

GIWEE | GCHV



Air Cooled Heat Pump Modular Chiller

Product Catalogue 🛞

GIWEEIGCHV

Guangdong Giwee Technology Co,.Ltd. Guangdong Chigo Heating & Ventilation Equipment Co,.ltd.

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About GIWEEIGEHV

conditioner supplier in china.

Chigo commercial a conditioning division 2004 T		Honored of "National hig tech enterprises" 2012 T		werter VRF eries launched		Mechanical and Electrical Installation Level 2 Qualifi 2017 T	
A 2002 Chigo enter central air		igo Heating & Ventilation	2013 New R&D office I			of "Provincial engineering	▲ 2018 2018 Russ
conditioning industry	Equipment Co,.I	td. Established	VRF plant put into	o operation	research o	and development center "	Test cent

Established in 2011, Guangdong Chigo Heating & Ventilation Equipment Co,.Ltd. (GCHV) is a professional central air conditioning equipment manufacture and supply enterprise integrating R&D,testing,manufacturing, marketing,project design, sales and after sales service. GCHV covers an area of 167,000 square meters, with more than 120,000 square meters of plants and 14 modern first class production lines.

GCHV's annual output of central air conditioners exceeds 2 million sets, which including VRF, modular chiller, light commercial air conditioners, air source heat pumps and other products. GCHV's products are in great demand on 100 countries and regions and has accomplished thousands of reference projects worldwide, which enabled it become the top 3 central air

In 2020, Guangdong Giwee Group Co, Ltd. Established, Guangdong Giwee Technology Co, Itd and Guangdong Chigo Heating & Ventilation Equipment Co,.Itd are its subsidiaries.

> GCHV starts operating independently from Chigo Holding

2019



2020

ia World Cup HVAC Supplier er certificated by CNAS

Giwee Group established Guangdong Giwee Technology Co,.Itd. established



Production Capacity

GCHV has 14 advanced production lines and an annual production capacity of over 1.5 million sets.

Introduce lean production management, improve production efficiency. By the use of various robots, AGV system and other equipment, improving the online, offline process, optimizing the logistics distribution technology, improving product quality and production efficiency. Adopts MES(Manufacturing Execution System) system, it helps a lot in tracking production schedule, inventory status, work schedule and other operations management to improve. Product quality and productivity.

Quality Superiority



GCHV has established a strict and scientific quality management system with supplier quality assurance, incoming quality control, process quality control and final quality control to ensure the highest quality of the products.

The industry-leading testing center has been certified by CNAS in 2018, With a full range of professional incoming inspection labs, enthalpy difference labs, EMC labs, 27 national accreditedlabs for testing and verification.

Certification

ISO9001 quality management system, ISO14001 environmental management system, OHSAS18001 occupational health and safety management system, QC080000 electronic and electrical components and products harmful substances process management system certification

Main product certificated by CCC, energy-saving certification, ETL, AHRI,DOE, CE, CB, SASO, ESMA, MEW and others.







The R&D center of GCHV has more than 200 technical engineers. And carry out technology collaboration and joint research with postdoctoral research workstations and Guangdong enterprise workstations, at the same time, introducing senior technical experts from Japan to join GCHV and served as senior technical consultants, GCHV pay great attention in R&D and invest 4.5% of annual income every year to develop new technology, by continuous innovation, GCHV has established a solid development foundation and strength in performance, structure, electronic control, industrial design and other professional aspects.

The test center covers an area of more than 6,000 square meters. It has a series of industry-leading professional laboratories. In 2010, it passed the consistency check of the National Energy Efficiency Label Management Center and obtained certificate,in 2018, the test center obtained CNAS national certification. Electromagnetic Vibration Lab

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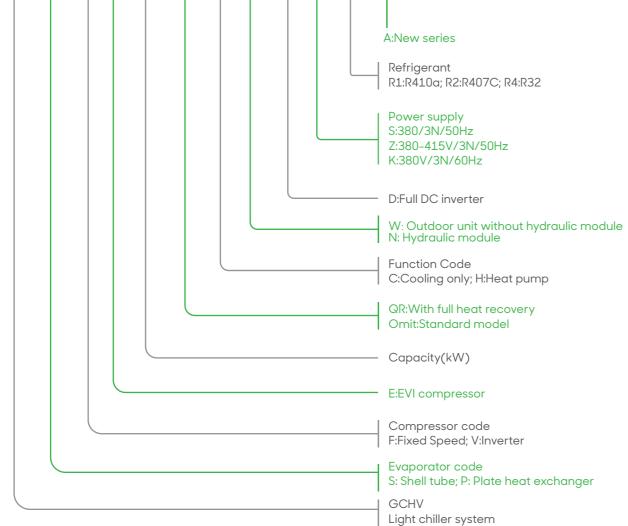


• R32 ATW Heat Pump



How To Read

The Model





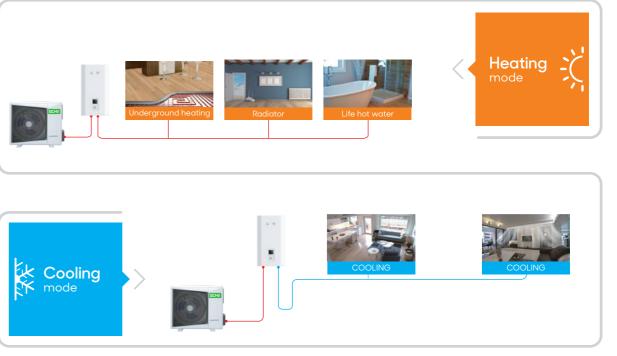
5kW/8kW

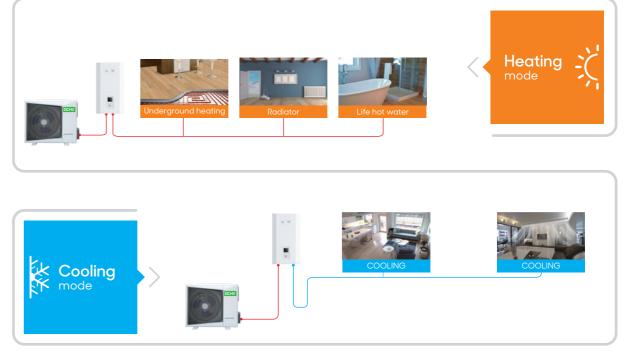


10kW/12kW

Multi Applications In One System

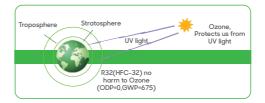
Heating, cooling and domestic hot water produced with a single system, domestic hot water could be used for floor heating and radiator too.







R32(HFC-32) refrigerant with 0 ODP and 675 GWP, low carbon footprint, no harm to the Ozone.



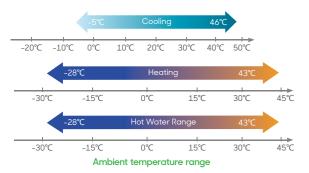
Features

High Efficiency ATW heat pumps are relying on a renewable energy for their functioning, the increased use of renewable energy will also reduce our energy dependency.



Wide Operation Range

Cooling operating temperature is up to 46°C
Heating operating temperature is down to - 28°C



Capture Energy From Ambient Air

Based on Air to Water heat pump technology, it captures heat energy from the ambient air and transfers it to heat the water that is used to warm your home and supply domestic hot water , it can even cool your home as required. Compared to other technologies, up to 75% of the heat energy required is taken from the ambient air.

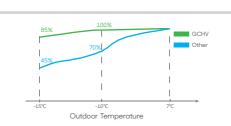


Variable Accessory Connection

- Connect to room thermostat
- Connect to 2-way valve and 3-way valve, to change the water flow direction
- Connect to booster heater to control the heater in DHW tank
- Connect to additional circulation water pump Alarm output

High Performance At Low Ambient Temperature

Thanks to the high compression ratio compressor, large heat exchanger and high-precision system control, it is able to maintain a high heat ty and even at -10°C and -15°C.





Window design

- Window design, easy to operate and view
- Standard with touch screen wired controller, more functions can be realized and it is easier to operate.
- Controller can be took away from hydronic module, and an additional cover is provided



Touch Screen Wired Controller

0°C

.....

PHE

5°C

Backup heater

P 0

25℃

 Mode control Weekly timer function

SV3 SV4

M

- Electric heater
- Forced defrosting
- Sterilization
- Anti-freezing protection

Note: Integrated value takes into consideration the capacity drop during frosting and defrosting periods. The capacity is tested in free frequency situation.

