46IMVEVA	DV48IMVEVA	DV50IMVEVA	DV52IMVEVA	
Combination model			DV22IMVEVA	DV24IMVEVA	DV24IMVEVA	DV26IMVEVA	
			DV24IMVEVA	DV24IMVEVA	DV26IMVEVA	DV26IMVEVA	
			/	/	/	/	
			/	/	/	/	
Capacity	Capacity range	HP	46	48	50	52	
	Cooling	kW	129.5	136.0	141.5	147.0	
	Heating	kW	142.0	146.0	155.5	165.0	
Electrical parameters	Power supply	Ph/V/Hz	3/380-415/50/60	3/380-415/50/60	3/380-415/50/60	3/380-415/50/60	
	Cooling	Rated power input	kW	34.10	35.20	36.40	37.60
		Max power input	kW	57.600	58.200	62.100	66.000
		Rated current	A	57.57	59.42	61.45	63.48
		Max current	A	97.24	98.25	104.93	111.60
	Heating	Rated power input	kW	32.20	33.60	34.50	35.40
		Max power input	kW	52.00	53.00	56.90	60.80
		Rated current	A	54.36	56.72	58.24	59.76
		Max current	A	87.79	89.48	96.06	102.64
	EER		3.80	3.86	3.89	3.91	
	COP		4.41	4.35	4.51	4.66	
	SEER		6.17	6.09	5.99	5.91	
	SCOP		4.34	4.27	4.21	4.16	
	Performance	Air flow (H)	m³/h	36000	36000	37000	38000
Sound pressure level (H)		dB(A)	64.5	65	65	65	
Sound power level (H)		dB(A)	75.5	76	76	76	
Installation	External dimensions(W/D/H)	mm	1410×750×1690+1410×750×1690				
	Shipping dimensions(W/D/H)	mm	1515/850/1838+1515/850/1838				
	Net/Shipping weight	kg	370/400+370/400	370/400+370/400	370/400+370/400	370/400+370/400	
	Compressor type		DC INV. SCROLL	DC INV. SCROLL	DC INV. SCROLL	DC INV. SCROLL	
	Compressor brand		MITSUBISHI	MITSUBISHI	MITSUBISHI	MITSUBISHI	
			ELECTRIC	ELECTRIC	ELECTRIC	ELECTRIC	
	Compressor quantity		4INV	4INV	4INV	4INV	
	Refrigerant type		R410A	R410A	R410A	R410A	
	Refrigerant charge	kg	20	20	20	20	
	Refrigerant liquid pipe	mm	19.05	19.05	19.05	19.05	
	Refrigerant gas pipe	mm	38.1	38.1	38.1	38.1	
	Max.total pipe lenth	m	1000	1000	1000	1000	
	Max.pipelength(Equivalent/Actual)	m	260/220	260/220	260/220	260/220	
	Max drop between I.U.&O.U (O.U down/up) *1	m	110/90	110/90	110/90	110/90	
	Standard drop between .U.&O.U (O.U up/down) *2	m	50/40	50/40	50/40	50/40	
	Max drop between I.U *3	m	30	30	30	30	
	Standard drop between I.U *4	m	18	18	18	18	
External static pressure	Pa	110	110	110	110		
Connection ratio	Connectable indoor unit ratio	%	50-130	50-130	50-130	50-130	
	Maximum number of indoor units		64	64	64	64	
Working temp.	Cooling	°C	-5-53				
	Heating	°C	-23-21				

* All the specifications are tested under nominal condition(n cooling, indoor temp. is 27°C D9/19°C WB; Outdoor temp 35°C DB/24WB; n heating, indoor temp. is 20°C DB; n heating, outdoor temp. is 7°C DB/6°CWB)

DRV 5 T1 380~415V



DV08IMVEVA
DV10IMVEVA
DV12IMVEVA
DV14IMVEVA
DV16IMVEVA



DV18IMVEVA
DV20IMVEVA
DV22IMVEVA
DV24IMVEVA
DV26IMVEVA

Model			DV54IMVEVA	DV56IMVEVA	DV58IMVEVA	DV60IMVEVA	
Combination model			DV18IMVEVA	DV18IMVEVA	DV18IMVEVA	DV20IMVEVA	
			DV18IMVEVA	DV18IMVEVA	DV20IMVEVA	DV20IMVEVA	
			DV18IMVEVA	DV20IMVEVA	DV20IMVEVA	DV20IMVEVA	
			/	/	/	/	
Capacity	Capacity range	HP	54	56	58	60	
	Cooling	kW	151.2	156.8	162.4	168.0	
	Heating	kW	169.5	174.5	179.5	184.5	
Electrical parameters	Power supply	Ph/V/Hz	3/380-415/50/60	3/380-415/50/60	3/380-415/50/60	3/380-415/50/60	
	Cooling	Rated power input	kW	42.90	43.70	44.50	45.30
		Max power input	kW	64.200	67.900	71.600	75.300
		Rated current	A	72.42	73.77	75.13	76.48
		Max current	A	108.38	114.63	120.88	127.12
	Heating	Rated power input	kW	40.20	41.40	42.60	43.80
		Max power input	kW	53.10	58.10	63.10	68.10
		Rated current	A	67.87	69.89	71.92	73.94
		Max current	A	89.64	98.08	106.53	114.97
	EER		3.52	3.59	3.65	3.71	
	COP		4.22	4.21	4.21	4.21	
	SEER		6.63	6.56	6.50	6.45	
	SCOP		4.65	4.63	4.60	4.58	
Performance	Air flow (H)	m ³ /h	51000	51000	51000	51000	
	Sound pressure level (H)	dB(A)	65.8	65.8	65.8	65.8	
	Sound power level (H)	dB(A)	76.5	76.5	76.5	76.5	
External dimensions(W/D/H)		mm	1410×750×1690+1410×750×1690+1410×750×1690				
Shipping dimensions(W/D/H)		mm	1515/850/1838+1515/850/1838+1515/850/1838				
Net/Shipping weight		kg	287/317+287/317+287/317	287/317+287/317+370/400	287/317+370/400+370/400	370/400+370/400+370/400	
Compressor type			DC INV. SCROLL	DC INV. SCROLL	DC INV. SCROLL	DC INV. SCROLL	
Compressor brand			MITSUBISHI ELECTRIC	MITSUBISHI ELECTRIC	MITSUBISHI ELECTRIC	MITSUBISHI ELECTRIC	
Compressor quantity			3INV	4INV	5INV	6INV	
Refrigerant type			R410A	R410A	R410A	R410A	
Refrigerant charge		kg	30	30	30	30	
Refrigerant liquid pipe		mm	19.05	19.05	19.05	19.05	
Refrigerant gas pipe		mm	38.1	38.1	41.3	41.3	
Max.total pipe lenth		m	1000	1000	1000	1000	
Max. pipe length (Equivalent/Actual)		m	260/220	260/220	260/220	260/220	
Max drop between I.U.&O.U (O.U down/up) *1		m	110/90	110/90	110/90	110/90	
Standard drop between .U.&O.U (O.U up/down) *2		m	50/40	50/40	50/40	50/40	
Max drop between I.U *3		m	30	30	30	30	
Standard drop between I.U *4		m	18	18	18	18	
External static pressure		Pa	110	110	110	110	
Connection ratio	Connectable indoor unit ratio	%	50-130	50-130	50-130	50-130	
	Maximum number of indoor units		64	64	64	64	
Working temp.	Cooling	°C	-5~53				
	Heating	°C	-23~21				

Max drop between I.U.&O.U *1
Standard drop between I.U.&O.U *2
Max drop between I.U. *3
Standard drop between I.U. *4

If the height difference between the outdoor and the indoor units is from 50 to 110m, you MUST contact your local distributor/dealer for individual design and production.
Standard design and production in the factory.
If the height difference between the indoor units is from 18 to 30m, you MUST contact your local distributor/dealer for individual design and production.
Standard design and production in the factory.

- Full DC inverter compressors
- Maximum Single module 26HP
- Maximum combination 104HP
- Total pipe length 1000m
- Height drop 110 m

Model			DV62IMVEVA	DV64IMVEVA	DV66IMVEVA	DV68IMVEVA	
Combination model			DV22IMVEVA	DV22IMVEVA	DV22IMVEVA	DV22IMVEVA	
			DV20IMVEVA	DV22IMVEVA	DV22IMVEVA	DV22IMVEVA	
			DV20IMVEVA	DV20IMVEVA	DV22IMVEVA	DV24IMVEVA	
			/	/	/	/	
Capacity	Capacity range	HP	62	64	66	68	
	Cooling	kW	173.5	179.0	184.5	191.0	
	Heating	kW	192.0	199.5	207.0	211.0	
Power supply			Ph/V/Hz	3/380-415/50/60	3/380-415/50/60	3/380-415/50/60	
Electrical parameters	Cooling	Rated power input	kW	46.70	48.10	49.50	50.60
		Max power input	kW	78.700	82.100	85.500	86.100
		Rated current	A	78.84	81.20	83.57	85.42
		Max current	A	132.86	138.60	144.34	145.35
	Heating	Rated power input	kW	44.60	45.40	46.20	47.60
		Max power input	kW	70.90	73.70	76.50	77.50
		Rated current	A	75.29	76.64	78.00	80.36
		Max current	A	119.69	124.42	129.15	130.84
	EER			3.72	3.72	3.73	3.77
	COP			4.30	4.39	4.48	4.43
	SEER			6.39	6.33	6.28	6.22
	SCOP			4.52	4.47	4.42	4.37
Performance	Air flow (H)	m ³ /h	52000	53000	54000	54000	
	Sound pressure level (H)	dB(A)	65.8	65.8	65.8	66	
	Sound power level (H)	dB(A)	76.5	76.5	76.5	77	
External dimensions(W/D/H)			mm	1410×750×1690+1410×750×1690+1410×750×1690			
Shipping dimensions(W/D/H)			mm	1515/850/1838+1515/850/1838+1515/850/1838			
Net/Shipping weight			kg	370/400+370/400+370/400			
Compressor type				DC INV. SCROLL	DC INV. SCROLL	DC INV. SCROLL	
Compressor brand				MITSUBISHI ELECTRIC	MITSUBISHI ELECTRIC	MITSUBISHI ELECTRIC	
Compressor quantity				6INV	6INV	6INV	
Refrigerant type				R410A	R410A	R410A	
Refrigerant charge			kg	30	30	30	
Installation	Refrigerant liquid pipe	mm	19.05	19.05	19.05	22.2	
	Refrigerant gas pipe	mm	41.3	41.3	41.3	44.5	
	Max.total pipe lenth	m	1000	1000	1000	1000	
	Max. pipe length(Equivalent/Actual)	m	260/220	260/220	260/220	260/220	
	Max drop between I.U.&O.U (O.U down/up) *1	m	110/90	110/90	110/90	110/90	
	Standard drop between .U.&O.U (O.U up/down) *2	m	50/40	50/40	50/40	50/40	
	Max drop between I.U *3	m	30	30	30	30	
	Standard drop between I.U *4	m	18	18	18	18	
	External static pressure	Pa	110	110	110	110	
	Connection ratio	Connectable indoor unit ratio	%	50-130	50-130	50-130	50-130
Maximum number of indoor units			64	64	64	64	
Working temp.	Cooling	°C	-5~53				
	Heating	°C	-23~21				

* All the specifications are tested under nominal condition(in cooling, indoor temp. is 27°C DB/19°C WB; Outdoor temp. is 35°C DB/24WB; in heating, indoor temp. is 20°C DB, in heating, outdoor temp. is 7°C DB/6°C WB)

DRV 5 T1 380~415V



DV08IMVEVA
DV10IMVEVA
DV12IMVEVA
DV14IMVEVA
DV16IMVEVA



DV18IMVEVA
DV20IMVEVA
DV22IMVEVA
DV24IMVEVA
DV26IMVEVA

Model			DV70IMVEVA	DV72IMVEVA	DV74IMVEVA	DV76IMVEVA	DV78IMVEVA	
Combination model			DV22IMVEVA	DV24IMVEVA	DV26IMVEVA	DV26IMVEVA	DV26IMVEVA	
			DV24IMVEVA	DV24IMVEVA	DV24IMVEVA	DV26IMVEVA	DV26IMVEVA	
			DV24IMVEVA	DV24IMVEVA	DV24IMVEVA	DV24IMVEVA	DV26IMVEVA	
			/	/	/	/	/	
Capacity	Capacity range	HP	70	72	74	76	78	
	Cooling	kW	197.5	204.0	209.5	215.0	220.5	
	Heating	kW	215.0	219.0	228.5	238.0	247.5	
Power supply			Ph/V/Hz	3/380-415/50/60	3/380-415/50/60	3/380-415/50/60	3/380-415/50/60	
Electrical parameters	Cooling	Rated power input	kW	51.70	52.80	54.00	55.20	56.40
		Max power input	kW	86.700	87.300	91.200	95.100	99.000
		Rated current	A	87.28	89.14	91.16	93.19	95.21
		Max current	A	146.37	147.38	154.05	160.73	167.40
	Heating	Rated power input	kW	49.00	50.40	51.30	52.20	53.10
		Max power input	kW	78.50	79.50	83.40	87.30	91.20
		Rated current	A	82.72	85.09	86.61	88.12	89.64
		Max current	A	132.52	134.21	140.80	147.38	153.96
	EER		3.82	3.86	3.88	3.89	3.91	
	COP		4.39	4.35	4.45	4.56	4.66	
	SEER		6.16	6.10	6.04	5.98	5.92	
	SCOP		4.32	4.27	4.23	4.20	4.16	
Performance	Air flow (H)	m ³ /h	54000	54000	55000	56000	57000	
	Sound pressure level (H)	dB(A)	66.5	66.8	66.8	66.8	66.8	
	Sound power level (H)	dB(A)	77.5	77.8	77.8	77.8	77.7	
External dimensions(W/D/H)		mm	1410×750×1690+1410×750×1690+1410×750×1690					
Shipping dimensions(W/D/H)		mm	1515/850/1838+1515/850/1838+1515/850/1838					
Net/Shipping weight		kg	370/400+370/400+370/400					
Compressor type			DC INV. SCROLL	DC INV. SCROLL	DC INV. SCROLL	DC INV. SCROLL	DC INV. SCROLL	
Compressor brand			MITSUBISHI ELECTRIC	MITSUBISHI ELECTRIC	MITSUBISHI ELECTRIC	MITSUBISHI ELECTRIC	MITSUBISHI ELECTRIC	
Compressor quantity			6INV	6INV	6INV	6INV	6INV	
Refrigerant type			R410A	R410A	R410A	R410A	R410A	
Refrigerant charge			kg	30	30	30	30	
Refrigerant liquid pipe			mm	22.2	22.2	22.2	22.2	
Refrigerant gas pipe			mm	44.5	44.5	44.5	44.5	
Max.total pipe lenth			m	1000	1000	1000	1000	
Max. pipe length (Equivalent/Actual)			m	260/220	260/220	260/220	260/220	
Max drop between I.U.&O.U (O.U down/up) *1			m	110/90	110/90	110/90	110/90	
Standard drop between .U.&O.U (O.U up/down) *2			m	50/40	50/40	50/40	50/40	
Max drop between I.U *3			m	30	30	30	30	
Standard drop between I.U *4			m	18	18	18	18	
External static pressure			Pa	110	110	110	110	
Connection ratio	Connectable indoor unit ratio	%	50-130	50-130	50-130	50-130	50-130	
	Maximum number of indoor units		64	64	64	64	64	
Working temp.	Cooling	°C	-5~53					
	Heating	°C	-23~21					

Max drop between I.U.&O.U *1
Standard drop between I.U.&O.U *2
Max drop between I.U. *3
Standard drop between I.U. *4

If the height difference between the outdoor and the indoor units is from 50 to 110m, you MUST contact your local distributor/dealer for individual design and production.
Standard design and production in the factory.
If the height difference between the indoor units is from 18 to 30m, you MUST contact your local distributor/dealer for individual design and production.
Standard design and production in the factory.

- Full DC inverter compressors
- Maximum Single module 26HP
- Maximum combination 104HP
- Total pipe length 1000m
- Height drop 110 m

Model			DV80IMVEVA	DV82IMVEVA	DV84IMVEVA	DV86IMVEVA	DV88IMVEVA	
Combination model			DV20IMVEVA	DV20IMVEVA	DV20IMVEVA	DV20IMVEVA	DV22IMVEVA	
			DV20IMVEVA	DV20IMVEVA	DV20IMVEVA	DV22IMVEVA	DV22IMVEVA	
			DV20IMVEVA	DV20IMVEVA	DV22IMVEVA	DV22IMVEVA	DV22IMVEVA	
			DV20IMVEVA	DV22IMVEVA	DV22IMVEVA	DV22IMVEVA	DV22IMVEVA	
Capacity	Capacity range	HP	80	82	84	86	88	
	Cooling	kW	224.0	229.5	235.0	240.5	246.0	
	Heating	kW	246.0	253.5	261.0	268.5	276.0	
Electrical parameters	Power supply	Ph/V/Hz	3/380-415/50/60	3/380-415/50/60	3/380-415/50/60	3/380-415/50/60	3/380-415/50/60	
	Cooling	Rated power input	kW	60.40	61.80	63.20	64.60	66.00
		Max power input	kW	100.400	103.800	107.200	110.600	114.000
		Rated current	A	101.97	104.33	106.69	109.06	111.42
		Max current	A	169.50	175.24	180.98	186.72	192.46
	Heating	Rated power input	kW	58.40	59.20	60.00	60.80	61.60
		Max power input	kW	90.80	93.60	96.40	99.20	102.00
		Rated current	A	98.59	99.94	101.29	102.64	103.99
		Max current	A	153.29	158.02	162.74	167.47	172.20
	EER		3.71	3.71	3.72	3.72	3.73	
	COP		4.21	4.28	4.35	4.42	4.48	
	SEER		6.46	6.41	6.37	6.33	6.29	
	SCOP		4.58	4.53	4.49	4.46	4.43	
	Performance	Air flow (H)	m³/h	68000	69000	70000	71000	72000
Sound pressure level (H)		dB(A)	67	67	67	67	67	
Sound power level (H)		dB(A)	78	78	78	78	78	
External dimensions(W/D/H)	mm	1410×750×1690+1410×750×1690+1410×750×1690+1410×750×1690						
Shipping dimensions(W/D/H)	mm	1515/850/1838+1515/850/1838+1515/850/1838+1515/850/1838						
Net/Shipping weight	kg	370/400+370/400+370/400+370/400						
Compressor type		DC INV. SCROLL	DC INV. SCROLL	DC INV. SCROLL	DC INV. SCROLL	DC INV. SCROLL		
Compressor brand		mitsubishi electric	mitsubishi electric	mitsubishi electric	mitsubishi electric	mitsubishi electric		
Compressor quantity		8INV	8INV	8INV	8INV	8INV		
Refrigerant type		R410A	R410A	R410A	R410A	R410A		
Refrigerant charge	kg	40	40	40	40	40		
Refrigerant liquid pipe	mm	22.2	22.2	22.2	25.4	25.4		
Refrigerant gas pipe	mm	44.5	44.5	44.5	50.8	50.8		
Max.total pipe lenth	m	1000	1000	1000	1000	1000		
Max. pipe length (Equivalent/Actual)	m	260/220	260/220	260/220	260/220	260/220		
Max drop between I.U.&O.U (O.U down/up) *1	m	110/90	110/90	110/90	110/90	110/90		
Standard drop between .U.&O.U (O.U up/down) *2	m	50/40	50/40	50/40	50/40	50/40		
Max drop between I.U *3	m	30	30	30	30	30		
Standard drop between I.U *4	m	18	18	18	18	18		
External static pressure	Pa	110	110	110	110	110		
Connection ratio	Connectable indoor unit ratio	%	50-130	50-130	50-130	50-130	50-130	
	Maximum number of indoor units		64	64	64	64	64	
Working temp.	Cooling	°C	-5~53					
	Heating	°C	-23~21					

* All the specifications are tested under nominal condition(In cooling, indoor temp. is 27°C D9/19°C WB; Outdoor temp 35°C DB/24WB; In heating, indoor temp. is 20°C DB; In heating, outdoor temp is 7°C DB/6°CWB)

DRV 5 T1 380~415V



DV08IMVEVA
DV10IMVEVA
DV12IMVEVA
DV14IMVEVA
DV16IMVEVA



DV18IMVEVA
DV20IMVEVA
DV22IMVEVA
DV24IMVEVA
DV26IMVEVA

Model			DV90IMVEVA	DV92IMVEVA	DV94IMVEVA	DV96IMVEVA	
Combination model			DV24IMVEVA	DV24IMVEVA	DV24IMVEVA	DV24IMVEVA	
			DV22IMVEVA	DV24IMVEVA	DV24IMVEVA	DV24IMVEVA	
			DV22IMVEVA	DV22IMVEVA	DV24IMVEVA	DV24IMVEVA	
			DV22IMVEVA	DV22IMVEVA	DV22IMVEVA	DV24IMVEVA	
Capacity	Capacity range	HP	90	92	94	96	
	Cooling	kW	252.5	259.0	265.5	272.0	
	Heating	kW	280.0	284.0	288.0	292.0	
Electrical parameters	Power supply	Ph/V/Hz	3/380-415/50/60	3/380-415/50/60	3/380-415/50/60	3/380-415/50/60	
	Cooling	Rated power input	kW	67.10	68.20	69.30	70.40
		Max power input	kW	114.600	115.200	115.800	116.400
		Rated current	A	113.28	115.14	116.99	118.85
		Max current	A	193.47	194.48	195.49	196.51
	Heating	Rated power input	kW	63.00	64.40	65.80	67.20
		Max power input	kW	103.00	104.00	105.00	106.00
		Rated current	A	106.36	108.72	111.08	113.45
		Max current	A	173.89	175.57	177.26	178.95
	EER		3.76	3.80	3.83	3.86	
	COP		4.44	4.41	4.38	4.35	
	SEER		6.24	6.19	6.15	6.11	
	SCOP		4.38	4.35	4.31	4.27	
Performance	Air flow (H)	m ³ /h	72000	72000	72000	72000	
	Sound pressure level (H)	dB(A)	67.5	67.5	68	68	
	Sound power level (H)	dB(A)	78.5	78.5	78.8	79	
External dimensions(W/D/H)		mm	1410×750×1690+1410×750×1690+1410×750×1690+1410×750×1690				
Shipping dimensions(W/D/H)		mm	1515/850/1838+1515/850/1838+1515/850/1838+1515/850/1838				
Net/Shipping weight		kg	370/400+370/400+370/400+370/400				
Compressor type			DC INV. SCROLL	DC INV. SCROLL	DC INV. SCROLL	DC INV. SCROLL	
Compressor brand			MITSUBISHI ELECTRIC	MITSUBISHI ELECTRIC	MITSUBISHI ELECTRIC	MITSUBISHI ELECTRIC	
Compressor quantity			8INV	8INV	8INV	8INV	
Refrigerant type			R410A	R410A	R410A	R410A	
Refrigerant charge			40	40	40	40	
Refrigerant liquid pipe			25.4	25.4	25.4	25.4	
Refrigerant gas pipe			50.8	50.8	50.8	50.8	
Max.total pipe lenth			1000	1000	1000	1000	
Max. pipe length (Equivalent/Actual)			260/220	260/220	260/220	260/220	
Max drop between I.U.&O.U (O.U down/up) *1			110/90	110/90	110/90	110/90	
Standard drop between .U.&O.U (O.U up/down) *2			50/40	50/40	50/40	50/40	
Max drop between I.U *3			30	30	30	30	
Standard drop between I.U *4			18	18	18	18	
External static pressure			110	110	110	110	
Connection ratio	Connectable indoor unit ratio	%	50-130	50-130	50-130	50-130	
	Maximum number of indoor units		64	64	64	64	
Working temp.	Cooling	°C	-5~53				
	Heating	°C	-23~21				

Max drop between I.U.&O.U *1
Standard drop between I.U.&O.U *2
Max drop between I.U. *3
Standard drop between I.U. *4

If the height difference between the outdoor and the indoor units is from 50 to 110m, you MUST contact your local distributor/dealer for individual design and production.
Standard design and production in the factory.
If the height difference between the indoor units is from 18 to 30m, you MUST contact your local distributor/dealer for individual design and production.
Standard design and production in the factory.

- Full DC inverter compressors
- Maximum Single module 26HP
- Maximum combination 104HP
- Total pipe length 1000m
- Height drop 110 m

Model			DV98IMVEVA	DV100IMVEVA	DV102IMVEVA	DV104IMVEVA	
Combination model			DV26IMVEVA	DV26IMVEVA	DV26IMVEVA	DV26IMVEVA	
			DV24IMVEVA	DV26IMVEVA	DV26IMVEVA	DV26IMVEVA	
			DV24IMVEVA	DV24IMVEVA	DV26IMVEVA	DV26IMVEVA	
			DV24IMVEVA	DV24IMVEVA	DV24IMVEVA	DV26IMVEVA	
Capacity	Capacity range	HP	98	100	102	104	
	Cooling	kW	277.5	283.0	288.5	294.0	
	Heating	kW	301.5	311.0	320.5	330.0	
Power supply			Ph/V/Hz	3/380-415/50/60	3/380-415/50/60	3/380-415/50/60	
Electrical parameters	Cooling	Rated power input	kW	71.60	72.80	74.00	75.20
		Max power input	kW	120.300	124.200	128.100	132.000
		Rated current	A	120.88	122.90	124.93	126.95
		Max current	A	203.18	209.85	216.53	223.20
	Heating	Rated power input	kW	68.10	69.00	69.90	70.80
		Max power input	kW	109.90	113.80	117.70	121.60
		Rated current	A	114.97	116.49	118.01	119.53
		Max current	A	185.53	192.12	198.70	205.29
	EER		3.88	3.89	3.90	3.91	
	COP		4.43	4.51	4.59	4.66	
	SEER		6.06	6.01	5.97	5.93	
	SCOP		4.24	4.21	4.19	4.16	
Performance	Air flow (H)	m³/h	73000	74000	75000	76000	
	Sound pressure level (H)	dB(A)	68	68	68	68	
	Sound power level (H)	dB(A)	79	79	79	79	
External dimensions(W/D/H)		mm	1410×750×1690+1410×750×1690+1410×750×1690+1410×750×1690				
Shipping dimensions(W/D/H)		mm	1515/850/1838+1515/850/1838+1515/850/1838+1515/850/1838				
Net/Shipping weight		kg	370/400+370/400+370/400+370/400				
Compressor type			DC INV. SCROLL	DC INV. SCROLL	DC INV. SCROLL	DC INV. SCROLL	
Compressor brand			MITSUBISHI ELECTRIC	MITSUBISHI ELECTRIC	MITSUBISHI ELECTRIC	MITSUBISHI ELECTRIC	
Compressor quantity			8INV	8INV	8INV	8INV	
Refrigerant type			R410A	R410A	R410A	R410A	
Refrigerant charge			kg	40	40	40	
Installation	Refrigerant liquid pipe	mm	25.4	25.4	25.4	25.4	
	Refrigerant gas pipe	mm	54.1	54.1	54.1	54.1	
	Max.total pipe lenth	m	1000	1000	1000	1000	
	Max.pipelength(Equivalent/Actual)	m	260/220	260/220	260/220	260/220	
	Max drop between I.U.&O.U (O.U down/up) *1	m	110/90	110/90	110/90	110/90	
	Standard drop between .U.&O.U (O.U up/down) *2	m	50/40	50/40	50/40	50/40	
	Max drop between I.U *3	m	30	30	30	30	
	Standard drop between I.U *4	m	18	18	18	18	
	External static pressure	Pa	110	110	110	110	
	Connection ratio	Connectable indoor unit ratio	%	50-130	50-130	50-130	50-130
Maximum number of indoor units			64	64	64	64	
Working temp.	Cooling	°C	-5~53				
	Heating	°C	-23~21				

* All the specifications are tested under nominal condition(In cooling, indoor temp. is 27°C D9/19°C WB; Outdoor temp 35°C DB/24WB; In heating, indoor temp. is 20°C DB; In heating, outdoor temp. is 7°C DB/6°CWB)



0.42m²

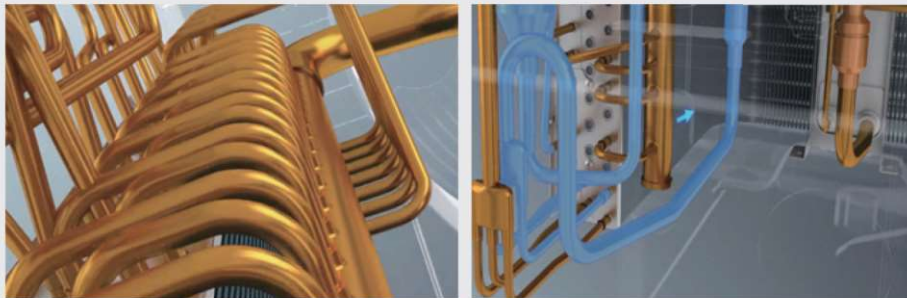
DRVS



DRV S^{II} (4/5/6HP)

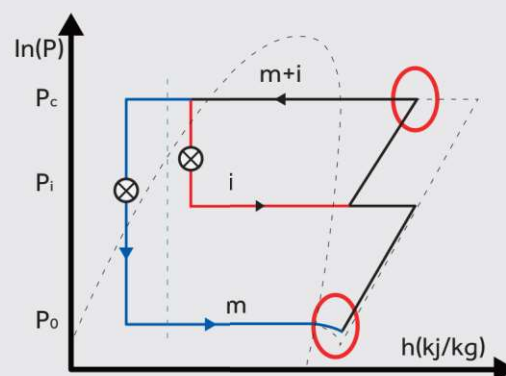
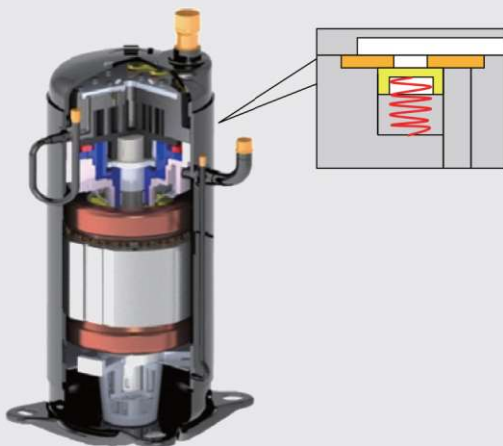
Leadership in technology

- Two-stage supercooling cycle technology, Increased unit efficiency by 9%.
- Maximizing 30°C undercooling, Increase unit refrigerating capacity by 46%.
- Add the supercooled coiler at the bottom of the outdoor exchanger, Increase the efficiency of the supercooler in system, achieve deep supercooling.



Increasing enthalpy by replenish gas, realize the unit powerful heating capacity:

Taking the heating cycle as an example, when environment temperature is low, heat exchanged capability of outdoor unit is depressed. The amount of air returned by compressor is reduced, Increase the amount of refrigerant in the heating cycle of the indoor unit heat exchanger, Thereby achieving improved heating capacity.

