AERCOIL

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AERCOIL

ROOFTOP

AIR CONDITIONER UNIT

Universal Compact Series

380~415V,3Ph,50Hz
Cooling Capacity: 22-156 kW
Heating Capacity: 22.4-162 kW

High Efficient DC Inverter Compressor

Reliability

DC inverter compressor utilizes the permanent magnet motor technology which significantly enhances its overall performance and efficiency. At complete stop of the compressor, the magnets will position the rotor into the optimum position for a low torque start.

ACPRV Series 25 Ton and Above

By cycling off compressor operation to match building load, no energy is being wasted when room load requires lesser cooling capacity. No total shut down when servicing or repairing a faulty compressor.

Environmentally Friendly Refrigerant

ACPRV Series uses the environmentally friendly refrigerant, standard with R410A in each system. Zero ozone depletion potential.

Optional with R32 new refrigerant gas.

Casing

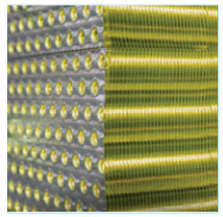
Constructed from heavy gauge galvanized steel. Panels are painted with epoxy powder paint for excellent finish, weatherability and corrosion resistance. Evaporator section is insulated with closed cell Polyethylene (PE) foam.

Automatic Adjustment of Throttling(ZPRV)

Electronic expansion valve adjusts the opening degree automatically .It makes sure that the system parameters are within a reasonable range when the unit operates under all working conditions , to improve the operation reliability and service life of the unit.

High Efficient Condenser Coil

Staggered row of inner groove tubes with 25 to 30% more surface area guarantee better heat transfer. Mechanically expanded into die-formed corrugated aluminum louver fins with increase the heat exchange surface which is high heat exchange efficiency. Leak and pressure tested to 650 psig.



Safety Control

High-low pressure cutout to protect compressor from high discharge pressure and system leakage.

Drive Package And Blowers

Belt driven drive package offers flexibility on various air flow rate and various static pressure applications (ACPRV Series 8.5Ton and above).

Single large diameter double inlet double width blowers (AMCA certified) reduce the noise level and eliminates the need for common transition and eliminates air unbalance.

Long Life & Washable Filter

6.2~45 RT

Features

General Description

The ACPRC Series with new features is suitable for hotel, office, hospital, school, factory and supermarket applications. The low noise and compact series are completely leak tested, evacuated, dehydrated and charged with refrigerant prior to shipment. The units are rated in accordance with AHRI standards 340/360.

Products Line-Up

Nominal Ton	6.2	7.5	8.5	10	12.5	15	17.5	20	25	30	35	40	45
	●	●	●	●	●	●	●	●	●	●	●	●	●

1. * Nominal ton only for reference;
2. Cooling or heating capacity as per specifications.

Wide Capacity Range

Wide cooling capacity range from 6.2 to 45 tons.
Heat pump and cooling only products are available.

6.5 - 45 Tons

Cooling Only

Wide Operation Range

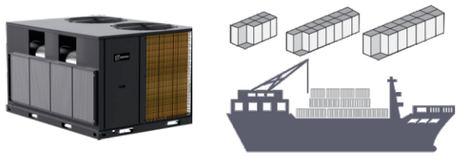
ACPRC series HP operate from 16℃ to 52℃ in cooling mode.

Cooling Mode

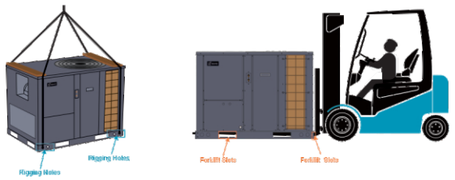
Standard Cooling only model operate from 16℃ to 52℃, low ambient kit can be added to make the unit operate from -15℃ to 52℃.

Compact Structure & Easy Transitting

Unit with compact structure design for better loading



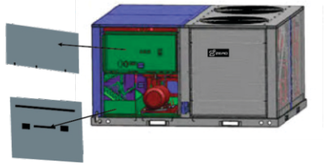
The base frame of the unit is designed with forklift slots and rigging holes for easier transportation and installation.



