

Warning



- Daikin Industries, Ltd.'s products are manufactured for export to numerous countries throughout the world. Daikin Industries, Ltd. does not have control over which products are exported to and used in a particular country. Prior to purchase, please therefore confirm with your local authorized importer, distributor and/or retailer whether this product conforms to the applicable standards, and is suitable for use, in the region where the product will be used. This statement does not purport to exclude, restrict or modify the application of any local legislation.
- Ask a qualified installer or contractor to install this product. Do not try to install the product yourself. Improper installation can result in water or refrigerant leakage, electrical shock, fire or explosion.
- Use only those parts and accessories supplied or specified by Daikin. Ask a qualified installer or contractor to install those parts and accessories. Use of unauthorized parts and accessories or improper installation of parts and accessories can result in water or refrigerant leakage, electrical shock, fire or explosion.
- Read the User's Manual carefully before using this product. The User's Manual provides important safety instructions and warnings. Be sure to follow these instructions and warnings.

If you have any enquiries, please contact your local importer, distributor and/or retailer.



Water Cooled Packaged Unit

Cooling capacity: 16.5kW-205kW

Refrigerant: R410A



Cautions on product corrosion

1. The units should not be installed in areas where corrosive gases, such as acid gas or alkaline gas, are produced.
2. If the unit is to be installed close to the sea shore, direct exposure to the sea breeze should be avoided. If you need to install the unit close to the sea shore, contact your local distributor.

Dealer

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Product Overview

The water cooled packaged unit adopts the latest air conditioning technology of Daikin and the eco-friendly R410A refrigerant. With low energy consumption, the unit features flexible application, safe and reliable operation and intelligent control, and can be widely used in industrial and commercial scenarios such as plants, shopping malls, office buildings, schools, and exhibition centers.

The unit come in 13 models, with optional air plenum. Electric heater is also available.



Factory



Shopping mall



Office building



School

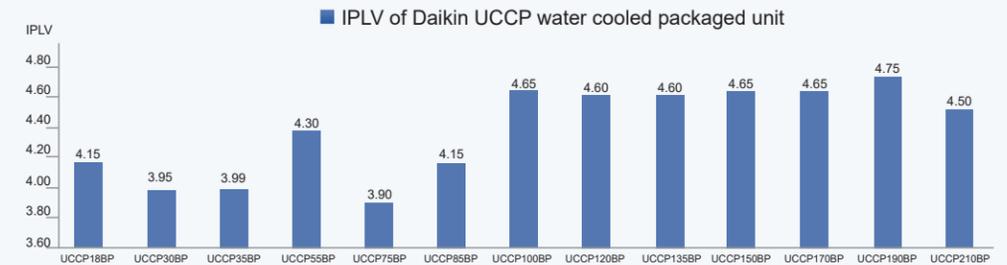
Nomenclature

UCCP	85	B	D	P	-20	-F	AB	E	
									Export
									Description
									Power supply: F: 380-415 V/3N~/50 Hz
									External static pressure: 10: 100Pa, 15: 150Pa. 20 : 200Pa
									R410A refrigerant
									With electric heater (omitted if cooling only)
									Design series
									Capacity
									Water cooled packaged unit

Energy Efficiency

A breakthrough in energy efficiency

The unit adopts high-efficiency scroll compressor and innovative energy-saving technology, and boasts an IPLV of up to 4.75.



Note: Models with the same nominal cooling capacity but different external static pressures may have different IPLV values.

High partial-load efficiency

UCCP30BP and models above use multiple independent refrigeration systems, allowing 11-level energy regulation. The unit can adjust the capacity output by intelligently judging the system's load demand, thus enabling higher partial-load efficiency.



One key energy-saving

The unit has one-key Energy Saving mode. The energy efficiency is improved through increased evaporation temperature, and the operating costs are reduced significantly.

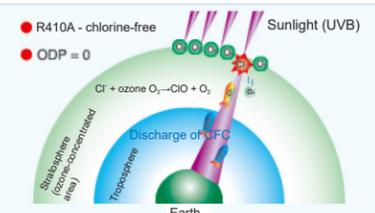


Eco-friendly refrigerant, no harm to ozone layer

The whole series uses eco-friendly R410A, with no damage to the ozone layer. Compared with those equipped with R22, this series boasts improved volume cooling capacity (41% increase), which effectively reduces the refrigerant amount, thereby reducing the refrigerant production and emission.

Refrigerant	R410A	R22
ODP	0	0.05
Volume cooling capacity	141%	100%

Note: ■ By definition, the Ozone Depletion Potential (ODP) for R11 is 1.0.
■ By definition, "Volume cooling capacity" in the table for R22 is 1.0.



Flexible Application

Multiple options

The inlet/outlet pipe connection direction of all models can be easily set to left or right on site (requiring on-site guidance from Daikin professionals).

