

General Catalogue

Zero Technologies





 **ZERO**

ZERO IS THE BEGINNING



About Us

Founded by a group of passionate HVAC/R veterans, Zero Technologies strive to build up an integrated platform for overseas buyers and Chinese factories. We are professional to provide customers right HVAC/R solutions with right price, with deep understanding of global markets and comprehensive expertise of Chinese HVAC/R supply chains, Zero Technologies could proudly provide the best quality products, services, one-stop project solutions with affordable prices.

Zero Technologies provides a wide variety of high efficiency systems in residential and commercial applications, as well as parts, tools and other supplies (Including OEM & ODM services) for any home or commercial projects. We have an unrelenting focus on quality, delivery and value, Zero technology is always your reliable partner for HVAC/R supplies.

Mission

To consistently create maximum value for our customers

Vision

To be your global partner

Core Value

Customers first, Integrity & Initiative, Teamwork, Openness & Creativity

Commercial Air Conditioner VRF System



Supplier Overview

Dunham-Bush

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 120 years history in the HVAC/R. Dunham-Bush offers a complete range of HVAC/R products such as large chillers, VRF, unitary, airside system and thermal energy storages for residences, commercial buildings and industrial facilities. 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.



ZERO is an authorized HVAC/R distributor of Dunham-Bush, we provide full range products of Dunham-Bush brand.



Factory of Dunham-Bush (left and right)

Products Overview

High efficiency DC fan motor

- Higher efficiency than AC motor
- Advanced speed regulation technology

180° sine wave vector inverter technology

- More advanced technology, higher efficiency
- Low vibration, low noise

Scroll compressor with large discharge capacity

- High pressure chamber design
- Asymmetric scroll plate design
- Neodymium permanent magnet motor rotor
- Centralized winding for motor stator
- All inverter compressors (DBV-MTB series)

High efficiency 2-in-1 flow path design

- Increase the proportion of liquid refrigeration in the system
- Make the most of the heat exchange property of refrigerant
- Enhanced heat exchange efficiency



Stepless regulation

- Output according to the requirement, energy-efficient
- Exact match, higher comfort

High efficiency sub-cooling circuit

- Increase the distance between refrigerant inlet and outlet of condenser
- Decrease conduction of heat, enhance cooling capability

High efficiency cross flow low pressure drop fins

- Greatly reduce air resistance greatly
- Significantly improve defrosting cycle

High efficiency inner-threaded copper pipes

- Enhance the turbulent motion, break the refrigerant bounding layer and optimize
- Heat exchange efficiency

For DBV central air conditioning DC intelligent inverter system, the capacity could be up to 72HP, and free combination from 8-18HP with 2 HP increment. User friendly design, can meet all requirements for different environment, so it's widely used today's intelligent buildings, such as offices, shopping malls, plants, schools, hospitals, clubs, commercial buildings etc.

High efficiency DC inverter scroll compressor with large capacity, combined with the latest 180° sine wave DC inverter technology, the stepless vector, variable frequency drive technology, R410A environmental refrigerant, completely satisfies the RoHS, and make DBV to be energy-saving and environmentally friendly, long performance life, easy for maintenance and fix, thus DBV becomes the technologies leading model.

VRF Series - Outdoor Units



8-72HP



8, 10HP



12, 14, 16HP



18HP

VRF Series - Indoor Units



One-Way Cassette
1.8-5.6kW



Two-Way Cassette
2.2-7.7kW



Compact Four-Way Cassette
1.5-4.5kW



Four-Way Cassette
2.8-14kW



Ceiling Ducted
(Low Static Pressure)
1.8-7.1kW



Ceiling Ducted
(Medium Static Pressure)
1.5-14kW



Ceiling Ducted
(High Static Pressure)
7.1-56kW



Fresh Air Indoor Unit
12.5-28kW



Ceiling & Floor
3.6-16kW



Floor Standing
2.2-8kW



DBV-WA
Wall Mounted
2.2-9kW



DBV-WB
Wall Mounted
1.5-9kW



DBV-WC
Wall Mounted
1.5-5.6kW

Commercial Air Conditioner

Air Cooled Chiller

12000+ units sold in 2016



Air-cooled Modular Chiller (Cooling Only/Heating)