Easy installation

Convenient For Wires Connection

Removable access door on the electric box. It is easy to move the cover of the electric box. Only connect the wires of power supply, and no need to connect any signal wires.

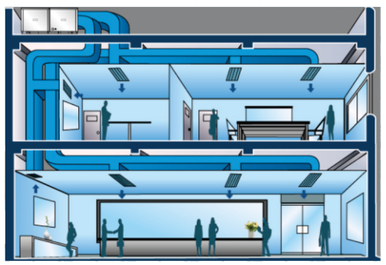


Easily Connect The Drainage Pipe

Reserved external drainage port, quickly and accurately connect the rubber drainage pipe.

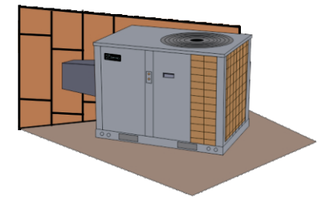
High ESP Design

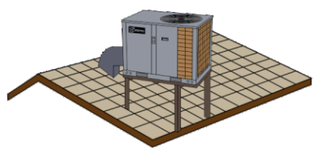
The external static pressure (ESP) range is from 80Pa~430Pa, which ensures the longer delivery distance for the air and provide the powerful cooling.



Design flexibility

Vertical side-discharge structure design.
Flanges of air flow inlet and outlet as standard.
It is suitable for installation on rooftop and ground.





Easy Maintenance

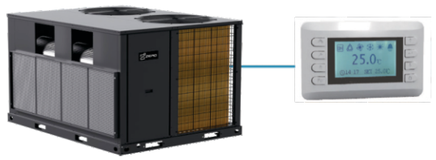
The unit provides external pressure ga
ports for convenient and fast checki
system pressure without removing the pan
(Only for 7.5Ton-15Ton)

Easy Access Doors Design

Removable the access doors on the filter, fan motor, and electricbox sections. Provide convenient access to system components for mainenance and service.

Controllers

Factory mounted thermostat as standard, can be unit mounted or remoted controlled(within 30M as standard , consult AEROCOIL Eng. Team if longer distance is required. Other brand thermostat can be matched as optional solution.
Centralized control function can be achieved through the centralized controller as optional.



Optional Accessories With Varoius Customized Design

- •Evaporator & Condenser Coil Corrosion Protection
- •Stainless Steel Drain Pan
- •Stainless Steel Fasteners
- •Hot Water Heating Coil (MODEL 17.5Ton & Above)
- •Pressure Gauges (MODEL 17.5Ton & Above)
- •Replaceable Core Filter Drier
- •Liquid Line Solenoid Valve (LLSV)
- •Dirty Filter Relay & Indicating Light
- •Closed Cell Elastomer Insulation (Model 17.5Ton & Above)
- •Double Skin Panel For Evaporator (Model 17.5Ton & Above)
- •C-Channel Structural Steel Base
- •Comperssor Soft Starter
- •Star-Delta Starter for Evaporator Fan Motor
- •VFD for Evaporator Fan Motor
- •Main Incoming Isolator with Door Interlock
- •Main Power Supply Monitoring Module (Safety)
- •Voltmeter and Ammeter with Phase Selector Switch
- •Indicating Lights
- •Lock Out Stop
- •24VAC Fire Interlock Relay with Transformer (Detector)
- •Service Valve
- •Hot Gas Bypass
- •24Vac Control Transformer (Step Down)
- •Start/Stop Button for Evaporator Blower Fan
- •Electric Heater and Starter
- •Low Ambient Kit
- •Crankcase Heater
- •Economizer
- •10% or 30% Fresh Air Intake
- •EC Evaporator Blower
- •EC Condenser Axial Fan
- •BMS Communication
- •VFD for Condenser Fan
- •CO_2 Sensor
- •PLC Controller
- •Touch Screen controller

