



# 60Hz Inverter SEER16 Side Discharge Light Commercial Air Conditioner

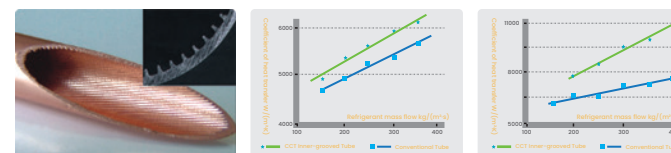
- 60Hz Inverter SEER16  
Side Discharge



## Features

### CCT Inner-grooved Tube

CCT inner-grooved copper tube has high thermometric conductivity, it breaks the refrigerant flow boundary layer to increase heat-exchanging efficiency.



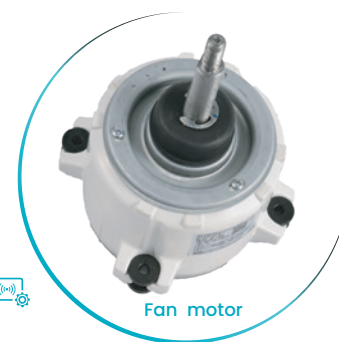
### High Efficiency AC Motor

Famous brand AC fan motor of high-density wire winding engineering and built-in sensor, reliable, high efficiency and low noise.

High efficiency AC fan motor

Low noise and high efficiency

Brushless with built-in sensor



### Operation Performance

Minimum heating operation temperature down to -19.4°F (-7°C), High ambient cooling temperature up to 114.8°F (46°C).

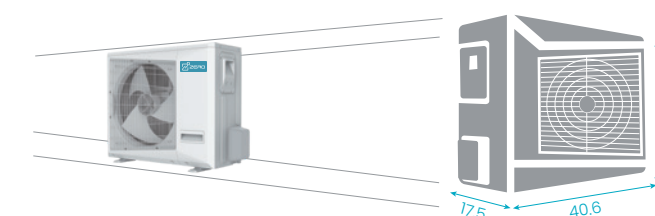
Cooling range: 60.8°F - 114.8°F

Heating range: 19.4°F - 86°F



### Compact Size

Side discharge design takes less than half the area of top discharge conventional condensers, which saves space and allows you to use it in more narrow installation situations.



Unit: inch

### Integrated PCB

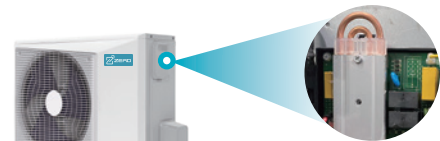
The highly integrated PCB not only reduces the interference of external electrical signals, but also increases the operating speed for quick response. And at the same time, at the same time, it also provides convenience for suppliers to stock up and helps after-sales maintenance services.



## Features

### Refrigerant Cooling PCB

The refrigerant pipeline cooling is used to cool the electronic control board. Make the circuit temperature more stable and the operation life longer.



Refrigerant cooling PCB

### Basepan Heater(Optional)

When in heating state in winter, ice will accumulate on the basepan. In order to ensure the normal operation, the built-in basepan heater is necessary.



### High Pressure Ratio Compressor

High pressure ratio variable speed compressor run stably at -18°F low ambient temperature, provide you with continuous warmth in the cold winter.



### Fireproof Electrical Box

The metal part of the electric control box are designed to be grounded to prevent electric shock. In addition, the black base used is also made of flame-retardant ABS material, which has passed the flame-retardant test.



Electric Shock Proof



Fireproof

### 24V Communication Protocol

24V communication protocol is much safer than others and compatible with any third-party air handler and thermostat including NEST®, it is easier to connect to other brand indoor units.



third-party air handler



third-party thermostat

### Service Window.

Easy to check the operation states from service window, and help engineer solve the problem easily when failure occurs.

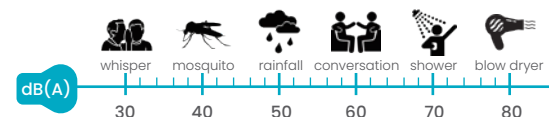


### Rapid Heating and Cooling

Due to the high efficiency compressor and fan motors, it can reach the set temperature quickly, provide a comfortable life.

### Low Noise

Quiet 54-58dB(A) operation.