Functions:	Cooling Only/Heating
Model:	ZCA-XH/XHR/HHE/HCA (R410A)
Capacity:	18-600RT
Certifications:	CE Approval

Model			ZCA201XH	ZCA301XH	ZCA401XH	ZCA501XH	ZCA801XH
Cooling capacity		kW	66	100	130	165	260
		TR	18.8	28.4	37	46.9	73.9
Heating capacity		kW	70	110	140	180	280
		TR	19.9	31.3	39.8	51.2	79.6
Capacity adjustment		%	0-50-100	0-50-100	0-50-100	0-25-50-75-100	0-25-50-75-100
Power supply*			380-415V 3N-50/60Hz	380-415V 3N-50/60Hz	380-415V 3N-50/60Hz	380V-3ph- 50/60Hz	380V-3ph- 50/60Hz
Power input	Cooling	kW	21.29	32.25	41.9	53.2	83.8
	Heating	kW	21.85	34.37	43.7	56.2	87.4
Current	Cooling current	A	41.5	59.7	82.3	101.7	168.12
	Heating current	A	41.9	60.4	83.2	102.4	170.5
	Max input current	A	50	80	100	130	234.9
Refrigerant	Type		R410A	R410A	R410A	R410A	R410A
Compressor	Type		Hermetic scroll	Hermetic scroll	Hermetic scroll	Scroll/Danfoss	Scroll/Danfoss
	Quantity		2	4	4	4	4

Air-cooled Screw Chiller (Cooling Only)



Functions:	Cooling Only
Model:	ZASD (R134a)
Capacity:	100-405RT

Unit Model ZASD-AC1		110.1	145.1	170.1	210.1	
Nominal Cooling Capacity	kW	385	505	601	730	
	kcal/h	331100	434300	516860	627800	
Cooling Rated Power Input	kW	123	159	189	233	
Cooling Rated Current	A	219	288	341	419	
Max.Starter Current	A	615	845	845	965	
Max.Running Current	A	419	513	523	521	
Power Supply		380V 3N~ 50/60Hz				
Evaporator	Type	Tube-and-shell evaporator				
	Flow Rate	m3/h	66	87	103	126
	Inlet/Outlet DN	DN	125	125	125	150
	Pressure Drop	kPa	40	53	56	57
	Max.Pressure	MPa	1	1	1	1
Compressor	Type	Semi-hermetical screw compressor				
	Energy Adjusting	25%-100% four step contro				
	Starter Mode	Y-Δ	Y-Δ	Y-Δ	Y-Δ	

Unit Model ZASD-AC1		230.2	260.2	285.2	345.2	405.2	
Nominal Cooling Capacity	kW	808	909	1001	1210	1425	
	kcal/h	694880	781740	860860	1040600	1225500	
Cooling Rated Power Input	kW	254	285	319	379	464	
Cooling Rated Current	A	479	507	578	690	840	
Max.Starter Current	A	1102	1264	1358	1358	1486	
Max.Running Current	A	900	932	1026	1026	1042	
Power Supply		380V 3N~ 50/60Hz					
Evaporator	Type	Tube-and-shell evaporator					
	Flow Rate	m3/h	139	156	172	208	245
	Inlet/Outlet DN	DN	150	150	150	200	200
	Pressure Drop	kPa	68	72	73	70	68
	Max.Pressure	MPa	1	1	1	1	1
Compressor	Type	Semi-hermetical screw compressor					
	Energy Adjusting	12.5%-100% eight step control					
	Starter Mode	Y-Δ	Y-Δ	Y-Δ	Y-Δ	Y-Δ	

Commercial Air Conditioner Fan Coil Unit

550000+ units sold in 2016



ZCR Ceiling Concealed FCU / ZCRQ Ceiling Concealed Low Noise FCU



Air Flow (CFM):	ZCR	200/300/400/500/600/800/1000/1200/1400, High Pressure (ESP) FCU is available from 800-3000 CFM
	ZCRQ	400/500/600/800
Cooling Capacity (W):	ZCR	1635-13000
	ZCRQ	2925-7950
Heating Capacity (W):	ZCR	3900-22100
	ZCRQ	6250-12120