All models are available with multiple levels of static pressure, while an optional air plenum is available for models UCCP18BP~UCCP75BP in all kinds of application.

Electric heater is optional.



Balanced operation

The unit automatically detects the accumulated running time of each compressor, and gives priority to start the compressor with lesser accumulated running time, so as to balance the compressors and improve the service life of the unit.

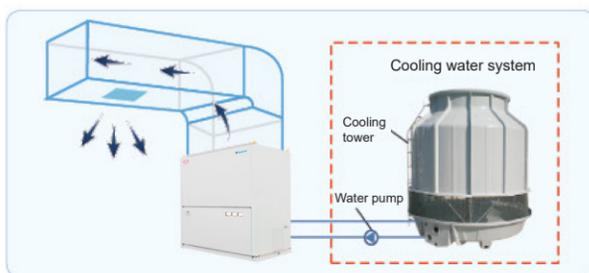


Convenient installation

The unit does not need a dedicated equipment room and can be placed flexibly according to the installation position of the user, thus lowering the initial investment costs for users.

The unit adopts integrated compressor, condenser, evaporator and other refrigeration system components. The installation of refrigerant loop is not required on site, and the unit can start after the cooling tower is connected and power is supplied.

Note: The model with an air plenum does not need to connect the air duct.



Convenient transportation

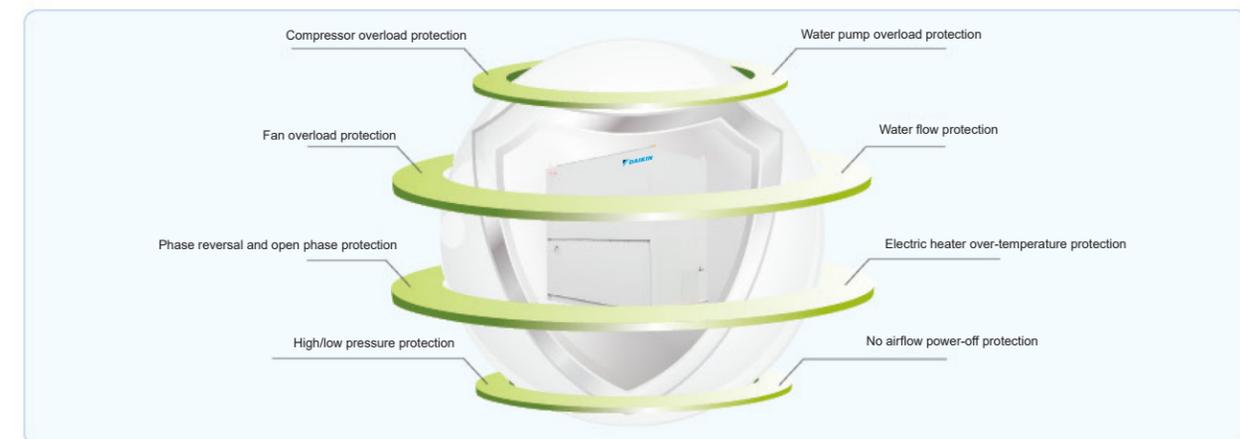
All units are equipped with plywood pallet. And models UCCP85BP~UCCP210BP are equipped with hoisting rings. It is easy to handle whether it is fork lift loading and unloading or hoisting operation at site.



Safe and Reliable

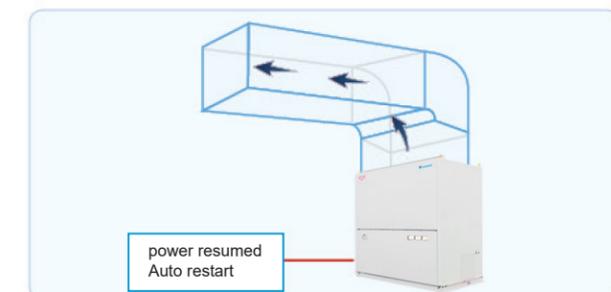
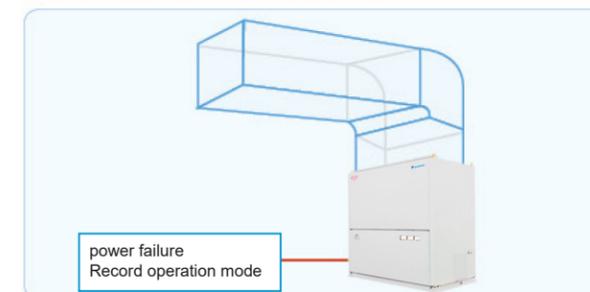
Comprehensive protection

UCCP units have eight protection functions, which can provide comprehensive protection for the unit and system.



Automatic startup after power restoration

When the air conditioning system encounters an unexpected power failure, it automatically records the operation mode before the power failure. After the power is resumed, the system automatically restores to the operation state prior to the power failure.