Nomenclature

AC P R V 22 HP D X T Q

- **AC** — AEROCOIL Brand
- **P** — Package Unit
- **R V** — *(Type)
  - **R** - Air Cooled Rooftop Unit
  - C - Air Cooled Condensing Unit
  - WH - Water Cooled Horizontal Type
  - WL - Water Cooled Vertical Type
- **22** — *(Genaration)
  - C - Constant Speed Compressor
  - **V** - Inverter Compressor
- **HP** — *(Cooling Capacity KW)
- **D** — *(C/HP)
  - Blank - Cooling Only
  - HP - Heat Pump
- **X** — HZ
  - **X** - 50Hz
  - Y - 60Hz
  - Z - 50Hz&60Hz
- **T** — Climate Type
  - Blank-T1
  - T-Tropical T3
- **Q** — Special Design

Power Supply
B - 220V/1P
C - 208-230V/3P
D - 380-415V/3P
E - 460V/3P

Refrigerant Type
Blank - R410a
F - R32

380~415V,3PH,50Hz INVERTER HEAT PUMP

		(Ton)	6.2	7.5	8.5	10	12.5	15	17.5
AEROCOIL MODEL			ACPRV22HPDXT	ACPRV26HPDXT	ACPRV30HPDXT	ACPRV35HPDXT	ACPRV43HPDXT	ACPRV53HPDXT	ACPRV61HPDXT
Power Supply		V,Ph,Hz	380~415V,3Ph,50Hz	380~415V,3Ph,50Hz	380~415V,3Ph,50Hz	380~415V,3Ph,50Hz	380~415V,3Ph,50Hz	380~415V,3Ph,50Hz	380~415V,3Ph,50Hz
Cooling 1	Cooling Capacity	Btu/h	75000	89000	103000	120000	150000	180000	208000
		kW	22	26	30	35	43	53	61
	Power Input	kW	6.8	8.4	9.8	11.8	14.8	17.8	21
	EER 1	Btu/h/W	11.0	10.6	10.5	10.2	10.1	10.1	9.9
Cooling 2	Cooling Capacity	Btu/h	61500	71000	84000	98400	125000	155000	170000
		kW	18	21	25	29	36	45	51
	Power Input	kW	7.6	8.8	10.5	12.5	15.7	19.2	21.5
	EER 2	Btu/h/W	8.1	8.1	8.0	7.9	8.0	8.1	7.9
Heating	Heating Capacity	Btu/h	76400	91400	109100	124900	156000	187000	209800
		kW	22.4	26.8	32	36.6	45.7	54.8	61.5
	Power Input	kW	6.6	7.6	9.7	11.1	14.3	17	19.5
	COP	Btu/h/W	11.6	12.0	11.2	11.3	10.9	11.0	10.8
Max. input consumption		kW	9.2	10.8	13.3	16	20	24.1	28.4
Max. current		A	18.2	21.5	26.4	31.2	39	47	55.4
Performance	Indoor fan air flow	CFM	2800	2800	3500	3500	5497	5497	7647
	ESP	Pa	80	80	110	110	130	130	200
Indoor fan	Type		Centrifugal Fan	Centrifugal Fan	Centrifugal Fan	Centrifugal Fan	Centrifugal Fan	Centrifugal Fan	Centrifugal Fan
Compressor	Type		Inverter	Inverter	Inverter	Inverter	Inverter	Inverter	Inverter
	Quantity		1	1	1	1	1	1	2
Outdoor Fan	Type		Propeller	Propeller	Propeller	Propeller	Propeller	Propeller	Propeller
Refrigerant	Type		R410A	R410A	R410A	R410A	R410A	R410A	R410A
	Refrigerant volume	kg	4.3	4.8	5.5	6.7	7.6	9.2	5.5+5.5
	Refrigerant Control		Electronic expansion valv	Electronic expansion valv	Electronic expansion valv	Electronic expansion valv	Electronic expansion valv	Electronic expansion valv	Electronic expansion valv
Sound pressure level		dB(A)	71.5	71.5	71.2	71.5	71.8	76.9	76
Ambient temperature	Cooling		16° C-52° C	16° C-52° C	16° C-52° C	16° C-52° C	16° C-52° C	16° C-52° C	16° C-52° C
	Heating		-10° C-24° C	-10° C-24° C	-10° C-24° C	-10° C-24° C	-10° C-24° C	-10° C-24° C	-10° C-24° C
Net Weight		kg	300	310	440	450	520	540	800
Gross Weight		kg	305	315	450	460	540	560	830
Net Dimension	WxHxD	mm	1475x840x1130	1475x840x1130	1475x1260x1130	1475x1260x1130	1965x1260x1130	1965x1260x1130	2200x1260x1670
Packing	WxHxD	mm	1495x850x1150	1495x850x1150	1495x1270x1150	1495x1270x1150	1985x1270x1150	1985x1270x1150	2220x1270x1690
Shipping	Qty'Per 20'/40'/40'HQ		12/24/48	12/24/48	7/16/32	7/16/32	6/12/24	6/12/24	3/7/14