25℃ Heating	60°C	Indoor Unit
25℃ 30℃ 35℃ 40℃ 45℃	50°C 55°C 60°C	Performance Data
40°C He	ot Water 60°C	Heating Capacity/COP(A7C/W35C)
		Heating Capacity/COP(A7°C/W55°C)
25℃ 30℃ 35℃ 40℃ 45℃	50°C 55°C 60°C	Heating Capacity/COP(A-7C/W35C
Water outlet temperatu	ure range	Heating Capacity/COP(A-7C/W55C
		Heating Capacity/COP(A-15 C/W35
🕌 Hydronic Module Com	ponents	Heating Capacity/COP(A-15 C/W55
	.periorite	Heating Capacity/EER(A35 C/W7 C)
u II		Heating Capacity/EER(A35 C/W18 C)
Water flow switch		Seasonal Energy Efficiency(W35°C/W Heating Average Climate
		Seasonal Space Heating Energy eff.Cla (Average Climate General) Water Out
Expansion tank	Pressure gauge	Hydronic Model
		Power Supply
o (•	2	Sound Power Level
	NO TO THE REAL OF	Dimension(W*H*D)

Inverter water pump

HEAT A1

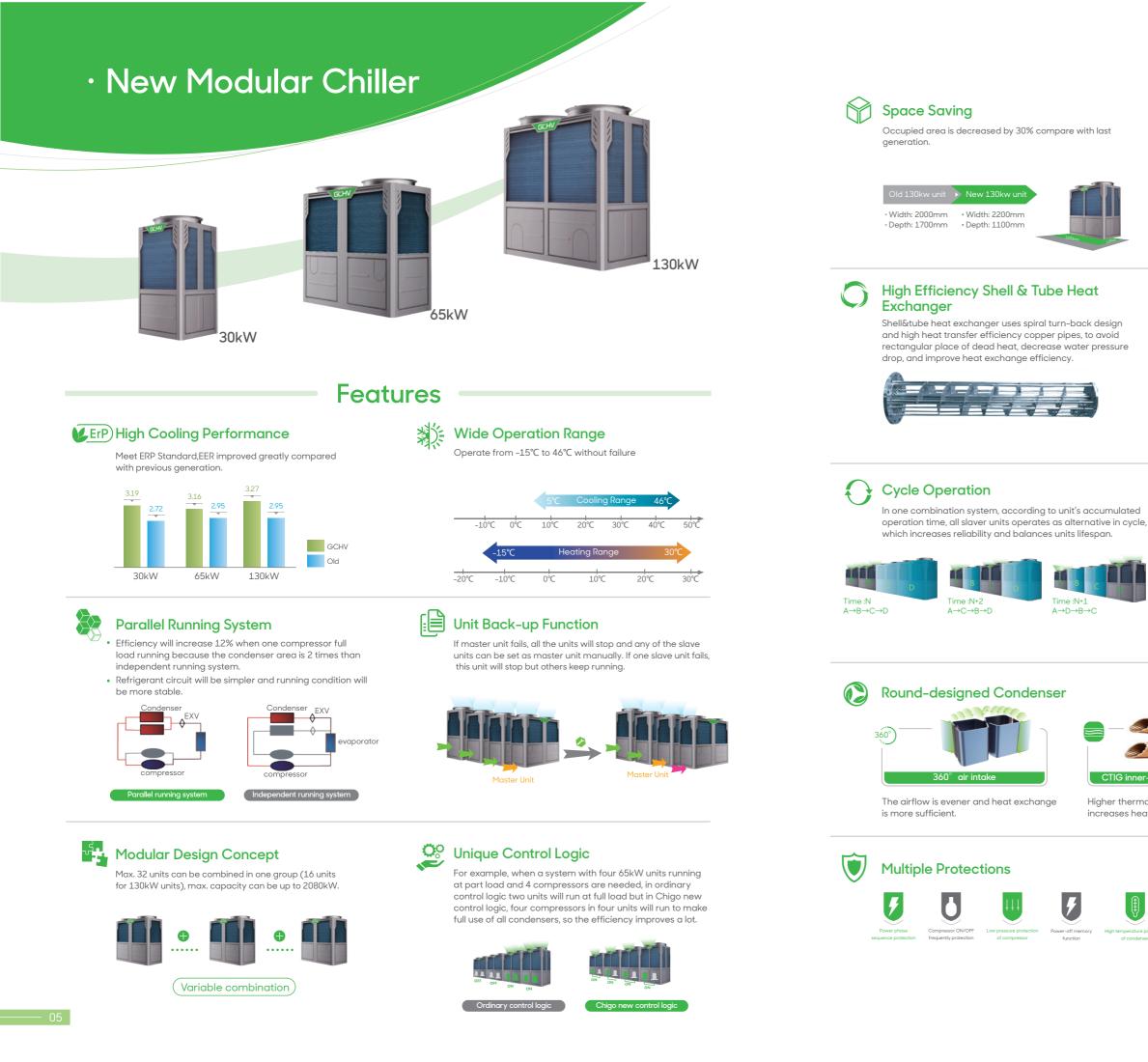
-X-

Booster Heater

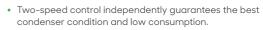
Fault ala Water Pump

Specification

, Outdoor Unit			CLP-V5HW/DR4	CLP-V8HW/DR4	CLP-V10HW/DR4	CLP-V12HW/DR4	CLP-V14HW/DZR4	CLP-V16HW/DZR4
Indoor Unit			CLP-V8HN/DR4	CLP-V8HN/DR4	CLP-V12HN/DR4	CLP-V12HN/DR4	CLP-V16HN/DR4	CLP-V16HN/DR4
Performance Data	V		▼ ▼	V		▼	~	▼
		kW/COP						
Heating Capacity/COP		kW/COP	5.29/3.67	8.26/3.61	10.8/3.84	12.84/3.80	15.26/3.65	17.28/3.64
Heating Capacity/COP		kW/COP	3.90/2.47	6.14/2.42	9.6/2.74	11.4/2.71	13.58/2.61	15.36/2.6
Heating Capacity/COP		kW/COP	5.15/3.34	8.04/3.29	10.2/2.88	12.12/2.85	14.42/2.74	16.32/2.73
Heating Capacity/COP		kW/COP	3.95/2.17	6.20/2.13	7.11/1.73	8.42/1.70	11.2/1.83	12.64/1.82
Heating Capacity/COP		kW/COP	4.38/2.39	6.83/2.36	8.5/2.41	10.2/2.41	12.04/2.3	13.6/2.9
Heating Capacity/EER(kW/EER	2.86/1.79	4.49/1.76	6.75/1.63	7.99/1.61	10.64/1.73	12/1.72
0 I / X		kW/EER	4.5/2.7		8.5/2.8	10/2.7	13.8/2.82	15.2/2.81
Heating Capacity/EER(4.2/3.8	6.5/3.8	8.5/4.8	10/4.8	13.8/4.8	15.2/4.8
Seasonal Energy Efficien Heating Average Climate			4.73/3.29	4.42/3.24	5.15/3.35	4.34/3.33	4.08/3.33	4.07/3.38
		ETA(%)	189.14/131.65	176.8/129.6 A+++	203/131.1 A++	170.6/130.2 A++	160.2/130.2 A++	159.7/132.1
Seasonal Space Heating (Average Climate Gener		35°C 55°C	A+++					A++
		550	A++	A++	A++	A++	A++	A++
Hydronic Model					220-240/1/50			
Power Supply		V/N/Hz	220-240/1/50	220-240/1/50		220-240/1/50	220-240/1/50	220-240/1/50 45
Sound Power Level		dB(A)	45	45	45	45 490*91.0*340	45	45
Dimension(W*H*D)		mm	490*910*340	490*910*340	490*910*340		490*910*340	
Packing((W*H*D)		mm	620*1105*425	620*1105*425	620*1105*425	620*1105*425	620*1105*425	620*1105*425
Net/Gross Weight		kg	47/55	47/55	48/56	48/56	48/56	48/56
Water Pipe Connector(I	Inlet/Outlet)	mm	DN32/DN32	DN32/DN32	DN32/DN32	DN32/DN32	DN32/DN32	DN32/DN32
Water Pump			Variable Speed	Variable Speed	Variable Speed	Variable Speed	Variable Speed	Variable Speed
Capacity of Electric Hea	ater	kW	3	3	3	3	3	3
Max.power Input		kW	3.6	3.6	3.6	3.6	3.6	3.6
Max.current Input		A	17	17	17	17	17	17
Outdoor Unit			\sim	~	\sim	\sim	\sim	\checkmark
Power Supply		V/N/Hz	220-240/1/50	220-240/1/50	220-240/1/50	220-240/1/50	380-415/3/50	380-415/3/50
Sound Power Level		dB(A)	64	66	68	68	70	70
Max.power Input		kW	2.86	4.2	5.0	5.0	5.5	6.4
Max.current Input		A	13	19	22	22	10.5	12.1
Dimension(W*H*D)		mm	935×702×382	935×702×382	1032*810*445	1032*810*445	1014*1430*450	1014*1430*450
Packing((W*H*D)		mm	975×770×435	975×770×435	1075*875*495	1075*875*495	1095*1545*485	1095*1545*485
Net/Gross Weight		kg	47/51	55/58	56.3/61	63.5/68	124/138	124/138
Air Flow		m³/h	3200	3200	4000	4000	6100	6100
Pipe Diameter		mm	Φ9.52/Φ15.88	Φ9.52/Φ15.88	Φ9.52/Φ15.88	Φ9.52/Φ15.88	Φ9.52/Φ15.88	Φ9.52/Φ15.88
Max.piping Length/Heigh		m	20/10	20/10	20/10	50/20	50/20	50/20
Refrigerant	ype/Quantity	kg	R32/1.1	R32/1.4	R32/3.0	R32/3.1	R32/3.6	R32/3.8
	dditional Charge	g				Length-5)m*30g/m		
	Cooling	C				-5-46°C		
	leating	C				28-43°C		
5	omestic Hot Water	C				28-43°C		
	Cooling	C				5-25°C		
	leating	C				25-60°C		
Range De	omestic Hot Water	C			·	40-60 [°] C		