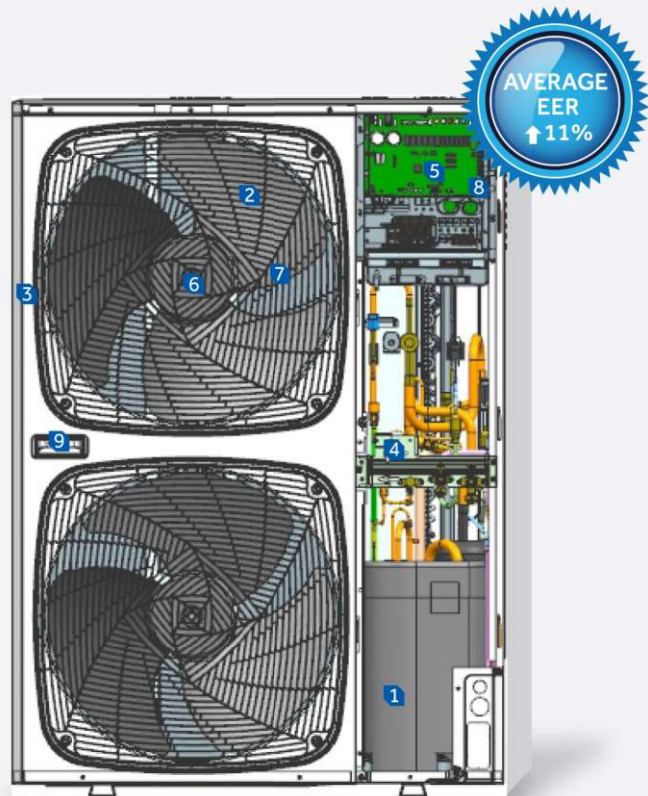


High energy efficiency

- 1 DC inverter compressor**
Dunham-Bush takes DC INV. compressor, 5% power input lower. (14kw)
- 2 DC fan motor and 550mm big fan**
38% power input lower and 8% airflow higher
- 3 Larger heat exchanger**
Heat exchange area rise 10%
- 4 Charge Valve**
Built-in charge valve enables safer and easier maintenance
- 5 Low standby power**
New PCB programme, reduce 20% standby power consumption

Comfort

- 6** **New aerodynamics fan**
550mm super big diameter aerospace helix fan. lowering sound level 3dB(A)
- 7** **Enlarged air inlet path and spiral air outlet path**
Air flow direction follows the grill direction. lowering sound level 2-4 dB(A)
- 8** **Automatic sound-lowering programme**
Night mode set by PCB, 8dB(A) lower



Convenience

- 9** **Double side "4" handles**
Easy to carry
- 10** **"888" test panel**
All running data & error code can be checked from "888" screen, which is easy for installers
- 11** **"Four-way" pipe connection**
4-way (front, back, left & right) pipe connection, easy to design and install



DRV S^{II} (8/10/12HP)

Outdoor Structure (8/10/12HP Side Discharge)

Bigger Outdoor Capacity, More Flexible Application



High efficiency DC fan motor

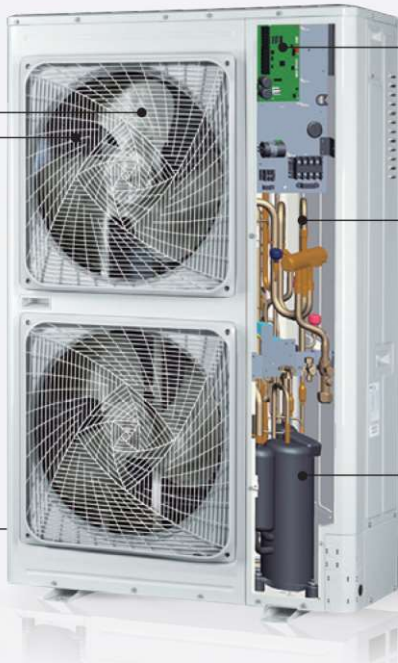
- DC fan motor with stepless inverter control, efficiency increase 45% comparing with AC motor and power input largely decrease

Large diameter fan

- 570mm big diameter axial flow fan
- Zigzag design, reduce airflow disturbance, air volume is bigger, the noise is lower

High efficiency condenser

- New type high efficiency Ø8 inner grooved tube
- New hydrophilic corrugated fissure fin, high efficiency



Vector inverter control

- 180 degrees sine wave vector control, 64-bit operation
- High precision control, to achieve high efficiency and lower noise

Twin rotary DC Inverter compressor

- High chamber DC INVERTER twin rotary compressor
- Small vibration, low noise, high energy efficiency

Double pressure sensor

- Equipped with high and low voltage Pressure double sensors
- Accurate Pressure control, the system run more smoothly, more energy efficiency

High EER and COP



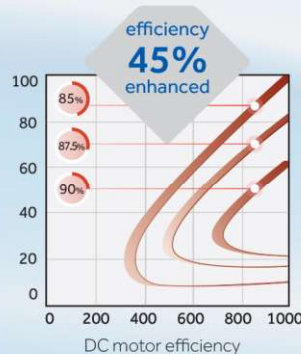
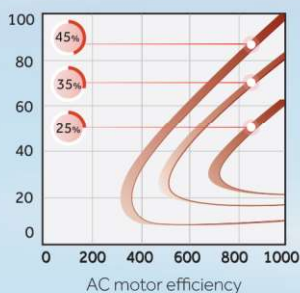
DC Fan and Fan Motor

DC inverter fan motor more higher efficiency in part load running

- 16-stage speed control; high efficiency running especially in low speed
- Efficiency increase 45% comparing with AC motor and power input largely decrease

Big diameter fan

- 570mm big diameter fan, more big air flow and more higher efficiency



DC motor



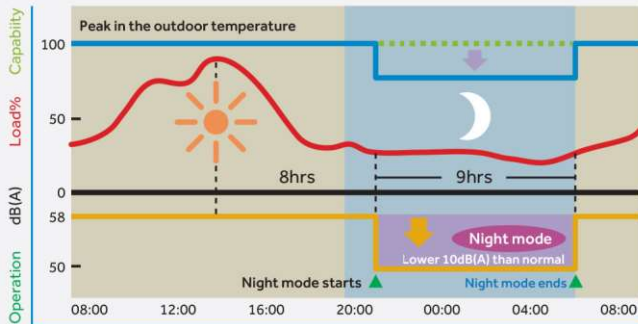
Ø570mm fan

Energy Efficiency

Low noise level

Night Quiet Operation Function

Noise can be reduced to 45dB(A)



Low noise operation

- DC INVERTER compressor, smooth operation, no need frequent start the compressor, effectively reduce the noise outdoor
- Vector inverter control, more precise control
- DC fan motor, motor bracket used the non-resonance structure, ensure smooth running of the motor, reduce operating noise
- Big diameter fan, design according to aviation quieter principle



Easy installation

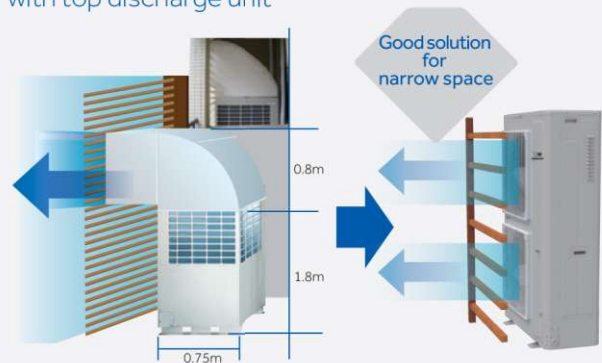
Compact Side Discharge Design, Big Capacity, Small Footprint

Small footprint, only 0.42m², 43% floor area can be reduced



Compact Side Discharge Design

No need additional ventilation hood comparing with top discharge unit



Easy installation

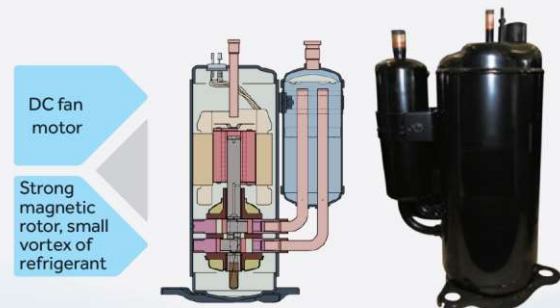
4 Way pipe connection

Front, rear, right, down 4 way pipe connection, flexible installation



New DC inverter twin rotary compressor

- Small torque change, good dynamic balance, the system runs stably, little vibration, low noise, high efficiency
- More higher efficiency in part load running

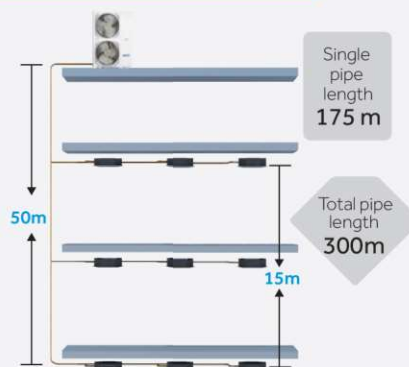


DRV S^{II} (8/10/12HP)

Easy Installation

Long pipe length, high height drop

- Total pipe length: 300m
- Single pipe length: Max. 175m
- From outdoor to the first branch pipe: 135m
- From the first branch to the farthest indoor door unit: 40m
- Height drop: 50m (outdoor above)/40m (outdoor below)
- Height drop between indoor units: 15m



Separate refrigerant charging valve

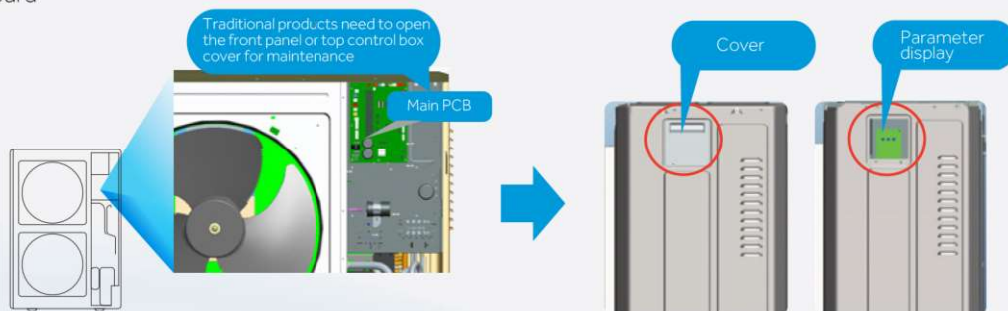
Easy for refrigerant charging



Easy Service

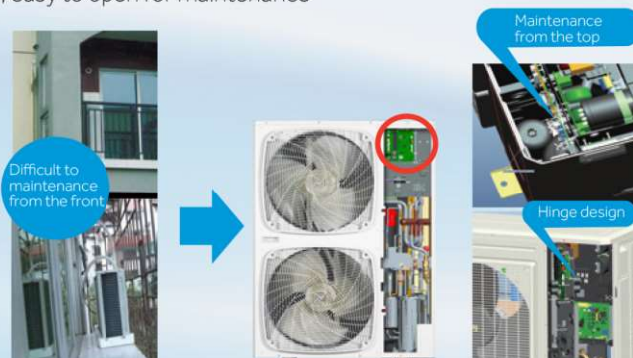
Parameter display panel

- The first original parameter display panel on the side
- The parameter can be observed directly by opening the protective cover in case of maintenance, to avoid removing the repair board



Easy maintenance for control

- The control box is in front, reserving space 108mm between control box and top panel, easy maintenance from the top. Control box is with hinge design, easy to open for maintenance



High Reliability

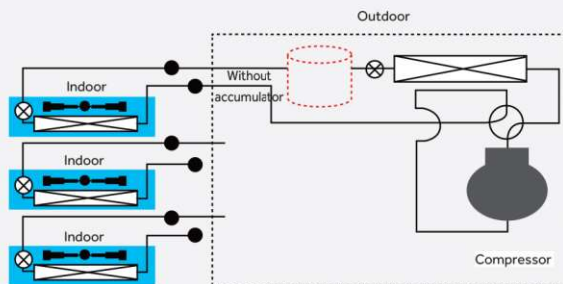
Refrigerant automatically reclaim Technology

- Set refrigerant automatically reclaim through dip switch, the refrigerant in indoor and pipe can be automatically return to outdoor, convenient in maintenance and reducing waste of refrigerant, reduce customer maintenance cost, improve the efficiency of after-sales maintenance



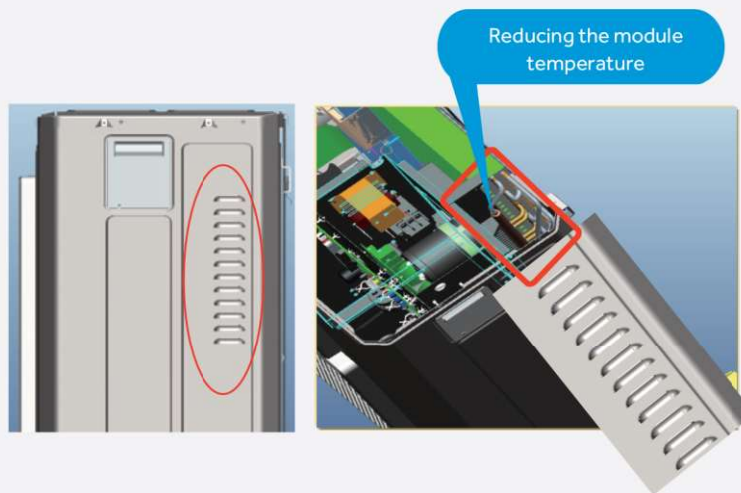
Refrigerant control technology

- Refrigerant control technology without high pressure accumulator, reducing the refrigerant volume and enhancing the running efficiency



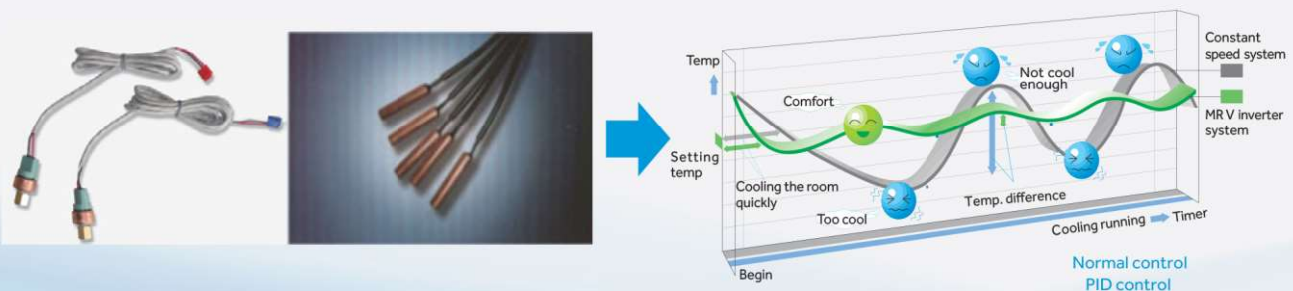
Air inlet grill design on right side panel

- Air inlet grill design, reducing the module temperature and avoid air dust into air conditioner



High and low double pressure sensor

- Double pressure sensor with PID control technology
- Together with high speed communication to realize the quick start of compressor and more precise control, the temperature can be control $\pm 0.5^{\circ}\text{C}$



DRV S^{II} Specification



Model		T1	DU042FPERA	DU052FPERA	DU062FPERA	DU041FPERA	DU051FPERA	DU061FPERA
		T3	DU042FPERB	DU052FPERB	DU062FPERB	DU041FPERB	DU051FPERB	DU061FPERB
Capacity	Capacity range	HP	4	5	6	4	5	6
	Cooling (T1)	kW	12.1	14	15.5	12.1	14	15.5
	Cooling (T3)	kW	11.2	12.6	14	11.2	12.6	14
	Heating	kW	14.2	16	18	14.2	16	18
Electrical parameters	Power supply	Ph/V/Hz	1/220-240/50/60	1/220-240/50/60	1/220-240/50/60	3/380-415/50/60	3/380-415/50/60	3/380-415/50/60
	Power input (Cooling T1)	kW	2.99	3.51	4.31	2.99	3.51	4.31
	Power input (Cooling T3)	kW	3.77	4.25	5.22	3.77	4.25	5.22
	Power input (Heating)	kW	3.18	3.72	4.39	3.18	3.72	4.39
	EER	/	4.05	3.99	3.60	4.05	3.99	3.60
	COP	/	4.47	4.30	4.10	4.47	4.30	4.10
	SEER(T1)	/	6.82	6.92	6.45	6.82	6.92	6.45
	SCOP(T1)	/	3.92	4.17	3.80	3.92	4.17	3.80
Performance	Air flow (H)	m ³ /h	7200	7200	7200	7200	7200	7200
	Sound pressure level (H)	dB(A)	57	58	59	57	58	59
	Sound power level (H)	dB(A)	68	69	70	68	69	70
Installation	External dimensions(W/D/H)	mm	950/370/1340	950/370/1340	950/370/1340	950/370/1340	950/370/1340	950/370/1340
	Shipping dimensions(W/D/H)	mm	1023/471/1420	1023/471/1420	1023/471/1420	1023/471/1420	1023/471/1420	1023/471/1420
	Net/Shipping weight	kg	108/123	108/123	108/123	108/123	108/123	108/123
	Compressor type	/	Rotary	Rotary	Rotary	Rotary	Rotary	Rotary
	Compressor brand	/	MITSUBISHI ELECTRIC	MITSUBISHI ELECTRIC	MITSUBISHI ELECTRIC	MITSUBISHI ELECTRIC	MITSUBISHI ELECTRIC	MITSUBISHI ELECTRIC
	Compressor quantity	/	1	1	1	1	1	1
	Refrigerant type	/	R410A	R410A	R410A	R410A	R410A	R410A
	Refrigerant charge	kg	4	4	4	4	4	4
	Refrigerant liquid pipe	mm	9.52	9.52	9.52	9.52	9.52	9.52
	Refrigerant gas pipe	mm	15.88	15.88	15.88	15.88	15.88	15.88
Connection ratio	Total pipe length	m	300	300	300	300	300	300
	Max. pipe length(Equivalent/Actual)	m	175/150	175/150	175/150	175/150	175/150	175/150
	Max drop between I.U.&O.U	m	50	50	50	50	50	50
	Max drop between I.U.&I.U	m	15	15	15	15	15	15
	Connectable indoor unit ratio	%	50-130	50-130	50-130	50-130	50-130	50-130
	Maximum number of indoor units	/	8	10	13	8	10	13
	Working temp.	Cooling(T1)	°C	-15-48	-15-48	-15-48	-15-48	-15-48
Cooling(T3)		°C	-15-53	-15-53	-15-53	-15-53	-15-53	-15-53
Heating		°C	-20-27	-20-27	-20-27	-20-27	-20-27	-20-27

* All the specifications are tested under nominal condition(In cooling T1, indoor temp. is 27°C DB/19°C WB; Outdoor temp 35°C DB/24WB; in cooling T3, indoor temp. is 27°C DB/19°C WB; Outdoor temp 46°C DB/24WB; in heating, indoor temp. is 20°C DB; in heating, outdoor temp. is 7°C DB/6°CWB)

-  DV08NMSETA
-  DV10NMSETA
-  DV12NMSETA



Model			DV08NMSETA	DV10NMSETA	DV12NMSETA
Capacity	Capacity range	HP	8HP	10HP	12HP
	Cooling	kBtu/h	77.1	95.5	114.3
		kW	22.6	28	33.5
	Heating	kBtu/h	85.3	107.5	128
kW		25	31.5	37.5	
Electrical parameters	Power supply	Ph/V/Hz	3/380-400/50/60	3/380-400/50/60	3/380-400/50/60
	Power input (Cooling)	kW	5.79	8	9.75
	Power input (Heating)	kW	5.43	7.5	9.62
	EER/COP		3.9/4.6	3.5/4.2	3.44/3.9
	SEER/SCOP		5.1/3.45	4.8/3.43	4.6/3.4
Performance	Air flow (H)	m ³ /h	10000	10000	10000
	Sound pressure level (H)	dB(A)	55	58	60
	Sound power level (H)	dB(A)	66	69	71
Installation	External dimensions(W/D/H)	mm	1050/400/1636	1050/400/1636	1050/400/1636
	Shipping dimensions(W/D/H)	mm	1150/510/1790	1150/510/1790	1150/510/1790
	Net/Shipping weight	kg	168/183	168/183	168/183
	Compressor type		Rotary	Rotary	Rotary
	Compressor brand		mitsubishi electric	mitsubishi electric	mitsubishi electric
	Compressor quantity		1 INV	1 INV	1 INV
	Refrigerant type		R410A	R410A	R410A
	Refrigerant charge	kg	6.1	6.1	6.1
	Refrigerant liquid pipe	mm	9.52	12.7	12.7
	Refrigerant gas pipe	mm	19.05	22.22	25.4
	Total pipe length	m	300	300	300
	Max pipe length(Equivalent/Actual)	m	175/150	175/150	175/150
Max drop between I.U.&O.U	m	50	50	50	
Connection ratio	Connectable indoor unit ratio	%	50-130	50-130	50-130
	Maximum number of indoor units		13	16	16
Working temp.	Cooling	°C	-5-53	-5-53	-5-53
	Heating	°C	-20-27	-20-27	-20-27

*All the specifications are tested under nominal condition(In cooling, Indoor temp is 27°C DB/19°C WB; Outdoor temp 35°C DB/24°C WB; In heating, Indoor temp is 20°C DB, Outdoor temp is 7°C DB/6°C WB)

DRV S^I (3/5/7HP)

DRV S^I

DC Inverter Twin Rotary Compressor

Realize high efficiency and compact designed compressor by the joint type motor, hot riveting fixation and composite partition technology.

Wide range inverter compressors would satisfy the customer's innovative requirement and design.



DC Inverter Technology

DC fan motor speed can be adjusted from 0-960r/min, it can improve the unit efficiency, at the same time, the unit can realize low ambient cooling operation.



High efficiency
Low vibration, low noise
High reliability

Operation Range

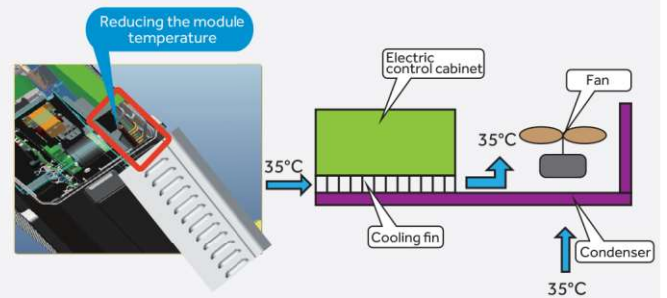
•DRV S I series permits a system design considering a heating range operation under a low temperature condition from -15°C of previous model and a cooling range operation -5°C.

•For the capacities under low temperature conditions, please see technical data sheets.



Air inlet grill design on right side panel

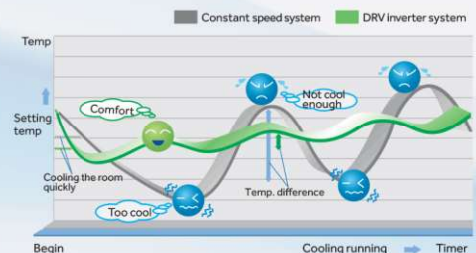
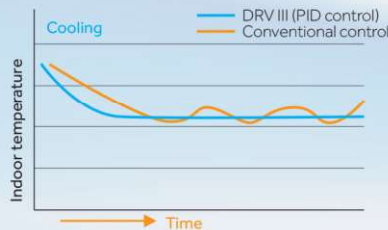
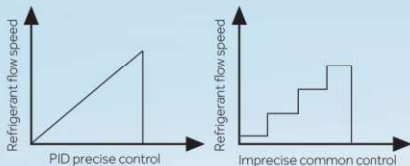
The unit adopts louver at right side panel for better heat dissipation to guarantee high frequency operation at high temperature. The air inlet grill design, reduces the module temperature and avoids air dust into air conditioner.



Precise Control

PID control adjusts the output of compressor and the open degree of EEV, balances the indoor refrigerant flow, realizes the linear output, creates a comfortable environment. The temperature could be controlled precisely.

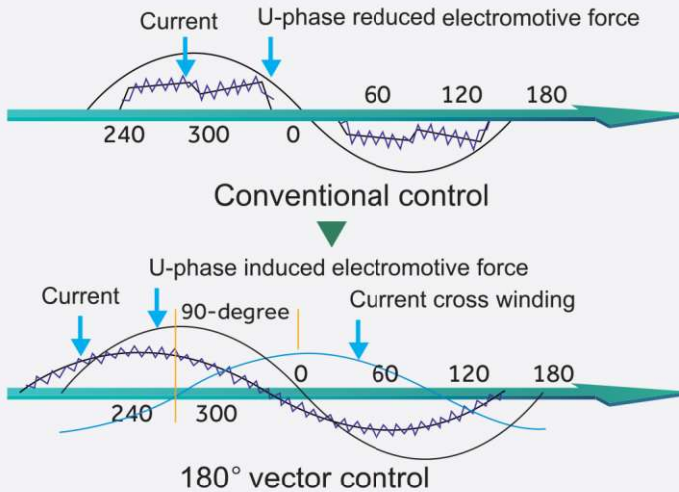
P: Proportion adjustment
I: Integral adjustment
D: Differential adjustment



DRV S^I

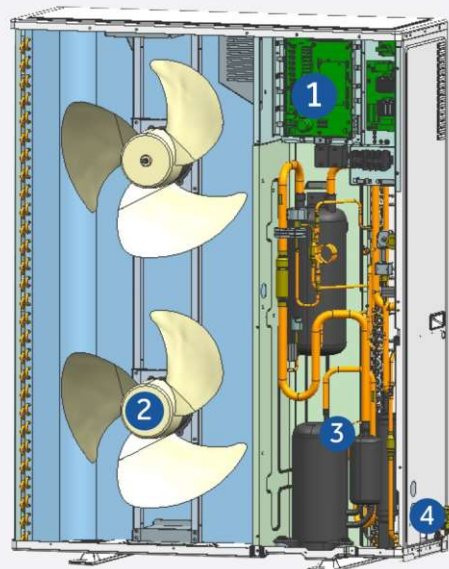
180° Vector Control Technology

Dunham-Bush using power resistance to detect the rotor position of compressor, results in the consistency of the compressor working current and current sine waves, improve power efficiency about 17%.



Side Discharge DRV S^I Outdoor Units

•Dual Frequency 50/60Hz / DC Inverter TWIN Rotary Compressor / BLDC Fan (BrushLess DC motor)



- 1 Control the compressor running frequency by temp. Sensor, more precise and prompt than conventional control system.
- 1 Protections: Pressure, temp, compressor, fan motor, refrigerant, oil quantity etc. Realize perfect performance.
- 1 Malfunction self-diagnose.
- 2 DC fan motor (DU48/60).
- 3 DC inverter compressor, high efficiency.
- 4 Single set valve, easy to installation and save installation time.