		(Ton)	20	25	30	35	40	45
AEROCOIL MODEL			ACPRV70HPDXT	ACPRV87HPDXT	ACPRV105HPDXT	ACPRV122HPDXT	ACPRV140HPDXT	ACPRV156HPDXT
Power Supply		V,Ph,Hz	380~415V,3Ph,50Hz	380~415V,3Ph,50Hz	380~415V,3Ph,50Hz	380~415V,3Ph,50Hz	380~415V,3Ph,50Hz	380~415V,3Ph,50Hz
Cooling 1	Cooling Capacity	Btu/h	240000	300000	360000	416000	478000	532000
		kW	70	87	105	122	140	156
	Power Input	kW	23.1	32.7	38.7	43.6	48	51.8
	EER 1	Btu/h/W	10.4	9.2	9.3	9.5	10.0	10.3
Cooling 2	Cooling Capacity	Btu/h	200000	252000	305000	359000	427000	455000
		kW	59	74	92	105	125	133
	Power Input	kW	25	33.8	40.2	46.2	53.8	55
	EER 2	Btu/h/W	8.0	7.5	7.6	7.8	7.9	8.3
Heating	Heating Capacity	Btu/h	248400	311800	374000	420000	497000	553000
		kW	72.8	91.4	109.6	123	145.6	162
	Power Input	kW	22.3	31.7	37.6	41.2	46.4	50
	COP	Btu/h/W	11.1	9.8	9.9	10.2	10.7	11.1
Max. input consumption		kW	31.2	44.2	52.3	58.9	64.8	73.8
Max. current		A	60.9	86.2	102	115.4	127.6	142.6
Performance	Indoor fan air flow	CFM	7647	11176	11176	13000	16600	16600
	ESP	Pa	200	320	320	370	430	430
Indoor fan	Type		Centrifugal Fan	Centrifugal Fan	Centrifugal Fan	Centrifugal Fan	Centrifugal Fan	Centrifugal Fan
Compressor	Type		Inverter	Inverter	Inverter	Inverter	Inverter	Inverter
	Quantity		2	2	2	2	2	2
Outdoor Fan	Type		Propeller	Propeller	Propeller	Propeller	Propeller	Propeller
Refrigerant	Type		R410A	R410A	R410A	R410A	R410A	R410A
	Refrigerant volume	kg	6.7+6.7	7.6+7.6	9.2+9.2	10.6+10.6	12.5+12.5	12.5+12.5
	Refrigerant Control		Electronic expansion valv	Electronic expansion valv	Electronic expansion valv	Electronic expansion valv	Electronic expansion valv	Electronic expansion valv
Sound pressure level		dB(A)	75.3	76.8	77.9	79.6	81.2	81.2
Ambient temperature	Cooling		16° C-52° C	16° C-52° C	16° C-52° C	16° C-52° C	16° C-52° C	16° C-52° C
	Heating		-10° C-24° C	-10° C-24° C	-10° C-24° C	-10° C-24° C	-10° C-24° C	-10° C-24° C
Net Weight		kg	830	980	1050	1310	1380	1380
Gross Weight		kg	860	1010	1080	1340	1410	1410
Net Dimension	WxHxD	mm	2200x1260x1670	2200x1260x2320	2200x1260x2320	2200x1260x3890	2200x1260x3890	2200x1260x3890
Packing	WxHxD	mm	2220x1270x1690	2220x1270x2340	2220x1270x2340	2220x1280x3910	2220x1280x3910	2220x1280x3910
Shipping	Qty'Per 20'/40'/40'HQ		3/7/14	2/5/10	2/5/10	1/3/6	1/3/6	1/3/6