• In part load running condition, the motor will run in low speed and with low consumption.





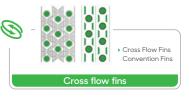
Intelligent Defrosting Program

Defrosting starts only when the unit needs to, which decrease defrosting time and water temperature fluctuation.

	Heating time Defrosting time
Conventional unit	
	Defrosting timing & durations is fixed.
GCHV unit	ntelligent defrosting program, it starts only when the unit needs to defrost. .ess temperature fluctuations, people feel more comfortable.



Higher thermometric conductivity and increases heat-exchanging efficiency.



Low air resistance and great heat transfer coefficient, and frosting improves a lot.













Heat pump unit

Model			CLS-F30HW/ZR1B	CLS-F65HW/ZR1B	CLS-F130HW/ZR1B	
Power			380-415V/3N/50Hz	380-415V/3N/50Hz	380-415V/3N/50Hz	
\checkmark			~	V	~	
Capacity	Cooling	kW	30	65	130	
oupdoity	Heating	kW	35	70	132	
Rated Input	Cooling	kW	9.4	20.6	39.8	
Rated Current	Cooling	A	18	38	78	
Rated Input	heating	kW	9.8	21.3	40.8	
Rated Current	heating	A	19	39	80	
Max. Input		kW	15	28	60	
Max. Current		А	30	51	106	
EER			3.18	3.16	3.26	
	Туре		R410A	R410A	R410A	
Refrigerant	Charge	kg	7.3	13.5	15*2	
Water Flow		m³/h	5.16	11.18	22.36	
Pressure Drop		kPa	30	30	40	
Max. Pressure		Мра	1.0	1.0	1.0	
Water Inlet/Outlet Diameter		mm	DN40	DN65	Dn65	
Air Flow		m³/h	12000	24000	48000	
Acoustic pressure (1m)		dB(A)	62	64	65	
	Net	mm	1160x1920x900	2000x1920x900	2200x2220x1100	
Dimension(WxHxD)	Packing	mm	1240x2060x950	2080x2060x950	2280x2360x1140	
NA(1 1 .	Net	kg	320	610	1010	
Weight	Packing	kg	350	630	1060	
Ambient Temperature	Cooling	°C		5-46(-15-46 for 65kW)		
Ambient lemperduire	Heating	°C		-15-30		
Inlet Water	Cooling	°C		9-25		
inice water	Heating	°C		26-48		

Cooling only unit

Model			CLS-F30CW/ZR1	CLS-F65CW/ZR1	CLS-F130CW/ZR1
Power			380-415V/3N/50Hz	380-415V/3N/50Hz	380-415V/3N/50Hz
Capacity	Cooling	kW	33.15	65	130
Rated Input	Cooling	kW	10.1	19.2	38.4
Rated Current	Cooling	A	18	36	76
Max. Input		kW	32	32	64
Max. Current		A	30	59	120
EER			3.26	3.38	3.38
	Туре		R410A	R410A	R410A
Refrigerant	Weight	kg	7.3	13.0	12*2
Water Flow		m³/h	5.16	11.18	22.36
Pressure Drop		kPa	30	30	30
Operation pressure		MPa	4.5	4.5	4.5
Water Inlet/Outlet Diameter		mm	DN40	DN65	DN65
Air Flow		m³/h	12000	24000	48000
Noise		dB(A)	62	64	68
	Net	mm	1160x1920x900	2000×1920×900	2200x2280x1100
Dimension(WxHxD)	Packing	mm	1240x2060x950	2080x2060x920	2280x2420x1140
	Net	kg	320	500	1010
Weight	Packing	kg	350	520	1060
Ambient Temperature	Cooling	°C		15-48(5-48 for 65kW)	
Inlet Water	Cooling	°C		9-25	



1. Cooling: water inlet/outlet: 12 °C/7°C , outdoor ambient temperature:35°C DB.

2. Heating: water inlet/outlet: 40°C/45°C, outdoor ambient temperature: 7°C DB/6°C WB

Water side fouling factor: 0.086m²°C /kW.
 The above data may be changed without notice for future improvement on quality and performance.





High Heating Performance

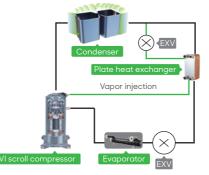
Low temperature heat pump unit adopts EVI technology. Two-stage compression improves heating capacity and efficiency in low ambient temperature.



Wide Operation Range - Cooling operating temperature is up to $46^\circ\!\mathrm{C}$ Heating operating temperature is down to -30°C -20°C -10°C 0°C 10°C 20°C 30°C 40°C 50°C -30°C -15℃ 0°C 15℃ 30°C 45 Ambient temperature range

Plate Heat Exchanger

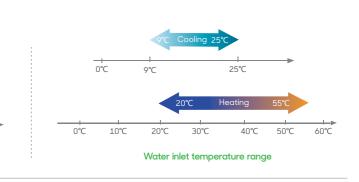
Plate heat exchanger plays an important role in EVI heat pump unit. Sub-cool the refrigerant before throttling in primary loop, increase enthalpy difference. Preheat the throttled refrigerant in auxiliary loop, supply gas refrigerant to compressor for secondary compression.

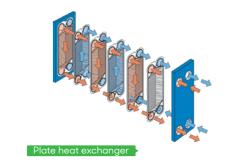




* **EVI** Compressor

Low-temperature heat pump unit adopts EVI (Enhanced Vapor Injection) compressor. A part of drawn intermediate pressure gas refrigerant is mixed and compressed with compressed refrigerant, which realizes two-stage compression in one compressor, increases compression efficiency and improves the heating performance in low temperature.