ZCR 200 G LSSDFE20TY

L Left piping **R** Right piping (Facing supply air duct)
S 12 Pa static pressure 3 30 Pa static pressure 5 50 Pa static pressure
S Standard drain pan **A** Extended 150mm **B** Extended 350mm
D Bottom return air plenum **B** Back return air plenum **N** No return air plenum
A Nylon filter **F** Mental filter **P** Return air purifier **N** None
E20 Heat capacity of electric heater(x100w) **N** No electric heater
W With seperate heating coil **T** 3 rows coil **V** 2 rows coil
Y Brushless DC motor **N** Solit capacitor motor

Product Generation **G**
 Air flow 200 CFM
 Ceiling Concealed FCU

ZCR (2 rows, 2 pipes)		200G	300G	400G	500G	600G	700G	800G	1000G	1200G	1400G
Air Flow m ³ /h	High	360	530	710	890	1060	1200	1420	1760	2120	2450
	Medium	275	415	540	670	800	950	1100	1360	1620	2050
	Low	200	280	360	450	580	690	770	1000	1130	1350
Total Cooling Capacity W	High	2000	2750	3650	4300	4900	5600	6950	8200	9500	11400
	Medium	1730	2365	3100	3700	4250	4800	6000	7200	8300	9700
	Low	1400	1950	2550	3000	3450	3950	5000	5950	6750	8000
Sensible Cooling Capacity W	High	1450	2000	2600	3050	3550	4050	5050	6000	6850	8300
	Medium	1200	1700	2150	2500	3000	3350	4100	5000	5650	6900
	Low	950	1350	1720	2020	2300	2650	3400	4000	4550	5500
Heating Capacity W	High	3300	4650	6050	7400	8400	9550	11700	14000	16300	19100

ZCR (3 rows, 2 pipes)		200G	300G	400G	500G	600G	700G	800G	1000G	1200G	1400G
Air Flow m ³ /h	High	340	510	680	850	1020	1170	1360	1700	2040	2380
	Medium	270	380	510	640	780	880	1030	1290	1540	1850
	Low	190	280	340	450	560	610	740	890	1040	1255
Total Cooling Capacity W	High	2210	3200	4150	5000	5950	6600	8100	9100	11250	13000
	Medium	1990	2782	3570	4197	5200	5600	6882	8200	9613	11700
	Low	1635	2304	2950	3298	4200	4600	5749	6700	7403	7560
Sensible Cooling Capacity W	High	1590	2285	2880	3570	4200	4700	5880	6700	8260	9750
	Medium	1400	1920	2420	2930	3570	3900	4880	5700	6935	8280
	Low	1050	1555	1930	2210	2900	3200	3935	4500	5120	5945
Heating Capacity W	High	3900	5200	6500	7870	9800	10900	13570	14900	19800	22100

ZCR (3+1 rows, 4 pipes)		200G	300G	400G	500G	600G	700G	800G	1000G	1200G	1400G
Air Flow m ³ /h	High	340	500	680	830	1000	1140	1340	1700	2040	2380
	Medium	270	380	510	620	750	880	1030	1290	1540	1975
	Low	190	240	340	420	560	610	720	890	1040	1255
Total Cooling Capacity W	High	2600	3700	4800	5650	6850	7950	9500	11210	13200	15500
	Medium	2250	3200	4150	4900	5900	6850	8200	9800	11350	13100
	Low	1850	2660	3450	4000	5000	5700	6840	8150	9500	11000
Sensible Cooling Capacity W	High	1810	2630	3400	3950	4900	5650	6750	8050	9400	10900
	Medium	1560	2200	2850	3390	4150	4770	5700	6800	7900	9100
	Low	1230	1700	2200	2660	3280	3740	4480	5350	6200	7150
Heating Capacity W	High	4250	6000	7700	9100	11100	12800	15200	18000	21200	25000