1. Cooling capacity test condition (1): Outdoor ambient temperature: 35° C, indoor temperature 26.7° CDB/19.4° C WB;
   Cooling capacity test condition (2): Outdoor ambient temperature: 46° C, indoor temperature: 26.7° CDB, 19.4° CWB;
2. Units are suitable for operation to ± 20% of nominal CFM;
3. Sound values are measured in a semi-anechoic room, at a positon 1 meter in front ofthe unit and (1 meter+Height of unit)/2 above the floor.
4. Specifications are subject to change without prior notice for product improvement.
5. * Nominal ton only for reference.
6. Cooling or heating capacity as per specifications.

380~415V,3PH,50Hz INVERTER COOLING ONLY

		(Ton)	6.2	7.5	8.5	10	12.5	15	17.5
AEROCOIL MODEL			ACPRV22DXT	ACPRV26DXT	ACPRV30DXT	ACPRV35DXT	ACPRV43DXT	ACPRV53DXT	ACPRV61DXT
Power Supply		V,Ph,Hz	380~415V,3Ph,50Hz	380~415V,3Ph,50Hz	380~415V,3Ph,50Hz	380~415V,3Ph,50Hz	380~415V,3Ph,50Hz	380~415V,3Ph,50Hz	380~415V,3Ph,50Hz
Cooling 1	Cooling Capacity	Btu/h	75000	89000	103000	120000	150000	180000	208000
		kW	22	26	30	35	43	53	61
	Power Input	kW	6.8	8.4	9.8	11.8	14.8	17.8	21
	EER 1	Btu/h/W	11.0	10.6	10.5	10.2	10.1	10.1	9.9
Cooling 2	Cooling Capacity	Btu/h	61500	71000	84000	98400	125000	155000	170000
		kW	18	21	25	29	36	45	51
	Power Input	kW	7.6	8.8	10.5	12.5	15.7	19.2	21.5
	EER 2	Btu/h/W	8.1	8.1	8.0	7.9	8.0	8.1	7.9
Max. input consumption		kW	9.2	10.8	13.3	16	20	24.1	28.4
Max. current		A	18.2	21.5	26.4	31.2	39	47	55.4
Performance	Indoor fan air flow	CFM	2800	2800	3500	3500	5497	5497	7647
	ESP	Pa	80	80	110	110	130	130	200
Indoor fan	Type		Centrifugal Fan	Centrifugal Fan	Centrifugal Fan	Centrifugal Fan	Centrifugal Fan	Centrifugal Fan	Centrifugal Fan
Compressor	Type		Inverter	Inverter	Inverter	Inverter	Inverter	Inverter	Inverter
	Quantity		1	1	1	1	1	1	2
Outdoor Fan	Type		Propeller	Propeller	Propeller	Propeller	Propeller	Propeller	Propeller
Refrigerant	Type		R410A	R410A	R410A	R410A	R410A	R410A	R410A
	Refrigerant volume	kg	4.3	4.8	5.5	6.7	7.6	9.2	5.5+5.5
	Refrigerant Control		Electronic expansion valve	Electronic expansion valve	Electronic expansion valve	Electronic expansion valve	Electronic expansion valve	Electronic expansion valve	Electronic expansion valve
Sound pressure level		dB(A)	71.5	71.5	71.2	71.5	71.8	76.9	76
Ambient temperature	Cooling		16℃ -52℃	16℃ -52℃	16℃ -52℃	16℃ -52℃	16℃ -52℃	16℃ C-52° C	16° C-52° C
	Heating		-10℃ -24℃	-10℃ -24℃	-10℃ -24℃	-10℃ -24℃	-10℃ -24℃	-10° C-24° C	-10° C-24° C
Net Weight		kg	295	305	432	442	510	530	788
Gross Weight		kg	300	310	442	452	530	550	818
Net Dimension	WxHxD	mm	1475x840x1130	1475x840x1130	1475x1260x1130	1475x1260x1130	1985x1260x1130	1985x1280x1130	2200x1260x1670
Packing	WxHxD	mm	1495x850x1150	1495x850x1150	1495x1270x1150	1495x1270x1150	1985x1270x1150	1985x1270x1150	2220x1270x1690
Shipping	Qty'Per 20'/40'/40'HQ		12/24/48	12/24/48	7/16/32	7/16/32	6/12/24	6/12/24	3/7/14