Corrosion resistance

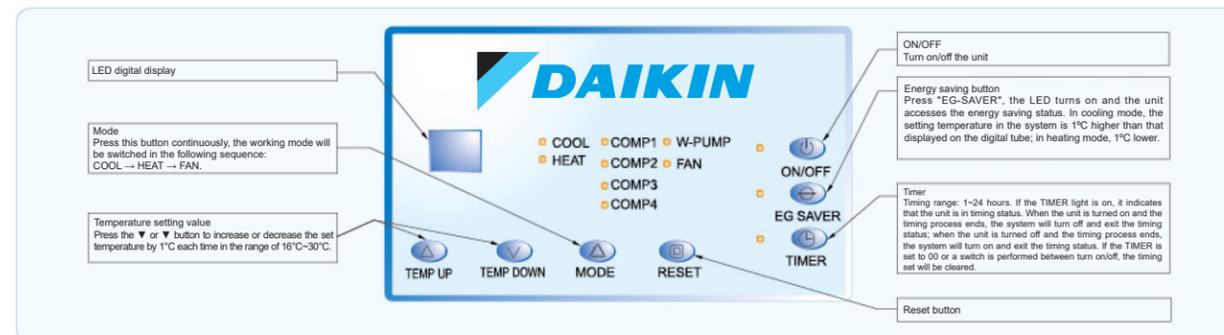
The unit casing adopts special anti-corrosion spray painting treatment. After degreasing, phosphating, spray and high-temperature baking in an automatic painting workshop, both sides of casing covering with polyester powder form a strong corrosion-resistant layer. The strict salt spray test ensures that the unit has strong corrosion resistance and longer service life.



Intelligent Control

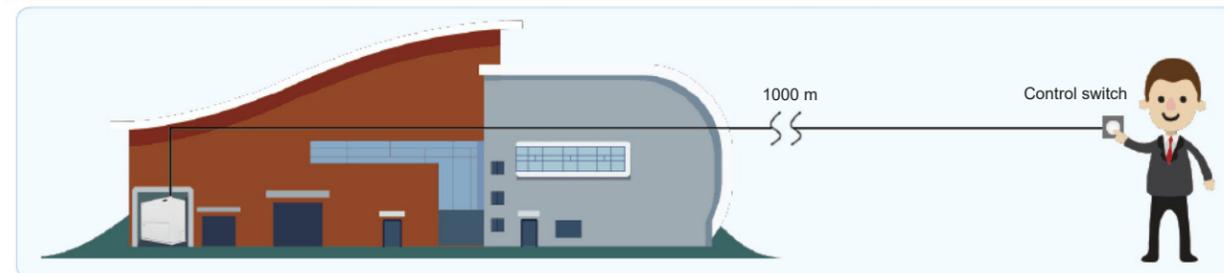
Microcomputer controller

The unit adopts user-friendly microcomputer control technology and is equipped with a controller with rich functions. The intelligent control system of the unit has many functions, such as mode switching, temperature control, energy saving mode, timing on/off, automatic compressor balance, compressor protection, and automatic fault identification. The control system is easy to operate and convenient for man-machine interaction.



Remote control

The unit supports a remote control range of 1000 m.



Free access to BAS

The unit is equipped with the standard RS485 building communication interface and complies with the standard Modbus communication protocol. It can be easily connected to the Building Automation System (BAS) for centralized control, thereby implementing intelligent management easily.