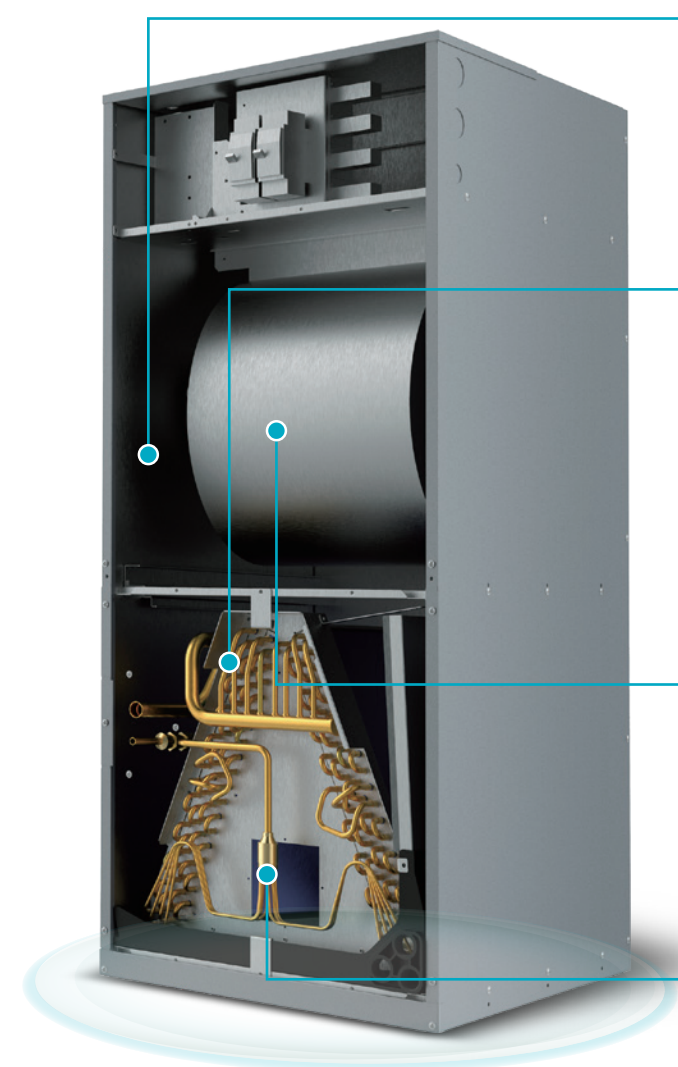
## Specification

### SEER 16 Side Discharge Outdoor Unit



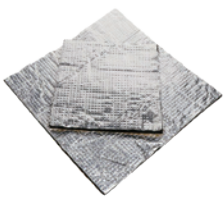
Model		ZSOVE-18HDG	ZSOVE-24HDG	ZSOVE-36HDG	ZSOVE-48HDG	ZSOVE-60HDG
Power supply	V/Hz/N	230/1/60	230/1/60	230/1/60	230/1/60	230/1/60
Air flow(High speed)	m3/h	3300	3300	4200	5500	6000
Noise level(High speed)	dB(A)	54	54	56	57	57
Dimension(WxHxD)	mm	935x383x702	935x383x702	1032x445x810	1100x528x870	1100x528x870
Packing dimension(WxHxD)	mm	975x495x875	975x495x875	1075x495x875	1140x540x965	1140x540x965
Net/Gross weight	kg	45.5/42	49/45.5	65/60	85/75	90/80
Refrigerant type/quantity	g	1800	2000	3000	3300	3600
Design pressure	MPa	4.0	4.0	4.0	4.0	4.0
Max. pressure	MPa	4.5	4.5	4.5	4.5	4.5
Refrigerant piping	Liquid/Gas side	mm	Φ9.52/Φ15.88	Φ9.52/Φ19.05	Φ9.52/Φ19.05	Φ9.52/Φ19.05
	Max. pipe length	m	30	30	30	30
	Max. high drop	m	10	10	10	10
Ambient temp.	Cooling	°C	16~46	16~46	16~46	16~46
	Heating	°C	-7~30	-7~30	-7~30	-7~30





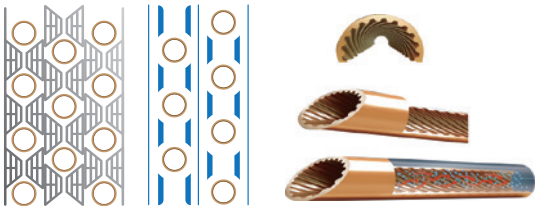
Insulated cabinet

Galvanized steel with paint on all panels. Thermal insulators cover all internal panels to reduce heat and cold loss and prevent condensation from accumulating.