ZCR (4 rows, 2 pipes)		200G	300G	400G	500G	600G	700G	800G	1000G	1200G	1400G
Air Flow m ³ /h	High	340	500	680	830	1000	1140	1340	1700	2040	2380
	Medium	270	380	510	620	750	880	1030	1290	1540	1975
	Low	190	240	340	420	560	610	720	890	1040	1255
Total Cooling Capacity W	High	2210	3200	4150	4800	5950	6800	7900	9200	10275	13500
	Medium	1890	2782	3570	4150	5200	5900	6900	8000	8500	11000
	Low	1500	2304	2950	3400	4200	5000	5800	6700	7450	9500
Sensible Cooling Capacity W	High	1590	2285	2880	3400	4200	4700	5750	6600	7400	9400
	Medium	1350	1920	2420	2880	3570	3900	4800	5500	6200	7900
	Low	1050	1555	1930	2210	2900	3200	3700	4200	4930	6200
Heating Capacity W	High	2050	3000	3850	4500	5650	6300	7550	8500	9800	12700

ZKM Cassette Type FCU



Air Flow (CFM):	300/400/500/600/800/1000/1200
Cooling Capacity (W):	2140-10800
Heating Capacity (W):	4050-17000

ZKM 300 B 4D

4 4-way outlet
D Standard production
 Product Generation B
 Airflow 300 CFM
 Cassette Type FCU

Characteristics:

- 360° air outlet, no blind spot.
- Low noise
 - The quality heat insulating and anechoic material is used to minimize the unit vibration and noise. The 3D aerofoil-type blade fan with a large diameter is used to ensure low speed and low noise.
- Compact design, built-in drain pump.

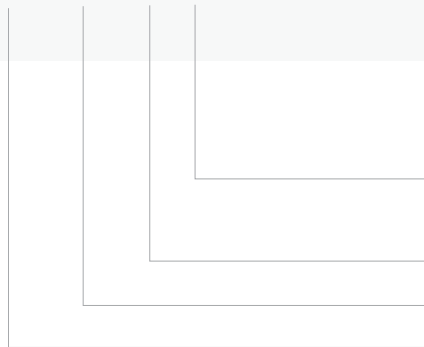
Model ZKM		300B4D	400B4D	500B4D	600B4D	800B4D	1000B4D	1200B4D
Air Flow (m3/h)	High	510	680	820	1020	1360	1700	2040
	Medium	420	560	630	870	1150	1450	1750
	Low	350	460	500	715	950	1190	1430
Total Cooling Capacity (W)	High	2700	3600	4300	6000	8000	9500	10800
	Medium	2410	3100	3530	5150	6655	8285	9430
	Low	2140	2750	3010	4530	5860	6950	8200
Heating Capacity (W)	High	4050	5400	6450	10000	12500	15500	17000

ZC Floor Ceiling FCU



Air Flow (CFM):	200/300/400/500/600/800/1000/1200/1400
Cooling Capacity (W):	1460-12600
Heating Capacity (W):	1640-18900

ZC 200 D B



- A** With remote controller(wired controller is optional)
 - B** No controller as standard
 - Product Generation D
 - Airflow 200 CFM
 - Ceiling & Floor Exposed FCU
- (Note: The unit can be in vertical or ceiling installation at right direction when in front of the unit.)

Characteristics:

- Flexible installation, ceiling or floor mounted
- Automatic horizontal and vertical air flow
- One side access hole ,easy for maintenance

Model ZC		200D	300D	400D	500D	600D	800D	1000D	1200D	1400D
Air Flow (m3/h)	High	350	520	680	850	1030	1360	1700	2040	2380
	Medium	280	440	560	700	870	1255	1450	1830	2100
	Low	230	350	410	570	740	1080	1160	1500	1650
Total Cooling Capacity (W)	High	1970	2850	3600	4300	5400	6600	8400	9600	10500
	Medium	1675	2400	3060	3655	4590	5610	7140	8160	8900
	Low	1380	1995	2520	3010	3780	4620	5880	6720	7350
Heating Capacity (W)	High	3200	4500	5600	6800	8600	10500	13500	15000	16800
	Medium	2680	3825	4760	5780	7310	8900	11500	12750	14280
	Low	2200	3150	3920	4760	6020	7350	9450	10500	11760

Commercial Air Conditioner Air Handling Units



Modular Air Handling Unit



Model:	ZAC/ZMC/ZBC
Air Flow:	2000-280000 CMH

Standard Air Handling Unit - Ceiling Type



3-Speed Type	Model:	ZFD-C
	Air Flow:	1000-7000 CMH
Direct Drive Type / Belt Drive Type	Model:	ZFD-B/D
	Air Flow:	1000-15000 CMH
Jet Type	Model:	ZFD-S
	Air Flow:	1000-12000 CMH