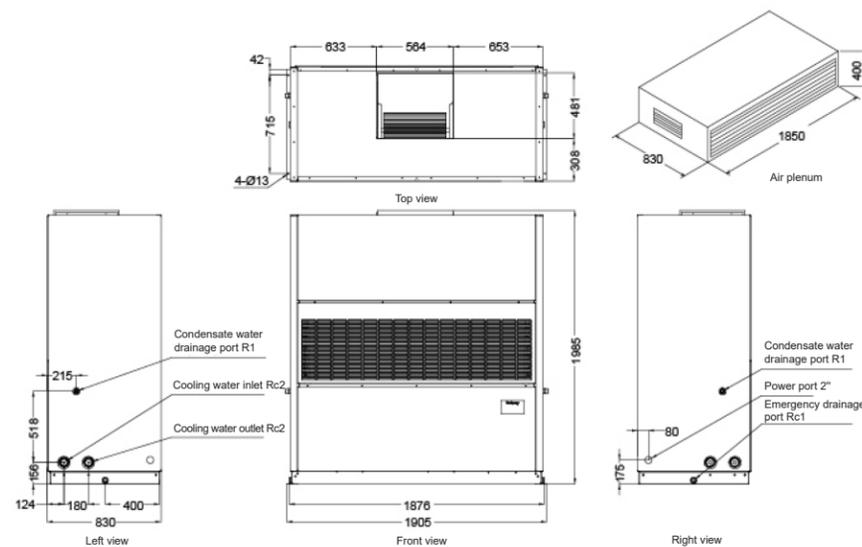
Specifications

Model		UCCP18BP	UCCP30BP	UCCP35BP	UCCP55BP	UCCP75BP	UCCP85BP	
Nominal cooling capacity	W	16500	25000	32000	51000	72500	85000	
Nominal cooling power input	W	4160	7100	9000	13000	20300	22500	
Air flow	m ³ /h	2880	4200	6800	8000	11500	14000	
Standard external static pressure	Pa	80(10)	100(10)	100(10)	150(10)	150(10)	200	
Optional external static pressure	Pa	50/100	50/150	150/200	100/200	200/250	300/400	
Sound pressure level	dB(A)	52	63	65	67	70	72	
Capacity adjust stage	%	100,0	100,50,0	100,50,0	100,67,33,0	100,50,0	100,78,61,39,22,0	
Power supply		380-415 V/3N~/50 Hz						
Refrigerant type		R410A						
Compressor	Type	Fully hermetic scroll type						
	Qty sets	1	2	2	2	2	3	
Condenser	Type	Tube in tube						Shell and tube
	Water flow	m ³ /h	3.55	5.38	6.88	10.97	15.59	18.28
	Water pressure drop	kPa	53	32	60	60	64	25
Evaporator	Type	Finned						
Fan	Throttle mode	Capillary tube						
	Type	Centrifugal low-noise double-air-inlet						
Filter	Drive method	V-belt transmission						
	Dimensions	mm	797x625	877x625	917x795	1277x760	1597x805	527x653
Outline dimension	Qty	PCS	1	1	1	1	1	6
	Length	mm	1175	1175	1175	1585	1905	2000
	Width	mm	660	660	660	730	830	1055
Weight of cooling only unit	Height	mm	1600(1880)	1600(1880)	1880(2150)	1900(2160)	1985(2350)	1985
	kg		205(220)	260(275)	310(325)	440(470)	560(600)	770
Models of cooling only unit with electric heater		UCCP18BDP	UCCP30BDP	UCCP35BDP	UCCP55BDP	UCCP75BDP	UCCP85BDP	
Electrical heating capacity	W	6000	9000	12000	21000	27000	36000	
Heating power input	W	6370(6370)	10100(10100)	13500(14200)	23200(23900)	29200(30000)	40000	
Weight of unit with electric heater	kg	210(225)	270(285)	325(340)	460(490)	585(625)	810	

- Note:
- Test conditions of nominal cooling capacity: Indoor air DB temperature 27°C, WB temperature 19°C, inlet water temperature 30°C, rated water flow.
 - Nominal cooling input power excluding pump power.
 - Multiple static pressure options are available in the same model, and its parameters are consistent with those of the standard units.
 - Numbers in parentheses () are only applicable to models with the air plenum (10Pa static pressure), and some parameters are different from the standard units.
 - Models with the electric heater are equipped with built-in electric heating tube.

Outline Dimension

UCCP75BP

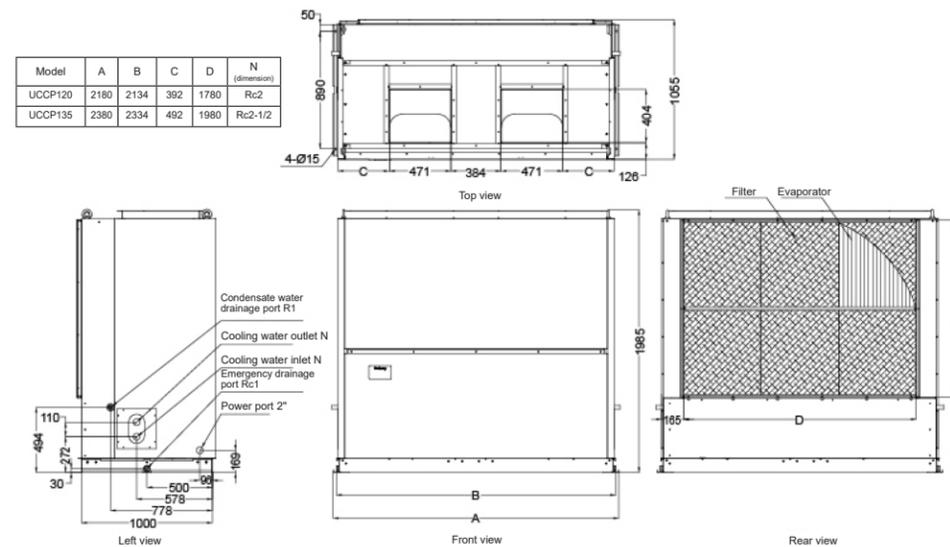


UCCP75BP	
Minimum installation spacing	
Front:	1500
Rear:	900
Left:	900
Right:	900
Unit:	mm

Note: The dimension of model with an electric heater is the same as its corresponding cooling only unit.