Coil

"A" shape coils, constructed with inner groove copper tube and hydrophilic aluminum foil.



Motor&Blower

Direct drive motors, 3-speed, provide selections of air flow to meet desired applications. Φ10" big fan, powerful wind.



Expansion device

Use TXV as expansion device for SEER 16 Top Discharge series and piston as expansion device for SEER 16 side discharge series.



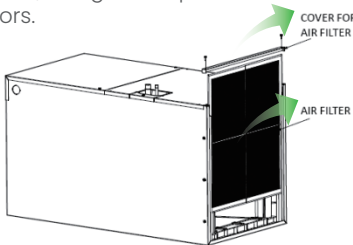
Optional Electric Heating with Different Power.

Description	Ref.Air Handler use
5.0 kW Electric Heating	18K,24K,30K,36K,42K,48K,60K
7.5 kW Electric Heating	18K,24K,30K,36K,42K,48K,60K
10.0kW Electric Heating	18K,24K,30K,36K,42K,48K,60K
15.0kW Electric Heating	36K,42K,48K,60K
20.0kW Electric Heating	36K,42K,48K,60K



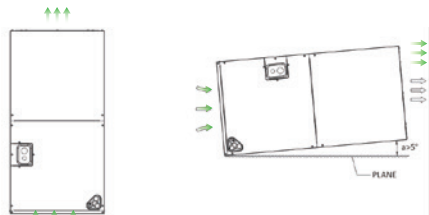
Optional air filter

The detachable air filter is optional for cleaning or renewal, designed to provide fresh and healthy air indoors.



Multi-position installation

Versatile 4-way convertible design for vertical up airflow, horizontal right airflow.



For SEER 16 Side Discharge Series



Model			ZAVE-18HDG	ZAVE-24HDG	ZAVE-36HDG	ZAVE-48HDG	ZAVE-60HDG
Power supply		V/Hz/N	230/1/60	230/1/60	230/1/60	230/1/60	230/1/60
Air flow(High speed)		m3/h	3300	3300	4200	5500	6000
Noise level(High speed)		dB(A)	54	54	56	57	57
Dimension(WxHxD)		mm	935x383x702	935x383x702	1032x445x810	1100x528x870	1100x528x870
Packing dimension(WxHxD)		mm	975x495x875	975x495x875	1075x495x875	1140x540x965	1140x540x965
Net/Gross weight		kg	45.5/42	49/45.5	65/60	85/75	90/80
Refrigerant type/quantity		g	1800	2000	3000	3300	3600
Design pressure		MPa	4.0	4.0	4.0	4.0	4.0
Max. pressure		MPa	4.5	4.5	4.5	4.5	4.5
Refrigerant piping	Liquid/Gas side	mm	Φ9.52/Φ15.88	Φ9.52/Φ15.88	Φ9.52/Φ19.05	Φ9.52/Φ19.05	Φ9.52/Φ19.05
	Max. pipe length	m	30	30	30	30	30
	Max. high drop	m	10	10	10	10	10
Ambient temp.	Cooling	°C	16~46	16~46	16~46	16~46	16~46
	Heating	°C	-7~30	-7~30	-7~30	-7~30	-7~30
Throttle type			Piston	Piston	Piston	Piston	Piston