Model			CLS-FE35HW/ZR1A	CLS-FE75HW/ZR1A	CLS-FE140HW/ZR1A		
Power			380~415V/3N/50Hz				
			\sim	\mathbf{V}	\checkmark		
	Capacity	kW	36	77	142		
	Power input	kW	10.3	22.6	44.3		
Rated heating (A7°C/W45°C)	Current input	А	19	40	82		
	COP	W/W	3.49	3.41	3.21		
	Capacity	kW	24	50	94		
	Power input	kW	9.8	20	39.2		
Nominal heating (A-12°C/W41°C)	Current input	А	18	37	74		
(A-12 C/ VV41 C)	COP	W/W	2.45	2.50	2.40		
	IPLV(H))		2.82	2.82	2.82		
	Capacity	kW	30	60	120		
	Power input	kW	9.5	20.7	41.4		
Rated Cooling (A35°C/W7°C)	Curent input	A	18	38	76		
	EER	W/W	3.16	2.90	2.90		
	IPLV(C)		3.42	3.22	3.26		
Max. current		A	34	72	150		
Max. power input		kW	15	34	68		
			\sim				
	Туре		R410A	R410A	R410A		
Refrigerant	Refrigerant control		EXV	EXV	EXV		
Reingerant	Charge	kg	7.5	6.5x2	6.5x4		
	Туре			Shell tube heat exchanger			
	Max. pressure	MPa	1	1	1		
	Water flow	m³/h	6.2	13.2	24.4		
Water side heat exchanger	Pressure drop	kPa	30	30	40		
neutexchunger	Water inlet diameter	mm	DN40	DN65	DN65		
	Water outlet diameter	mm	DN40	DN65	DN65		
	Joint Type		1 1/2" Male connection	Flange joint	Flange joint		
Waterproof grade			IPX4	IPX4	IPX4		
Air flow		m³/h	12000	24000	48000		
Noise		dB(A)	62	64	65		
	Net	mm	1160x1920x900	2000x1920x900	2200×2220×1100		
Dimension (WxHxD)	packing	mm	1240x2060x950	2080x2060x950	2280x2360x1140		
	Net	kg	320	635	1010		
Weight	Packing	kg	350	650	1010		
Operation Range	FUCKING		~		~ ~		
	Cooling	ەر					
Ambient Temperature	Cooling	°C		-5~46°C			
	Heating	°C		-30~45℃			
Water Inlet Temperature	Cooling	°C		9~25℃			
	Heating	°C		20~55℃			

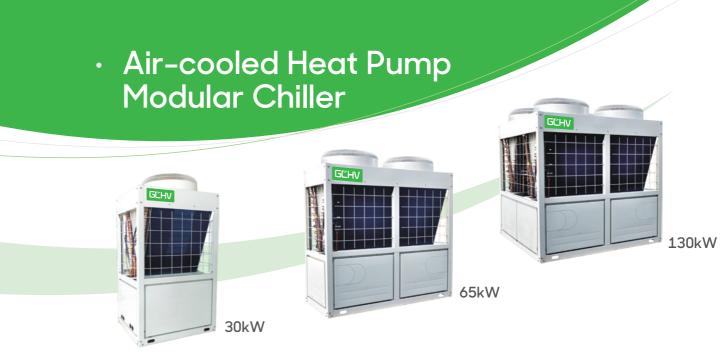
1. The rated cooling conditions: water flow $0.172m^3/(hkW)$, ambient temperature 35°C DB, water outlet temperature 7°C

2. The rated heating conditions: water flow 0.172m³/(h·kW), ambient temperature 7°C DB, water outlet temperature 45°C

3. The norminal heating conditions: water flow 0.172m³/(h-kW), ambient temperature -12°C DB, indoor side water outlet temperature 41°C

4. The above data may be changed without notice for future improvement on quality and performance.

Modular Chiller



Features

High Reliability

• Better Liquid Handling

Radial compliance allows the scroll members to separate in the presence of liquid refrigerant, thus, providing protection against luquid damage.

Greater Efficiency

With axial compliance, optimized force between two scrolls can be obtained, leading to high efficiency over the entire operating range.

Unmatched Reliability

Ability to start under any system load, without start components.

• Easy to service and maintain

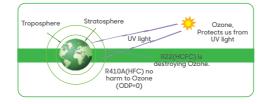
Easy to service and maintain due to their compact size and light weight.

• Simple design

Engineered for optimun performance with todays' s chlorine-free refrigerants. No complex internal suction and discharge valves for quieter operation and higher reliability.

Eco Friendly

R410a(HFC) refrigerant, low carbon footprint, no harm to the Ozone.



ŧ Larger Loading Quantity

Optimized structure and compact size provided a larger load quantity, for a 20' container, 65kW unit could be loaded 12 sets, and 130kW can be loaded 6 sets.

Note



500 Steps EXV From Famous Brand

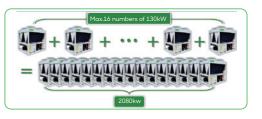
Compare to TXV, it controls refrigerant flow as per operation mode and temperature condition, because EXV has faster load reaction speed, bigger regulation range, higher refrigerant control accuracy, so the water outlet temperature can be controlled more precisely.





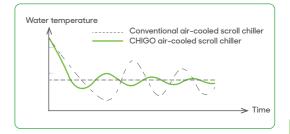
Modular Design Concept

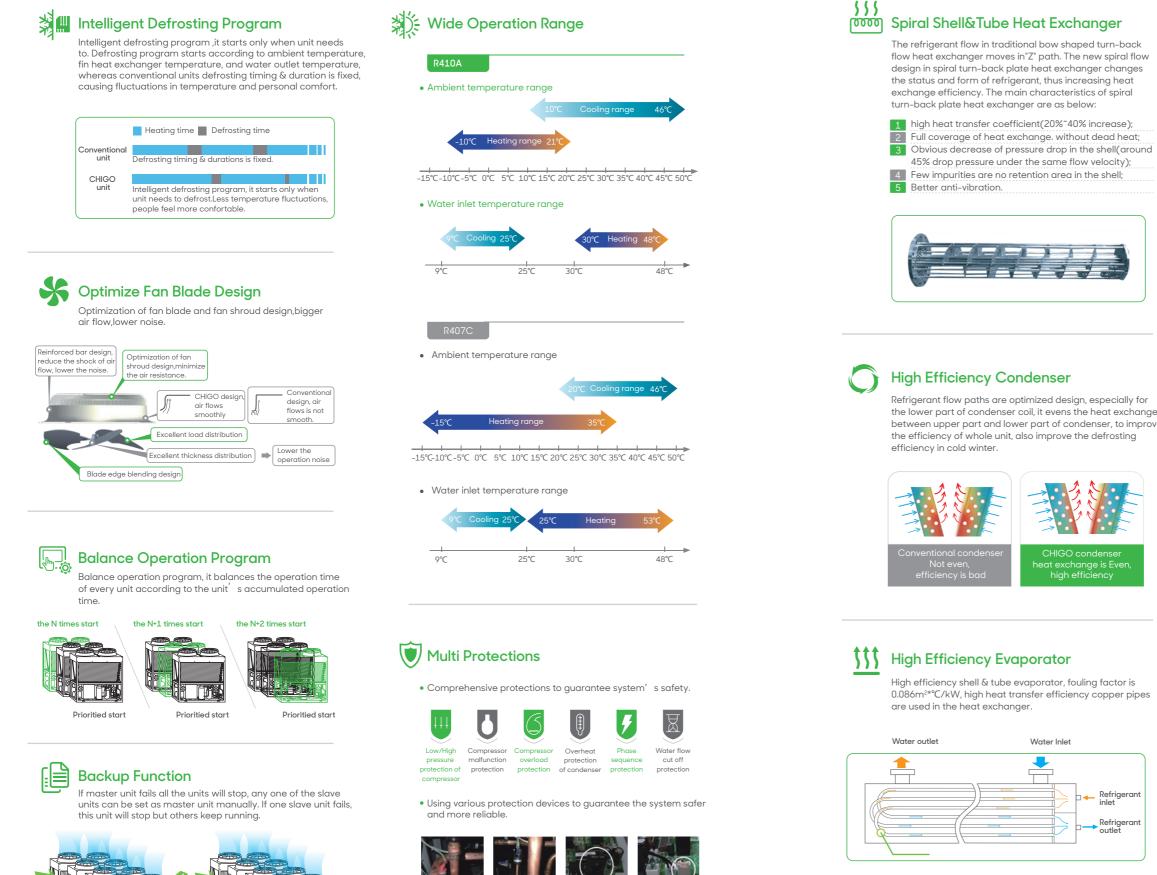
Modular design concept, a good solution for agencies to make stocks. Excellent flexibility in installation, max.16 units can be combined in a group, max.capacity can be up to 2080kW.



Precise Temperature Control

Precise water perperature control,keeps room temperature stable.compressors in each units auto respond to the real capacity needs ,system provides precisely water temperature controls.





Hiah Pressure

Switch

Low Pressure

Switch

Compressor

Current Protection

Phase Protection

45% drop pressure under the same flow velocity);

High Efficiency Condenser

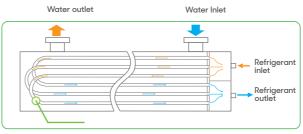
Refrigerant flow paths are optimized design, especially for the lower part of condenser coil, it evens the heat exchange between upper part and lower part of condenser, to improve the efficiency of whole unit, also improve the defrosting efficiency in cold winter.