Outline Dimension

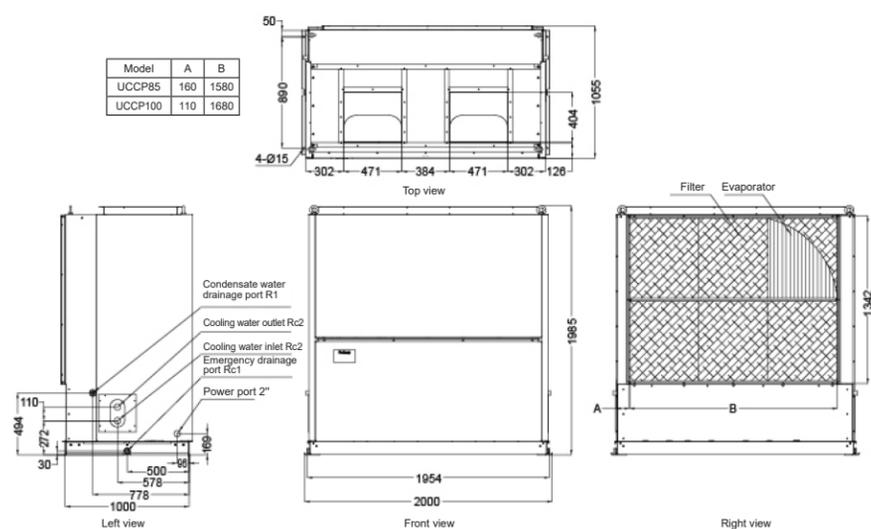
UCCP120BP, UCCP135BP



UCCP120BP, UCCP135BP	
Minimum installation spacing	
Front:	1500
Rear:	900
Left:	900
Right:	900
Unit:	mm

Note: The dimension of model with an electric heater is the same as its corresponding cooling only unit.

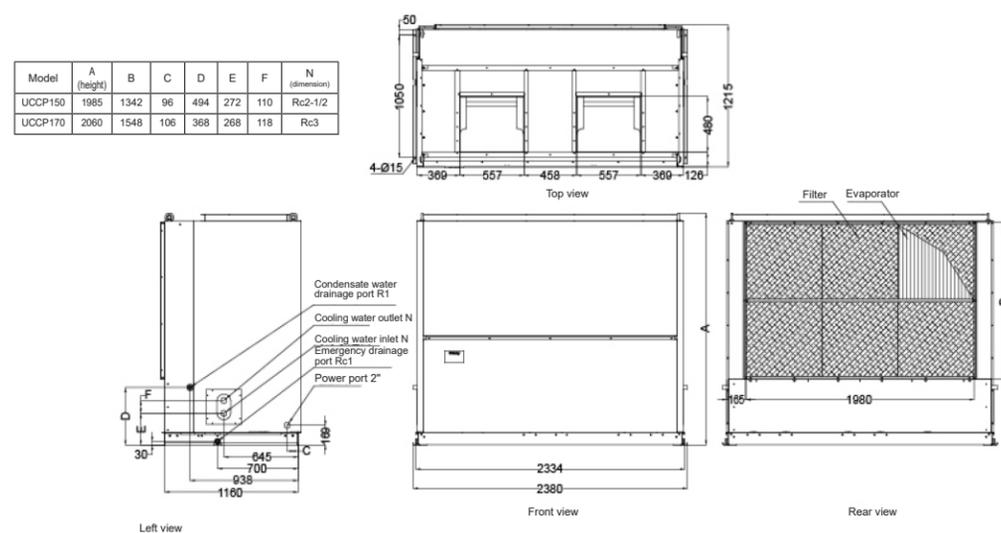
UCCP85BP, UCCP100BP



UCCP85BP, UCCP100BP	
Minimum installation spacing	
Front:	900
Rear:	1500
Left:	900
Right:	900
Unit:	mm

Note: The dimension of model with an electric heater is the same as its corresponding cooling only unit.