For SEER 16 Side Discharge Series



Model			ZEVE-18HDG	ZEVE-18HDG	ZEVE-36HDG	ZEVE-48HDG	ZEVE-60HDG
Power supply			230/1/60	230/1/60	230/1/60	230/1/60	230/1/60
Cooling	Capacity	Btu	18000	24000	36000	48000	55000
	EER	Btu/W	11.6	10.2	11.6	9.0	9.7
Heating	Capacity	Btu	19000	24000	35000	48000	55000
	COP	W/W	3.5	3.1	3.2	2.7	3.0
Indoor air flow(High speed)			1200	1200	1800	2000	2750
Indoor noise level			34/41	35/41	37/43	51/56	51-56
Indoor unit	Net(WxHxD)	mm	1050x675x235	1050x675x235	1300x675x235	1670x675x235	1670x675x235
	Packing(WxHxD)	mm	1130x765x330	1130x765x330	1380x765x325	1750x765x325	1750x770x325
	Gross/Net weight	kg	31/26.5	31/26.5	38/33	46/40	49/43
Refrigerant piping Liquid/Gas side			Φ9.52/Φ15.88	Φ9.52/Φ15.88	Φ9.52/Φ19.05	Φ9.52/Φ19.05	Φ9.52/Φ19.05

Features

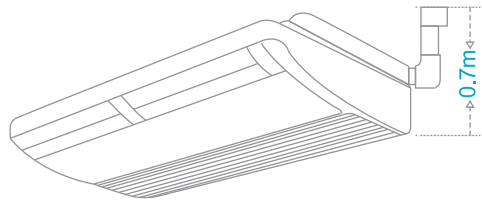
Flexible installation

Flexible installation, you can choose ceiling suspended or floor standing installation style according to your project requirement.



Optional water pump

Water pump is optional, the pumping head is up to 700mm.



AC fan motor

AC motor is standard, stable operation, high efficiency and low noise.



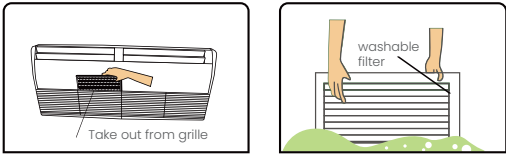
Digital display

Digital display is standard, on the right side. It is more intuitive and simple, and error code can be shown in the display.



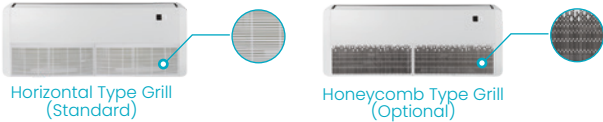
Washable filter

Long term filter can effectively remove PM2.5 in the air, and it could be take out from grille easily to clean, aims to provide healthy indoor environment.



Optional honeycomb grille

Horizontal grille is standard, and honeycomb type is available for your customization.



3D airflow

Auto-swing function, built-in two louver motor, vertical and horizontal air-flow adjustment.



# Round Flow Cassette



## Features

### Digital display

Digital tube display is optional your choice, standard is LED display.



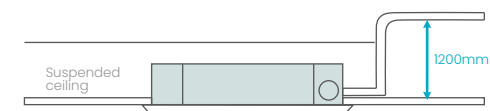
### 3D fan blade

Streamlined design 3D spiral fan blade, reduces air resistance and operation noise.



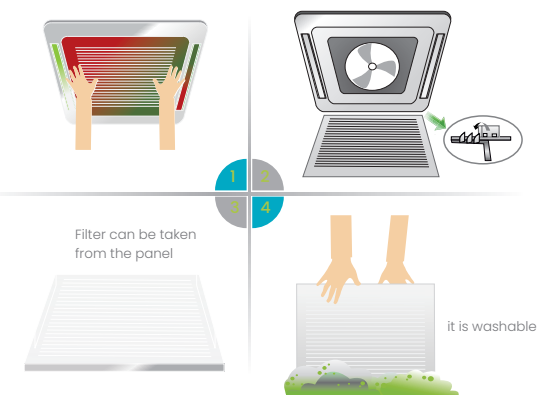
### Water pump

Built-in water pump, pump head up to 1200mm.



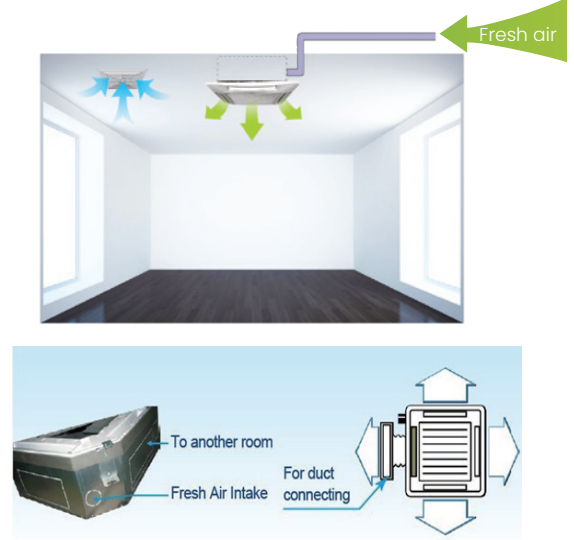
### Washable filter

Long term filter can effectively remove PM2.5 in the air, and it could be take out from grille easily to clean, aims to provide healthy indoor environment.