High Efficiency Evaporator

High efficiency shell & tube evaporator, fouling factor is 0.086m²*°C/kW, high heat transfer efficiency copper pipes are used in the heat exchanger.





Protective Coaming

Protective coaming and net are available, offering protection for key components of the unit, meeting different requirements of customers.



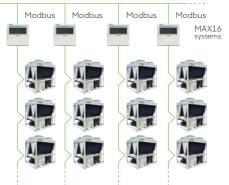


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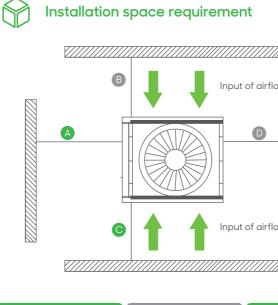
Modbus Gateway

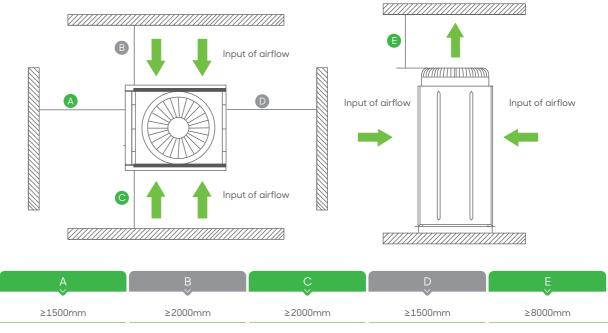
Modbus gateway is built in the control logical for standard. it can realize BMS control without any device.



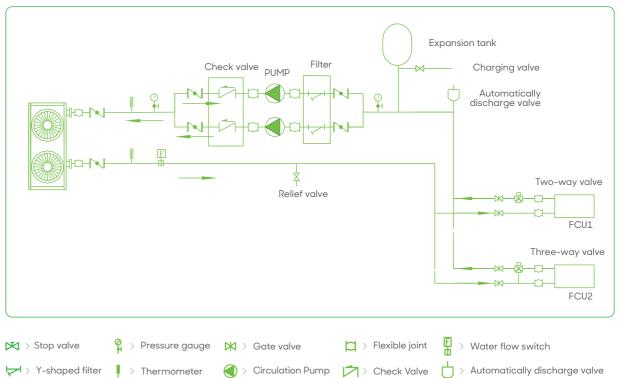


Туре				R410A/50Hz			R407C/50Hz	
Model			CLS-F30HW/ZR1A	CLS-F65HW/ZR1A	CLS-F130HW/ZR1A	CLS-F30HW/ZR2	CLS-F65HW/ZR2	CLS-F130HW/ZR2
Power supply	•	V/N/Hz	380-415/3/50	380-415/3/50	380-415/3/50	380-415/3/50	380-415/3/50	380-415/3/50
Capacity			\sim					
Cooling		kW	30	65	130	30	65	130
Heating		kW	35	70	140	35	70	140
Electrical data			~					
	Cooling	kW	11	22	44	11	22	44
Power input	Heating	kW	10.5	21	42	10.3	21.5	43
	Max. Power Input	kW	15	26	52	20	40	80
	Cooling	А	19	38	78	19	38	78
Rated current	Heating	А	18	37	76	18	37	76
	Max. Current	А	29	51	102	38	76	155
Physical data			\sim					
	Weight	kg	6.5	6.5x2	6.5x4	6.2	6.2x2	6.2x4
Refrigerant	Refrigerant control		EXV+Capillary	EXV+Capillary	EXV+Capillary	EXV+Capillary	EXV+Capillary	EXV+Capillary
	Туре		R410A	R410A	R410A	R407C	R407C	R407C
	Brand		Copeland	Copeland	Copeland	Copeland	Copeland	Copeland
Compressor	Туре		Scroll	Scroll	Scroll	Scroll	Scroll	Scroll
	Quantity	pcs	1	2	4	1	38 37 76 Copeland EXV+Capillary R407C Copeland Scroll 2 2 30 Shell and tube 30 DN65 11.18 1 Flange connection 2000x2090x900	4
	Quantity	pcs	1	2	4	1		4
Fan motor	Air flow volume	m³/h	12000	24000	48000	12000		48000
	Heat-exchanger type		Shell and tube	Shell and tube	Shell and tube	Shell and tube		Shell and tube
	Water pressure drop	kpg	30	30	40	30		40
		kpa						
Evaporator (Water side)	Water inlet/ outlet diameter	mm	DN40	DN100	DN65	DN40		DN80
(water side)	Water flow volume	m³/h	5.16	11.18	22.36	5.16		22.36
	Max. Pressure	MPa	1.1	1.1	1.1	1	1	1
	Connection type		Flange connection	Flange connectio				
Dimension	Net	mm	1160×2090×900	2000×2090×900	2000×2090×1700	1160x2090x900	2000×2090×900	2000x2090x170
(WxHxD)	Packing	mm	1240x2250x950	2080x2250x950	2080x2250x1740	1240x2245x950	2080x2245x950	2080x2245x174
VA (= 1 = 1 = 4	Net	kg	320	570	1100	320	570	1100
Weight	Gross	kg	330	600	1120	330	600	1120
Control type			Wired controller	Wired controlle				
Sound level(se	mi-anechoic)	dB(A)	62	65	68	62	65	68
Quantity per 20)GP/40GP/ 40HQ	Set	10/21/21	6/12/12	3/6/6	10/21/21	6/12/12	3/6/6
Operation rang			~					
Water inlet	Cooling	°C	9-25	9-25	9-25	9-25	9-25	9-25
temperature	Heating	°C	30-48	30-48	30-48	25-53	25-53	25-53
Water outlet	Cooling	°C	5-20	5-20	5-20	5-20	5-20	5-20
temperature	Heating	°C	35-53	35-53	35-53	30-58	30-58	30-58
Ambient	Cooling	°C	10-46	10-46	10-46	20-46	20-46	20-46
Ambient temperature	Ŭ	2						









Remarks

Cooling: water inlet/outlet: 12°C/7°C,outdoor ambient temp.of 35°C DB.
 Heating: water inlet/outlet: 40°C/45°C,outdoor ambient temp.7°C DB/6°C WB.
 Water side fouling factor: 0.086m²°C/kW.
 The above data may be changed without notice for future improvement on quality and performance.

Installation

Modular Chiller with Heat Recovery





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Multi Function

Multi function, offering air conditioning and hot living water whole year.







Features

Radial compliance allows the scroll members to separate in the presence of liquid refrigerant, thus, providing protection against liquid damage.

 With axial compliance, optimized force between
 two scrolls can be obtained, leading to high efficiency over the entire operating range.

Unmatched reliability • Ability to start under any system load, without start components. Easy to service and maintain due to their compact size and light weight, simple design. Engineered for optimum performance with today' s chlorine-free refrigerants. No complex internal suction and discharge valves for quieter operation and higher reliability.

can be controlled more precisely.

Full Heat Recovery

Full heat recovery, using total condensation heat to produce hot living water, high efficiency and great energy saving.





500 Steps EXV From Famous Brand

Compare to TXV, it controls refrigerant flow as per operation

mode and temperature condition, because EXV has faster load reaction speed, bigger regulation range, higher refrigerant control, accuracy, so the water outlet temperature

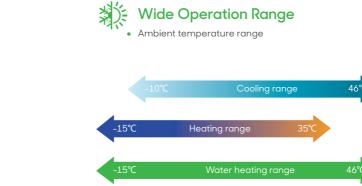
High Efficiency Pot

Specially designed high efficiency pot, compact structure and great heat exchange efficiency.





Air-cooled(Heat Pump)Modular Unit with Heat Recovery Air-cooled(Heat Pump) Modular Unit



-15°C -10°C -5°C 0°C 5°C 10°C 15°C 20°C 25°C 30°C 35°C 40°C 45°C 50°C

Mixed Combination Design

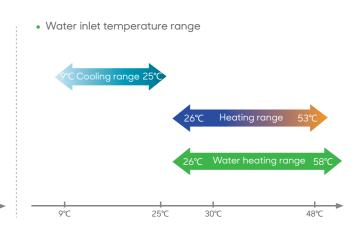
Mixed combination design, can be combined with standard air-cooled (heat pump) modular chillers in one system, offering flexible and convenient installation.