UCCP150BP, UCCP170BP

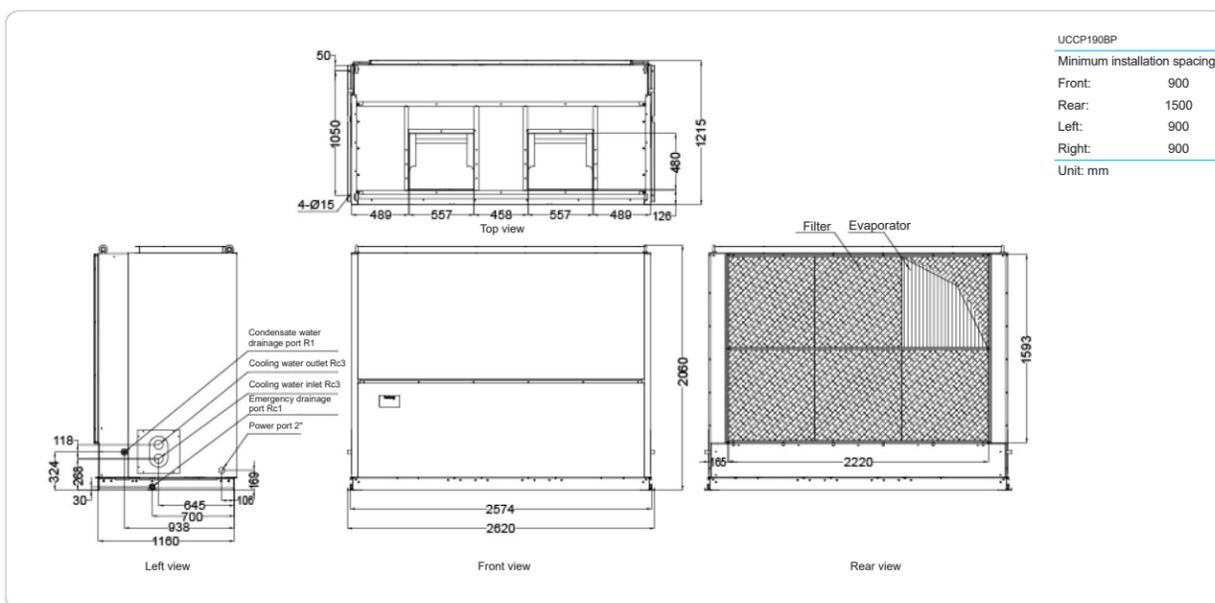


UCCP150BP, UCCP170BP	
Minimum installation spacing	
Front:	900
Rear:	1500
Left:	900
Right:	900
Unit:	mm

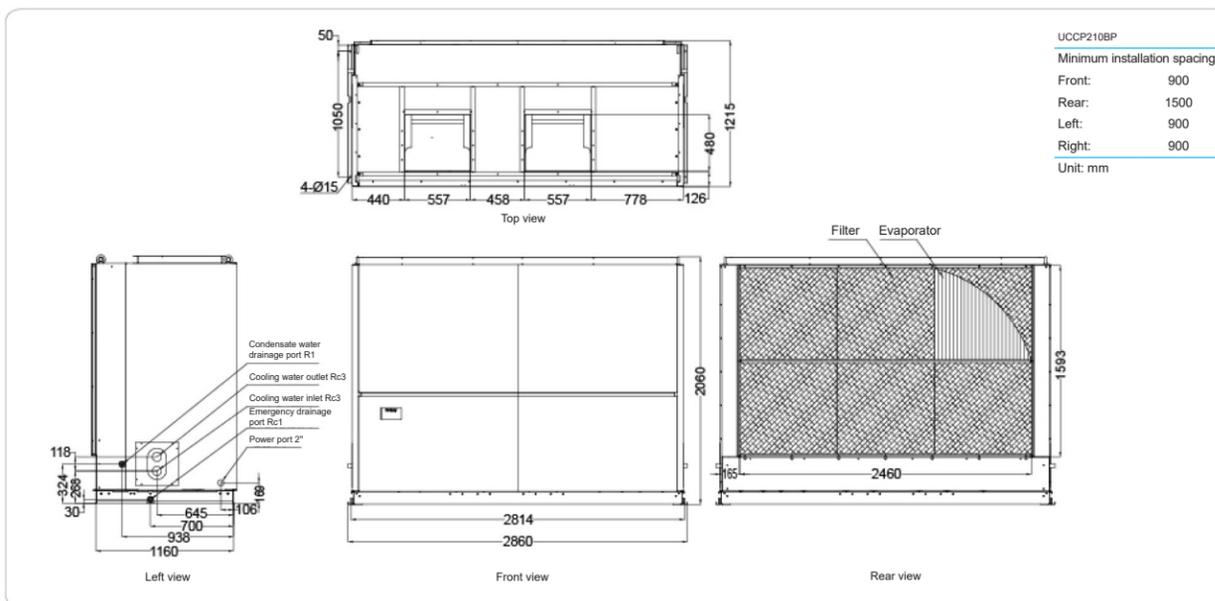
Note: The dimension of model with an electric heater is the same as its corresponding cooling only unit.