### Fresh air intake

Four interfaces to connect with duct for fresh air intake, provides healthy indoor environment.



# Specification

## For SEER 16 Side Discharge Series



Model			ZCRVE-18HDG	ZCRVE-18HDG	ZCRVE-36HDG	ZCRVE-48HDG	ZCRVE-60HDG
Power supply			230/1/60	230/1/60	230/1/60	230/1/60	230/1/60
Cooling	Capacity	Btu/h	18000	24000	36000	48000	52000
	EER	Btu/W	11.96	10.30	10.30	9.17	9.35
Heating	Capacity	Btu/h	19000	24000	34000	52000	55000
	COP	W/W	3.63	3.00	3.00	3.00	2.82
Indoor air flow(High speed)			1200	1200	1800	1800	1800
Indoor noise level			45~52	45~52	44~54	46~55	46~55
Body	Net(WxHxD)	mm	840×230×840	840×230×840	840×285×840	840×285×840	840×285×840
	Packing(WxHxD)	mm	920×265×920	920×265×920	920×310×920	920×310×920	920×310×920
	Gross/Net weight	kg	32.0/28.0	32.0/28.0	33.5/29.0	35.5/31.0	35.5/31.0
Panel	Net(WxHxD)	mm	950×50×950	950×50×950	950×50×950	950×50×950	950×50×950
	Packing(WxHxD)	mm	1030×105×1030	1030×105×1030	1030×105×1030	1030×105×1030	1030×105×1030
	Gross/Net weight	kg	9.5/6.5	9.5/6.5	9.5/6.5	9.5/6.5	9.5/6.5
Refrigerant piping Liquid/Gas side			9.52/15.88	9.52/15.88	9.52/19.05	9.52/19.05	9.52/19.05
Operation temp.			16~32	16~32	16~32	16~32	16~32

## For Normal Inverter Series



Model			ZCRVE-18HDG	ZCRVE-24HDG	ZCRVE-36HDG	ZCRVE-18HDG	ZCRVE-18HDG
Power supply			220~240/1/60	220~240/1/60	220~240/1/60	220~240/1/60	220~240/1/60
Cooling	Capacity	Btu/h	18000	24000	36000	48000	60000
	EER	W/W	3.1	3.1	3.1	3.1	3.0
Heating	Capacity	Btu/h	18000	24000	36000	48000	60000
	COP	W/W	3.5	3.5	3.4	3.5	3.21
Indoor air flow(High speed)			950	1250	1600	1900	1900
Indoor noise level			35~40	32~42	45 ~ 52	45~52	45~52
Body	Net(WxHxD)	mm	840×230×840	840×230×840	840×285×840	840×285×840	840×285×840
	Packing(WxHxD)	mm	920×265×920	920×265×920	920×310×920	920×310×920	920×310×920
	Gross/Net weight	kg	25/30	25/30	29/33.5	30.5/36	30.5/36
Panel	Net(WxHxD)	mm	950×50×950	950×50×950	950×50×950	950×50×950	950×50×950
	Packing(WxHxD)	mm	1030×100×1030	1030×100×1030	1030×100×1030	1030×100×1030	1030×100×1030
	Gross/Net weight	kg	6.5/9.5	6.5/9.5	6.5/9.5	6.5/9.5	6.5/9.5
Refrigerant piping Liquid/Gas side			6.35/12.7	9.52/15.88	9.52/15.88	9.52/15.88	9.52/15.88
Operation temp.			16 ~ 32	16 ~ 32	16 ~ 32	16 ~ 32	16 ~ 32





Features

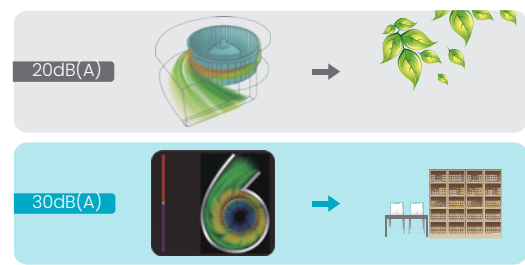
Ultra-thin body

Ultra-thin body design, Installation space is greatly reduced. The thickness of the three cases are 210mm, 260, 370mm respectively.