Standard Air Handling Unit - Horizontal Type



Horizontal Floor Mounted Type 1	Model:	ZAD-EH1
	Air Flow:	2000-50000 CMH
Horizontal Floor Mounted Type 2	Model:	ZAD-EH2
	Air Flow:	2000-50000 CMH
Horizontal Floor Mounted Type 3	Model:	ZAD-EH3
	Air Flow:	2000-50000 CMH

Standard Air Handling Unit - Vertical Type









Model:	ZAD-DV1
Air Flow:	2000-50000 CMH

Light Commercial Air Cond itioner

From top 3 AC manufacturers



Series	Appearance	Refrigerant	Type	EER	12000 Btu/h	18000 Btu/h	24000 Btu/h	36000 Btu/h	48000 Btu/h	60000 Btu/h
Top Discharge Outdoor Units		R410A	DC Inverter				•	•	•	•
		R410A	ON/OFF					•	•	•
		R410A	ON/OFF	2.8			•	•	•	•
Side Discharge Outdoor Units		R410A	ON/OFF	2.8	•	•	•	•	•	•
Super Slim Cassette		R410A	DC Inverter				•	•	•	•
		R410A	ON/OFF					•	•	•
		R410A	ON/OFF	2.8		•	•	•	•	•
Ceiling & Floor		R410A	DC Inverter				•	•	•	•
		R410A	ON/OFF					•	•	•
		R410A	ON/OFF	2.8		•	•	•	•	•
Duct		R410A	DC Inverter				•	•	•	•
		R410A	ON/OFF					•	•	•
		R410A	ON/OFF	2.8	•	•	•	•	•	•
Air Handler		R410A	ON/OFF					•	•	•
		R410A	DC Inverter				•	•		•

Top Discharge Series R410a - 13 Seer On Off / 16 Seer Inverter (AHRI)



Top ODU



Ceiling Floor



Duct



Cassette



Air Handler



ECO Mode



Sleep Mode



Silent



3D Air Flow



Fast Cold/Heat Function



Auto Defrosting



High Density Filter



Self-diagnosis and Auto-protection

Side Discharge Series - 17 Seer Full DC Inverter



ECO Mode



Sleep Mode



Silent



3D Air Flow



Fast Cold/Heat Function



Auto Defrosting



High Density Filter



Self-diagnosis and Auto-protection

Free Match - 1 Outdoor + Up To 9 Indoor Units

Outdoor Unit



R410A, 50/60Hz
14,000 - 56,000 Btu/h

Indoor Unit



Wall Mounted
7,000 - 24,000 Btu/h



Duct
9,000 - 24,000 Btu/h



4-way Cassette
12,000 - 24,000 Btu/h



Floor Ceiling
9,000 - 24,000 Btu/h



Console
9,000 - 18,000 Btu/h



Compact Design



Wide Operation Range



Turbo Function



Memory Function



Auto Defrosting



Low Voltage Startup



Self-diagnosis and Auto-protection

Free Match - 1 Outdoor + Up To 9 Indoor Units



Indoor Unit Capacity (Btu/h)	Appearance	9000	12000	18000	21000	24000
Wall Mounted Mini Split		•	•	•		
Dutch Type		•	•	•	•	•
Cassette Type			•	•		•
Floor Ceiling Type		•	•	•		•
Console Type		•	•	•		

Outdoor Unit Capacity (Btu/h)	Appearance	18000	24000	30000	36000	42000	48000	56000	60000
Outdoor Units		•	•	•	•	•	•	•	•

Mini Split

From world top 3 manufacturers.



Mini Split



Ask for more panel options



24 Hour
Timer



Sleep
Mode



Golden
Fin



TURBO
Turbo
Function



Cold
Plasma



Compact
Design



Auto
Defrosting



Auto
Restart



Self-diagnosis and
Auto-protection

Series	Cooling Capacity				
13 Seer On Off	9,000	12,000	18,000	24,000	36,000
16 Seer Inverter	9,000	12,000	18,000	24,000	36,000
20 Seer Inverter	9,000	12,000	18,000	24,000	36,000



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