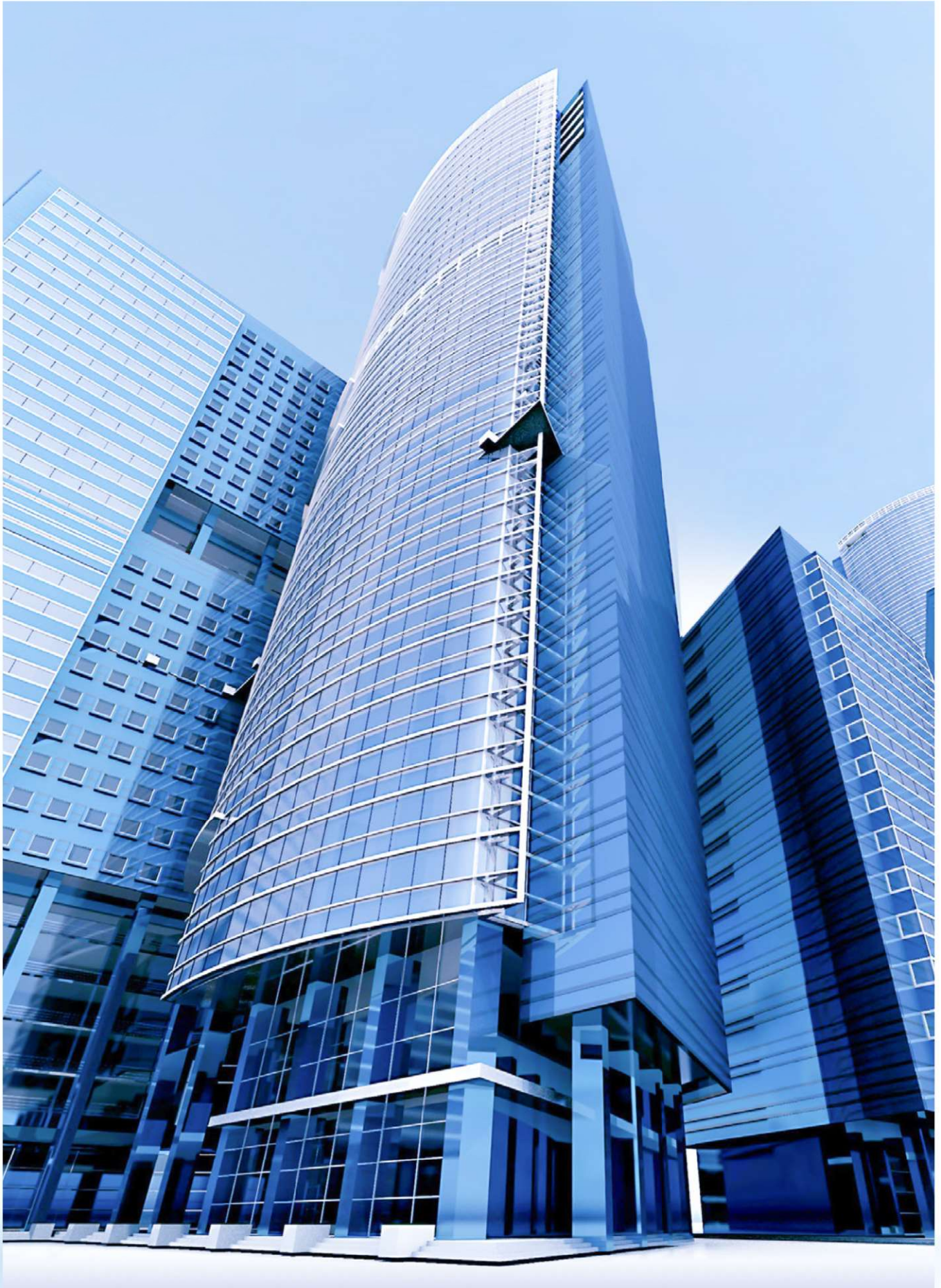
DRV S¹ Specification

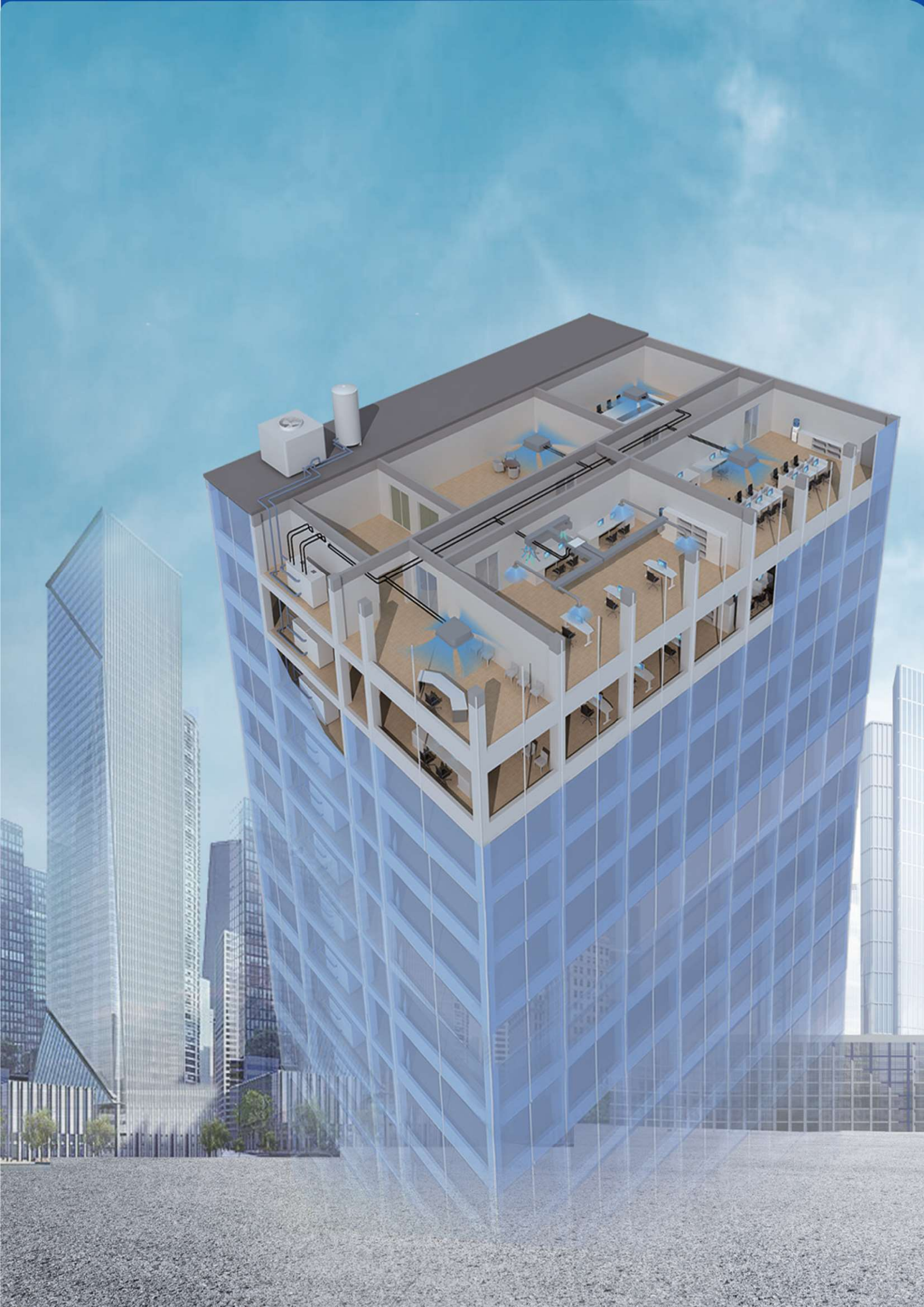


- DU282FHARA(H)
- DU482FHARA(H)
- DU48NFHARA(H)
- DU60NFHARA(H)

Model			DU282FHARA(H)	DU482FHARA(H)	DU48NFHARA(H)	DU60NFHARA(H)
Capacity	Capacity range	HP	3HP	5HP	5HP	7HP
	Cooling	kBtu/h	27.3	51.2	51.2	61.4
		kW	8	15	15	18
	Heating	kBtu/h	32.4	58	58	68.2
		kW	9.5	17	17	20
Electrical parameters	Power supply	Ph/V/Hz	1/220-230/50	1/220-230/50/60	3/380-400/50/60	3/380-400/50/60
	Power input (Cooling)	kW	2.08	3.98	3.98	5.19
	Power input (Heating)	kW	2.10	3.91	3.91	5.13
	EER/COP		3.84/4.52	3.77/4.35	3.77/4.35	3.47/3.9
	SEER/SCOP		4.79/3.31	4.61/3.15	4.61/3.15	4.14/3.06
Performance	Air flow (H)	m ³ /h	3500	6500	6500	6500
	Sound pressure level (H)	dB(A)	54	58	58	59
	Sound power level (H)	dB(A)	65	69	69	70
Installation	External dimensions(W/D/H)	mm	960/340/830	960/340/1250	960/340/1250	960/340/1250
	Shipping dimensions(W/D/H)	mm	1095/410/945	1095/410/1400	1095/410/1400	1095/410/1400
	Net/Shipping weight	kg	70/76	99/107	99/107	99/107
	Compressor type		Rotary	Rotary	Rotary	Rotary
	Compressor brand		MITSUBISHI ELECTRIC	MITSUBISHI ELECTRIC	MITSUBISHI ELECTRIC	MITSUBISHI ELECTRIC
	Compressor quantity		1 INV	1 INV	1 INV	1 INV
	Refrigerant type		R410A	R410A	R410A	R410A
	Refrigerant charge	kg	2.4	3.8	3.8	3.8
	Refrigerant liquid pipe	mm	9.52	9.52	9.52	9.52
	Refrigerant gas pipe	mm	15.88	19.05	19.05	19.05
	Total pipe length	m	100	150	150	150
	Max. pipe length(Equivalent/Actual)	m	50	70	70	70
	Max drop between I.U.&O.U	m	30	30	30	30
	Max drop between I.U.&I.U	m	10	10	10	10
	Connection ratio	Connectable indoor unit ratio %		50-130	50-130	50-130
Maximum number of indoor units			4	8	8	9
Working temp.	Cooling	°C	10-53	10-53	10-53	10-53
	Heating	°C	-15-21	-15-21	-15-21	-15-21

*All the specifications are tested under nominal condition(In cooling, Indoor temp is 27°C DB/19°C WB; Outdoor temp is 35°C DB/24°C WB; In heating, Indoor temp is 20°C DB, Outdoor temp is 7°C DB/6°C WB)





DRV W

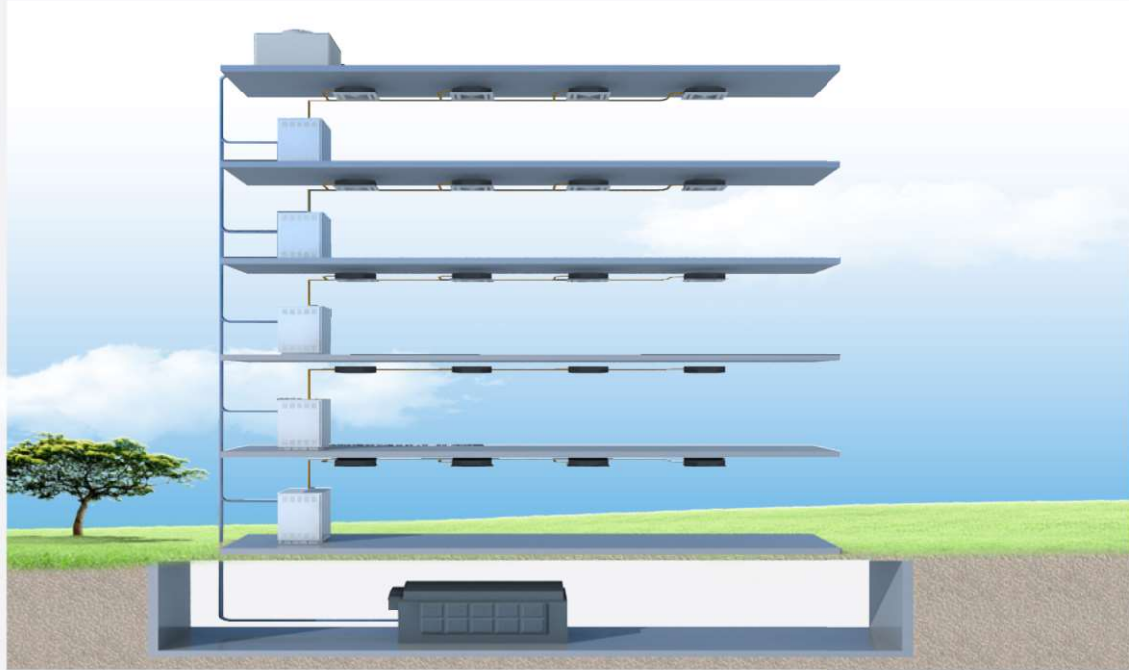


8/10/12HP

FEATURES & BENEFITS

Outdoor Structure (8/10/12HP Side Discharge)

Much bigger outdoor capacity, more flexible application

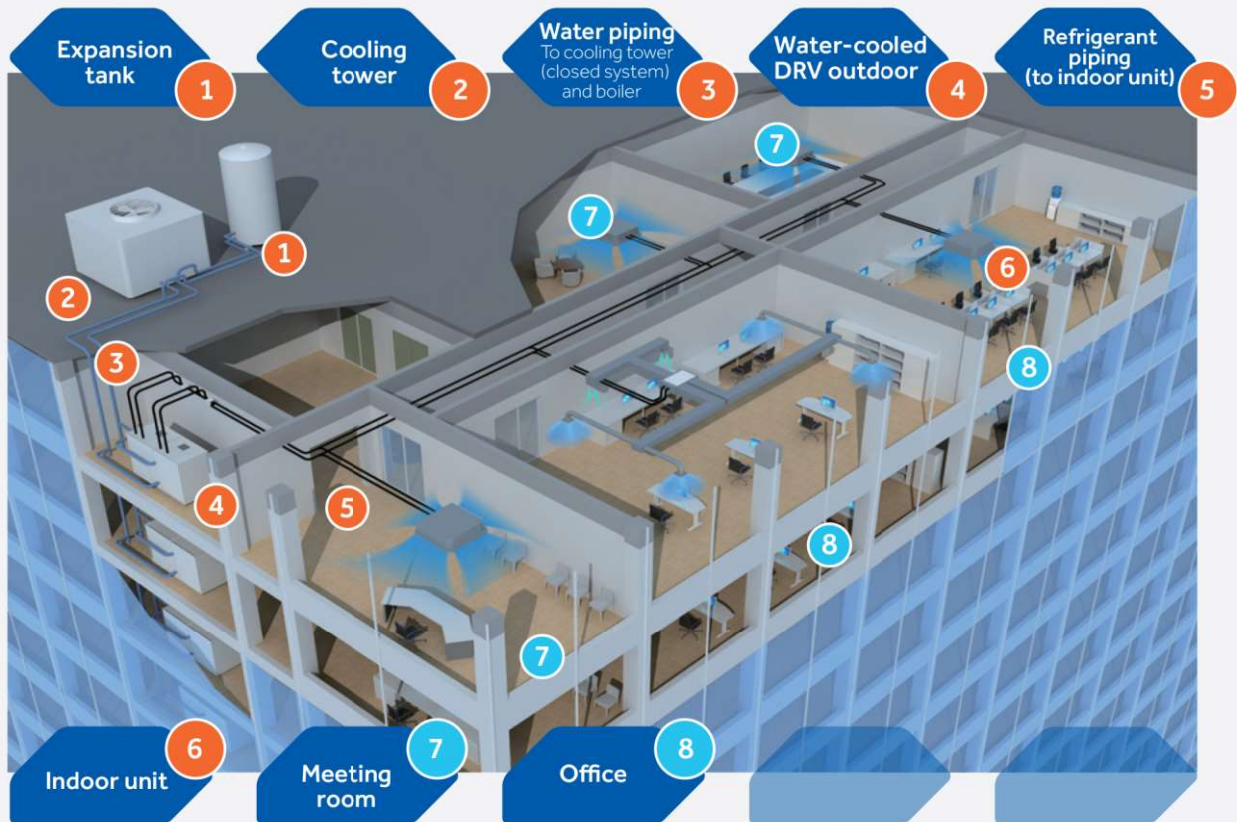


What is DRV W Series

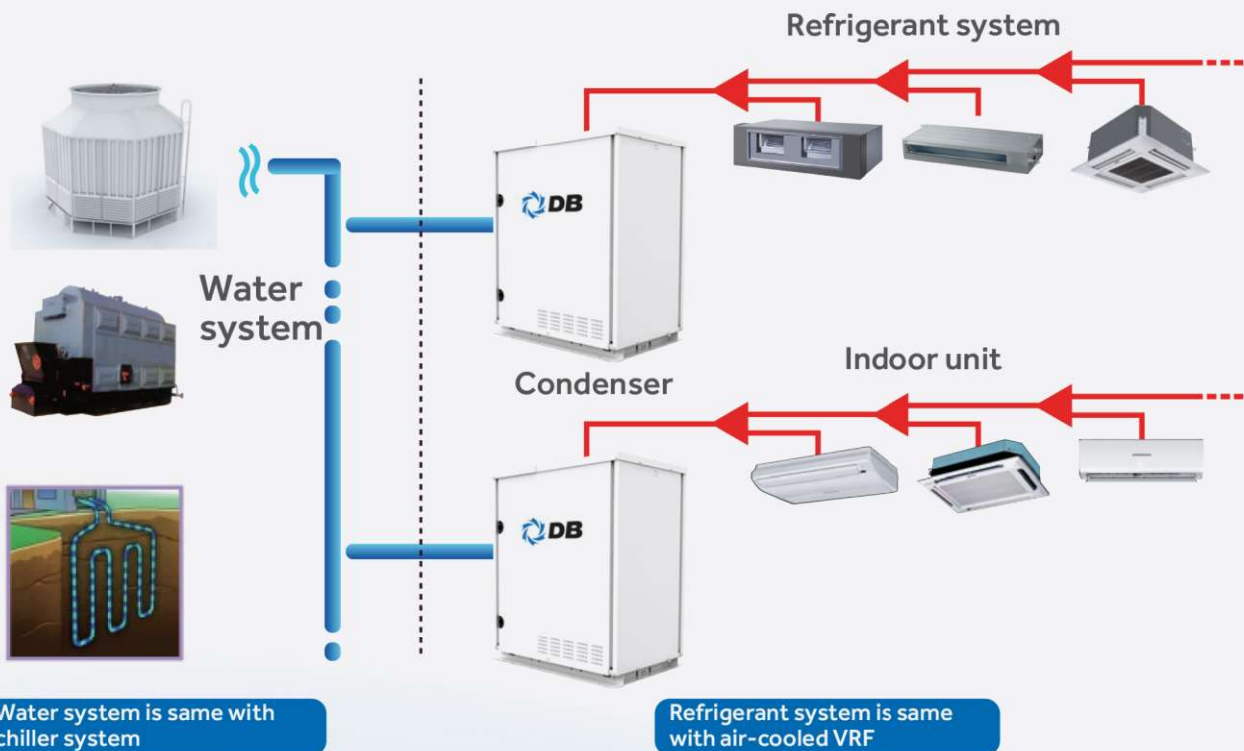
- DRV W series system is a VRF air conditioning system that adopts water as a cooling or heating source
- DRV W series can combine water system and refrigerant system together



System Introduction



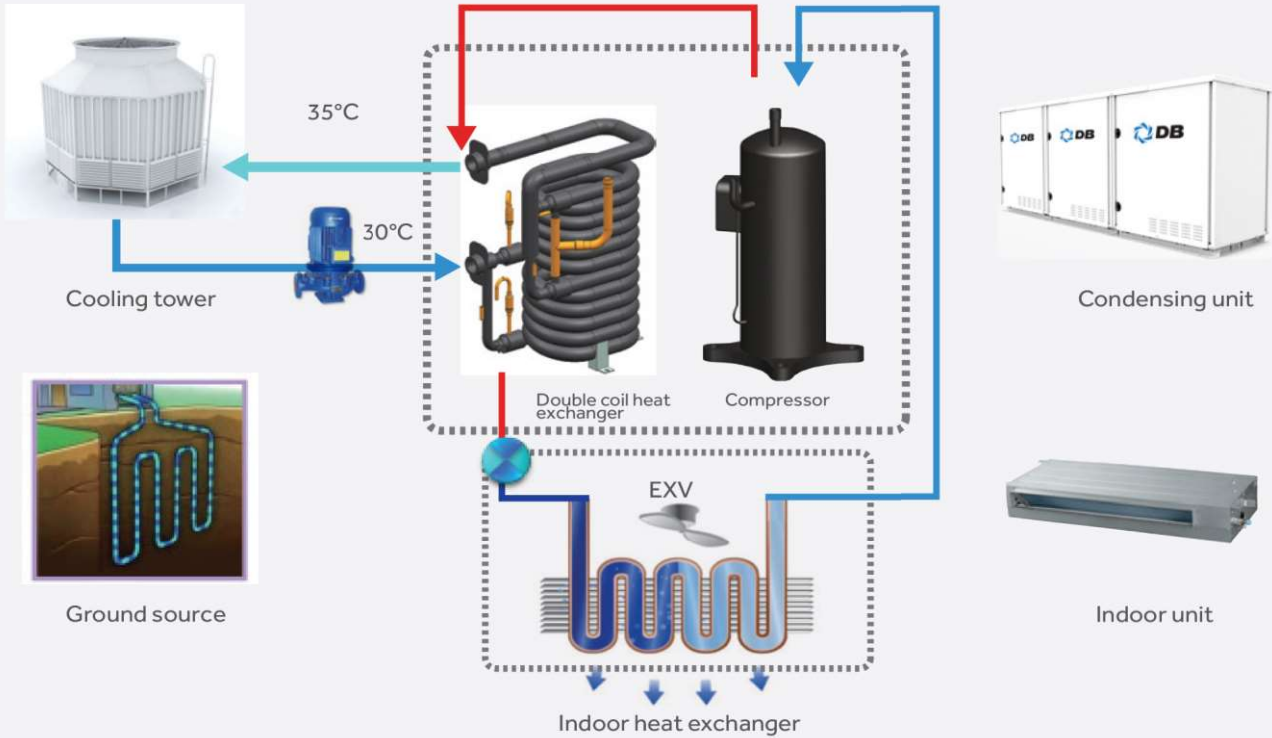
Working Principle



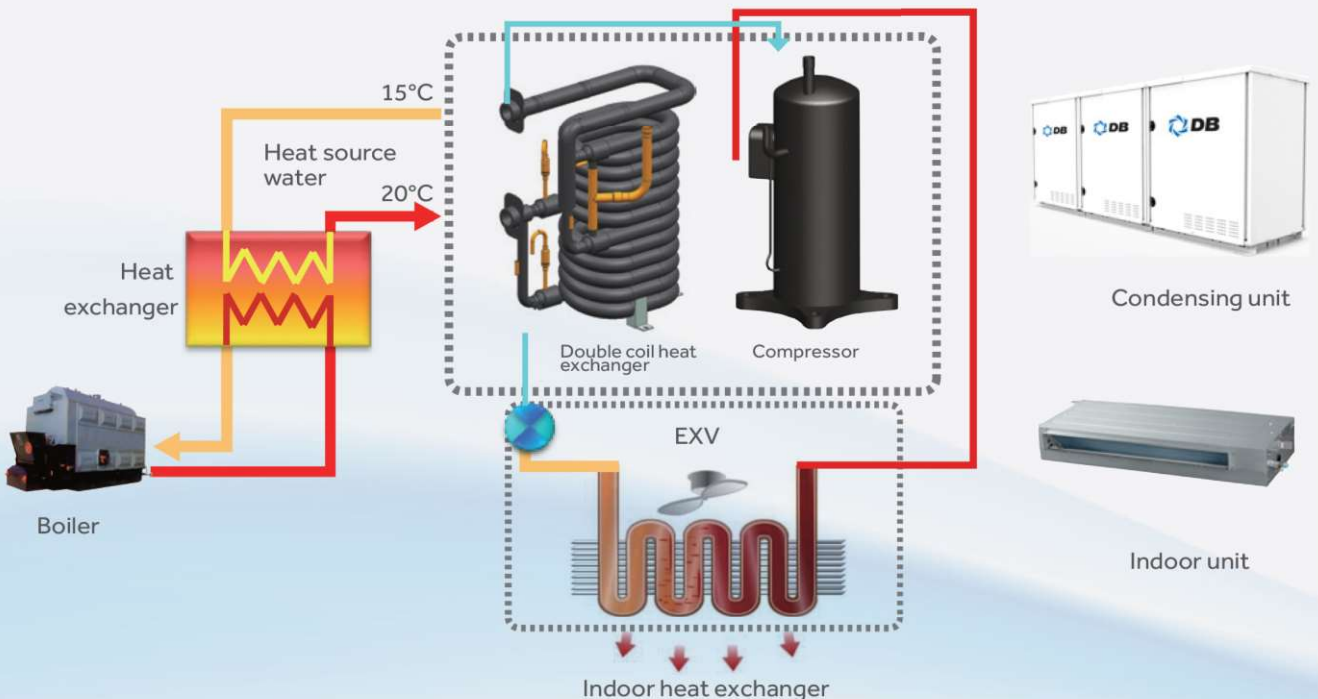
FEATURES & BENEFITS

Working Principle

Working principle in cooling mode



Working principle in heating mode



Outdoor Structure

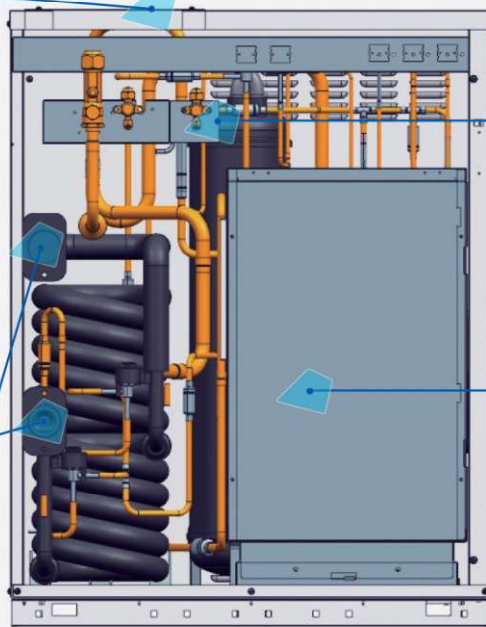
Core technologies and parts (front side)

Refrigerant pipe

Refrigerant pipe to connect the indoor units

Water outlet and inlet

Water outlet and inlet pipe to connect the double coil heat exchanger



Gas-liquid separator

Reduce the heat exchanger height(650mm), and the upper and lower wind speed uniform and high efficiency

Compact electrical control box

Compact electric control box, which can rotate up and down, easy for compressor service

Core technologies and parts(back side)

Compact electrical control box

Compact electric control box, which can rotate up and down, easy for compressor service

DC inverter scroll compressor

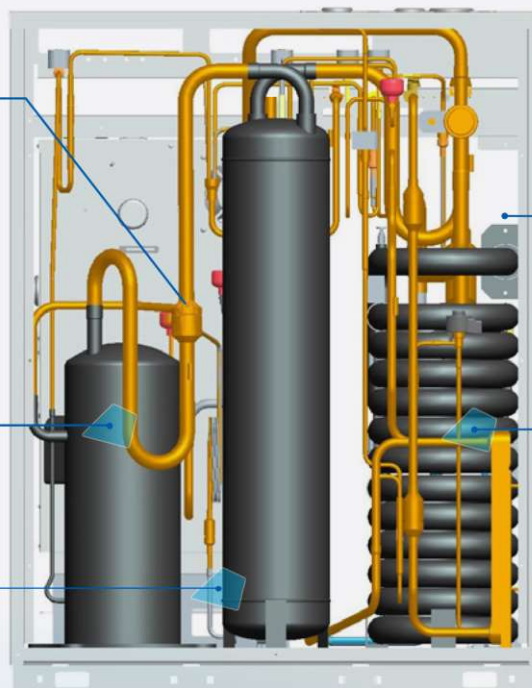
DC inverter scroll compressor, more higher energy efficiency

Oil separator

Water switch

Double coil heat exchanger

- Double coil heat exchanger, more uniform Heat transfer effect
- Much higher double coil, saving more space, more compact design



FEATURES & BENEFITS

DRV W Application Typical high-rise buildings

3 types typical high-rise buildings

- Compact inner structure and core parts



Type 1

High rise building without podium



Type 2

High rise building with podium

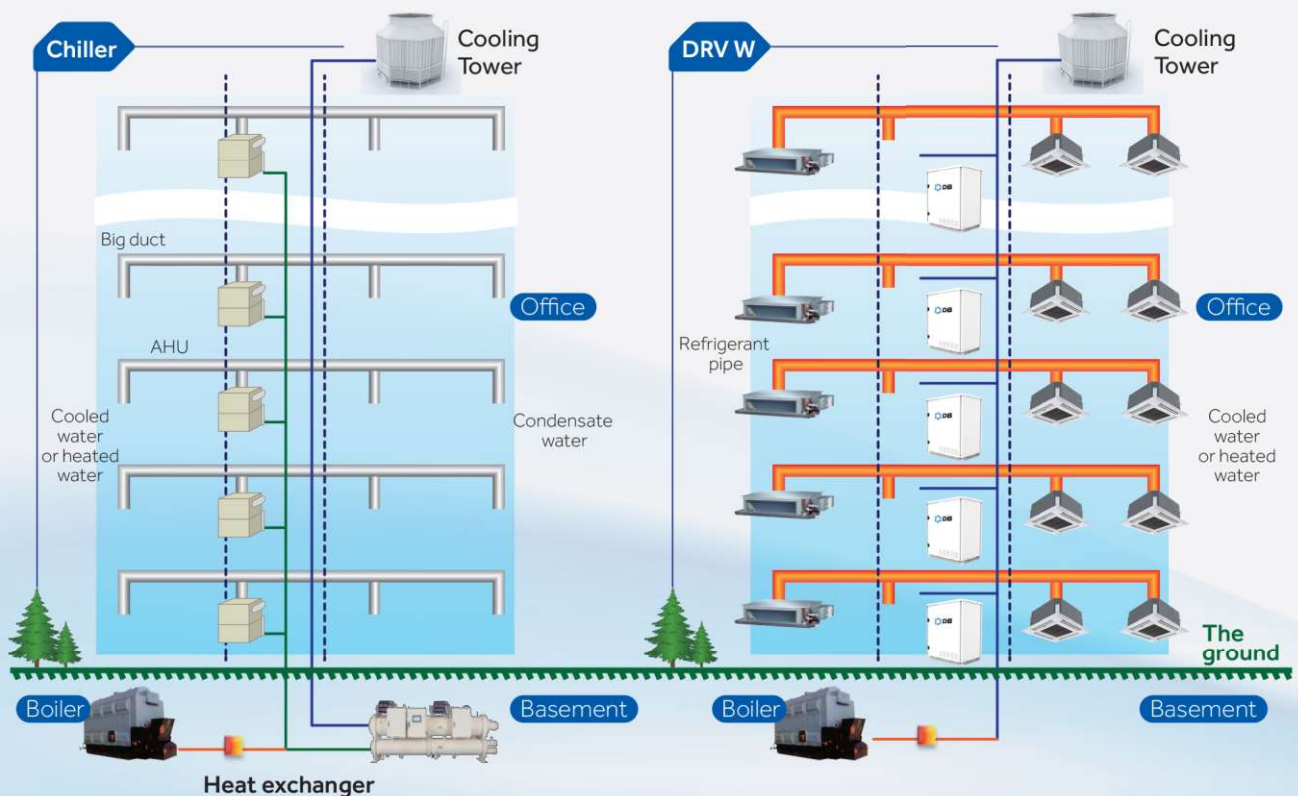


Type 3

Single layer with a large area

Type 1 high-rise building

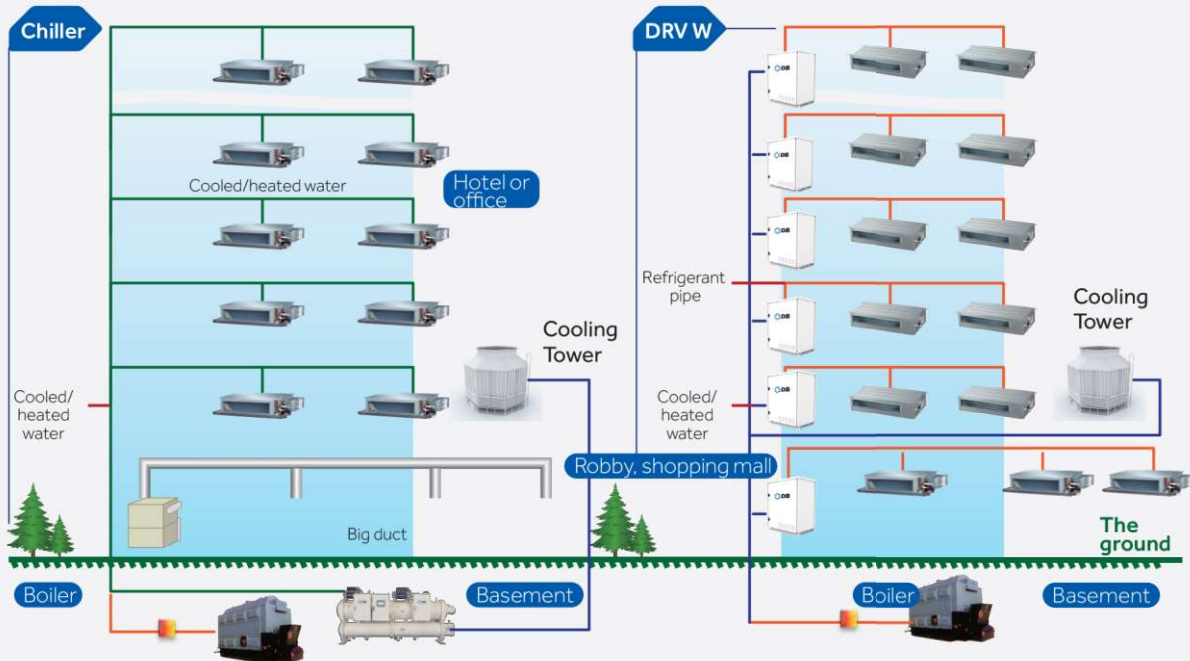
- Conventional chiller system, and new water-cooled DRV solution



DRV W Application

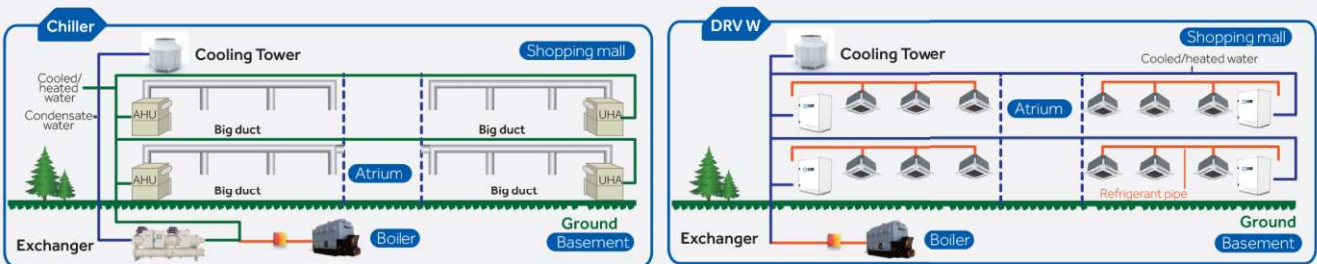
Type 2 high-rise building

- Conventional chiller system, and water-cooled DRV solution



Type 3 high-rise building

- Conventional chiller system, and water-cooled DRV solution



Suitable buildings

- New construction or retrofit building: DRV W provides an energy efficient solution anywhere that could use a water-cooled chiller or replacing water source heat pump design by enabling them to afford the water-cooled chiller benefits. It is especially true for high-rise buildings such as condos, offices, medical centers, schools
- High-rise building that didn't design with VRF system
- Glass curtain wall or special design building
- No enough space to put the outdoor unit even accept the VRF system
- Building which required to renewable energy sources