		(Ton)	20	25	30	35	40	45
AEROCOIL MODEL			ACPRV70DXT	ACPRV87DXT	ACPRV105DXT	ACPRV122DXT	ACPRV140DXT	ACPRV156DXT
Power Supply		V,Ph,Hz	380~415V,3Ph,50Hz	380~415V,3Ph,50Hz	380~415V,3Ph,50Hz	380~415V,3Ph,50Hz	380~415V,3Ph,50Hz	380~415V,3Ph,50Hz
Cooling 1	Cooling Capacity	Btu/h	240000	300000	360000	416000	478000	532000
		kW	70	87	105	122	140	156
	Power Input	kW	23.1	32.7	38.7	43.6	48	51.8
	EER 1	Btu/h/W	10.4	9.2	9.3	9.5	10.0	10.3
Cooling 2	Cooling Capacity	Btu/h	200000	252000	305000	359000	427000	455000
		kW	59	74	92	105	125	133
	Power Input	kW	25	33.8	40.2	46.2	53.8	55
	EER 2	Btu/h/W	8.0	7.5	7.6	7.8	7.9	8.3
Max. input consumption		kW	31.2	44.2	52.3	58.9	64.8	73.8
Max. current		A	60.9	86.2	102	115.4	127.6	142.6
Performance	Indoor fan air flow	CFM	7647	11176	11176	13000	16600	16600
	ESP	Pa	200	320	320	370	430	430
Indoor fan	Type		Centrifugal Fan	Centrifugal Fan	Centrifugal Fan	Centrifugal Fan	Centrifugal Fan	Centrifugal Fan
Compressor	Type		Inverter	Inverter	Inverter	Inverter	Inverter	Inverter
	Quantity		2	2	2	2	2	2
Outdoor Fan	Type		Propeller	Propeller	Propeller	Propeller	Propeller	Propeller
Refrigerant	Type		R410A	R410A	R410A	R410A	R410A	R410A
	Refrigerant volume	kg	6.7+6.7	7.6+7.6	9.2+9.2	10.6+10.6	12.5+12.5	12.5+12.5
	Refrigerant Control		Electronic expansion valv	Electronic expansion valv	Electronic expansion valv	Electronic expansion valv	Electronic expansion valv	Electronic expansion valv
Sound pressure level		dB(A)	75.3	76.8	77.9	79.6	81.2	81.2
Ambient temperature	Cooling		16° C-52° C	16° C-52° C	16° C-52° C	16° C-52° C	16° C-52° C	16° C-52° C
	Heating		-10° C-24° C	-10° C-24° C	-10° C-24° C	-10° C-24° C	-10° C-24° C	-10° C-24° C
Net Weight		kg	818	960	1030	1285	1355	1355
Gross Weight		kg	848	990	1060	1315	1385	1385
Net Dimension	WxHxD	mm	2200x1260x1670	2200x1260x2320	2200x1260x2320	2200x1260x3890	2200x1260x3890	2200x1260x3890
Packing	WxHxD	mm	2220x1270x1690	2220x1270x2340	2220x1270x2340	2220x1280x3910	2220x1280x3910	2220x1280x3910
Shipping	Qty'Per 20'/40'/40'HQ		3/7/14	2/5/10	2/5/10	1/3/6	1/3/6	1/3/6

1. Cooling capacity test condition (1): Outdoor ambient temperature: 35° C, indoor temperature 26.7° CDB/19.4° C WB;
   Cooling capacity test condition (2): Outdoor ambient temperature: 46° C, indoor temperature: 26.7° CDB, 19.4° CWB;
2. Units are suitable for operation to ± 20% of nominal CFM;
3. Sound values are measured in a semi-anechoic room, at a positon 1 meter in front ofthe unit and (1 meter+Height of unit)/2 above the floor.
4. Specifications are subject to change without prior notice for product improvement.
5. * Nominal ton only for reference.
6. Cooling or heating capacity as per specifications.