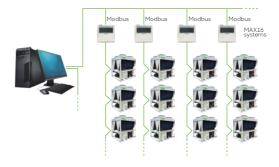
Modular design concept, a good solution for agencies to make stocks. Excellent flexibility in installation, max.16 units can be combined in a group, max. Capacity can be up to 1040kW.







Modbus gateway is built in the control logical for standard. it can realize BMS control without any device.



уре			R407C/50Hz	R407C/50Hz
1odel			CLS-F30QRHW/ZR2	CLS-F65QRHW/ZR2
	V		V	×
ower supply		V/N/Hz	380~415V/3N/50Hz	380~415V/3N/50Hz
apacity			~	~
Cooling		kW	30	65
eating		kW	35	70
/ater heating		kW	38	76
ectrical data	Caelies	kW	~	~
	Cooling	kW	11	22
wer input	Heating Water heating		12	23
	0	kW	10.2	20.5
	Max. Power Input	kW	20	40
	Cooling	A	19	39
ed current	Heating	A	21	41
	Water heating	A	18	36
	Max. Current	A	38	76
ysical data	Woight	Lee.	~ ~	
	Weight	kg	7	7x2
frigerant	Refrigerant control		EXV+ Capillary throttle	EXV+Capillary throttle
	Туре		R407C	R407C
	Brand		Emerson	Emerson
mpressor	Туре		Scroll	Scroll
	Quantity	pcs	1	2
n motor	Quantity	pcs	1	2
	Air flow volume	m³/h	12000/6000	24000/18000/12000/6000
	Heat-exchanger type		Shell and tube evaporator	Shell and tube evaporator
	Water pressure drop	kPa	30	30
aporator	Water inlet/ outlet diameter	mm	DN40	DN65
ater side)	Water flow volume	m³/h	6	11.18
	Max. Pressure	Мра	1.00	1.15
	Connection type		Thread + rubber gasket	Flange + rubber gasket
	Heat-exchanger type	kPa	Shell and tube evaporator	Shell and tube evaporator
	Water pressure drop	inch	50	65
h efficiency pot	Water inlet/outlet diameter	m³/h	1.5	2
nt water side)	Water flow volume		6.5	13.07
	Max. Pressure	MPa	1	1
	Water pipe connection			
	type	mm	Thread connection	Thread connection
nension	Net	mm	1160x2090x900	2000x2090x900
/xHxD)	Packing	kg	1240x2245x950	2080x2245x950
eight	Net		360	650
5.4	Gross	kg	380	680
ntrol type			Wired controller	Wired controller
und level(semi-ar	nechoic)	dB(A)	58-62	60-65
eration range				
ater inlet	Cooling	°C	(Water return)9–25	(Water return)9-25
nperature	Heating	°C	(Water return)26-53	(Water return)26-53
	Water heating	°C	(Water return)26–58	(Water return)26-58
	Cooling	°C	-10-46	-10-46
nbient	Water heating	°C	-15-35	-15-35

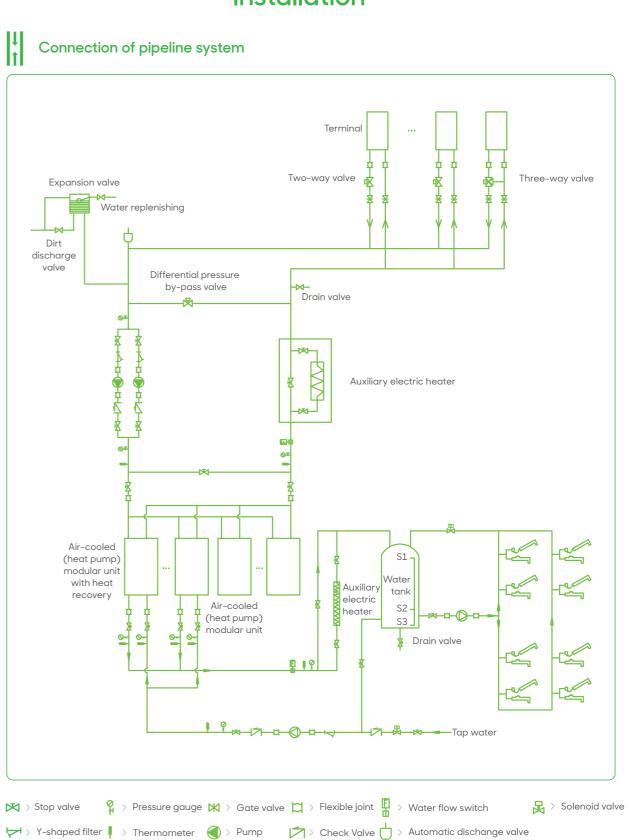


(Specifications are based on the following conditions):

1. Cooling: water inlet/outlet: 12°C/7°C, outdoor ambient temperature is 35°C DB.

2. Heating: water inlet/outlet: 40°C/45°C, outdoor ambient temperature is 7°C DB/6°C WB.

3. Water heating: water inlet/outlet: 40°C/45°C,outdoor ambient temperature is 20°C DB/15°C WB.



Installation

• Fan Coil Unit 4-pipe Cassette



Compact 4-way Cassette 300~470CFM

Round Flow Cassette 600-1000CFM

Features

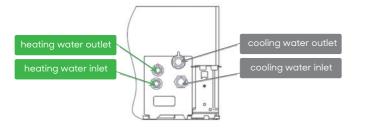
\bigotimes

4-pipe Design The 4-pipe unit consists of two separate cooling and heating

water coils. Each coil has its own dedicated set of pipes (supply and return) and valve. This type of fan coil can cool and heat at the same time and is not dependent of the actual mode of the building.



panel is standard.





and comfortable environment. For compact cassette, 4-way

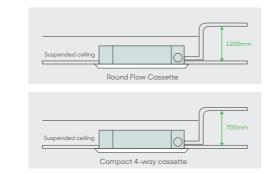
Various Selections

Digital display board, wired controller, different wired controllers are optional.

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	0.0			

6 Å 6 Å Built-in With Drainage Pump)((

Built-in with low noise and long life drainage pump. The pump head is 1200mm for big cassette and 700mm for compact cassette, flexible for drainage pipe design.



FCU type				Round Flow	v Cassette	
Model			CSQ-600R-F	CSQ-760R-F	CSQ-880R-F	CSQ-1000R-F
	\checkmark		\sim	\checkmark	\checkmark	\checkmark
Power supply		V/N/Hz	220-240/1/50	220-240/1/50	220-240/1/50	220-240/1/50
Capacity			~			
Air flow volume	Hi/Med/Lo	CFM	600/500/410	760/700/530	880/790/645	1000/880/700
		m³/h	1000/850/700	1300/1200/900	1500/1350/1100	1700/1500/1200
Cooling capacity	Hi/Med/Lo	kW	4.5/4.0/3.5	4.8/4.3/3.8	5.5/5.0/4.5	5.8/5.3/4.8
Heating capacity	Hi/Med/Lo	kW	8.5/7.6/6.0	10.5/9.6/8.0	12.5/11.0/9.5	13.0/11.5/10.0
Physical data			\sim			
Rated power input V		W	127	127	130	134
Noise level(high sp	Noise level(high speed)		40-49	40-49	40-49	40-49
Water flow	Cooling	m³/h	0.72	0.79	0.86	0.95
volume	Heating	m³/h	0.73	0.90	1.07	1.12
Water pressure	Cooling	kPa	32	35	24	26
drop	Heating	kPa	43	46	40	42
Waterproof grade			IP24	IP24	IP24	IP24
	Dimension(WxHxD)	mm	840x230x840	840x230x840	840x285x840	840x285x840
Indoor unit	Packing(WxHxD)	mm	920x265x920	920x265x920	920x310x920	920x310x920
	Net/Gross weight	kg	23.6/27.7	23.6/27.7	28.2/32.6	28.2/32.6
	Dimension(WxHxD)	mm	950x50x950	950x50x950	950x50x950	950x50x950
Panel	Packing(WxHxD)	mm	1030x100x1030	1030x100x1030	1030x100x1030	1030x100x1030
	Net/Gross weight	kg	6.5/9.5	6.5/9.5	6.5/9.5	6.5/9.5
	Cooling water-inlet pipe	mm	DN20	DN20	DN20	DN20
	Cooling water-outlet pipe	mm	DN20	DN20	DN20	DN20
Pipe	Heating water-inlet pipe	mm	DN15	DN15	DN15	DN15
	Heating water-outlet pipe	mm	DN15	DN15	DN15	DN15
	Drainage pipe	mm	DN25	DN25	DN25	DN25
Controller			Ren	note controller(standard	d), wired controller(optic	onal)