Benefit

- Lower initial cost for the developer and builder
- Client or developer can add air conditioning to match load requirement
- No rebalancing of water systems if commissioning valves are installed on each floor
- Connect to the full suite of DRV control solution A/C management system
- Separate control to every indoor unit

FEATURES & BENEFITS

1 Energy Efficiency

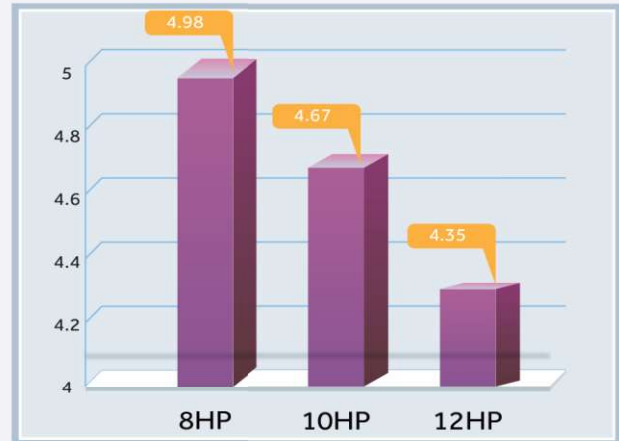
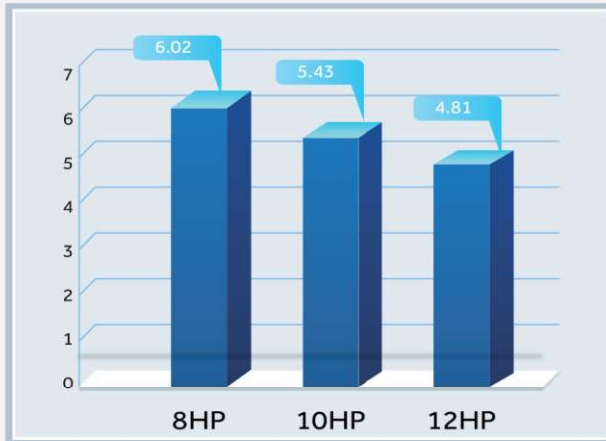
2 Comfort

3 High Reliability

4 High Convenience

Energy Saving

- COP can be up to 6.02, much more higher energy level than air system
- EER can be up to 4.98, more higher energy level than air system



- High efficiency dc inverter compressor
- High efficiency DC inverter compressor from mitsubishi electric

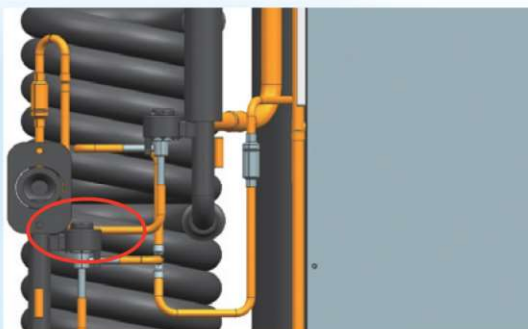


- High efficiency double coil heat exchanger
- Double coil heat-exchanger, more uniform heat transfer effect



Double EEV control

- The double EEV control the 2 stages heat exchanger separately, which can adjust the condenser volume



Two stage deep sub cooling technology

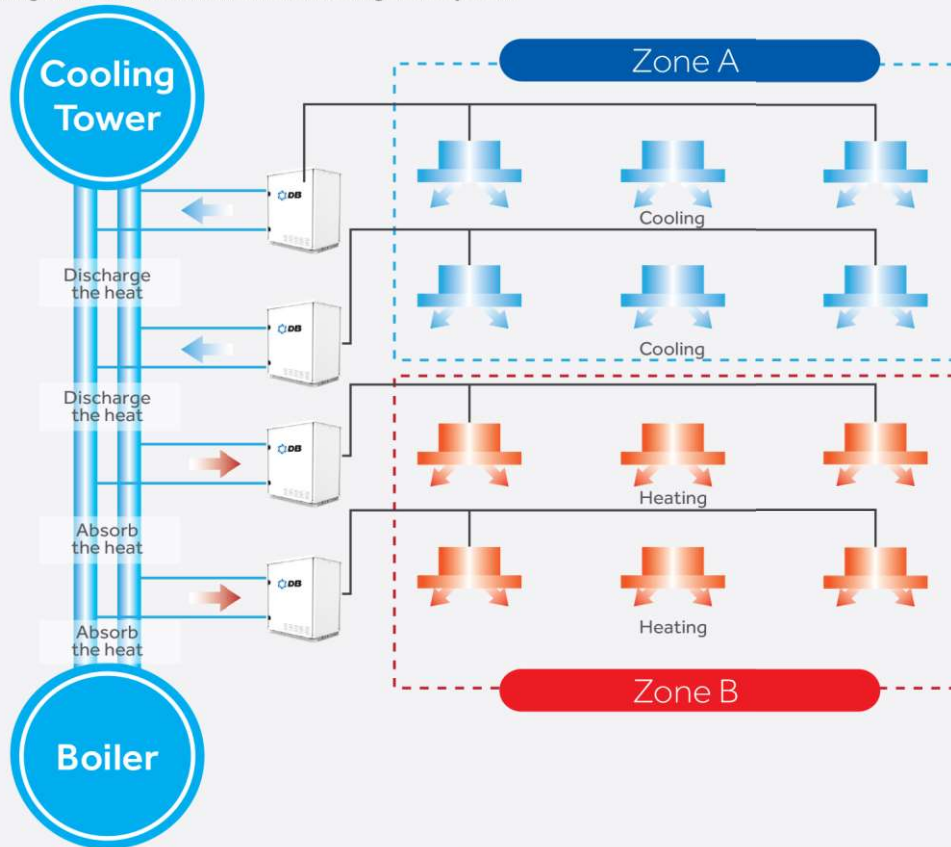
- 1st stage sub cooling added a sub cooling coil to condenser
- 2nd stage sub cooling added a stand alone sub cooler
- After further cooling, sub-cooling degree can be up to 30°C, with the heat exchanging capacity per unit mass of refrigerant improved by 46% and flow resistance reduced by 55%, and running efficiency improved by 9%



Energy Saving

Heat recovery between different refrigerant systems

- Heat recovery is achieved within the water loop between different refrigerant system, more higher total COP
- Cooling and heating at the same time in different refrigerant system



Comfortable Environment

Low noise level

- Comparing with air system, without fan in the outdoor and with full insulation design, the noise level can be reduced to only 50dB(A), much lower than the air system and conventional chiller



No influence from ambient temperature

- Thanks to the stable water source, the capacity and efficiency will not reduce with extreme ambient conditions compare with air-cooled system
- Especially in heating mode, water cooling means no defrost operation is required, the resultant rapid start up time assures quick and comfortable heating, even in cold environment

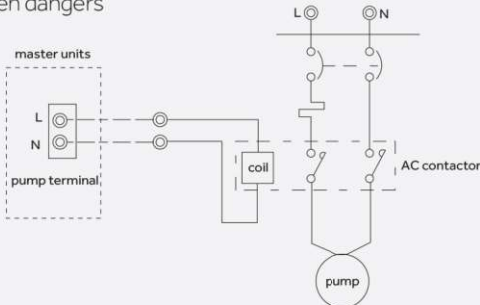


FEATURES & BENEFITS

High Reliability

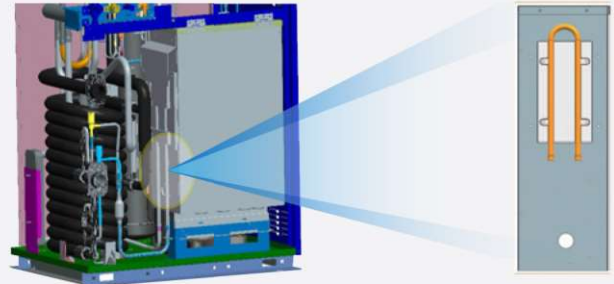
Water pump controlled together with the outdoor

- The reserved water pump linkage control, realize the pump linkage control, reduce the energy consumption and eliminate hidden dangers



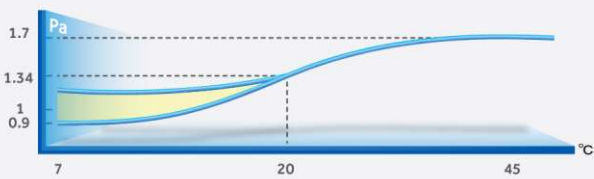
Chilled electric control module

- Using refrigerant to reduce the module temperature, to realize stable module temperature, more reliable operation
- Canceling heat dissipation fan of the module, reduce the power consumption and noise level

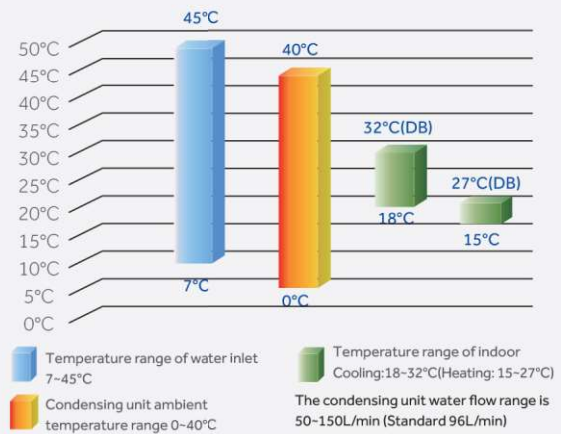


Stable Pressure Setting

- Stable pressure setting design, to make the high pressure keep above the required pressure, ensure the compressor reliability and stable capacity output



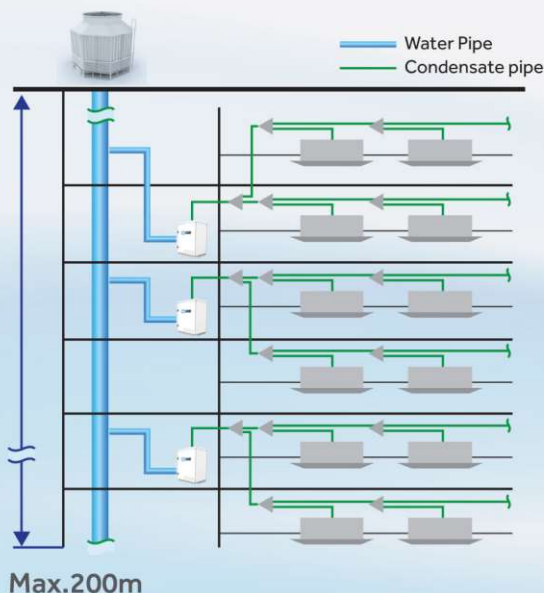
Wide Operation Range



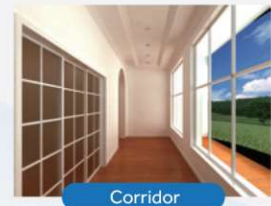
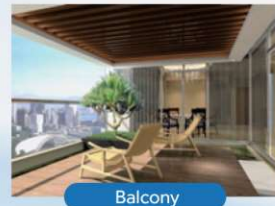
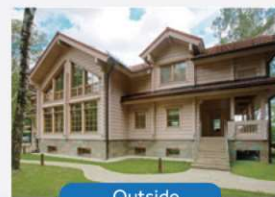
Energy Efficiency

Flexible water pipe design

- Max water pressure can be up to 1.96MPa
- Condensate pipe length can be up to 200m



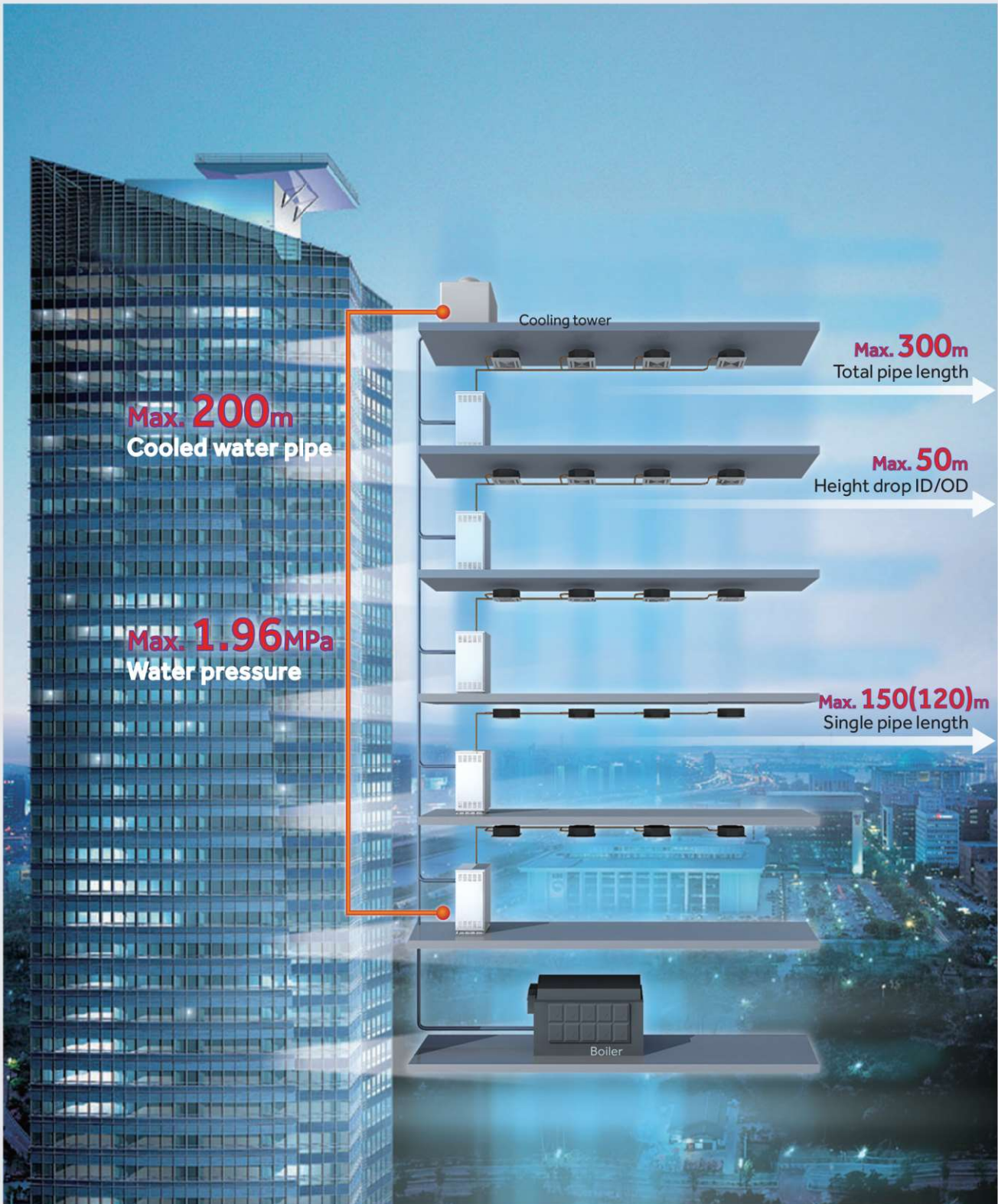
Flexible Installation Location



Energy Efficiency

Long pipe length and high height drop

The condensers are smaller and can be stacked, reducing the installation space.

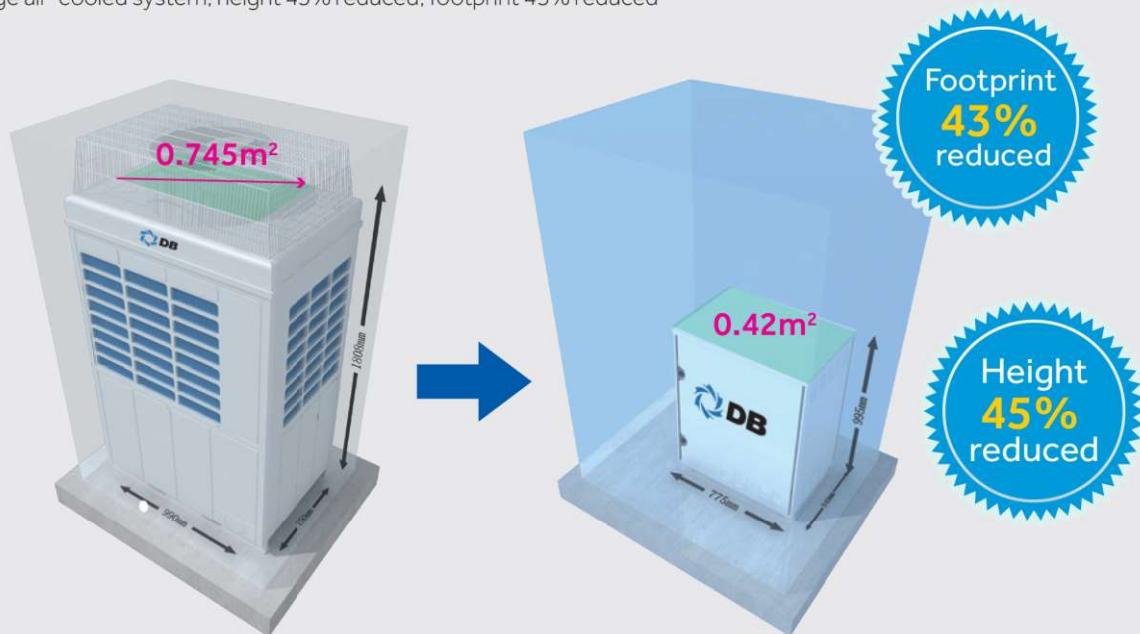


FEATURES & BENEFITS

High Convenience (Use/installation/service)

Compact and lightweight design

- The industry's most compact and lightweight design, installed in the narrow space. Comparing with the conventional top discharge air-cooled system, height 45% reduced, footprint 43% reduced



Stacked installation

- The condensers are smaller and can be staked, reducing the installation space and increasing the customers usable square footage



High Convenience (Use/installation/service)

Various mode and priority selection

- The condensers are smaller and can be staked, reducing the installation space and increasing the customers usable square footage



Easy maintenance

Compact outdoor structure design



DRV W 3/380~400/50(60)



8/10/12HP

Model			DV08IMWEWA	DV10IMWEWA	DV12IMWEWA	DV16IMWEWA	DV18IMWEWA	
Combination model			/	/	/	DV08IMWEWA	DV08IMWEWA	
			/	/	/	DV08IMWEWA	DV10IMWEWA	
			/	/	/	/	/	
Capacity	Capacity range	HP	8	10	12	16	18	
	Cooling capacity	kW	22.4	28	33.5	44.8	50.4	
	Heating capacity	kW	25	31.5	37.5	50.0	56.5	
Power supply			PhV/Hz	3/380-400/50/60	3/380-400/50/60	3/380-400/50/60	3/380-400/50/60	
Electrical parameters	Cooling	Rated power input	kW	4.50	6.00	7.70	9.00	10.50
		Max. power input	kW	13.00	15.00	17.00	26.00	28.00
		Rated current	A	7.20	9.60	12.32	14.39	16.79
		Max.current	A	20.79	23.99	27.19	41.58	44.78
	Heating	Rated power input	kW	4.15	5.80	7.80	8.30	9.95
		Max. power input	kW	13.00	15.00	17.00	26.00	28.00
		Rated current	A	6.64	9.28	12.47	13.27	15.91
		Max.current	A	20.79	23.99	27.19	41.58	44.78
EER/COP				4.98/6.02	4.67/5.43	4.35/4.81	4.98/6.02	4.80/5.68
Performance	Water flow (H)	m³/h	4.8	6	7.2	9.6	10.8	
	Sound pressure level (H)	dB(A)	50	51	53	53	54	
	Sound power level (H)	dB(A)	61	62	64	64	65	
External dimensions(W/D/H)			mm	775/545/995	775/545/995	775/545/995	(775/545/995)*2	(775/545/995)*2
Shipping dimensions(W/D/H)			mm	875/655/1182	875/655/1182	875/655/1182	(875/655/1182)*2	(875/655/1182)*2
Net/Shipping weight			kg	172/183	172/183	172/183	344/366	344/366
Compressor type				DC INV. SCROLL	DC INV. SCROLL	DC INV. SCROLL	DC INV. SCROLL	DC INV. SCROLL
Compressor quantity				1 INV	1 INV	1 INV	2 INV	2 INV
Refrigerant type				R410A	R410A	R410A	R410A	R410A
Installation	Refrigerant charge	kg	2	2	2	4	4	
	Refrigerant liquid pipe	mm	9.52	9.52	12.7	12.7	15.88	
	Refrigerant gas pipe	mm	19.05	22.22	25.4	28.58	28.58	
	Oil equalization pipe	mm	9.52	9.52	9.52	9.52	9.52	
	Total pipe length	m	300	300	300	300	300	
	Max. pipe length(Equivalent/Actual)	m	150/120	150/120	150/120	150/120	150/120	
	Max drop between I.U.&O.U	m	50/40	50/40	50/40	50/40	50/40	
	Type				Double coil	Double coil	Double coil	Double coil
Material				Copper & steel	Copper & steel	Copper & steel	Copper & steel	
Inlet water connection pipe			mm	DN32	DN32	DN32	DN32	
Outlet water connection pipe			mm	DN32	DN32	DN32	DN32	
pressure drop(inlet and outlet)			Kpa	35	50	70	35+35	35+50
Water side	Connection type				inner grooved	inner grooved	inner grooved	inner grooved
	Max. system water pressure			Mpa	1.6	1.6	1.6	1.6
	Inlet water temperature range (Cooling & Heating)			°C	7-45	7-45	7-45	7-45
Connection ratio	Connectable indoor unit ratio			%	50-130	50-130	50-130	50-130
	Maximum number of indoor units			unit	13	16	19	23

- Water Sourced DRV Outdoor Unit, Combine Water System and Refrigerant System in one System
- 3 Basic Single Module:8/10/12HP, Max. 3 Modules Combination up to 36HP
- Most Compact Size Outdoor Design in the Industry
- Total 300m Long Pipe Length, Easy for Installation
- Double Coil Outdoor Heat Exchanger
- Compatible with all the DRV Indoor Units

Model			DV20IMWEWA	DV22IMWEWA	DV24IMWEWA	DV26IMWEWA	DV28IMWEWA	
Combination model			DV10IMWEWA	DV10IMWEWA	DV12IMWEWA	DV08IMWEWA	DV08IMWEWA	
			DV10IMWEWA	DV12IMWEWA	DV12IMWEWA	DV08IMWEWA	DV10IMWEWA	
			/	/	/	DV10IMWEWA	DV10IMWEWA	
Capacity	Capacity range	HP	20	22	24	26	28	
	Cooling capacity	kW	56	61.5	67.0	72.8	78.4	
	Heating capacity	kW	63	69.0	75.0	81.5	88.0	
Power supply		PhV/Hz	3/380-400/50/60	3/380-400/50/60	3/380-400/50/60	3/380-400/50/60	3/380-400/50/60	
Electrical parameters	Cooling	Rated power input	kW	12.00	13.70	15.40	15.00	16.50
		Max. power input	kW	30.00	32.00	34.00	41.00	43.00
		Rated current	A	19.19	21.91	24.63	23.99	26.39
		Max.current	A	47.98	51.18	54.38	65.57	68.77
	Heating	Rated power input	kW	11.60	13.60	15.60	14.10	15.75
		Max. power input	kW	30.00	32.00	34.00	41.00	43.00
		Rated current	A	18.55	21.75	24.95	22.55	25.19
		Max.current	A	47.98	51.18	54.38	65.57	68.77
EER/COP			4.67/5.43	4.49/5.07	4.35/4.81	4.85/5.78	4.75/5.59	
Performance	Water flow (H)	m ³ /h	12	13.2	14.4	15.6	16.8	
	Sound pressure level (H)	dB(A)	54	55	56	55	55	
	Sound power level (H)	dB(A)	65	66	67	66	66	
External dimensions(W/D/H)		mm	(775/545/995)*2	(775/545/995)*2	(775/545/995)*2	(775/545/995)*3	(775/545/995)*3	
Shipping dimensions(W/D/H)		mm	(875/655/1182)*2	(875/655/1182)*2	(875/655/1182)*2	(875/655/1182)*3	(875/655/1182)*3	
Net/Shipping weight		kg	344/366	344/366	344/366	516/549	516/549	
Compressor type			DC INV. SCROLL	DC INV. SCROLL	DC INV. SCROLL	DC INV. SCROLL	DC INV. SCROLL	
Compressor quantity			2 INV	2 INV	2 INV	3 INV	3 INV	
Refrigerant type			R410A	R410A	R410A	R410A	R410A	
Installation	Refrigerant charge	kg	4	4	4	6	6	
	Refrigerant liquid pipe	mm	15.88	15.88	15.88	19.05	19.05	
	Refrigerant gas pipe	mm	28.58	28.58	28.58	31.8	31.8	
	Oil equalization pipe	mm	9.52	9.52	9.52	9.52	9.52	
	Total pipe length	m	300	300	300	300	300	
	Max. pipe length(Equivalent/Actual)	m	150/120	150/120	150/120	150/120	150/120	
	Max drop between I.U.&O.U	m	50/40	50/40	50/40	50/40	50/40	
	Type			Double coil	Double coil	Double coil	Double coil	Double coil
Material			Copper & steel	Copper & steel	Copper & steel	Copper & steel	Copper & steel	
Inlet water connection pipe		mm	DN32	DN32	DN32	DN32	DN32	
Outlet water connection pipe		mm	DN32	DN32	DN32	DN32	DN32	
pressure drop(inlet and outlet)		Kpa	50+50	50+70	70+70	35+35+50	35+50+50	
Water side	Connection type		inner grooved	inner grooved	inner grooved	inner grooved	inner grooved	
	Max. system water pressure	Mpa	1.6	1.6	1.6	1.6	1.6	
	Inlet water temperature range (Cooling & Heating)	°C	7-45	7-45	7-45	7-45	7-45	
Connection ratio	Connectable indoor unit ratio	%	50-130	50-130	50-130	50-130	50-130	
	Maximum number of indoor units	unit	33	36	39	43	46	

* 1. outdoor above 50m,outdoor below 40m.
 * All the specifications are tested under nominal condition(In cooling, Indoor temp is 27°C DB/19°C WB; Outdoor temp 35°C DB/24°C WB; In heating, Indoor temp is 20°C DB, Outdoor temp is 7°C DB/6°C WB).
 * The specification may change according to the further product development.

DRV W 3/380~400/50(60)



8/10/12HP

Model			DV30IMWEWA	DV32IMWEWA	DV34IMWEWA	DV36IMWEWA		
Combination model			DV10IMWEWA	DV10IMWEWA	DV10IMWEWA	DV12IMWEWA		
			DV10IMWEWA	DV10IMWEWA	DV12IMWEWA	DV12IMWEWA		
			DV10IMWEWA	DV12IMWEWA	DV12IMWEWA	DV12IMWEWA		
Capacity	Capacity range	HP	30	32	34	36		
	Cooling capacity	kW	84.0	89.5	95.0	100.5		
	Heating capacity	kW	94.5	100.5	106.5	112.5		
Power supply			PhV/Hz	3/380-400/50/60	3/380-400/50/60	3/380-400/50/60		
Electrical parameters	Cooling	Rated power input	kW	18.00	19.70	21.40	23.10	
		Max. power input	kW	45.00	47.00	49.00	51.00	
		Rated current	A	28.79	31.51	34.23	36.95	
		Max.current	A	71.97	75.17	78.37	81.57	
	Heating	Rated power input	kW	17.40	19.40	21.40	23.40	
		Max. power input	kW	45.00	47.00	49.00	51.00	
		Rated current	A	27.83	31.03	34.23	37.42	
		Max.current	A	71.97	75.17	78.37	81.57	
EER/COP				4.67/5.43	4.54/5.18	4.44/4.98	4.35/4.81	
Performance	Water flow (H)	m ³ /h	18.0	19.2	20.4	21.6		
	Sound pressure level (H)	dB(A)	56	57	57	58		
	Sound power level (H)	dB(A)	67	68	68	69		
External dimensions(W/D/H)			mm	(775/545/995)*3	(775/545/995)*3	(775/545/995)*3	(775/545/995)*3	
Shipping dimensions(W/D/H)			mm	(875/655/1182)*3	(875/655/1182)*3	(875/655/1182)*3	(875/655/1182)*3	
Net/Shipping weight			kg	516/549	516/549	516/549	516/549	
Compressor type				DC INV. SCROLL	DC INV. SCROLL	DC INV. SCROLL	DC INV. SCROLL	
Compressor quantity				3 INV	3 INV	3 INV	3 INV	
Refrigerant type				R410A	R410A	R410A	R410A	
Installation	Refrigerant charge	kg	6	6	6	6		
	Refrigerant liquid pipe	mm	19.05	19.05	19.05	19.05		
	Refrigerant gas pipe	mm	31.8	31.8	31.8	38.1		
	Oil equalization pipe	mm	9.52	9.52	9.52	9.52		
	Total pipe length	m	300	300	300	300		
	Max. pipe length(Equivalent/Actual)	m	150/120	150/120	150/120	150/120		
	Max drop between I.U.&O.U	m	50/40	50/40	50/40	50/40		
	Type				Double coil	Double coil	Double coil	Double coil
Material				Copper & steel	Copper & steel	Copper & steel	Copper & steel	
Inlet water connection pipe			mm	DN32	DN32	DN32	DN32	
Outlet water connection pipe			mm	DN32	DN32	DN32	DN32	
pressure drop(inlet and outlet)			Kpa	50+50+50	50+50+70	50+70+70	70+70+70	
Water side	Connection type				inner grooved	inner grooved	inner grooved	inner grooved
	Max. system water pressure			Mpa	1.6	1.6	1.6	1.6
	Inlet water temperature range (Cooling & Heating)			°C	7-45	7-45	7-45	7-45
Connection ratio	Connectable indoor unit ratio			%	50-130	50-130	50-130	50-130
	Maximum number of indoor units			unit	50	53	56	59

* 1. outdoor above 50m, outdoor below 40m.

* All the specifications are tested under nominal condition(In cooling, Indoor temp is 27°C DB/19°C WB; Outdoor temp 35°C DB/24°C WB; In heating, Indoor temp is 20°C DB, Outdoor temp is 7°C DB/6°C WB).

* The specification may change according to the further product development.