Product	Thickness	
Short duct	210mm	
Medium ESP duct	260mm	
High ESP duct	370mm	

Centrifugal fan

Adopting aviation centrifugal fans, and CFD technology design, increasing air volume and decreasing noise level, noise level only 29dB(A) for Low ESP Ducted Unit.



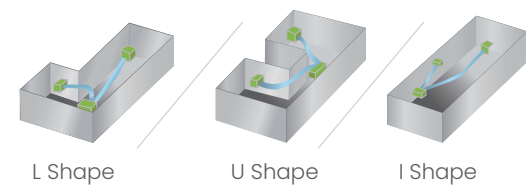
Fan speed

Three fan speed, meet different requirements.



Flexible installation

Ducted could be easily connected according to the various project demands, especially for complex projects. And the ESP of short duct, medium ESP duct, high ESP duct are 30Pa, 70Pa, 150Pa respectively.



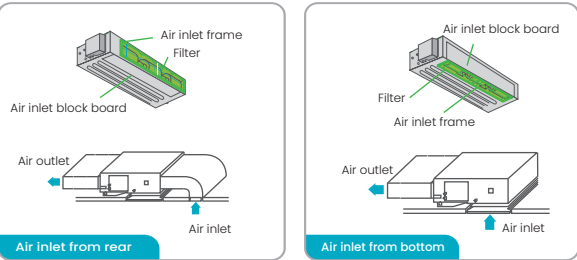
Washable filter

Long term filter can effectively remove PM2.5 in the air, and it could be take out from grille easily to clean, aims to provide healthy indoor environment. And the filter could be take out from different direction which is convenience for clean.



Air return

Air return from rear or bottom is easy to change on site according to actual situation, convenient for installation.



For SEER 16 Side Discharge Series



Model			ZDVE-18HDG	ZDVE-24HDG	ZDVE-36HDG	ZDVE-48HDG	ZDVE-60HDG
Power supply		V/Hz/N	230/1/60	230/1/60	230/1/60	230/1/60	230/1/60
Cooling	Capacity	Btu	18000	24000	36000	48000	55000
	EER	Btu/W	11.3	9.8	9.6	8.6	9.3
Heating	Capacity	Btu	19000	24000	35000	52000	55000
	COP	W/W	3.5	2.9	3.0	2.8	3.0
Standard static pressure		Pa	25	25	37	50	50
Indoor air flow(High speed)		m³/h	1370	1560	2200	2500	2500
Pressure range		Pa	0-100	0-100	0-160	0-200	0-200
Indoor noise level		dB(A)	41-52	46-55	47-56	46-53	46-53
Indoor unit	Net(WxHxD)	mm	1190×260×643	1190×260×643	1425×260×643	1325×300×830	1325×300×830
	Packing(WxHxD)	mm	1255×325×720	1255×325×720	1490×325×720	1395×380×920	1395×380×920
	Gross/Net weight	kg	36/32	36/32	50/46	55/48	56/49
Max pressure		MPa	4.0	4.0	4.0	4.0	4.0
Refrigerant type			R410A	R410A	R410A	R410A	R410A
Refrigerant piping liquid/gas side		mm	Φ9.52/Φ15.88	Φ9.52/Φ15.88	Φ9.52/Φ19.05	Φ9.52/Φ19.05	Φ9.52/Φ19.05
Operation temp		°C	16~32	16~32	16~32	16~32	16~32

# • Controllers



◀ Wireless Controller

- 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

Wired Controller ▶



- LCD display
- 5/8/10 m wire length
- 5 Operation modes: Auto, Cool, Dehumidification, Heat, Fan
- Timer ON/OFF setting up to 24Hr
- Temperature control range 16-32°C
- Three fan speed selection