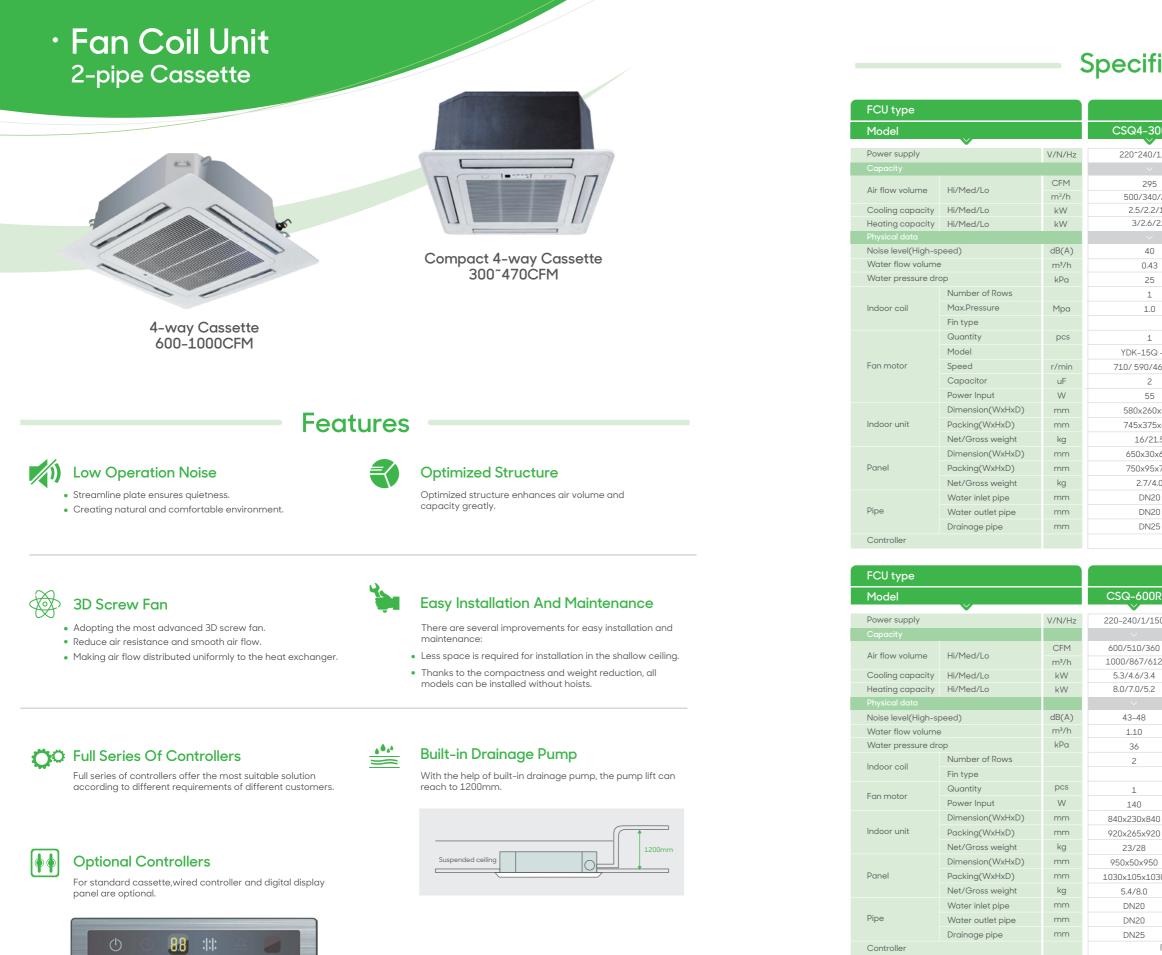
FCU type			Compact 4-way Cassette			
Model			CSQ4-300R-F	CSQ4-350R-F	CSQ4-470R-F	
Deurereurelu	V	V/N/Hz	V		V	
		V/IN/Hz	220-240/1/50	220-240/1/50	220-240/1/50	
Capacity		CFM				
Air flow volume	Hi/Med/Lo	CFIM m³/h	295/220/175	350/280/235	470/320/245	
		kW	500/380/300	600/480/400	800/550/420	
Cooling capacity Heating capacity		kW	1.90/1.7/1.5	2.1/1.85/16	2.4/2.05/1.7 5.5/4.5/3.2	
Physical data	HI/Med/Lo	KVV	4.4/3.45/2.5	4.8/3.55/2.9	5.5/4.5/3.2	
Rated power input		W	48	58	65	
Noise level(high speed)		dB(A)	43	43	43	
Water flow	Cooling	m³/h	0.33	0.38	0.45	
volume	Heating	m³/h	0.38	0.41	0.47	
Water pressure	Cooling	kPa	15	15	20	
drop	Heating	kPa	15	15	20	
Waterproof grade			IP24	IP24	IP24	
	Dimension(WxHxD)	mm	580x260x580	580x260x580	580x260x580	
Indoor unit	Packing(WxHxD)	mm	745x375x675	745x375x675	745x375x675	
	Net/Gross weight	kg	16.5/22	16.5/22	16.5/22	
	Dimension(WxHxD)	mm	650x30x650	650x30x650	650x30x650	
Panel	Packing(WxHxD)	mm	750x95x750	750x95x750	750x95x750	
	Net/Gross weight	kg	2.7/4.0	2.7/4.0	2.7/4.0	
Pipe	Cooling water-inlet pipe	mm	DN20	DN20	DN20	
	Cooling water-outlet pipe	mm	DN20	DN20	DN20	
	Heating water-inlet pipe	mm	DN15	DN15	DN15	
	Heating water-outlet pipe	mm	DN15	DN15	DN15	
	Drainage pipe	mm	DN25	DN25	DN25	
Controller			Remote controller(standard), wired controller(optional)			

Remarks 1. Cooling capacity test condition: air side temperature:2/DB // 12199 C, water inlet temperature 60DB°C, water temperature difference 5°C.



Specification

1. Cooling capacity test condition: air side temperature:27DB°C/19WB°C, water inlet temperature 7°C, water temperature difference 5°C.



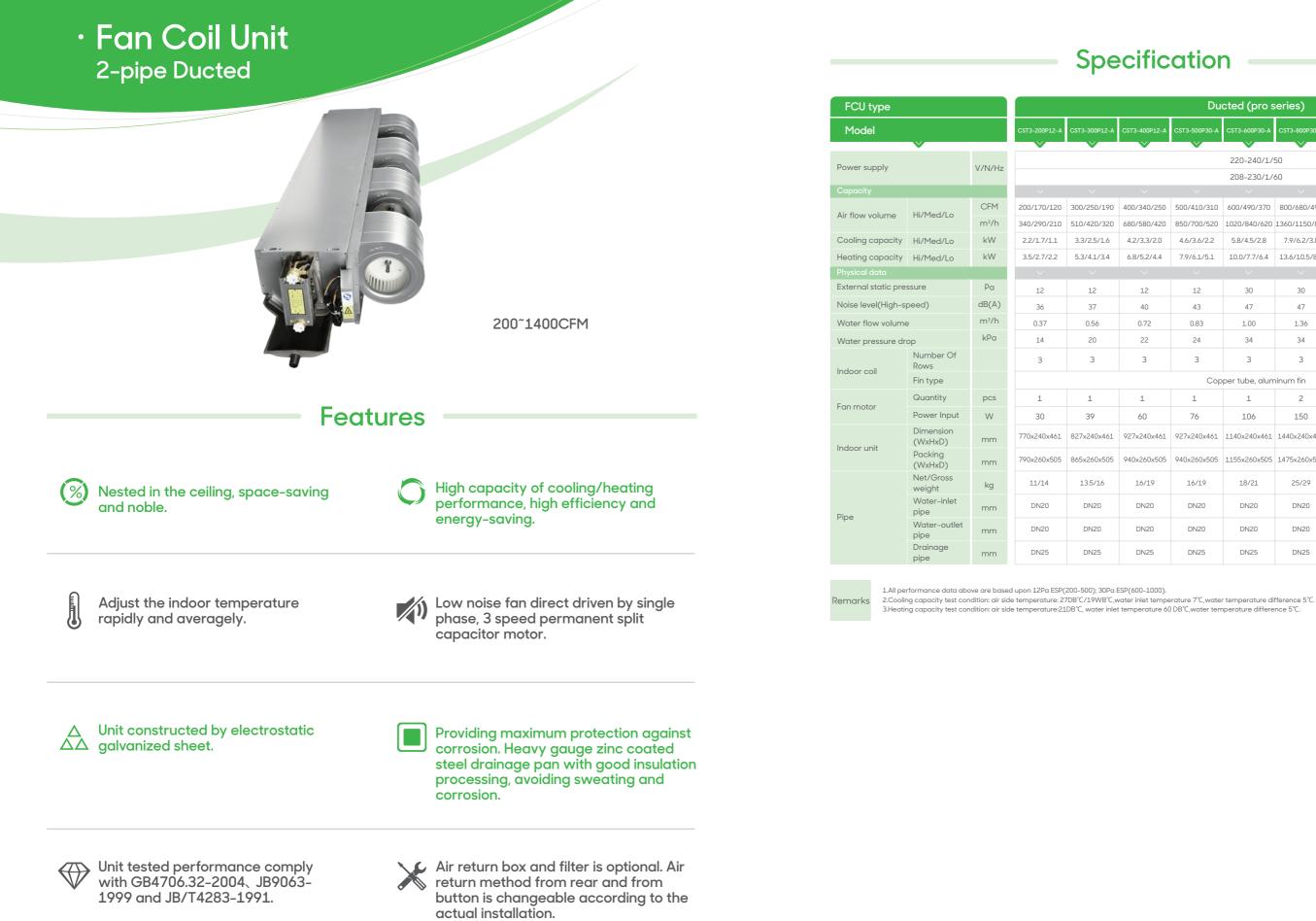
1. Cooling capacity test condition: air side temperature:27DB°C/19WB°C, water inlet temperature7°C, water temperature difference 5°C. Remarks 2. Heating capacity test condition: air side temperature:21DB°C, water inlet temperature 60DB°C, water temperature difference 5°C.