DRV W 3/208~230/60

- Water Sourced DRV Outdoor Unit, Combine Water System and Refrigerant System in one System
- 3 Basic Single Module:8/10/12HP, Max. 3 Modules Combination up to 36HP
- Most Compact Size Outdoor Design in the Industry
- Total 300m Long Pipe Length, Easy for Installation
- Double Coil Outdoor Heat Exchanger
- Compatible with all the DRV Indoor Units

Model			DV08CMWEWA	DV10CMWEWA	DV12CMWEWA	DV16CMWEWA	DV18CMWEWA	
Combination model			/	/	/	DV08CMWEWA	DV08CMWEWA	
			/	/	/	DV08CMWEWA	DV10CMWEWA	
			/	/	/	/	/	
Capacity	Capacity range	HP	8	10	12	16	18	
	Cooling capacity	kW	22.4	28	33.5	44.8	50.4	
	Heating capacity	kW	25	31.5	37.5	50.0	56.5	
Power supply			PhV/Hz	3/208-230/60	3/208-230/60	3/208-230/60	3/208-230/60	
Electrical parameters	Cooling	Rated power input	kW	4.50	6.00	7.70	9.00	10.50
		Max. power input	kW	13.00	15.00	17.00	26.00	28.00
		Rated current	A	12.43	16.58	21.27	24.86	29.01
		Max. current	A	35.91	41.44	46.96	71.83	77.35
	Heating	Rated power input	kW	4.15	5.80	7.80	8.30	9.95
		Max. power input	kW	13.00	15.00	17.00	26.00	28.00
		Rated current	A	11.46	16.02	21.55	22.93	27.49
		Max. current	A	35.91	41.44	46.96	71.83	77.35
EER/COP				4.98/6.02	4.67/5.43	4.35/4.81	4.98/6.02	4.8/5.68
Performance	Water flow (H)	m ³ /h	4.8	6	7.2	9.6	10.8	
	Sound pressure level (H)	dB(A)	50	51	53	53	54	
	Sound power level (H)	dB(A)	61	62	64	64	65	
External dimensions(W/D/H)			mm	775/545/995	775/545/995	775/545/995	(775/545/995)*2	(775/545/995)*2
Shipping dimensions(W/D/H)			mm	875/655/1182	875/655/1182	875/655/1182	(875/655/1182)*2	(875/655/1182)*2
Net/Shipping weight			kg	172/183	172/183	172/183	344/366	344/366
Compressor type				DC INV. SCROLL	DC INV. SCROLL	DC INV. SCROLL	DC INV. SCROLL	DC INV. SCROLL
Compressor quantity				1 INV	1 INV	1 INV	2 INV	2 INV
Refrigerant type				R410A	R410A	R410A	R410A	R410A
Installation	Refrigerant charge	kg	2	2	2	4	4	
	Refrigerant liquid pipe	mm	9.52	9.52	12.7	12.7	15.88	
	Refrigerant gas pipe	mm	19.05	22.22	25.4	28.58	28.58	
	Oil equalization pipe	mm	9.52	9.52	9.52	9.52	9.52	
	Total pipe length	m	300	300	300	300	300	
	Max. pipe length(Equivalent/Actual)	m	150/120	150/120	150/120	150/120	150/120	
	Max drop between I.U.&O.U	m	50/40	50/40	50/40	50/40	50/40	
	Type				Double coil	Double coil	Double coil	Double coil
Material				Copper&Steel	Copper&Steel	Copper&Steel	Copper&Steel	
Inlet water connection pipe			mm	DN32	DN32	DN32	DN32	
Outlet water connection pipe			mm	DN32	DN32	DN32	DN32	
pressure drop(inlet and outlet)			Kpa	35	50	70	35+35	35+50
Water side	Connection type				inner grooved	inner grooved	inner grooved	inner grooved
	Max. system water pressure			Mpa	1.6	1.6	1.6	1.6
	Inlet water temperature range (Cooling & Heating)			°C	7-45	7-45	7-45	7-45
Connection ratio	Connectable indoor unit ratio			%	50-130	50-130	50-130	50-130
	Maximum number of indoor units			unit	13	16	19	23

DRV W 3/208~230/60



8/10/12HP

Model			DV20CMWEWA	DV22CMWEWA	DV24CMWEWA	DV26CMWEWA	DV28CMWEWA	
Combination model			DV10CMWEWA	DV10CMWEWA	DV12CMWEWA	DV08CMWEWA	DV08CMWEWA	
			DV10CMWEWA	DV12CMWEWA	DV12CMWEWA	DV08CMWEWA	DV10CMWEWA	
			/	/	/	DV10CMWEWA	DV10CMWEWA	
Capacity	Capacity range	HP	20	22	24	26	28	
	Cooling capacity	kW	56	61.5	67.0	72.8	78.4	
	Heating capacity	kW	63	69.0	75.0	81.5	88.0	
Power supply			PhV/Hz	3/208-230/60	3/208-230/60	3/208-230/60	3/208-230/60	
Electrical parameters	Cooling	Rated power input	kW	12.00	13.70	15.40	15.00	16.50
		Max. power input	kW	30.00	32.00	34.00	41.00	43.00
		Rated current	A	33.15	37.85	42.54	41.44	45.58
		Max. current	A	82.88	88.40	93.93	113.26	118.79
	Heating	Rated power input	kW	11.60	13.60	15.60	14.10	15.75
		Max. power input	kW	30.00	32.00	34.00	41.00	43.00
		Rated current	A	32.05	37.57	43.10	38.95	43.51
		Max. current	A	82.88	88.40	93.93	113.26	118.79
EER/COP			4.67/5.43	4.49/5.07	4.35/4.81	4.85/5.78	4.75/5.59	
Performance	Water flow (H)	m ³ /h	12	13.2	14.4	15.6	16.8	
	Sound pressure level (H)	dB(A)	54	55	56	55	55	
	Sound power level (H)	dB(A)	65	66	67	66	66	
External dimensions(W/D/H)		mm	(775/545/995)*2	(775/545/995)*2	(775/545/995)*2	(775/545/995)*3	(775/545/995)*3	
Shipping dimensions(W/D/H)		mm	(875/655/1182)*2	(875/655/1182)*2	(875/655/1182)*2	(875/655/1182)*3	(875/655/1182)*3	
Net/Shipping weight		kg	344/366	344/366	344/366	516/549	516/549	
Compressor type			DC INV. SCROLL	DC INV. SCROLL	DC INV. SCROLL	DC INV. SCROLL	DC INV. SCROLL	
Compressor quantity			2 INV	2 INV	2 INV	3 INV	3 INV	
Refrigerant type			R410A	R410A	R410A	R410A	R410A	
Installation	Refrigerant charge	kg	4	4	4	6	6	
	Refrigerant liquid pipe	mm	15.88	15.88	15.88	19.05	19.05	
	Refrigerant gas pipe	mm	28.58	28.58	28.58	31.8	31.8	
	Oil equalization pipe	mm	9.52	9.52	9.52	9.52	9.52	
	Total pipe length	m	300	300	300	300	300	
	Max. pipe length(Equivalent/Actual)	m	150/120	150/120	150/120	150/120	150/120	
	Max drop between I.U.&O.U	m	50/40	50/40	50/40	50/40	50/40	
	Type			Double coil	Double coil	Double coil	Double coil	Double coil
Material			Copper&Steel	Copper&Steel	Copper&Steel	Copper&Steel	Copper&Steel	
Inlet water connection pipe		mm	DN32	DN32	DN32	DN32	DN32	
Outlet water connection pipe		mm	DN32	DN32	DN32	DN32	DN32	
pressure drop(inlet and outlet)		Kpa	50+50	50+70	70+70	35+35+50	35+50+50	
Connection type			inner grooved	inner grooved	inner grooved	inner grooved	inner grooved	
Max. system water pressure		Mpa	1.6	1.6	1.6	1.6	1.6	
Inlet water temperature range (Cooling & Heating)		°C	7~45	7~45		7~45	7~45	
Connection ratio	Connectable indoor unit ratio	%	50-130	50-130	50-130	50-130	50-130	
	Maximum number of indoor units	unit	33	36	39	43	46	

- Water Sourced DRV Outdoor Unit, Combine Water System and Refrigerant System in one System
- 3 Basic Single Module:8/10/12HP, Max. 3 Modules Combination up to 36HP
- Most Compact Size Outdoor Design in the Industry
- Total 300m Long Pipe Length, Easy for Installation
- Double Coil Outdoor Heat Exchanger
- Compatible with all the DRV Indoor Units

Model			DV30CMWEWA	DV32CMWEWA	DV34CMWEWA	DV36CMWEWA	
Combination model			DV10CMWEWA	DV10CMWEWA	DV10CMWEWA	DV12CMWEWA	
			DV10CMWEWA	DV10CMWEWA	DV12CMWEWA	DV12CMWEWA	
			DV10CMWEWA	DV12CMWEWA	DV12CMWEWA	DV12CMWEWA	
Capacity	Capacity range	HP	30	32	34	36	
	Cooling capacity	kW	84.0	89.5	95.0	100.5	
	Heating capacity	kW	94.5	100.5	106.5	112.5	
Power supply		PhV/Hz	3/208-230/60	3/208-230/60	3/208-230/60	3/208-230/60	
Electrical parameters	Cooling	Rated power input	kW	18.00	19.70	21.40	23.10
		Max. power input	kW	45.00	47.00	49.00	51.00
		Rated current	A	49.73	54.42	59.12	63.81
		Max.current	A	124.31	129.84	135.36	140.89
	Heating	Rated power input	kW	17.40	19.40	21.40	23.40
		Max. power input	kW	45.00	47.00	49.00	51.00
		Rated current	A	48.07	53.59	59.12	64.64
		Max.current	A	124.31	129.84	135.36	140.89
EER/COP			4.67/5.43	4.54/5.18	4.44/4.98	4.35/4.81	
Performance	Water flow (H)	m ³ /h	18.0	19.2	20.4	21.6	
	Sound pressure level (H)	dB(A)	56	57	57	58	
	Sound power level (H)	dB(A)	67	68	68	69	
External dimensions(W/D/H)		mm	(775/545/995)*3	(775/545/995)*3	(775/545/995)*3	(775/545/995)*3	
Shipping dimensions(W/D/H)		mm	(875/655/1182)*3	(875/655/1182)*3	(875/655/1182)*3	(875/655/1182)*3	
Net/Shipping weight		kg	516/549	516/549	516/549	516/549	
Compressor type			DC INV. SCROLL	DC INV. SCROLL	DC INV. SCROLL	DC INV. SCROLL	
Compressor quantity			3 INV	3 INV	3 INV	3 INV	
Refrigerant type			R410A	R410A	R410A	R410A	
Installation	Refrigerant charge	kg	6	6	6	6	
	Refrigerant liquid pipe	mm	19.05	19.05	19.05	19.05	
	Refrigerant gas pipe	mm	31.8	31.8	31.8	38.1	
	Oil equalization pipe	mm	9.52	9.52	9.52	9.52	
	Total pipe length	m	300	300	300	300	
	Max. pipe length(Equivalent/Actual)	m	150/120	150/120	150/120	150/120	
	Max drop between I.U.&O.U	m	50/40	50/40	50/40	50/40	
	Type			Double coil	Double coil	Double coil	Double coil
Material			Copper&Steel	Copper&Steel	Copper&Steel	Copper&Steel	
Inlet water connection pipe		mm	DN32	DN32	DN32	DN32	
Outlet water connection pipe		mm	DN32	DN32	DN32	DN32	
pressure drop(inlet and outlet)		Kpa	50+50+50	50+50+70	50+70+70	70+70+70	
Water side	Connection type		inner grooved	inner grooved	inner grooved	inner grooved	
	Max. system water pressure	Mpa	1.6	1.6	1.6	1.6	
	Inlet water temperature range (Cooling & Heating)	°C	7-45	7-45	7-45	7-45	
Connection ratio	Connectable indoor unit ratio	%	50-130	50-130	50-130	50-130	
	Maximum number of indoor units	unit	50	53	56	59	

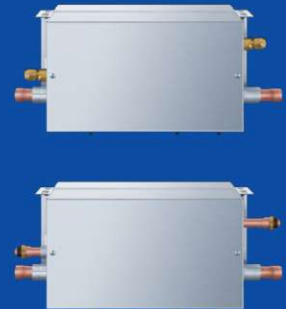
* 1. outdoor above 50m,outdoor below 40m.

* All the specifications are tested under nominal condition.(In cooling, Indoor temp is 27°C DB/19°C WB; Outdoor temp 35°C DB/24°C WB; In heating, Indoor temp is 20°C DB, Outdoor temp is 7°C DB/6°C WB).

* The specification may change according to the further product development.



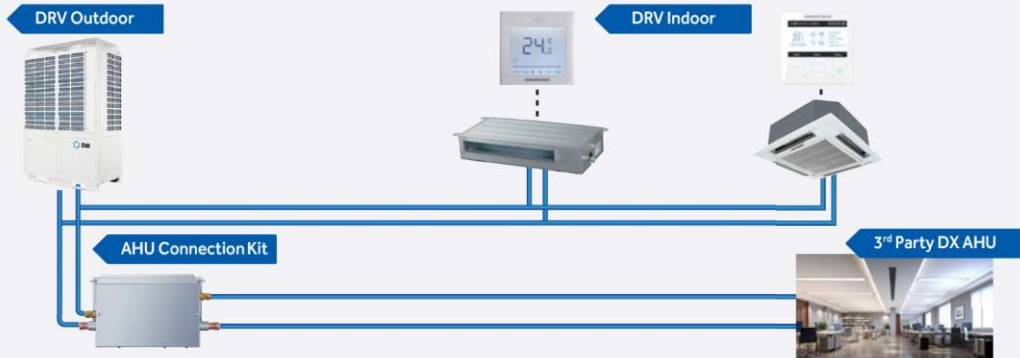
DRV AHU Connection Kit



FEATURES & BENEFITS

System Introduction

Dunham-Bush offers a range of connection kit to connect DRV outdoor units to third party DX air handling units.



System Application

- Provide a solution for big space to cool down the supply fresh air with DRV outdoor units to match the air handling units. Intergrated the advantages of DRV and AHU units
- Meet the requirement of law in EU, that for every working placel it have to supply at minimum 25 m³/h fresh air.so it means that every office, every shop and mostly every commercial building MUST have this solution.



System Line-up

Dunham-Bush DRV AHU provide a wide range of DRV outdoor, valve box and Super Match indoor solution.

OUTDOOR	DRV5	DRV IV	DRV III-C ^{PLUS} / DRV III(2-Pipe)	DRV S ^I		
HP	8-26	8-24	8 - 16	8	10	12
Power supply	3Ph/380-415V/50(60)Hz	3Ph/380-400V/50(60)Hz 3Ph/208-230V/50(60)Hz	3Ph/380-400V/50(60)Hz 3Ph/208-230V/60Hz 3Ph/460V/60Hz	3Ph/380-400V/50(60)Hz		

Valve Box

DH1-280A

5HP(14KW) <Connected AHU capa. ≤10HP(28KW)

DH1-560A

10HP(28KW) <Connected AHU capa. ≤20HP(56KW)

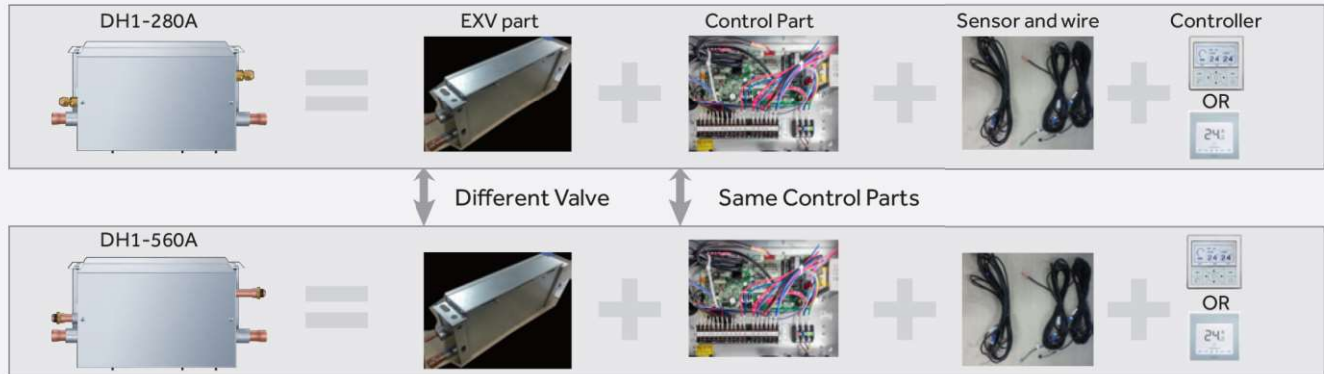
AHU & DRV indoor

AHU need purchase in Market



AHU Kit Configuration

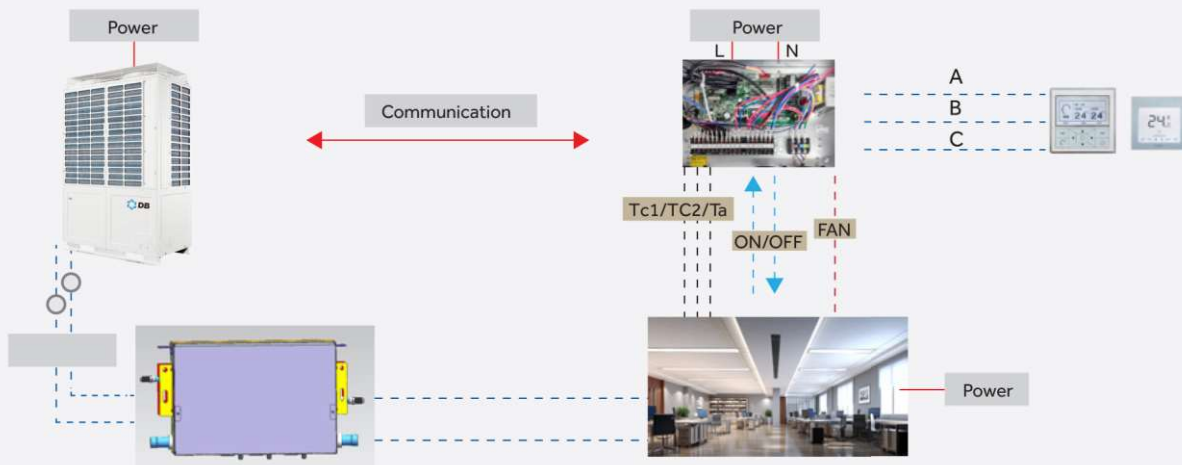
Dunham-Bush AHU connection Kit consists the following 4 parts.



•EXV part, Control part, Sensor and wire are all integrated in one box. •Controller need to be purchased separately.

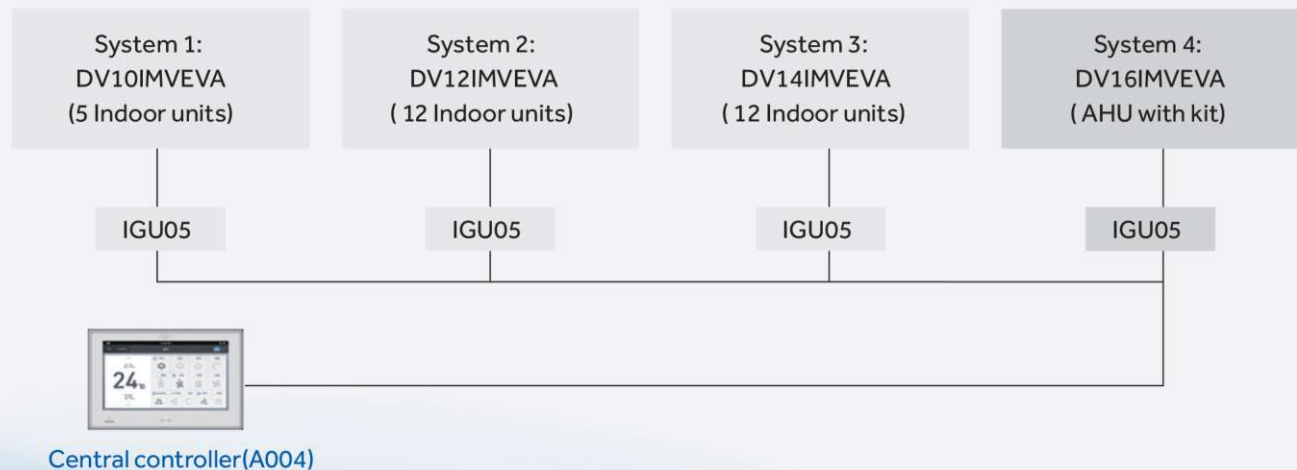
AHU Connection Kit Control

System control



Connection Kit Control

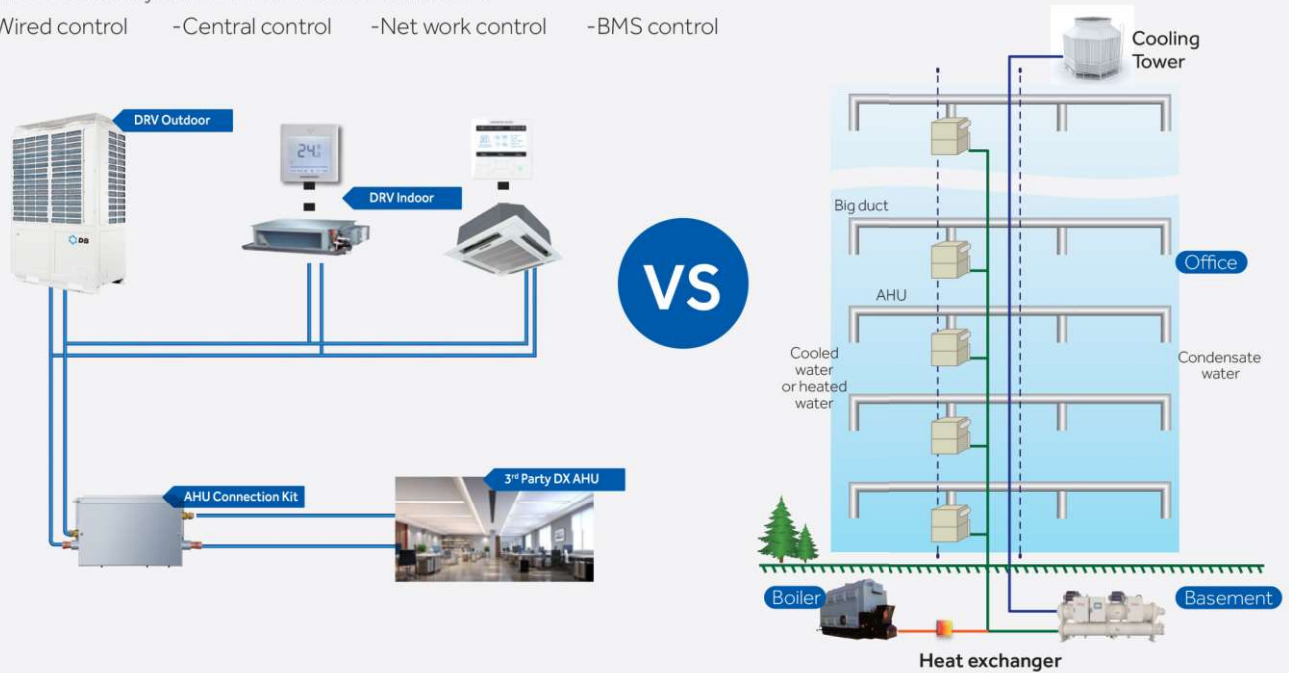
Central control: AHU control is same as DRV indoor unit control.



FEATURES & BENEFITS

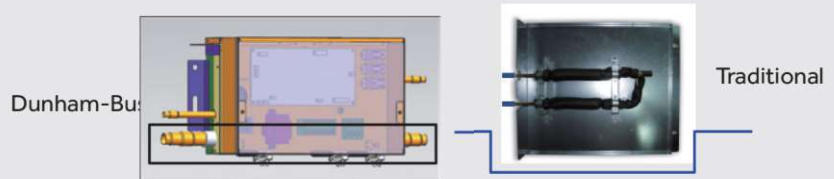
Easy Installation

- Adopting the DRV outdoor, not the traditional chiller outdoor system, is easy to design and install since no additional water system such as boilers, gas connections, cooling tower etc. are required. this also reduces the total system cost.
- AHU can provide enough cooled fresh air to big space other than HRV and fresh air indoor units.
- All the control system for DRV outdoor is available:
 - Wired control
 - Central control
 - Net work control
 - BMS control



EXV part and Control part integration, easy for translation and installation. Gas pipe is integrated into the valve box.

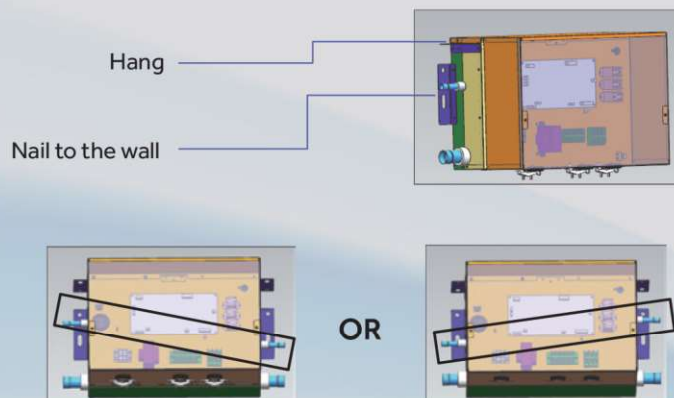
Needn't bend and weld the gas pipe, easy installation



Optional installation location

EEV box inlet and outlet pipe can be left or right.

Installation can choose lifting or nailed to the wall



Advantages

Wide Capacity

Connected AHU capacity from 5HP to 20HP.

High Compatible

1. Same PCB board with DRV indoor, easy operation and service.
2. Same wired controller can be used with DRV indoor unit such as YR-E16, YR-E17 and YR-E14.

Reliable EEV

EEV is imported from Japan.



Specification

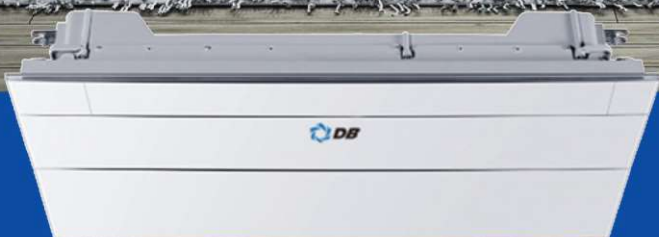


Model	DH1-280A	DH1-560A
Connected AHU capacity	14≤x≤28KW (5-10HP)	28<x≤56KW (10-20HP)
Power Supply (Ph/V/Hz)	1/220-240/50/60	1/220-240/50/60
Dimension (mm)	350/226/155	433/296/193
Shipping dimensions (mm)	606/295/209	667/365/249
Material	Galvanized steel	Galvanized steel
Color	Grey	Grey
Weight (KG)	6	8
Shipping Weight (KG)	10	13
Liquid pipe (mm)	9.52 (Main) / 12.7	12.7 (Main) / 15.88
Gas pipe (mm)	25.4 (Main) / 22.2 / 19.05	28.58 (Main) / 25.4 / 22.22
Pipe connection method	Flare connection and welding	Flare connection and welding
AHU Kit-Indoor units Max Single pipe length (m)	5	5
AHU Kit-Indoor units Max drop (m)	5	5



DRV *INDOOR*





1-WAY CASSETTE



HW-BA116DBK



YR-E17



YR-E16A



YR-E16B



YR-HD

- Ultra thin design
- Ultra low sound level
- Built-in high head drain pump

Specification

Model/Indoor unit			DB052MAERA	DB072MAERA
Capacity	Cooling	kBtu/h	5.2	7.6
		kW	1.5	2.2
	Heating	kBtu/h	5.8	8.5
		kW	1.7	2.5
Electrical Parameters	Power supply	Ph/V/Hz	1/220-230/50/60	1/220-230/50/60
Performance	Air flow (H/M/L)	m ³ /h	530/490/450	530/490/450
	Sound pressure level(H/M/L)	dB(A)	32/29/24	32/29/24
	Sound power level(H/M/L)	dB(A)	46/43/38	46/43/38
Installation	External dimensions(W/D/H)	mm	875/505/185	875/505/185
	Shipping dimensions(W/D/H)	mm	1028/581/270	1028/581/270
	Net/Shipping weight	kg	15.3/17.9	15.3/17.9
	Refrigerant liquid pipe	mm	6.35	6.35
	Refrigerant gas pipe	mm	9.52	9.52
Panel	Model Name		P1B-1050IB	P1B-1050IB
	External dimensions(W/D/H)	mm	1050/560/122	1050/560/122
	Shipping dimensions(W/D/H)	mm	1133/623/197	1133/623/197
	Net/Shipping weight	kg	5.3/8.3	5.3/8.3
Controller	Wired(Optional)	/	YR-E16A	YR-E16A
		/	YR-E16B	YR-E16B
		/	HW-BA116DBK	HW-BA116DBK
		/	YR-E17	YR-E17
	Infrared (Optional)	/	YR-HD	YR-HD

Model/Indoor unit			DB092MAERA	DB122MAERA
Capacity	Cooling	kBtu/h	9.7	12.4
		kW	2.8	3.6
	Heating	kBtu/h	10.9	13.6
		kW	3.2	4
Electrical Parameters	Power supply	Ph/V/Hz	1/220-230/50/60	1/220-230/50/60
Performance	Air flow (H/M/L)	m ³ /h	530/490/450	550/530/490
	Sound pressure level(H/M/L)	dB(A)	32/29/24	34/30/25
	Sound power level(H/M/L)	dB(A)	46/43/38	48/44/39
Installation	External dimensions(W/D/H)	mm	875/505/185	875/505/185
	Shipping dimensions(W/D/H)	mm	1028/581/270	1028/581/270
	Net/Shipping weight	kg	15.3/17.9	15.3/17.9
	Refrigerant liquid pipe	mm	6.35	6.35
	Refrigerant gas pipe	mm	9.52	12.7
Panel	Model Name		P1B-1050IB	P1B-1050IB
	External dimensions(W/D/H)	mm	1050/560/122	1050/560/122
	Shipping dimensions(W/D/H)	mm	1133/623/197	1133/623/197
	Net/Shipping weight	kg	5.3/8.3	5.3/8.3
Controller	Wired(Optional)	/	YR-E16A	YR-E16A
		/	YR-E16B	YR-E16B
		/	HW-BA116DBK	HW-BA116DBK
		/	YR-E17	YR-E17
	Infrared (Optional)	/	YR-HD	YR-HD



2-WAY CASSETTE



HW-BA116DBK YR-E17 YR-E16A YR-E16B YR-HD

- Compact design: only 220mm height
- Built in high head drain pump
- Ceiling antifouling design unique antifouling design
- Quiet operation

Specification

Model/Indoor unit			DB072MBERA	DB092MBERA
Capacity	Cooling	kBtu/h	7.6	9.7
		kW	2.2	2.8
	Heating	Btu/h	8.5	10.9
		kW	2.5	3.2
Electrical Parameters	Power supply	Ph/V/Hz	1/220-230/50/60	1/220-230/50/60
	Air flow (H)	m ³ /h	840/700/550	840/700/550
Performance	Sound pressure level(H/M/L)	dB(A)	42/37/33	42/37/33
	Sound power level(H/M/L)	dB(A)	55/50/46	55/50/46
	External dimensions(W/D/H)	mm	817/620/220	817/620/220
Installation	Shipping dimensions(W/D/H)	mm	1015/695/260	1015/695/260
	Net/Shipping weight	kg	21/23	21/23
	Refrigerant liquid pipe	mm	6.35	6.35
	Refrigerant gas pipe	mm	9.52	9.52
	Model name		P2B-1055IB	P2B-1055IB
Panel	External dimensions(W/D/H)	mm	1055/680/68	1055/680/68
	Shipping dimensions(W/D/H)	mm	1110/720/160	1110/720/160
	Net/Shipping weight	kg	7/8	7/8
Controller	Wired(Optional)	/	YR-E16A	YR-E16A
		/	YR-E16B	YR-E16B
		/	HW-BA116DBK	HW-BA116DBK
		/	YR-E17	YR-E17
	Infrared(Optional)	/	YR-HD	YR-HD