Outline Dimension

UCCP190BP

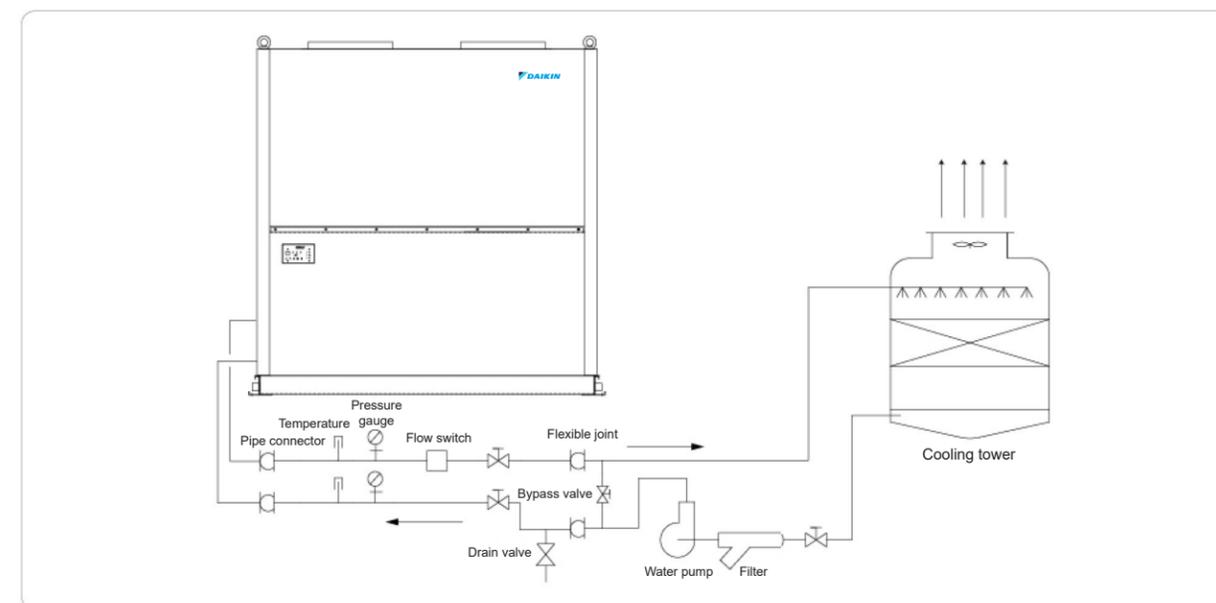


UCCP210BP

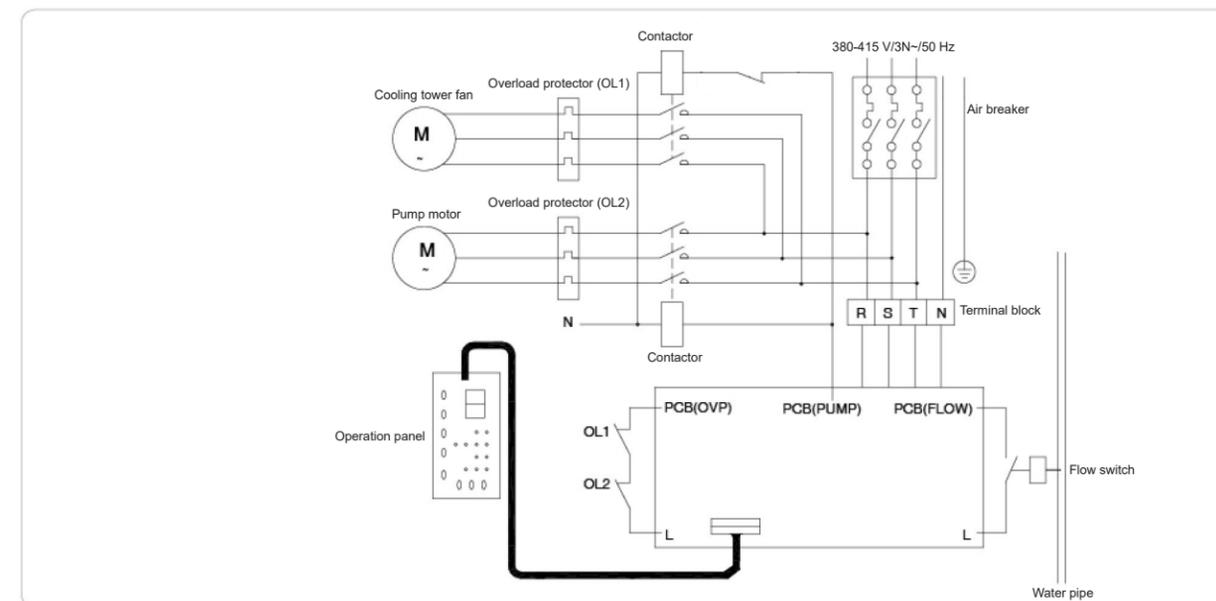


Installation

System Installation Connection



System Electrical Wiring



Installation position requirements

- Do not install the unit in outdoor open environment.
- Do not install the unit in a wet, corrosive environment and places with explosive gas.
- The unit must be installed on a level concrete base.
- Drainage, ventilation and maintenance spacing shall be considered during installation. Please refer to the external dimension drawing of the unit for the minimum installation spacing.
- During installation, a damping rubber cushion shall be placed between the concrete base and the unit to avoid vibration and noise.
- Install the unit in the area least sensitive to noise, such as a place near the staircase, elevator, toilet, etc. A better way is to use partitions between the unit and the air-conditioned room and seal the doors and windows.