除霜/预热

Specification

Compact 4-way Cassette				
300R-A	CSQ4-350R-A	CSQ4-470R-A		
0/1/150	220~240/1/50	220~240/1/150		
25	350	440		
10/260	600/420/330	750/560/420		
.2/1.8	3.5/3.0/2.3	4.5/3.9/2.9		
5/2.0	4/3.2/2.4	5.2/4.2/3.3		
0	42	44		
43	0.60	0.78		
5	28	30		
L	2	2		
.0	1.0	1.0		
	copper tube, aluminum fin			
L	1	1		
Q -6P3	YDK-16Q-6P3	YDK-27Q-4P3		
/460/360	740/640/540/440	890/790/650/550		
2	1.5	2		
5	58	90		
50x580	580x260x580	580x260x580		
75x675	745x375x675	745x375x675		
21.5	17/22.5	17/22.5		
0x650	650x30x650	650x30x650		
5x750	750x95x750	750x95x750		
/4.0	2.7/4.0	2.7/4.0		
120	DN20	DN20		
120	DN20	DN20		
125	DN25	DN25		
	remote controller(standard)			

4-way Cassette					
OR	CSQ-760R	CSQ-880R	CSQ-1000R		
/150	220-240/1/150	220-240/1/150	220-240/1/150		
	~	\sim	~		
360	760/646/456	880/748/528	1000/850/600		
612	1300/1098/775	1500/1272/898	1700/1445/1020		
.4	7.2/6.3/4.7	8.5/7.4/5.5	10.0/8.7/6.5		
.2	10.8/9.4/7.0	12.8/11.1/8.3	15.0/13.1/9.8		
	44-48	45-52	45-53		
	1.24	1.46	1.55		
	36	38	40		
	2	2	2		
	Copper tube,a	luminum fin			
	1	1	1		
	150	160	180		
340	840x230x840	840x285x840	840x285x840		
920	920x265x920	920x310x920	920x310x920		
	23/28	26/31.5	28/33.5		
50	950x50x950	950x50x950	950x50x950		
1030	1030x105x1030	1030x105x1030	1030x105x1030		
	5.4/8.0	5.4/8.0	5.4/8.0		
	DN20	DN20	DN20		
	DN20	DN20	DN20		
	DN25	DN25	DN25		
Remo	ote controller(standard)	wired controller(optiond	1)		



Ducted (pro series)						
100P12-A	CST3-500P30-A	CST3-600P30-A	CST3-800P30-A	CST3-1000P30-A	CST3-1200P30-A	CST3-1400P30-A
\vee	\sim	\sim	\sim	\sim	\sim	\sim
		220-240/1/	50			
208-230/1/60					/	/
40/250	500/410/310	600/490/370	800/680/490	1000/820/590	1200/970/780	1400/1120/840
80/420	850/700/520	1020/840/620	1360/1150/840	1700/1400/1000	2040/1650/1250	2380/2000/1480
3.3/2.0	4.6/3.6/2.2	5.8/4.5/2.8	7.9/6.2/3.8	9.1/7.1/4.4	10.8/8.6/7.0	12.6/10/7.5
5.2/4.4	7.9/6.1/5.1	10.0/7.7/6.4	13.6/10.5/8.7	16.0/12.3/10.3	16.2/12.9/10.5	18.9/15/11.5
12	12	30	30	30	30	30
40	43	47	47	50	51	52
.72	0.83	1.00	1.36	1.56	1.98	2.24
22	24	34	34	40	42	50
3	3	3	3	3	3	3
	Сор	per tube, alum	ninum fin			
1	1	1	2	2	2	2
0	76	106	150	172	210	250
240x461	927x240x461	1140x240x461	1440x240x461	1546x240x461	1865x240x461	1865x240x461
260x505	940x260x505	1155x260x505	1475x260x505	1565x260x505	1875x260x505	1875x260x505
5/19	16/19	18/21	25/29	27/32	31/36	31/36
N20	DN20	DN20	DN20	DN20	DN20	DN20
N20	DN20	DN20	DN20	DN20	DN20	DN20
N25	DN25	DN25	DN25	DN25	DN25	DN25

• Accessories ,



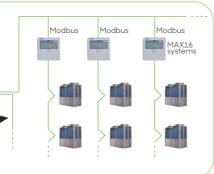
Wireless Controller (In Package Of Cassette Fcus)

- Wireless 8m transmission
 5 operation mode: Auto, Cooling, Dehumidification, Heating,Fan
- Timer ON/OFF setting up to 24Hr
- Temperature control range 16-32°C
- Three fan speed selection
- Sleep mode function



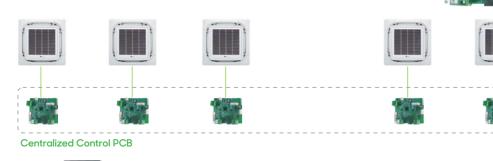
- 2 operation mode
- Timer function
- Operation and error information inquiry
- Forced defrosting operation
- Button lock MODBUS function





Centralized Control & BMS Control

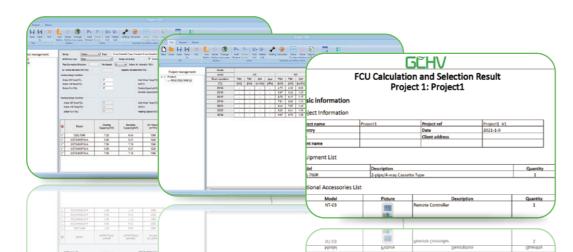
- Add centralized control PCB to cassette type FCU, to realize centralized control.
- Can connect with Modbus PCB.
- Max. 64 FCUs can be controlled together.



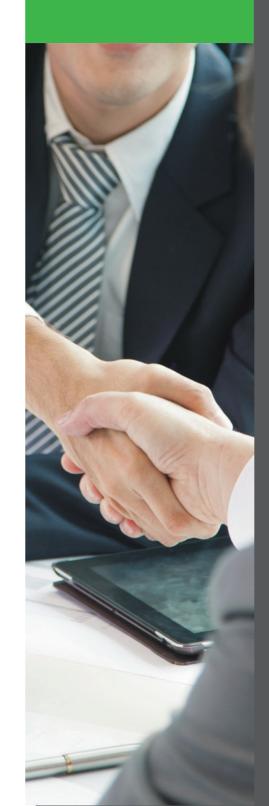


FCU selection software





Reference Projects





Government building in Inner Mongolia, China.



Office building in Istanbul, Turkey.



Production hall in Zarnovica, Slovakia.



Museum of South Bohemia in Ceske Budejovice, Czech Republic.