Model/Indoor unit			DB122MBERA	DB162MBERA	DB182MBERA
Capacity	Cooling	kBtu/h	12.4	15.5	19.2
		kW	3.6	4.5	5.6
	Heating	Btu/h	13.6	17.1	21.5
		kW	4.0	5.0	6.3
Electrical Parameters	Power supply	Ph/V/Hz	1/220-230/50/60	1/220-230/50/60	1/220-230/50/60
	Air flow (H)	m ³ /h	840/700/550	840/700/550	840/700/550
Performance	Sound pressure level(H/M/L)	dB(A)	42/37/33	44/39/34	44/39/34
	Sound power level(H/M/L)	dB(A)	55/50/46	57/52/47	57/52/47
	External dimensions(W/D/H)	mm	817/620/220	817/620/220	817/620/220
Installation	Shipping dimensions(W/D/H)	mm	1015/695/260	1015/695/260	1015/695/260
	Net/Shipping weight	kg	21/23	21/23	21/23
	Refrigerant liquid pipe	mm	6.35	6.35	6.35
	Refrigerant gas pipe	mm	12.7	12.7	12.7
	Model name		P2B-1055IB	P2B-1055IB	P2B-1055IB
Panel	External dimensions(W/D/H)	mm	1055/680/68	1055/680/68	1055/680/68
	Shipping dimensions(W/D/H)	mm	1110/720/160	1110/720/160	1110/720/160
	Net/Shipping weight	kg	7/8	7/8	7/8
Controller	Wired(Optional)	/	YR-E16A	YR-E16A	YR-E16A
		/	YR-E16B	YR-E16B	YR-E16B
		/	HW-BA116DBK	HW-BA116DBK	HW-BA116DBK
		/	YR-E17	YR-E17	YR-E17
	Infrared(Optional)	/	YR-HD	YR-HD	YR-HD



MINI 4-WAY CASSETTE



- Compact design
- New panel design 620*620mm
- Fresh air outlet
- Low sound level

Specification

Model/Indoor unit			DB052MCERA(M)	DB072MCERA(M)	DB092MCERA(M)
Capacity	Cooling	kBtu/h	5.2	7.6	9.6
		kW	1.5	2.2	2.8
	Heating	kBtu/h	5.8	8.5	10.9
		kW	1.7	2.5	3.2
Electrical Parameters	Power supply	Ph/V/Hz	1/220-240/50/60	1/220-240/50/60	1/220-240/50/60
	Air flow (H/M/L)	m ³ /h	520/450/400	520/450/400	520/450/400
Performance	Sound pressure level(H/M/L)	dB(A)	32/30/29	32/30/29	32/30/29
	Sound power level(H/M/L)	dB(A)	46/44/43	46/44/43	46/44/43
	External dimensions(W/D/H)	mm	570/570/260	570/570/260	570/570/260
Installation	Shipping dimensions(W/D/H)	mm	718/680/380	718/680/380	718/680/380
	Net/Shipping weight	kg	16/19	16/19	16/19
	Refrigerant liquid pipe	mm	6.35	6.35	6.35
	Refrigerant gas pipe	mm	9.52	9.52	9.52
	Model Name		PB-620KB	PB-620KB	PB-620KB
Panel	External dimensions(W/D/H)	mm	620/620/60	620/620/60	620/620/60
	Shipping dimensions(W/D/H)	mm	660/660/115	660/660/115	660/660/115
	Controller	Wired(Optional)	/	YR-E16A	YR-E16A
/			YR-E16B	YR-E16B	YR-E16B
/			YR-E17	YR-E17	YR-E17
Infrared (Optional)		/	YR-HBS01	YR-HBS01	YR-HBS01

Model/Indoor unit			DB122MCERA(M)	DB162MCERA(M)	DB182MCERA(M)
Capacity	Cooling	kBtu/h	12.4	15.4	19.2
		kW	3.6	4.5	5.6
	Heating	kBtu/h	13.6	17.1	21.5
		kW	4	5	6.3
Electrical Parameters	Power supply	Ph/V/Hz	1/220-240/50/60	1/220-240/50/60	1/220-240/50/60
	Air flow (H/M/L)	m ³ /h	520/450/400	650/520/450	760/650/520
Performance	Sound pressure level(H/M/L)	dB(A)	33/30/29	33/30/29	34/32/30
	Sound power level(H/M/L)	dB(A)	47/44/43	47/44/43	48/46/44
	External dimensions(W/D/H)	mm	570/570/260	570/570/260	570/570/260
Installation	Shipping dimensions(W/D/H)	mm	718/680/380	718/680/380	718/680/380
	Net/Shipping weight	kg	19/22	19/22	19/22
	Refrigerant liquid pipe	mm	6.35	6.35	6.35
	Refrigerant gas pipe	mm	12.7	12.7	12.7
	Model Name		PB-620KB	PB-620KB	PB-620KB
Panel	External dimensions(W/D/H)	mm	620/620/60	620/620/60	620/620/60
	Shipping dimensions(W/D/H)	mm	660/660/115	660/660/115	660/660/115
	Controller	Wired(Optional)	/	YR-E16A	YR-E16A
/			YR-E16B	YR-E16B	YR-E16B
/			YR-E17	YR-E17	YR-E17
Infrared (Optional)		/	YR-HBS01	YR-HBS01	YR-HBS01



ROUND FLOW 4-WAY CASSETTE



- Unique round-way air outlet, no blind spot
- Innovative 4 independent air flow control
- 6 adjustable louver positions, 1296 air flow combinations
- Move Eye intelligent system, intelligence all around(optional)



CONVERTIBLE



HW-BA116ABK



YR-E17



YR-E16A



YR-E16B



YR-HD

- Flexible installation, on the floor or on the ceiling
- Automatic horizontal and vertical swing
- Reserved fresh air inlet
- Multiple direction for connection pipe setting
- Long-life and high efficiency air purify filter

Specification

Model/Indoor unit			DC092MDERA	DC122MDERA	DC162MDERA	DC182MDERA	DC242MDERA
Capacity	Cooling	kBtu/h	9.6	12.4	15.5	19.2	24.3
		kW	2.8	3.6	4.5	5.6	7.1
	Heating	kBtu/h	10.9	13.6	17.1	21.5	27.3
		kW	3.2	4.0	5.0	6.3	8.0
Electrical Parameters	Power supply	Ph/V/Hz	1/220-230/50/60	1/220-230/50/60	1/220-230/50/60	1/220-230/50/60	1,220-230,50/60
Performance	Air flow (H/M/L)	m ³ /h	820/750/690	820/750/690	950/820/690	950/820/690	1420/1270/1240
	Sound pressure level (H/M/L)	dB(A)	38/36/34	38/36/34	42/38/35	42/38/35	46/44/41
	Sound power level (H/M/L)	dB(A)	52/50/47	52/50/47	55/51/48	55/51/48	60/58/54
Installation	External dimensions(W/D/H)	mm	1000*230*680	1000*230*680	1000*230*680	1000*230*680	1325*230*680
	Shipping dimensions(W/D/H)	mm	1100*305*779	1100*305*779	1100*305*779	1100*305*779	1425*305*779
	Net/Shipping weight	kg	27.9/33.6	27.9/33.6	27.9/33.6	27.9/33.6	35.8/42.1
	Refrigerant liquid pipe	mm	6.35	6.35	6.35	6.35	9.52
	Refrigerant gas pipe	mm	9.52	12.7	12.7	12.7	15.88
Controller	Wired(Optional)	/	YR-E16A	YR-E16A	YR-E16A	YR-E16A	YR-E16A
		/	YR-E16B	YR-E16B	YR-E16B	YR-E16B	YR-E16B
		/	HW-BA116ABK	HW-BA116ABK	HW-BA116ABK	HW-BA116ABK	HW-BA116ABK
		/	YR-E17	YR-E17	YR-E17	YR-E17	YR-E17
	Infrared(Optional)	/	YR-HD	YR-HD	YR-HD	YR-HD	YR-HD

Model/Indoor unit			DC282MDERA	DC302MDERA	DC382MDERA	DC482MDERA
Capacity	Cooling	kBtu/h	27.4	30.8	38.3	48.1
		kW	8.0	9.0	11.2	14.0
	Heating	Btu/h	30.7	34.1	42.6	55.0
		kW	9.0	10.0	12.5	16.0
Electrical Parameters	Power supply	Ph/V/Hz	1/220-230/50/60	1/220-230/50/60	1/220-230/50/60	1/220-230/50/60
Performance	Air flow (H/M/L)	m ³ /h	1570/1420/1240	1570/1420/1240	2110/1990/1750	2110/1990/1750
	Sound pressure level (H/M/L)	dB(A)	47/44/41	47/44/41	50/46/43	50/46/43
	Sound power level(H/M/L)	dB(A)	61/58/54	61/58/55	63/60/57	63/60/57
Installation	External dimensions(W/D/H)	mm	1325*230*680	1325*230*680	1650*230*680	1650*230*680
	Shipping dimensions(W/D/H)	mm	1425*305*779	1425*305*779	1750*305*779	1750*305*779
	Net/Shipping weight	kg	35.8/42.1	35.8/42.1	43.5/50.5	43.5/50.5
	Refrigerant liquid pipe	mm	9.52	9.52	9.52	9.52
	Refrigerant gas pipe	mm	15.88	15.88	15.88	15.88
Controller	Wired(Optional)	/	YR-E16A	YR-E16A	YR-E16A	YR-E16A
		/	YR-E16B	YR-E16B	YR-E16B	YR-E16B
		/	HW-BA116ABK	HW-BA116ABK	HW-BA116ABK	HW-BA116ABK
		/	YR-E17	YR-E17	YR-E17	YR-E17
	Infrared(Optional)	/	YR-HD	YR-HD	YR-HD	YR-HD



LOW ESP SLIM DUCT (0/15/30Pa)



HW-BA116DBK YR-E17 YR-E16A YR-E16B YR-HD

- DC fan motor
- New design 3D airflow air grille(optional)
- Super slim design, only 185mm
- Reserved fresh air inlet
- Built-in high head drain pump
- Friendly design of rear or bottom air return
- Quiet operation
- Static pressure 0/15/30Pa

Specification

Model/Indoor unit			DD052MSERA(D)	DD072MSERA(D)	DD092MSERA(D)	DD122MSERA(D)
Capacity	Cooling	kBtu/h	5.2	7.6	9.6	12.4
		kW	1.5	2.2	2.8	3.6
	Heating	kBtu/h	5.8	8.5	10.9	13.6
		kW	1.7	2.5	3.2	4.0
Electrical Parameters	Power supply	Ph/V/Hz	1/220-230/50/60	1/220-230/50/60	1/220-230/50/60	1/220-230/50/60
Performance	Air flow (H/M/L)	m ³ /h	430/370/310	480/420/360	480/420/360	550/430/370
	Sound pressure level(H/M/L)	dB(A)	26/22/19	27/23/20	27/23/20	30/27/24
	Sound power level(H/M/L)	dB(A)	40/36/33	41/37/34	41/37/34	44/41/38
	Installation	External dimensions(W/D/H)	mm	850/420/185	850/420/185	850/420/185
Shipping dimensions(W/D/H)		mm	1045/540/270	1045/540/270	1045/540/270	1045/540/270
Net/Shipping weight		kg	16.5/21.5	17.5/22.5	17.5/22.5	17.5/22.5
Refrigerant liquid pipe		mm	6.35	6.35	6.35	6.35
Refrigerant gas pipe		mm	9.52	9.52	9.52	12.7
Static Pressure(Standard/Max.)		Pa	0/15/30	0/15/30	0/15/30	0/15/30
Panel		Panel model	/	P1B-890IA/D	P1B-890IA/D	P1B-890IA/D
	External dimensions(W/D/H)	mm	890/190/100 (outlet panel)	890/190/100 (outlet panel)	890/190/100 (outlet panel)	890/190/100 (outlet panel)
	External dimensions(W/D/H)		890/290.5/32.4 (inlet panel)	890/290.5/32.4 (inlet panel)	890/290.5/32.4 (inlet panel)	890/290.5/32.4 (inlet panel)
	Shipping dimensions(W/D/H)	mm	938/335/220	938/335/220	938/335/220	938/335/220
	Net/Shipping weight	Kg	4/5	4/5	4/5	4/5
Drain pump	O-optional,S-standard,W-without		S	S	S	S
Controller	Wired(Optional)	/	YR-E16A	YR-E16A	YR-E16A	YR-E16A
		/	YR-E16B	YR-E16B	YR-E16B	YR-E16B
		/	YR-E17	YR-E17	YR-E17	YR-E17
	Infrared (Optional)	/	YR-HD	YR-HD	YR-HD	YR-HD

Model/Indoor unit			DD162MSERA(D)	DD182MSERA(D)	DD242MSERA(D)
Capacity	Cooling	kBtu/h	15.4	19.2	24.3
		kW	4.5	5.6	7.1
	Heating	kBtu/h	17.1	21.5	27.3
		kW	5.0	6.3	8.0
Electrical Parameters	Power supply	Ph/V/Hz	1/220-230/50/60	1/220-230/50/60	1/220-230/50/60
Performance	Air flow (H/M/L)	m ³ /h	600/540/460	800/690/580	930/850/750
	Sound pressure level(H/M/L)	dB(A)	32/29/26	33/30/27	36/33/30
	Sound power level(H/M/L)	dB(A)	46/43/40	47/44/41	50/47/43
	Installation	External dimensions(W/D/H)	mm	850/420/185	1170/420/185
Shipping dimensions(W/D/H)		mm	1045/540/270	1365/540/270	1365/540/270
Net/Shipping weight		kg	18.5/23.5	22.2/28.2	24/30
Refrigerant liquid pipe		mm	6.35	6.35	9.52
Refrigerant gas pipe		mm	12.7	12.7	15.88
Static Pressure(Standard/Max.)		Pa	0/15/30	0/15/30	0/15/30
Panel		Panel model	/	P1B-890IA/D	P1B-1210IA/D
	External dimensions(W/D/H)	mm	890/190/100 (outlet panel)	1210/190/100 (outlet panel)	1210/190/100 (outlet panel)
	External dimensions(W/D/H)		890/290.5/32.4 (inlet panel)	1210/290.5/32.4 (inlet panel)	1210/290.5/32.4 (inlet panel)
	Shipping dimensions(W/D/H)	mm	938/335/220	1258/335/220	1258/335/220
	Net/Shipping weight	Kg	4/5	5/6	5/6
Drain pump	O-optional,S-standard,W-without		S	S	S
Controller	Wired(Optional)	/	YR-E16A	YR-E16A	YR-E16A
		/	YR-E16B	YR-E16B	YR-E16B
		/	YR-E17	YR-E17	YR-E17
	Infrared (Optional)	/	YR-HD	YR-HD	YR-HD



LOW ESP SLIM DUCT (0/30Pa)



HW-BA116DBK YR-E17 YR-E16A YR-E16B YR-HD

- Static pressure 0/30Pa
- Super slim design, only 185mm
- Reserved fresh air inlet
- Built-in high head drain pump
- Friendly design of rear or bottom air return
- Quiet operation

Specification

Model/Indoor unit			DD052MSERA	DD072MSERA	DD092MSERA	DD122MSERA
Capacity	Cooling	kBtu/h	5.2	7.6	9.6	12.4
		kW	1.5	2.2	2.8	3.6
	Heating	kBtu/h	5.8	8.5	10.9	13.6
		kW	1.7	2.5	3.2	4.0
Electrical Parameters	Power supply	Ph/V/Hz	1/220-230/50/60	1/220-230/50/60	1/220-230/50/60	1/220-230/50/60
	Air flow (H/M/L)	m ³ /h	430/370/310	480/420/360	480/420/360	550/430/370
Performance	Sound pressure level(H/M/L)	dB(A)	26/23/20	27/24/21	27/24/21	30/28/25
	Sound power level(H/M/L)	dB(A)	40/37/34	41/38/35	41/38/35	44/42/39
	External dimensions(W/D/H)	mm	850/420/185	850/420/185	850/420/185	850/420/185
Installation	Shipping dimensions(W/D/H)	mm	1045/540/270	1045/540/270	1045/540/270	1045/540/270
	Net/Shipping weight	kg	16.5/21.5	17.5/22.5	17.5/22.5	17.5/22.5
	Refrigerant liquid pipe	mm	6.35	6.35	6.35	6.35
	Refrigerant gas pipe	mm	9.52	9.52	9.52	12.7
	Static Pressure(Standard/Max.)	Pa	0/30	0/30	0/30	0/30
	Panel model	/	P1B-890IA/D	P1B-890IA/D	P1B-890IA/D	P1B-890IA/D
Panel	External dimensions(W/D/H)	mm	890/190/100 (outlet panel)	890/190/100 (outlet panel)	890/190/100 (outlet panel)	890/190/100 (outlet panel)
	External dimensions(W/D/H)		890/290.5/32.4 (inlet panel)	890/290.5/32.4 (inlet panel)	890/290.5/32.4 (inlet panel)	890/290.5/32.4 (inlet panel)
	Shipping dimensions(W/D/H)	mm	938/335/220	938/335/220	938/335/220	938/335/220
	Net/Shipping weight	Kg	4/5	4/5	4/5	4/5
Drain pump	O-optional,S-standard,W-without		S	S	S	S
Controller	Wired(Optional)	/	YR-E16A	YR-E16A	YR-E16A	YR-E16A
		/	YR-E16B	YR-E16B	YR-E16B	YR-E16B
		/	HW-BA116DBK	HW-BA116DBK	HW-BA116DBK	HW-BA116DBK
		/	YR-E17	YR-E17	YR-E17	YR-E17
	Infrared(Optional)	/	YR-HD	YR-HD	YR-HD	YR-HD

Model/Indoor unit			DD162MSERA	DD182MSERA	DD242MSERA
Capacity	Cooling	kBtu/h	15.4	19.2	24.3
		kW	4.5	5.6	7.1
	Heating	kBtu/h	17.1	21.5	27.3
		kW	5.0	6.3	8.0
Electrical Parameters	Power supply	Ph/V/Hz	1/220-230/50/60	1/220-230/50/60	1/220-230/50/60
	Air flow (H/M/L)	m ³ /h	600/540/460	800/690/580	930/850/750
Performance	Sound pressure level(H/M/L)	dB(A)	33/30/27	33/30/28	36/33/31
	Sound power level(H/M/L)	dB(A)	47/44/41	47/44/42	50/47/44
	External dimensions(W/D/H)	mm	850/420/185	1170/420/185	1170/420/185
Installation	Shipping dimensions(W/D/H)	mm	1045/540/270	1365/540/270	1365/540/270
	Net/Shipping weight	kg	18.5/23.5	22.2/28.2	24/30
	Refrigerant liquid pipe	mm	6.35	6.35	9.52
	Refrigerant gas pipe	mm	12.7	12.7	15.88
	Static Pressure(Standard/Max.)	Pa	0/30	0/30	0/30
	Panel model	/	P1B-890IA/D	P1B-12102IA/D	P1B-12102IA/D
Panel	External dimensions(W/D/H)	mm	890/190/100 (outlet panel)	890/190/100 (outlet panel)	890/190/100 (outlet panel)
	External dimensions(W/D/H)		890/290.5/32.4 (inlet panel)	890/290.5/32.4 (inlet panel)	890/290.5/32.4 (inlet panel)
	Shipping dimensions(W/D/H)	mm	938/335/220	938/335/220	938/335/220
	Net/Shipping weight	Kg	4/5	4/5	4/5
Drain pump	O-optional,S-standard,W-without		S	S	S
Controller	Wired(Optional)	/	YR-E16A	YR-E16A	YR-E16A
		/	YR-E16B	YR-E16B	YR-E16B
		/	HW-BA116DBK	HW-BA116DBK	HW-BA116DBK
		/	YR-E17	YR-E17	YR-E17
	Infrared(Optional)	/	YR-HD	YR-HD	YR-HD



MEDIUM ESP DUCT (50/96Pa)



HW-BA116ABK



YR-E17



YR-E16A



YR-E16B



YR-HD

- Flexible duct connection
- Built in drain pump
- Static pressure 50/96Pa

Specification

Model/Indoor unit			DD182MMERA	DD242MMERA	DD282MMERA
Capacity	Cooling	kBtu/h	19.2	24.3	27.4
		kW	5.6	7.1	8
	Heating	Btu/h	21.5	27.3	30.7
		kW	6.3	8	9
Electrical Parameters	Power supply	Ph/V/Hz	1/220-230/50/60	1/220-230/50/60	1/220-230/50/60
Performance	Air flow (H)	m ³ /h	1200/1123/1072	1200/1123/1072	1200/1123/1072
	Sound pressure level(H/M/L)	dB(A)	36/34/31	36/34/31	39/37/35
	Sound power level(H/M/L)	dB(A)	49/47/44	49/47/44	52/50/48
Installation	External dimensions(W/D/H)	mm	990/655/300	990/655/300	990/655/300
	Shipping dimensions(W/D/H)	mm	1180/743/340	1180/743/340	1180/743/340
	Net/Shipping weight	kg	39/45	39/45	64/66.7
	Refrigerant liquid pipe	mm	6.35	9.52	9.52
	Refrigerant gas pipe	mm	12.7	15.88	15.88
	Static Pressure(Standard/Max.)	Pa	50/96	50/96	50/96
Drain pump	O-optional,S-standard,W-without		S	S	S
Controller	Wired(Optional)	/	YR-E16A	YR-E16A	YR-E16A
		/	YR-E16B	YR-E16B	YR-E16B
		/	HW-BA116ABK	HW-BA116ABK	HW-BA116ABK
		/	YR-E17	YR-E17	YR-E17
	Infrared(Optional)	/	YR-HD	YR-HD	YR-HD

Model/Indoor unit			DD302MMERA	DD382MMERA	DD482MMERA
Capacity	Cooling	kBtu/h	30.8	38.3	47.8
		kW	9	11.2	14
	Heating	Btu/h	34.1	42.6	54.6
		kW	10	12.5	16
Electrical Parameters	Power supply	Ph/V/Hz	1/220-230/50	1/220-230/50	1/220-230/50
Performance	Air flow (H)	m ³ /h	1900/1726/1538	1900/1726/1538	2100/1908/1700
	Sound pressure level(H/M/L)	dB(A)	39/37/35	41/40/39	41/40/39
	Sound power level(H/M/L)	dB(A)	52/50/48	54/53/52	54/53/52
Installation	External dimensions(W/D/H)	mm	1418/655/350	1418/655/350	1418/655/350
	Shipping dimensions(W/D/H)	mm	1570/813/383	1570/813/383	1570/813/383
	Net/Shipping weight	kg	53.2/60.3	53.2/60.3	54.6/61.7
	Refrigerant liquid pipe	mm	9.52	9.52	9.52
	Refrigerant gas pipe	mm	15.88	15.88	15.88
	Static Pressure(Standard/Max.)	Pa	50/96	50/96	50/96
Drain pump	O-optional,S-standard,W-without		S	S	S
Controller	Wired(Optional)	/	YR-E16A	YR-E16A	YR-E16A
		/	YR-E16B	YR-E16B	YR-E16B
		/	HW-BA116ABK	HW-BA116ABK	HW-BA116ABK
		/	YR-E17	YR-E17	YR-E17
	Infrared(Optional)	/	YR-HD	YR-HD	YR-HD



MEDIUM ESP DUCT (50/100Pa)

NEW



- 5-48K
- Only 250mm thick
- Built-in drain pump
- 50/100Pa

Specification

Model/Indoor unit			DD052MJERA	DD072MJERA	DD092MJERA	DD122MJERA	DD162MJERA	DD182MJERA
Capacity	Cooling	kBtu/h	5.2	7.6	9.6	12.4	15.4	19.2
		kW	1.5	2.2	2.8	3.6	4.5	5.6
	Heating	Btu/h	5.8	8.5	10.9	13.6	17.1	21.5
		kW	1.7	2.5	3.2	4	5	6.3
Electrical Parameters	Power supply	Ph/V/Hz	1/220-230/50/60	1/220-230/50/60	1/220-230/50/60	1/220-230/50/60	1/220-230/50/60	1/220-230/50/60
Performance	Air flow (H)	m³/h	585/495/408	585/495/408	585/495/408	585/495/408	750/652/566	920/805/699
	Sound pressure level(H/M/L)	dB(A)	35/33/31	35/33/31	35/33/31	35/33/31	35/33/31	36/34/32
	Sound power level(H/M/L)	dB(A)	39/37/35	39/37/35	39/37/35	39/37/35	39/37/35	40/38/36
Installation	External dimensions(W/D/H)	mm	750/720/250	750/720/250	750/720/250	750/720/250	750/720/250	1050/720/250
	Shipping dimensions(W/D/H)	mm	920/820/340	920/820/340	920/820/340	920/820/340	920/820/340	1170/860/340
	Net/Shipping weight	kg	24.1/28.3	24.1/28.3	24.1/28.3	24.1/28.3	25.9/30.1	30.5/35.9
	Refrigerant liquid pipe	mm	6.35	6.35	6.35	6.35	6.35	6.35
	Refrigerant gas pipe	mm	12.7	12.7	12.7	12.7	12.7	12.7
	Static Pressure(Standard/Max.)	Pa	50/100	50/100	50/100	50/100	50/100	50/100
Drain pump	O-optional,S-standard,W-without		S	S	S	S	S	S
Controller	Wired(Optional)	/	YR-E16A	YR-E16A	YR-E16A	YR-E16A	YR-E16A	YR-E16A
		/	YR-E16B	YR-E16B	YR-E16B	YR-E16B	YR-E16B	YR-E16B
		/	YR-E17	YR-E17	YR-E17	YR-E17	YR-E17	YR-E17
		/	HW-BA116ABK	HW-BA116ABK	HW-BA116ABK	HW-BA116ABK	HW-BA116ABK	HW-BA116ABK
	Infrared(Optional)	/	YR-HD	YR-HD	YR-HD	YR-HD	YR-HD	YR-HD

Model/Indoor unit			DD242MJERA	DD282MJERA	DD302MJERA	DD382MJERA	DD482MJERA
Capacity	Cooling	kBtu/h	24.3	27.4	30.8	38.3	48
		kW	7.1	8	9	11.2	14
	Heating	Btu/h	27.3	30.7	34.1	44.4	55.6
		kW	8	9	10	13	16.3
Electrical Parameters	Power supply	Ph/V/Hz	1/220-230/50/60	1/220-230/50/60	1,220-230,50	1,220-230,50	1,220-230,50
Performance	Air flow (H)	m³/h	1230/1090/950	1230/1090/950	1500/1180/930	1700/1300/900	2000/1700/1250
	Sound pressure level(H/M/L)	dB(A)	38/36/34	42/39/35	42/38/34	42/39/35	43/40/35
	Sound power level(H/M/L)	dB(A)	42/40/38	46/43/39	46/42/38	46/33/39	47/44/39
Installation	External dimensions(W/D/H)	mm	1050/720/250	1050/720/250	1100/700/248	1500/700/248	1500/700/248
	Shipping dimensions(W/D/H)	mm	1170/860/340	1170/860/340	1332/835/280	1698/857/305	1698/857/305
	Net/Shipping weight	kg	33.1/38.5	33.1/38.5	39.4/45.4	48.3/56.5	51.3/59.5
	Refrigerant liquid pipe	mm	9.52	9.52	9.52	9.52	9.52
	Refrigerant gas pipe	mm	15.88	15.88	15.88	15.88	15.88
	Static Pressure(Standard/Max.)	Pa	50/100	50/100	50/100	50/100	50/100
Drain pump	O-optional,S-standard,W-without		S	S	S	S	S
Controller	Wired(Optional)	/	YR-E16A	YR-E16A	YR-E16A	YR-E16A	YR-E16A
		/	YR-E16B	YR-E16B	YR-E16B	YR-E16B	YR-E16B
		/	YR-E17	YR-E17	YR-E17	YR-E17	YR-E17
		/	HW-BA116ABK	HW-BA116ABK	HW-BA116ABK	HW-BA116ABK	HW-BA116ABK
	Infrared(Optional)	/	YR-HD	YR-HD	YR-HD	YR-HD	YR-HD



MEDIUM ESP DUCT (80/120Pa)



HW-BA116ABK



YR-E17



YR-E16A



YR-E16B



YR-HD

- New compact design: 270mm height
- Flexible duct connection
- Static pressure 80/120Pa

Specification

Model/Indoor unit			DD302MNERA	DD382MNERA	DD482MNERA
Capacity	Cooling	kBtu/h	30.8	38.3	48.1
		kW	9	11.2	14
	Heating	Btu/h	34	43	55
		kW	10	12.5	16
Electrical Parameters	Power supply	Ph/V/Hz	1/220-230/50/60	1/220-230/50/60	1/220-230/50/60
	Air flow (H)	m ³ /h	2208/1973/1795	2208/1973/1795	2208/1973/1795
Performance	Sound pressure level(H/M/L)	dB(A)	49/47/43	49/47/43	49/47/43
	Sound power level(H/M/L)	dB(A)	62/60/56	62/60/56	62/60/56
Installation	External dimensions(W/D/H)	mm	1135/742/270	1135/742/270	1135/742/270
	Shipping dimensions(W/D/H)	mm	1355/856/380	1355/856/380	1355/856/380
	Net/Shipping weight	kg	47/53	47/53	47/53
	Refrigerant liquid pipe	mm	9.52	9.52	9.52
	Refrigerant gas pipe	mm	15.88	15.88	15.88
	Static Pressure(Standard/Max.)	Pa	50/120	50/120	50/120
Drain pump	O-optional,S-standard,W-without		KT-NP01(Optional)	KT-NP01(Optional)	KT-NP01(Optional)
Controller	Wired(Optional)	/	YR-E16A	YR-E16A	YR-E16A
		/	YR-E16B	YR-E16B	YR-E16B
		/	HW-BA116ABK	HW-BA116ABK	HW-BA116ABK
		/	YR-E17	YR-E17	YR-E17
	Infrared(Optional)	/	YR-HD	YR-HD	YR-HD



HIGH ESP DUCT (100/196Pa)