Water pipe connection requirements

- All piping systems shall be installed in accordance with local regulations. Bends and up/down displacements must be minimized.
- To ensure a constant condensing pressure and condensing temperature, a three-way water flow control valve may be used to regulate the water flow of the condenser. The valve shall be set to maintain the minimum inlet water temperature at 16°C.
- To prevent low water temperatures, a temperature switch (the recommended set value is 27°C) can be installed to control the start and stop of the cooling tower fan to ensure that the water temperature is closer to the normal temperature.
- The condensate drain pipe is connected through the evaporator drain pan (the unit chassis is provided with a drain pan for emergency drainage only).
- In order to prevent the outside air from entering the evaporator and enhance the discharge of condensate water, a small segment of roundabout (U-bend) can be set at any position 51 mm below the drain pipe.
- Heat insulation layer must be applied to drain pipes to avoid condense water dripping.

Air duct connection

For the standard models of UCCP unit, the air outlet is provided with flanged outlets to facilitate the connection of air supply duct. It is advised to adopt an air outlet duct with the same size as the air outlet, and maintain a length at least three times the wind wheel diameter before this air outlet duct is connected to the bending duct or transition duct.

Minimum length:

Model	Impeller diameter (mm)	Minimum length (mm)
UCCP18BP	225	675
UCCP30BP	250	750
UCCP35BP	300	900
UCCP55BP	380	1140
UCCP75BP	460	1380
UCCP85/100/120/135BP	380	1140
UCCP150/170/190/210BP	460	1380

- Note:
- The model with air plenum cannot be connected to the air duct for air supply, otherwise the machine may be damaged due to insufficient air flow.
 - The model with an electric heater is the same as its corresponding cooling only unit.
 - The unit adopts the "free return air" design. The equipment room serves as the return air room. If the air is returned from the duct to the unit, there must be a flexible connection duct.
 - The air duct shall be insulated, and the insulating layer shall be provided with moisture-proof layer to prevent external vapor.

Electric Parameters

Operating limit

The UCCP unit is connected to single power supply and no additional control power source is required. The power supply of the unit uses 380-415 V/3N~/50 Hz and the control power source uses 220-240 V~/50 Hz.

Power supply		Condenser inlet water	Evaporator inlet air	
Compressor	Fan	Temperature range (°C)	DB temperature (°C)	WB temperature (°C)
380-415 V/3N~/50 Hz	380-415 V/3N~/50 Hz	16~40	16~32	13~24

Electrical parameters

Model		UCCP18BP	UCCP30BP	UCCP35BP	UCCP55BP	UCCP75BP	UCCP85BP	
Power supply		380-415 V/3N~/50 Hz						
Power cord	Main line (R/S/T)	Sectional area (mm ²)	4	6	6	10	16	16
		Quantity	3					
	Null line	Sectional area (mm ²)	4	6	6	10	16	16
		Quantity	1					
	Ground Line	Sectional area (mm ²)	4	6	6	10	16	16
		Quantity	1					

Model		UCCP100BP	UCCP120BP	UCCP135BP	UCCP150BP	UCCP170BP	UCCP190BP	UCCP210BP	
Power supply		380-415 V/3N~/50 Hz							
Power cord	Main line (R/S/T)	Sectional area (mm ²)	16	25	35	50	50	50	50
		Quantity	3						
	Null line	Sectional area (mm ²)	16	16	25	35	35	35	35
		Quantity	1						
	Ground Line	Sectional area (mm ²)	16	16	16	25	25	25	25
		Quantity	1						

Model		UCCP18BDP	UCCP30BDP	UCCP35BDP	UCCP55BDP	UCCP75BDP	UCCP85BDP	
Power supply		380-415 V/3N~/50 Hz						
Power cord	Main line (R/S/T)	Sectional area (mm ²)	4	6	6	10	16	16
		Quantity	3					
	Null line	Sectional area (mm ²)	4	6	6	10	16	16
		Quantity	1					
	Ground Line	Sectional area (mm ²)	4	6	6	10	16	16
		Quantity	1					

Model		UCCP100BDP	UCCP120BDP	UCCP135BDP	UCCP150BDP	UCCP170BDP	
Power supply		380-415 V/3N~/50 Hz					
Power cord	Main line (R/S/T)	Sectional area (mm ²)	25	35	35	50	50
		Quantity	3				
	Null line	Sectional area (mm ²)	16	25	25	35	35
		Quantity	1				
	Ground Line	Sectional area (mm ²)	16	16	16	25	25
		Quantity	1				