HW-BA116ABK



YR-E17



YR-E16A



YR-E16B



YR-HD

- Flexible duct connection
- Variable static pressure 100/196Pa setting

Specification

Model/Indoor unit			DD182MHERA	DD242MHERA	DD282MHERA	DD302MHERA
Capacity	Cooling	kBtu/h	19.2	24.3	27.4	30.8
		kW	5.6	7.1	8.0	9.0
	Heating	Btu/h	21.5	27.3	30.73	34.1
		kW	6.3	8.0	9.0	10.0
Electrical Parameters	Power supply	Ph/V/Hz	1/220-230/50/60	1/220-230/50/60	1/220-230/50/60	1/220-230/50/60
	Air flow (H)	m ³ /h	1500/1357/1089	1500/1357/1089	1500/1357/1089	1560/1412/1133
Performance	Sound pressure level(H/M/L)	dB(A)	42/40/38	42/40/38	42/40/38	45/43/40
	Sound power level(H/M/L)	dB(A)	55/53/51	55/53/51	55/53/51	58/53/50
Installation	External dimensions(W/D/H)	mm	975/906/360	975/906/360	975/906/360	1355/876/360
	Shipping dimensions(W/D/H)	mm	1048/943/413	1048/943/413	1048/943/413	1378/938/405
	Net/Shipping weight	kg	54/62	54/62	54/62	66/74
	Refrigerant liquid pipe	mm	6.35	9.52	9.52	9.52
	Refrigerant gas pipe	mm	12.7	15.88	15.88	15.88
	Static Pressure(Standard/Max.)	Pa	100/196	100/196	100/196	100/196
Drain pump	O-optional,S-standard,W-without		W	W	W	W
Controller	Wired(Optional)	/	YR-E16A	YR-E16A	YR-E16A	YR-E16A
		/	YR-E16B	YR-E16B	YR-E16B	YR-E16B
		/	HW-BA116ABK	HW-BA116ABK	HW-BA116ABK	HW-BA116ABK
		/	YR-E17	YR-E17	YR-E17	YR-E17
	Infrared(Optional)	/	YR-HD	YR-HD	YR-HD	YR-HD

Model/Indoor unit			DD382MHERA	DD482MHERA	DD722MHERA	DD962MHERA
Capacity	Cooling	kBtu/h	38.3	48	77.2	95.7
		kW	11.2	14.0	22.6	28.0
	Heating	Btu/h	42.6	54.6	85.3	105.8
		kW	12.5	16.0	25.0	31.0
Electrical Parameters	Power supply	Ph/V/Hz	1/220-230/50/60	1/220-230/50/60	1/220-230/50/60	1/220-230/50/60
	Air flow (H)	m ³ /h	1600/1448/1162	2100/1901/1525	4050/3255/2612	4050/3255/2612
Performance	Sound pressure level(H/M/L)	dB(A)	45/43/40	45/43/40	54/51/49	54/51/49
	Sound power level(H/M/L)	dB(A)	58/53/50	58/53/50	67/62/59	67/62/59
Installation	External dimensions(W/D/H)	mm	1355/876/360	1355/876/360	1725/876/360	1725/876/360
	Shipping dimensions(W/D/H)	mm	1378/938/405	1378/938/405	1830/990/530	1830/990/530
	Net/Shipping weight	kg	66/74	66/74	100/112	100/112
	Refrigerant liquid pipe	mm	9.52	9.52	9.52	9.52
	Refrigerant gas pipe	mm	15.88	15.88	25.4	25.4
	Static Pressure(Standard/Max.)	Pa	100/196	100/196	100/196	100/196
Drain pump	O-optional,S-standard,W-without		W	W	W	W
Controller	Wired(Optional)	/	YR-E16A	YR-E16A	YR-E16A	YR-E16A
		/	YR-E16B	YR-E16B	YR-E16B	YR-E16B
		/	HW-BA116ABK	HW-BA116ABK	HW-BA116ABK	HW-BA116ABK
		/	YR-E17	YR-E17	YR-E17	YR-E17
	Infrared(Optional)	/	YR-HD	YR-HD	YR-HD	YR-HD



HIGH ESP DUCT (0/200Pa)



- Auto adjusted ESP 0-200Pa
- Low sound level
- Built-in high head drain pump

DUCT HIGH ESP



TYR-E16A(S)

- Flexible duct connection
- Variable static pressure 300-500 Pa setting
- Two speed fan (Optional)
- EXV Control



Model / Indoor unit			DDHH75V-AD1	DDHH90V-AD1	DDHH100V-AD1	DDHH125V-AD1	DDHH150V-AD1
Capacity	Cooling	kBtu/h	75,000	90,000	100,000	125,000	150,000
		kW	37	44	59	37	44
Electrical Parameters	Power supply	Ph/V/Hz	1/220/50	1/220/50	1/220/50	3/380/50	3/380/50
Performance	Air flow	CMH	2,500	3,000	3,300	6,900	8,900
	ESP	Pa	100	100	100	150	150
Installation	External dimensions(W/D/H)	mm	1,486/865/579	1,640/865/605	1,640/865/605	1,521/838/1,594	1,521/838/1,594
	Unit weight	kg	102	121	121	180	182
	Refrigerant liquid pipe	mm	12.7	12.7	12.7	12.7	12.7
	Refrigerant gas pipe	mm	28.58	28.58	28.58	28.58	28.58
	Drain	mm	25.4	25.4	25.4	25.4	25.4
Controller	Wired (O-Optional/S-Standard)	/	YR-E16A(S)	YR-E16A(S)	YR-E16A(S)	YR-E16A(S)	YR-E16A(S)
Model / Indoor unit			FDHH180V-AD1	FDHH200V-AD1	FDHH250V-AD1	FDHH300V-AD1	FDHH350V-AD1
Capacity	Cooling	kBtu/h	180,000	200,000	250,000	300,000	350,000
		kW	73	59	73	88	103
Electrical Parameters	Power supply	Ph/V/Hz	3/380/50	3/380/50	3/380/50	3/380/50	3/380/50
Performance	Air flow	CMH	6,000	10,700	13,600	15,300	19,000
	ESP	Pa	150	150	200	200	200
Installation	External dimensions(W/D/H)	mm	1,879/985/910	1,579/963/1,844	2,546/884/1,686	2,546/884/1,686	2,546/1,046/2,010
	Unit weight	kg	195	325	380	434	505
	Refrigerant liquid pipe	mm	12.7 x 2	12.7	12.7 x 2	12.7 x 2	12.7 x 2
	Refrigerant gas pipe	mm	28.58 x 2	28.58	28.58 x 2	28.58 x 2	28.58 x 2
	Drain	mm	25.4	25.4	25.4	25.4	25.4
Controller	Wired (O-Optional/S-Standard)	/	YR-E16A(S)	YR-E16A(S)	YR-E16A(S)	YR-E16A(S)	YR-E16A(S)
Model / Indoor unit			FDHH400V-AD1	FDHH450V-AD1	FDHH500V-AD1	FDHH600V-AD1	FDHH720V-AD1
Capacity	Cooling	kBtu/h	400,000	450,000	500,000	600,000	720,000
		kW	117	132	147	176	211
Electrical Parameters	Power supply	Ph/V/Hz	3/380/50	3/380/50	3/380/50	3/380/50	3/380/50
Performance	Air flow	CMH	22,100	23,800	27,200	30,600	41,000
	ESP	Pa	200	250	250	300	300
Installation	External dimensions(W/D/H)	mm	2,742/1,208/2,334	2,742/1,208/2,334	2,742/1,208/2,334	2,742/1,408/2,734	2,145/2,210/2,500
	Unit weight	kg	630	646	649	736	891
	Refrigerant liquid pipe	mm	12.7 x 2	12.7 x 3	12.7 x 3	12.7 x 3	12.7 x 4
	Refrigerant gas pipe	mm	28.58 x 2	28.58 x 3	28.58 x 3	28.58 x 3	28.58 x 4
	Drain	mm	25.4	25.4	25.4	25.4	25.4
Controller	Wired (O-Optional/S-Standard)	/	YR-E16A(S)	YR-E16A(S)	YR-E16A(S)	YR-E16A(S)	YR-E16A(S)



BUILT-IN FLOOR STANDING



HW-BA116ABK



YR-E17



YR-E16A



YR-E16B



YR-HD

- Require very little installation space: only 220mm
- Good solution for installation beneath a window
- High efficiency filter fitted as standard

Specification

Model/Indoor unit			DE072MLERA	DE092MLERA	DE122MLERA
Capacity	Cooling	kBtu/h	7.6	9.6	12.4
		kW	2.2	2.8	3.6
	Heating	Btu/h	8.5	10.9	13.6
		kW	2.5	3.2	4.0
Electrical Parameters	Power supply	Ph/V/Hz	1/220-230/50/60	1/220-230/50/60	1/220-230/50/60
Performance	Air flow (H)	m ³ /h	750/650/550	750/650/550	750/650/550
	Sound pressure level(H/M/L)	dB(A)	38/35/33	38/35/33	40/37/35
	Sound power level(H/M/L)	dB(A)	51/48/46	51/48/46	53/50/48
Installation	External dimensions(W/D/H)	mm	1116/221/624	1116/221/624	1116/221/624
	Shipping dimensions(W/D/H)	mm	1198/295/707	1198/295/707	1198/295/707
	Net/Shipping weight	kg	29/37	29/37	29/37
	Refrigerant liquid pipe	mm	6.35	6.35	6.35
	Refrigerant gas pipe	mm	9.52	9.52	12.7
	Static Pressure	Pa	0/30	0/30	0/30
Controller	Wired(Optional)	/	YR-E16A	YR-E16A	YR-E16A
		/	YR-E16B	YR-E16B	YR-E16B
		/	HW-BA116ABK	HW-BA116ABK	HW-BA116ABK
		/	YR-E17	YR-E17	YR-E17
	Infrared (Optional)	/	YR-HD	YR-HD	YR-HD

Model/Indoor unit			DE162MLERA	DE182MLERA	DE242MLERA
Capacity	Cooling	kBtu/h	15.4	19.2	24.3
		kW	4.5	5.6	7.1
	Heating	Btu/h	17.1	21.5	27.3
		kW	5.0	6.3	8.0
Electrical Parameters	Power supply	Ph/V/Hz	1/220-230/50/60	1/220-230/50/60	1/220-230/50/60
Performance	Air flow (H)	m ³ /h	950/830/720	950/830/720	950/830/720
	Sound pressure level(H/M/L)	dB(A)	40/37/35	42/39/36	42/39/36
	Sound power level(H/M/L)	dB(A)	53/50/48	55/52/49	55/52/49
Installation	External dimensions(W/D/H)	mm	1116/221/624	1116/221/624	1116/221/624
	Shipping dimensions(W/D/H)	mm	1198/295/707	1198/295/707	1198/295/707
	Net/Shipping weight	kg	31/39	31/39	31/39
	Refrigerant liquid pipe	mm	6.35	6.35	9.52
	Refrigerant gas pipe	mm	12.7	12.7	15.88
	Static Pressure	Pa	0/30	0/30	0/30
Controller	Wired(Optional)	/	YR-E16A	YR-E16A	YR-E16A
		/	YR-E16B	YR-E16B	YR-E16B
		/	HW-BA116ABK	HW-BA116ABK	HW-BA116ABK
		/	YR-E17	YR-E17	YR-E17
	Infrared (Optional)	/	YR-HD	YR-HD	YR-HD



CONSOLE TYPE

NEW



YR-E17A YR-HBS01A

- Air discharge through top and bottom
- Compact design & small space occupation
- Quiet operation

Specification

Model/Indoor unit			DF052MBERA	DF072MBERA	DF092MBERA
Capacity	Cooling	kBtu/h	5.2	7.6	9.6
		kW	1.5	2.2	2.8
	Heating	Btu/h	5.8	8.5	10.9
		kW	1.7	2.6	3.2
Electrical Parameters	Power supply	Ph/V/Hz	1/220-240,50/60	1/220-240,50/60	1/220-240,50/60
	Air flow (H)	m ³ /h	460/380/300	460/380/300	460/380/300
Performance	Sound pressure level(H/M/L)	dB(A)	42/36/31	42/36/31	43/39/35
	Sound power level(H/M/L)	dB(A)	53/47/42	53/47/42	54/50/46
	External dimensions(W/D/H)	mm	700/210/600	700/210/600	700/210/600
Installation	Shipping dimensions(W/D/H)	mm	783/303/695	783/303/695	783/303/695
	Net/Shipping weight	kg	17/19	17/19	17/19
	Refrigerant liquid pipe	mm	6.35	6.35	6.35
	Refrigerant gas pipe	mm	12.7	12.7	12.7
Controller	Wired (Optional)	/	E17A	E17A	E17A
	Infrared(Optional)	/	YR-HB	YR-HB	YR-HB

Model/Indoor unit			DF122MBERA	DF162MBERA	DF182MBERA
Capacity	Cooling	kBtu/h	12.4	15.4	16.6
		kW	3.6	4.5	4.8
	Heating	Btu/h	13.6	17	18.2
		kW	4	5	5.3
Electrical Parameters	Power supply	Ph/V/Hz	1/220-240,50/60	1/220-240,50/60	1/220-240,50/60
	Air flow (H)	m ³ /h	510/450/350	640/470/390	640/470/390
Performance	Sound pressure level(H/M/L)	dB(A)	43/39/35	48/44/38	48/44/38
	Sound power level(H/M/L)	dB(A)	54/50/46	59/55/49	59/55/49
	External dimensions(W/D/H)	mm	700/210/600	700/210/600	700/210/600
Installation	Shipping dimensions(W/D/H)	mm	783/303/695	783/303/695	783/303/695
	Net/Shipping weight	kg	17/19	17/19	17/19
	Refrigerant liquid pipe	mm	6.35	6.35	6.35
	Refrigerant gas pipe	mm	12.7	12.7	12.7
Controller	Wired (Optional)	/	E17A	E17A	E17A
	Infrared(Optional)	/	YR-HB	YR-HB	YR-HB



N HIGH WALL



- Stylish design & LED display
- Built in EEV, easy to installation
- Negative ion, vitamin C, and ESF filter optional

Specification

Model/Indoor unit			DS052MNERA DS052MFERA	DS072MNERA DS072MFERA	DS092MNERA DS092MFERA	DS122MNERA DS122MFERA	DS162MNERA DS162MFERA
Capacity	Cooling	kBtu/h	5.2	7.6	9.6	12.4	15.4
		kW	1.5	2.2	2.8	3.6	4.5
	Heating	Btu/h	5.8	8.5	10.9	13.6	17.1
		kW	1.7	2.5	3.2	4.0	5.0
Electrical Parameters	Power supply	Ph/V/Hz	1/220-240/50/60	1/220-240/50/60	1/220-240/50/60	1/220-240/50/60	1/220-240/50/60
Performance	Air flow (H)	m ³ /h	500/430/370	550/480/420	600/530/470	630/560/500	800/720/650
	Sound pressure level(H/M/L)	dB(A)	33/31/29	35/31/29	36/31/29	37/33/29	39/36/34
	Sound power level(H/M/L)	dB(A)	49/46//41	50/47/42	52/48/44	54/51/50	56/53/51
Installation	External dimensions(W/D/H)	mm	855/200/280	855/200/280	855/200/280	855/200/280	1115/243/336
	Shipping dimensions(W/D/H)	mm	954/279/355	954/279/355	954/279/355	954/279/355	1206/342/418
	Net/Shipping weight	kg	9.9/12	9.9/12	9.9/12	15.8/18.9	15.8/18.9
	Refrigerant liquid pipe	mm	6.35	6.35	6.35	6.35	6.35
	Refrigerant gas pipe	mm	9.52	9.52	9.52	12.7	12.7
Controller	Wired(Optional)	/	YR-E16A	YR-E16A	YR-E16A	YR-E16A	YR-E16A
		/	YR-E16B	YR-E16B	YR-E16B	YR-E16B	YR-E16B
		/	YR-E17	YR-E17	YR-E17	YR-E17	YR-E17
		/	HW-BA116ABK	HW-BA116ABK	HW-BA116ABK	HW-BA116ABK	HW-BA116ABK
	Infrared(Optional)	/	YR-HD	YR-HD	YR-HD	YR-HD	YR-HD

Model/Indoor unit			DS182MNERA DS182MFERA	DS242MNERA DS242MFERA	DS282MNERA	DS302MNERA
Capacity	Cooling	kBtu/h	19.2	24.3	27.4	30.8
		kW	5.6	7.1	8.0	9.0
	Heating	Btu/h	21.5	27.3	30.7	34.1
		kW	6.3	8.0	9.0	10.0
Electrical Parameters	Power supply	Ph/V/Hz	1/220-240/50/60	1/220-240/50/60	1/220-240/50/60	1/220-240/50/60
Performance	Air flow (H)	m ³ /h	920/800/720	1010/920/800	1500/1400/1300	1600/1500/1400
	Sound pressure level(H/M/L)	dB(A)	40/39/35	44/40/36	48/43/40	49/44/41
	Sound power level(H/M/L)	dB(A)	57/54/52	58/56/54	60/57/53	61/58/54
Installation	External dimensions(W/D/H)	mm	1115/243/336	1115/243/336	1316/270/365	1316/270/365
	Shipping dimensions(W/D/H)	mm	1206/342/418	1206/342/418	1403/384/463	1403/384/463
	Net/Shipping weight	kg	15.8/18.9	15.8/18.9	21.8/26.3	21.8/26.3
	Refrigerant liquid pipe	mm	6.35	9.52	9.52	9.52
	Refrigerant gas pipe	mm	12.7	15.88	15.88	15.88
Controller	Wired(Optional)	/	YR-E16A	YR-E16A	YR-E16A	YR-E16A
		/	YR-E16B	YR-E16B	YR-E16B	YR-E16B
		/	YR-E17	YR-E17	YR-E17	YR-E17
		/	HW-BA116ABK	HW-BA116ABK	HW-BA116ABK	HW-BA116ABK
	Infrared(Optional)	/	YR-HD	YR-HD	YR-HD	YR-HD



DRV *INDOOR*

Ventilation





FRESH AIR DUCT



- Variable static pressure 100~200Pa setting
- Install with other indoor units together, and introduce the outdoor fresh air into indoor

Specification

Model/Indoor unit			DD482MPERA	DD722MPERA	DD962MPERA
Capacity	Cooling	kBtu/h	47.8	77.2	95.6
		kW	14	22.6	28
	Heating	Btu/h	30.4	51.8	60.8
		kW	8.9	15.2	17.8
Electrical Parameters	Power supply	Ph/V/Hz	1/220-230/50/60	1/220-230/50/60	1/220-230/50/60
	Air flow (H)	m ³ /h	1600/1460/1070	2300/1900/1320	2800/2400/1820
Performance	Sound pressure level(H/M/L)	dB(A)	48/47/42	55/53/50	55/54/52
	Sound power level(H/M/L)	dB(A)	61/60/56	68/65/60	68/66/62
	External dimensions(W/D/H)	mm	1355/876/360	1725/876/360	1725/876/360
Installation	Shipping dimensions(W/D/H)	mm	1386/966/418	1830/990/530	1830/990/530
	Net/Shipping weight	kg	69/74	100/127	101/128
	Refrigerant liquid pipe	mm	9.52	9.52	9.52
	Refrigerant gas pipe	mm	15.88	25.4	25.4
	Static Pressure(Standard/Max.)	Pa	100/185	100/200	100/200
	Controller	Wired (Optional)	/	YR-E16A	YR-E16A
/			YR-E16B	YR-E16B	YR-E16B
/			HW-BA116ABK	HW-BA116ABK	HW-BA116ABK
/			YR-E17	YR-E17	YR-E17



HRV



YR-N07

- Be controlled with other indoor units together
- Efficient heat recovery air processing
- Heat recovery media element

Specification

Model/Indoor unit			ERV0150ANN	ERV0260ANN
Electrical	Power supply	Ph/V/Hz	1/220-230/50/60	1/220-230/50/60
	Rated power input	kW	0.1	0.12
	Rated current	A	0.55	0.55
Performance	Air flow (H)	m ³ /h	150	260
	Sound pressure level(H/L)	dB(A)	44/43	44/43
	Sound power level(H/L)	dB(A)	55/54	55/54
Installation	External dimensions(W/D/H)	mm	940/685/276	940/685/276
	Shipping dimensions(W/D/H)	mm	1013/773/345	1013/773/345
	Net/Shipping weight	kg	28.7/31.2	28.7/31.2
	Static Pressure	Pa	80	60
Controller	Wired (Standard)	/	YR-N07	YR-N07

Model/Indoor unit			ERV0500ANN	ERV0800ANN	ERV1000ANN
Electrical	Power supply	Ph/V/Hz	1/220-230/50/60	1/220-230/50/60	1/220-230/50/60
	Rated power input	kW	0.36	0.36	0.36
	Rated current	A	1.65	1.65	1.65
Performance	Air flow (H)	m ³ /h	500	800	1000
	Sound pressure level(H/L)	dB(A)	57/55	57/55	57/55
	Sound power level(H/L)	dB(A)	68/66	68/66	68/66
Installation	External dimensions(W/D/H)	mm	1227/1115/387	1227/1115/387	1227/1115/387
	Shipping dimensions(W/D/H)	mm	1465/1213/430	1465/1213/430	1465/1213/430
	Net/Shipping weight	kg	85.5/90.6	85.5/90.6	85.5/90.6
	Static Pressure	Pa	150	120	100
Controller	Wired (Standard)	/	YR-N07	YR-N07	YR-N07

CONTROL SYSTEM

User Friendly Management Control Solution

Integrated Management

Convenient and efficient, Haier controllers realize the co-management of Super match and DRV in one system, providing you more combination choices for better managing large or middle-sized buildings

Building Management

The excellent building management system provides a professional and reliable service for a better management of your air conditioning units

Intelligent Management

"Haier Smart AC" provides an intelligent and personalized experience for your smart life

Applications

Haier control products are designed to provide you a perfect solution for the small, medium or large commercial projects



CONTROL SYSTEM

Individual Controller

The individual control system has a variety of wired and wireless controllers which enable you can easy and intelligent control of your air conditioners. you can choose the one which best suits for your air conditioning management.



YR-HBS01

- On/off, mode, fan speed, temperature setting, swing
- Turbo, quiet
- Individual blade control for smart power cassette
- Clock & timer
- Follow/evade function
- Celsius to fahrenheit



YR-HD

- On/off, mode, fan speed, temperature setting, swing
- One button solution: cool, heat, dry, quiet
- Simple timer control

Individual Controller



YL-HE

- Cooling only
- Turbo, Quiet



YR-E17

- On/off, mode, fan speed, temperature setting, swing
- Individual & group control (max.16 indoor units)
- Simple and smart design, 86*86*13.05mm
- Touch button with back light
- Timer/ clock
- Easy installation
- Individual blade control for round way cassette.



YR-E16A

- On/off, mode, fan speed, temperature setting, swing
- Individual & group control (max 16 indoor units)
- Large button
- Fahrenheit/ celsius selectable; sensitivity $\pm 0.5^{\circ}\text{C}$ ($\pm 1^{\circ}\text{F}$)
- Weekly timer
- Individual louver control for smart power cassette
- Static pressure setting



YR-E16B

- Colorful screen
- On/off, mode, fan speed, temperature setting, swing
- Individual & group control (max 16 indoor units)
- Fahrenheit/ celsius selectable; sensitivity $\pm 0.5^{\circ}\text{C}$ ($\pm 1^{\circ}\text{F}$)
- Weekly timer
- Individual blade control for round way cassette
- Static pressure setting



HW-BA116ABK

- Alternating current
- Basic function: on/off, mode, fan speed, temperature
- Individual & group control (max 16 indoor units)
- Simple and smart design, 86*86*14.80mm
- Could receive wireless controller signal



RE-01/02

- Infrared signal receiver
- Realize the remote control of duct type indoor unit
- Model selection depends on the duct indoor unit



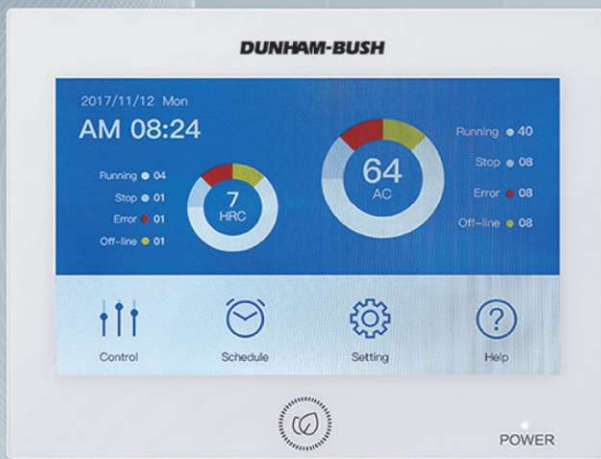
WIFI Module (KZW-W001)

- Remote control: on/off, mode, fan speed, Temperature setting, swing
- Individual control
- Weekly timer
- A YCJ-A002 is required on some indoor unit

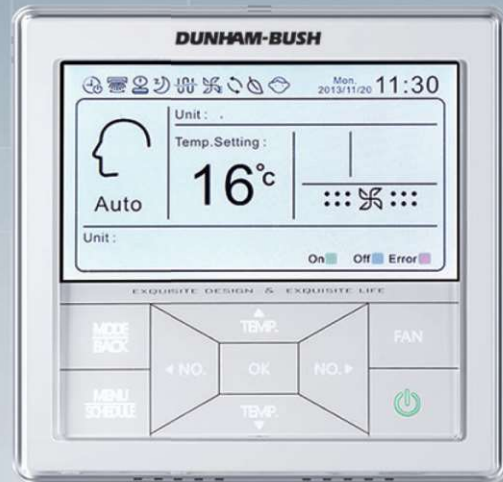
CONTROL SYSTEM

Centralized Controller

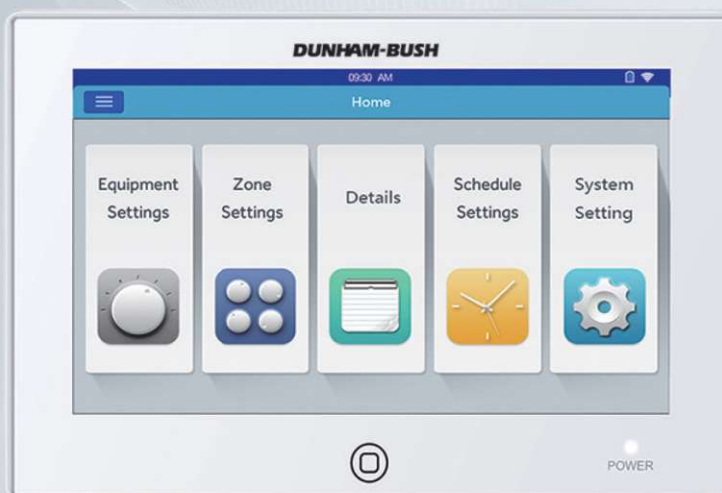
The centralized control system offers you a smart and convenient experience while managing your air conditioner individually or by groups or by zones. a variety of controllers can be used to perfect your air conditioning management.



HC-SA164DBT



YCZ-G001



YCZ-A004

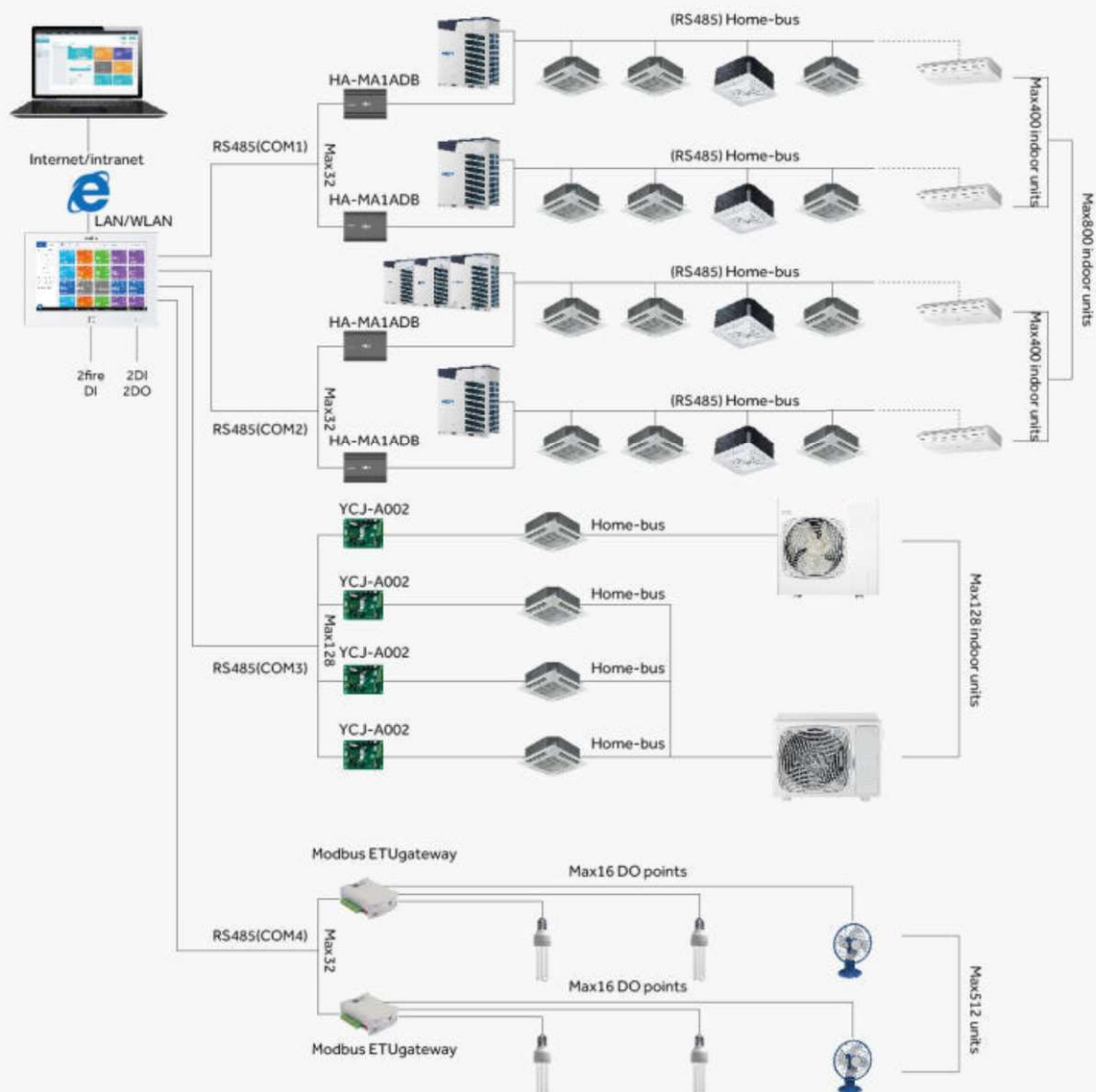
Centralized Controller

HC-LA1CDBT

- 12.5-inch TFT LCD touch screen
- Max. 800 MRV indoor units and Max. 128 LCAC IDUs connectable for one controller totally 928 IDUS connectable
- Floor plan layout view
- Web access and email alarm
- Weekly schedule and special day setting
- Integrate 3rd party devices like fire alarm, lighting with Haier indoor units
- All MRV system requires the new gateway HA-MA1ADB(one system requires one gateway)
- LCAC products requires PCB adapter YCJ-A002(One IDU requires one YCJ-A002)
- Total electricity consumption display
- Data curve
- Electricity consumption distribution for tenant billing
- Multi language



HC-LA1CDBT system



CONTROL SYSTEM

Centralized Controller

Setting_Additional Function

DST: ON OFF

DST Date: 2016 . 10 . 19 to 2016 . 10 . 19
 2016 . 11 . 20 to 2016 . 11 . 20
 2017 . 12 . 21 to 2017 . 12 . 21

Compensation Time:

Turn ON/OFF the DST
 DST schedule time setting
 DST compensation setting

Setting_Detail

No.	User	AC	Temp.	Fans Speed	Trachea Temp.	Liquid pipe Temp.	Running Time	Error
01	User001	AC-001	26°F	High	24°F	24°F	15:36:55	5
02	User001	AC-002	26°F	High	24°F	24°F	15:36:55	2
03	User001	AC-003	26°F	High	24°F	24°F	15:36:55	5
04	User001	AC-004	26°F	High	24°F	24°F	15:36:55	5
05	User001	AC-005	26°F	High	24°F	24°F	15:36:55	3
06	User001	AC-006	26°F	High	24°F	24°F	15:36:55	-
07	User001	AC-007	26°F	High	24°F	24°F	15:36:55	1
08	User001	AC-008	26°F	High	24°F	24°F	15:36:55	2
09	User001	AC-009	26°F	High	24°F	24°F	15:36:55	-

Click the error bar number to view the error code.

Display the detailed information
 check the name, number, temperature,
 running time and fault code.

All AC-Equipment * 64

Room	Mode	Temp.	Set Temp.	Fan Speed	Control	Schedule
AC-001	Cooling	56°F	56°F	High	Centralize	Yes
AC-002	Cooling	56°F	56°F	High	Centralize	Yes
AC-003	Heating	56°F	56°F	High	Centralize	No
AC-004	Cooling	56°F	56°F	Low	Centralize	No
AC-005	Cooling	56°F	56°F	High	Centralize	No
AC-006	Heating	56°F	56°F	High	Centralize	No
AC-007	Cooling	56°F	56°F	Low	Centralize	No
AC-008	Auto	56°F	56°F	High	Centralize	No
AC-009	Cooling	56°F	56°F	High	Centralize	No

MENU
 All-On
 All-Off
 Control All
 Control Select

Interface display mode choice: list or icon
 All on, all off, control all, control select

2016/11/12 Monday
 PM 12:24

Enter Password Again

Enter

Setting password according to user demand

Centralized Controller



YCZ-G001

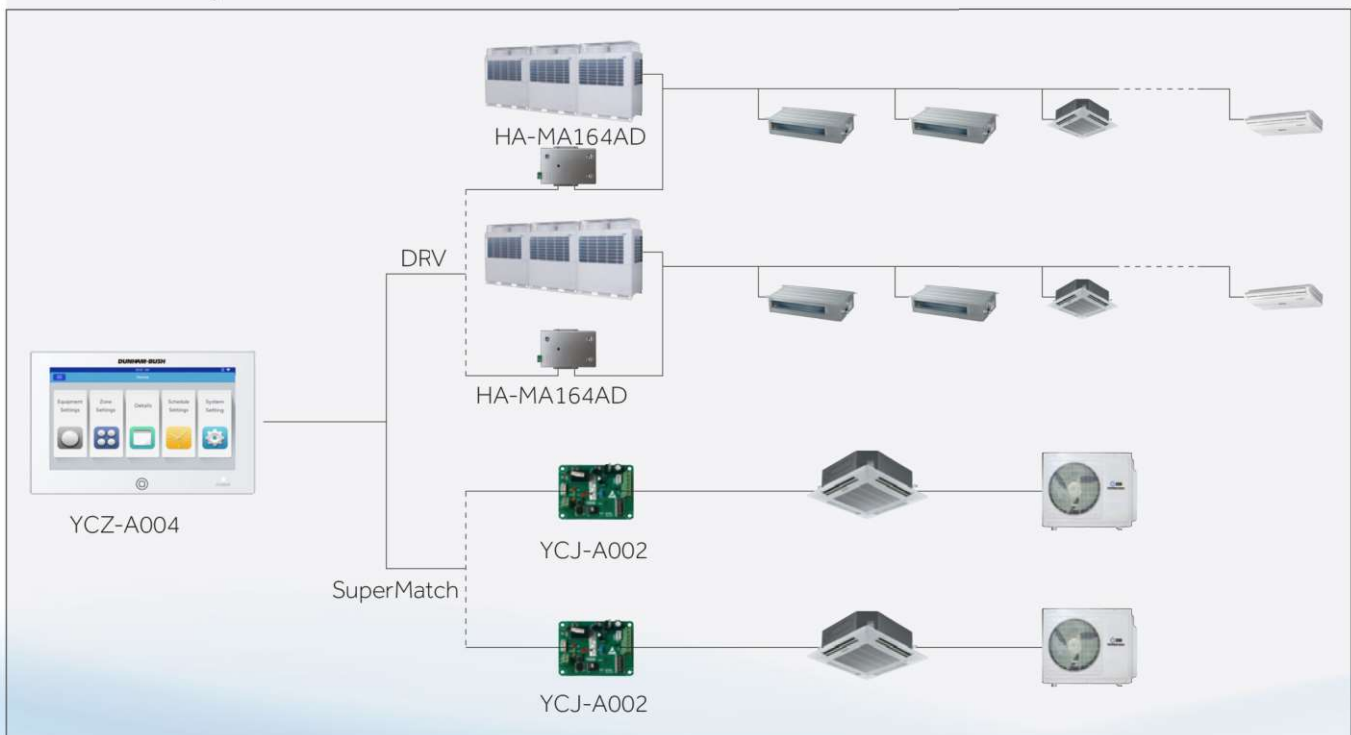
- Individual control, group control & central control (max. 32 indoor units)
- Large touch key
- Weekly timer
- Unit name & group name free setting, four background available (mall, hotel, office, home)
- Error display
- Must be used in combination with a HA-MA164AD for each DRV system (max. 32 sets)



YCZ-A004

- Individual control, group control & central control (Max. 256 indoor units)
- 7-inch TFT LCD touch screen with back light
- Weekly timer
- Indoor units' information edit
- Error display
- Must be used in combination with a HA-MA164AD for each DRV system. (max. 32 sets)

YCZ-A004 System



CONTROL SYSTEM

BMS

The building management modules could perfectly integrate air conditioners into the building management system, providing an excellent solution for large commercial areas.



HCM-03A



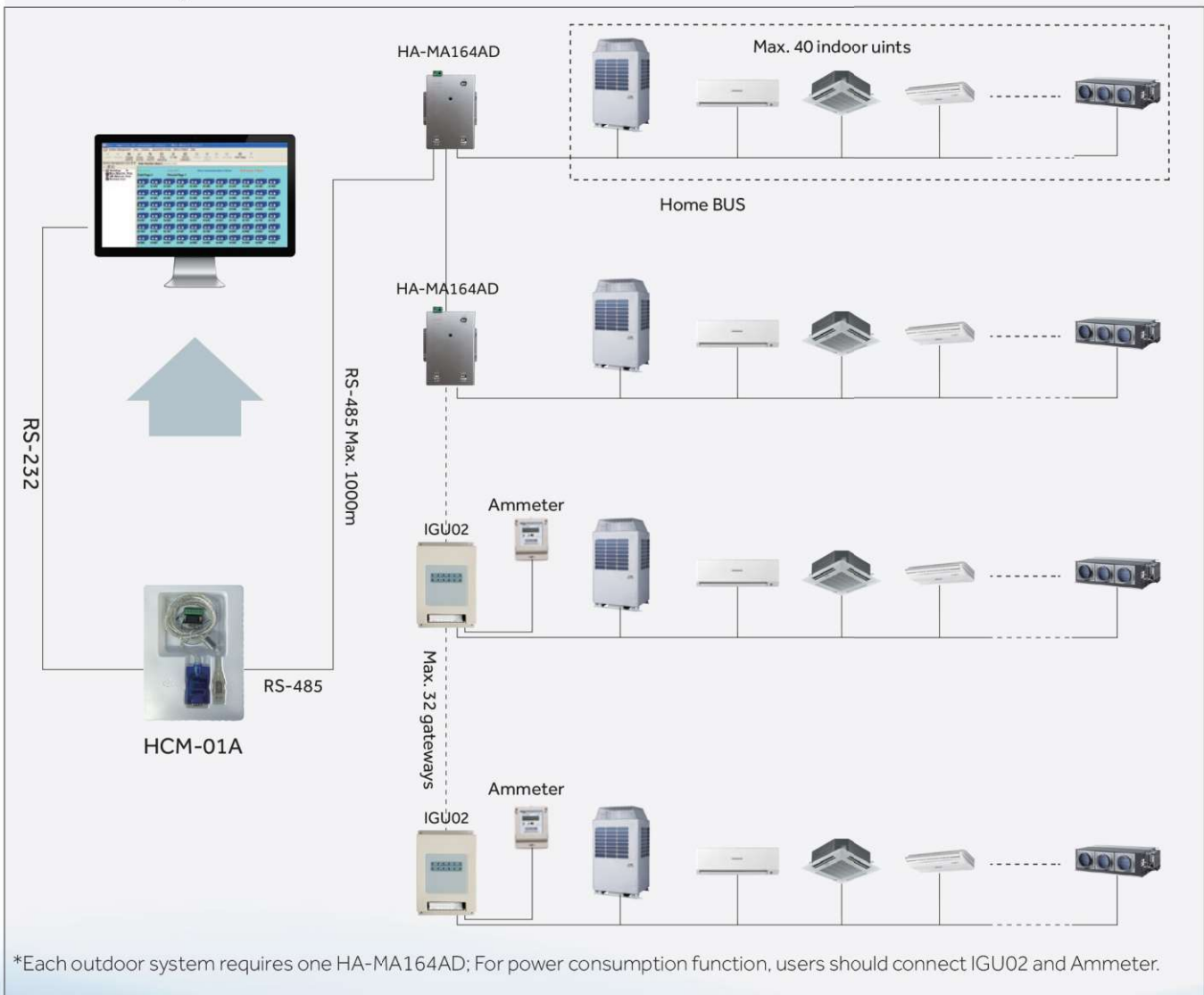
HCM-05/HCM-05A

HCM-01A



- Local control version; convert USB to RS-485
- Max. 400 indoor units can be controlled
- Modbus rtu terminal
- Brand new interface design
- Win 7 32bits/64bits, Win 8 Pro, Win 10 Pro
- Max. 32 systems / outdoor units, each system unit requires one HA-MA
- Schedule setting
- Electricity charge report (must use IGU-02)

HCM-01A System



*Each outdoor system requires one HA-MA164AD; For power consumption function, users should connect IGU02 and Ammeter.

CONTROL SYSTEM

BMS

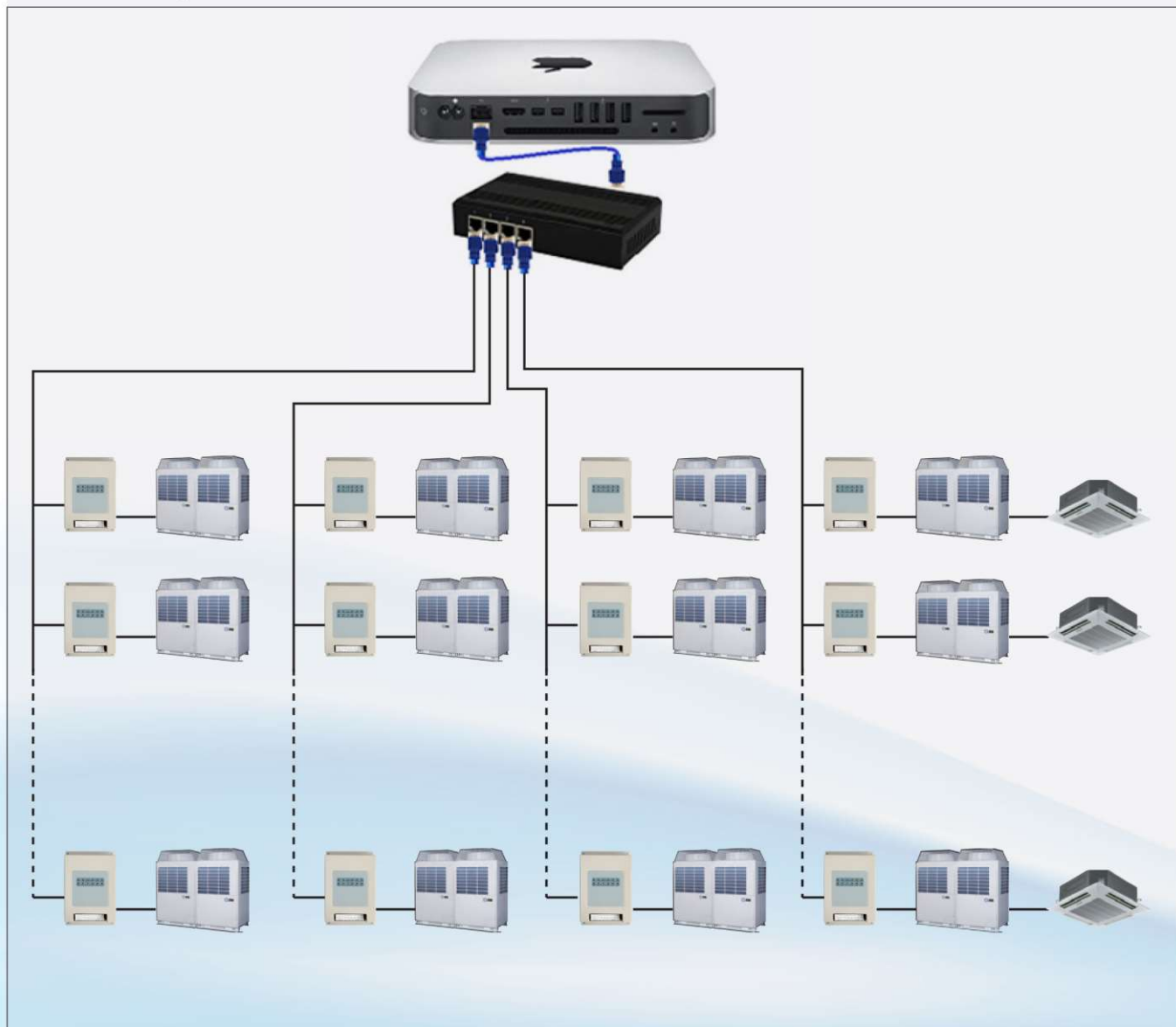
NEW



HCM-03A

- Remote monitoring version; third party interface: BACnet ip/ Modbus ip
- Max. 1500 indoor units can be controlled
- Max. 4 groups. each group can connect 20 systems. Each system requires one IGU02 /HA-MA164AD
- Operation status setting & monitoring.
- Schedule setting
- Multi user management with different authorized levels
- Operation and error history log
- Electricity charge report

HCM-03A System



HCM-05/HCM-05A



- Remote monitoring version
- Third party interface: BACnet ip
- Max. 250 indoor units can be controlled for HCM-05; and 500 indoor units for HCM-05A
- Max. 32 systems. each system requires one IGU02/HA-MA164AD.
- Operation status setting & monitoring.
- Schedule setting
- Multi user management with different authorized levels
- Electricity charge report (must use IGU-02)
- Operation and error history log
- Cooperated technology with honeywell

HCM-05 System



CONTROL SYSTEM

Adapter

The adapters offer you an easy and convenient way to integrate air conditioners into various building management system; perfect for large commercial projects.



HA-MA164AD



IGU07



HA-AC-KNX-8/16/64

Adapter



HA-MA164AD

- Protocol adapter, convert homebus to RS-485
- Gateway: modbus rtu
- Max. 64 indoor units can be connected with one HA-MA164AD
- Each DRV system requires one HA-MA164AD when connecting with centralized controller or BMS system.

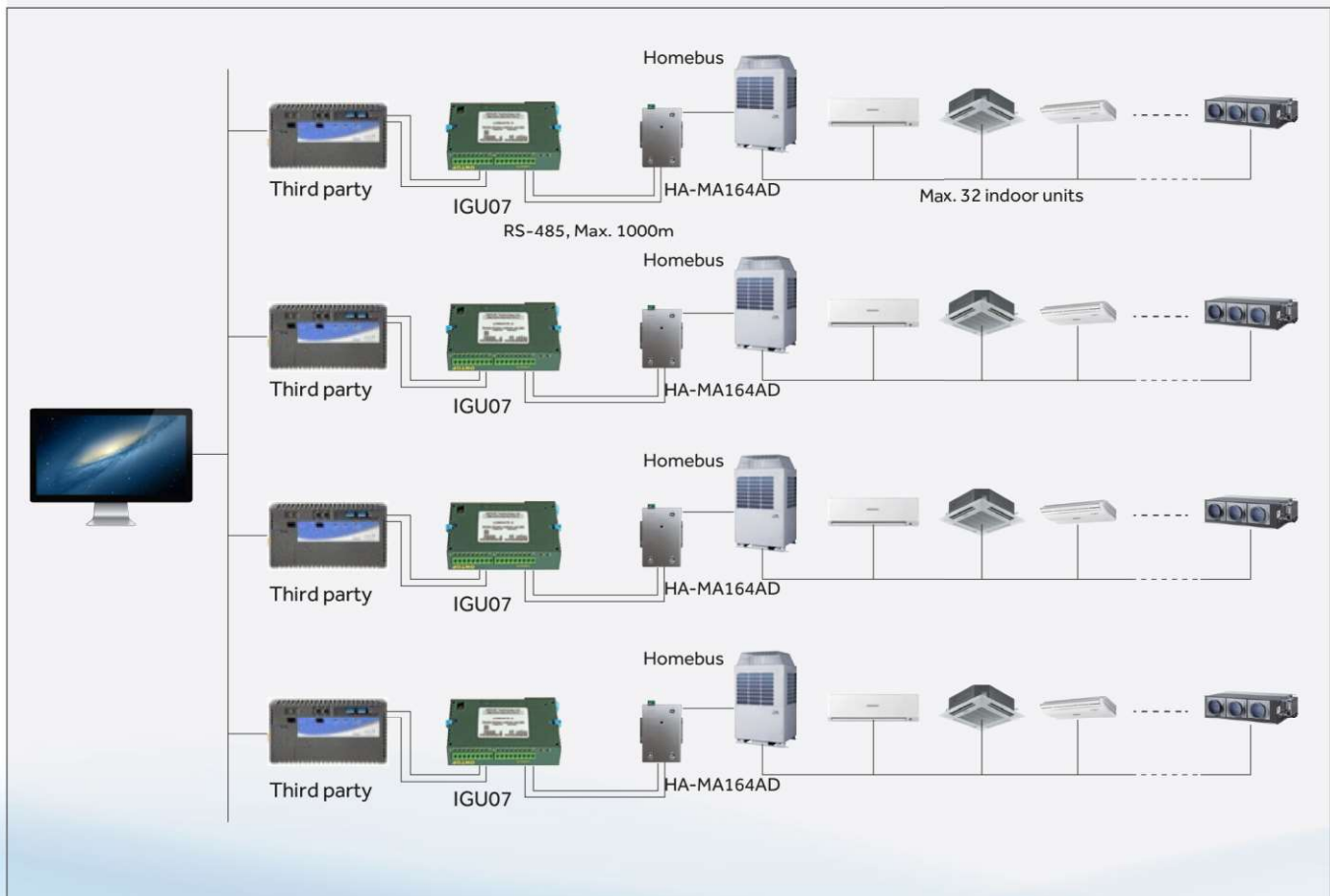
Modbus model No.	No. of I.U. controllable	Installation Method	Compatible O.U. Type
HA-MA164AD	64	Outside the O.U.	Side and Top discharge O.U.
HA-MB164AD	64	Inside the O.U.	Top discharge O.U.



IGU07

- Protocol adapter, convert modbus to lonworks
- Each system requires one IGU07+ HA-MA164AD
- Max. 32 indoor units can be connected in one system
- External 24V DC power supply is needed

LonWorks System



CONTROL SYSTEM

Adapter



HCM-04

- BACnet gateway, convert modbus rtu to BACnet ip
- Max.62 indoor units/2 systems can be controlled, each system can control max. 31 indoor units
- IGU02 is required for each outdoor system



HA-AC-KNX-8/16/64

- KNX gateway
- Convert modbus to KNX
- Max. 8/ 16/ 64 indoor units can be connected in one system each system requires one KNX gateway+HA-MA164AD



IGU02

- Protocol adapter, convert homebus to modbus
- Match with BMS (HCM-01A,03A,05,05A). each system requires one IGU02
- Max.40 indoor units can be connected with one IGU02
- Electricity data collection, calculation, allocation and storage

Controllers Match Table for DRV Indoor Units

Outlook	Series	Model						
			YR-HD	YR-HBS01	HW-BA116ABK	YR-E17	YR-E16A	YR-E16B
	1-way Cassette	DB**2MAERA	▲		▲	▲	▲	▲
	2-way Cassette	DB**2MBERA	▲		▲	▲	▲	▲
	Mini 4-way Cassette	DB**2MCERA(M)		▲		▲	▲	▲
	Round Flow 4-way Cassette	DB**2MRERA		▲		▲	▲	▲
	4-way Cassette	DB**2MCERA	▲		▲	▲	▲	▲
	Convertible	DC**2MCERA	▲		▲	▲	▲	▲
	Convertible	DC**2MFERA	▲		▲	▲	▲	▲
	Low ESP Slim Duct (0/15/30Pa)	DD**2MSERA(D)	▲			▲	▲	▲
	Low ESP Slim Duct (0/30Pa)	DD**2MSERA	▲		▲	▲	▲	▲
	Medium ESP Duct (50/96 Pa)	DD**2MMERA	▲		▲	▲	▲	▲
	Medium ESP Duct (50/100 Pa)	DD**2MJERA	▲		▲	▲	▲	▲
	Medium ESP Duct (80/120 Pa)	DD**2MNERA	▲		▲	▲	▲	▲
	High ESP Duct (100/196 Pa)	DD**2MHERA	▲		▲	▲	▲	▲
	High ESP Duct (0-200Pa)	DD**2MQERA	▲		▲	▲	▲	▲
	High Wall (N platform)	DS**2MNERA	▲		▲	▲	▲	▲
	High Wall (N platform)	DS**2MFERA	▲		▲	▲	▲	▲
	Console	DF**2MBERA	▲					
	Built-in Floor Standing	DE**2MLERA	▲		▲	▲	▲	▲
	Fresh Air Duct	DD**2MPERA			▲	▲	▲	▲
	HRV	ERV****ANN			▲	▲	▲	▲
					Linkage control	Linkage control	Linkage control	Linkage control

▲ Controllers can match with the indoor unit

ACCESSORIES

Accessories

Name	Design	Model	Functions	For what units
Gather pipe		HZG-20A	Refrigerant gathering	2 outdoor units
Gather pipe		HZG-30A	Refrigerant gathering	3 outdoor units
Gather pipe		HZG-20B	Refrigerant gathering	DRV IV-C, 2 outdoor units
Gather pipe		HZG-30B	Refrigerant gathering	DRV IV-C, 3 outdoor units
Gather pipe		HZG-R20A	Refrigerant gathering for heat recovery DRV	2 outdoor units
Gather pipe		HZG-R30A	Refrigerant gathering for heat recovery DRV	3 outdoor units
Manifold pipe		FQG-B335A	Refrigerant distribution for heat pump DRV	Total indoor units capacity less than 33,500W
Manifold pipe		FQG-B506A	Refrigerant distribution for heat pump DRV	Total indoor units capacity less than 50,600W, but equal or bigger than 33,500W
Manifold pipe		FQG-B730A	Refrigerant distribution for heat pump DRV	Total indoor units capacity less than 73,000W, but equal or bigger than 50,600W
Manifold pipe		FQG-B1350A	Refrigerant distribution for heat pump DRV	Total indoor units capacity less than 135,000W, but equal or bigger than 73,000W
Manifold pipe		FQG-R335A	Refrigerant distribution for heat recovery DRV	Total indoor units capacity less than 33,500W
Manifold pipe		FQG-R506A	Refrigerant distribution for heat recovery DRV	Total indoor units capacity less than 50,600W, but equal or bigger than 33,500W
Manifold pipe		FQG-R730A	Refrigerant distribution for heat recovery DRV	Total indoor units capacity less than 73,000W, but equal or bigger than 50,600W
Manifold pipe		FQG-R1350A	Refrigerant distribution for heat recovery DRV	Total indoor units capacity less than 135,000W, but equal or bigger than 73,000W
Manifold pipe		FQG-B2040A	Refrigerant distribution for DRV IV-C	Total indoor capacity less than 204,000W but equal or bigger than 135,000W
VP box		VP1-112A, VP1-180A VP1-280A	Vavle pipe box	DRV III-RC(heat recovery)
VP box		VP4-450A	Vavle pipe box	DRV III-RC(heat recovery)
VP box		VP1-112B, VP1-180B VP1-280B	Vavle pipe box	DRV 5-RC(heat recovery)
VP box		VP4-450B	Vavle pipe box	DRV 5-RC(heat recovery)



REFERENCE PROJECTS



REFERENCE PROJECTS

Commercial



IR Marina Bay Sands, Singapore



KLCC Twin Tower, Malaysia



Ohotny Ryad, Russia



The London Eye, UK



Heron Tower, UK



Al Dana Tower, Qatar

Military



Kennedy Space Centre, USA



Hanscom AFB, USA



Space Center Houston, USA



Vanderbilt Space Center, USA



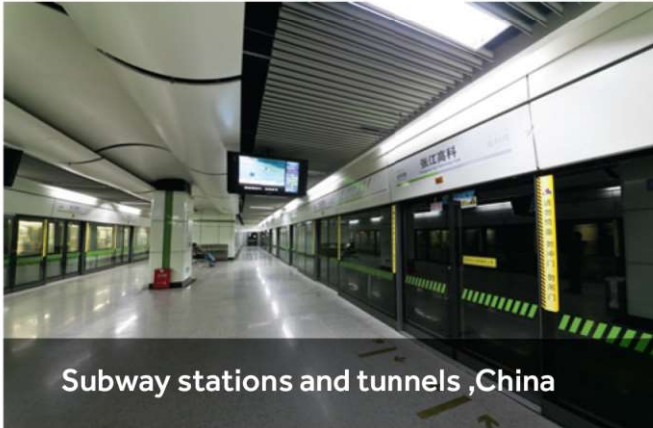
USS Abraham Lincoln CVN-72, USA



Ohio-class Nuclear Power Submarine, USA

REFERENCE PROJECTS

Transportation



Subway stations and tunnels ,China



London Heathrow International Airport,UK



Kuala Lumpur International Airport, Malaysia



Beijing Capital International Airport,China

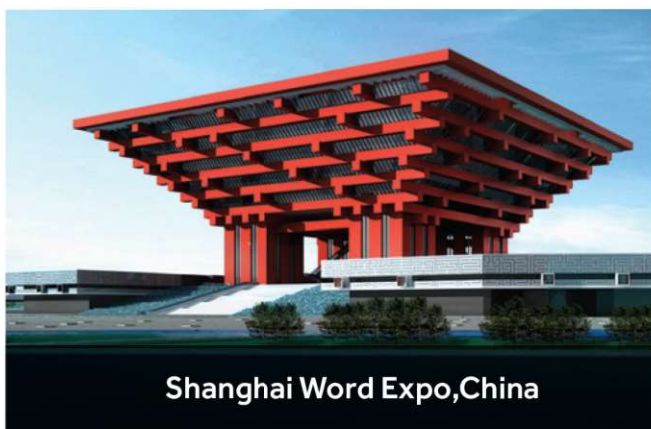
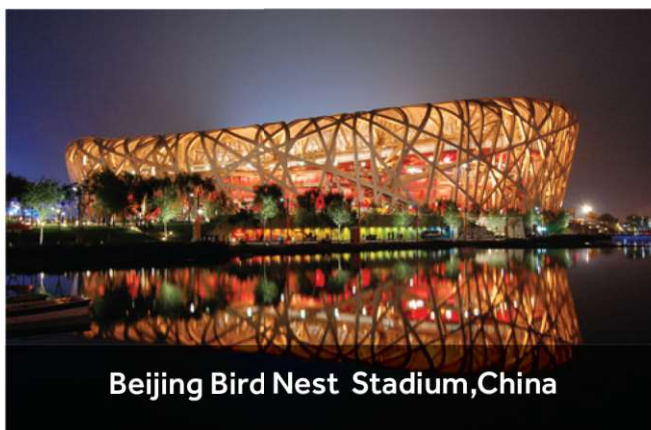
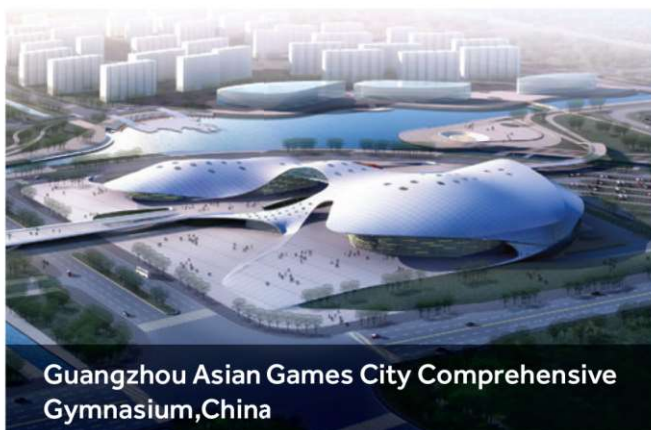
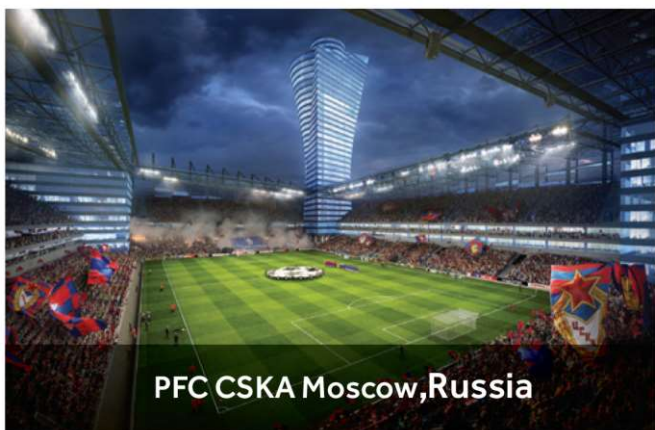


Guangzhou Baiyun International Airport,China



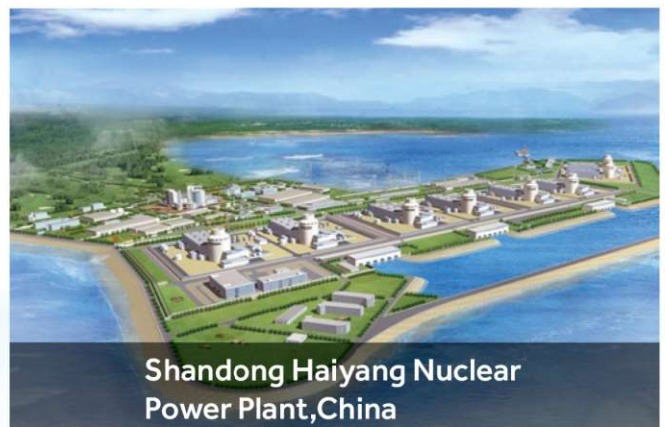
Doha Hamad International Airport, Qatar

Sport Center



REFERENCE PROJECTS


Nuclear Power Plants






DUNHAM-BUSH

Products that perform...By people who care





Products that perform
By people who care



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