

Water Cooled Packaged Unit

- Cooling only: UCCP35AE~205AE
Cooling Capacity: 32KW~199KW
- Cooling and Heating: UCCP35ADE~165ADE
Cooling Capacity: 32KW~154KW
Heating Capacity: 12KW~60KW



DAIKIN INDUSTRIES, LTD.



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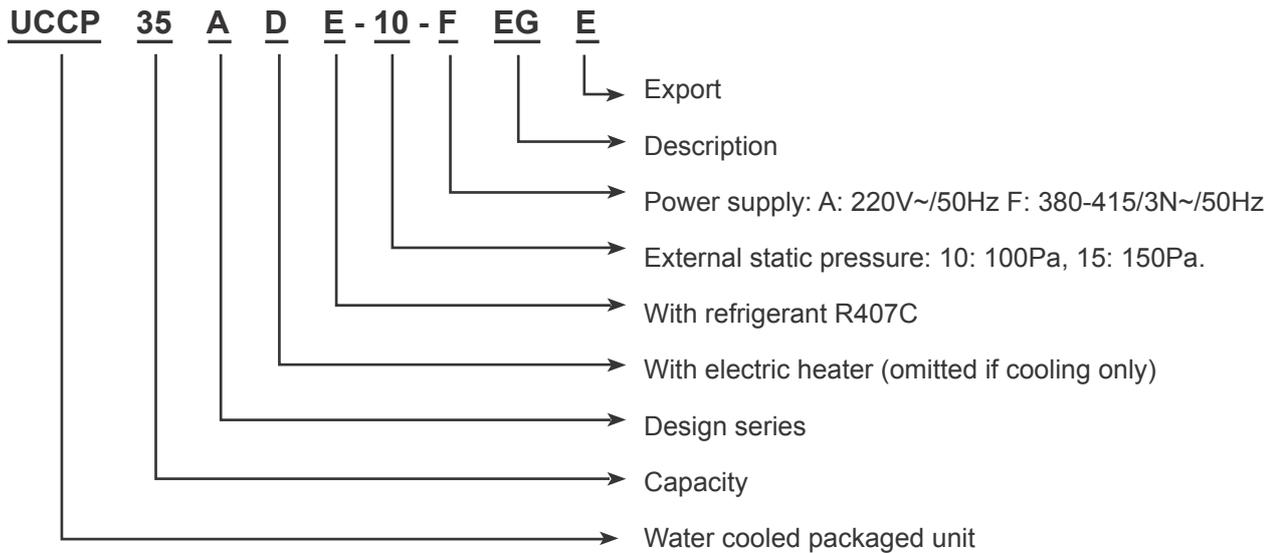
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Note: Installation and maintenance are to be performed only by qualified personnel who are familiar with local codes and regulations, and experienced with this type of equipment.

Caution: Sharp edges and coil surfaces are a potential injury hazard. Avoid contact with them.

Warning: Moving machinery and electrical power hazard may cause severe personal injury or death. Disconnect and lock off power before servicing equipment.

Nomenclature



Features

The DAIKIN "SCROLL" UCCP water-cooled packaged units are designed for duct type air-conditioning system in commercial and industrial application. The UCCP water-cooled packaged unit has single or multiple hermetic compressors with independent refrigerant circuits. Each refrigerant circuit consists of a high efficiency condenser, a sealed strainer and capillary tubes. Every DAIKIN UCCP unit has been leak tested, evacuated and fully charged with refrigerant R407C at the factory.

High Efficiency Hermetic Scroll Compressor

- Quiet operation.
- Excellent reliability with 70% fewer moving parts than comparably sized reciprocating compressors.
- Greater capability at handling liquid and debris in the system.
- High efficiency performance.

Enhanced Copper Tubes Condenser

Extra-high efficiency is attained by special designed shell-and-tube condenser with "T" groove copper tube surfaces for superior refrigerant-water heat transfer.

Anti-Corrosion Unit Casing

Unit casing is constructed of electro-galvanized steel sheet. Casing surface is finished with epoxy polyester powder coating. Therefore, units are suitable for both commercial and industrial application.

Whisper- Quiet Operation

Each unit is divided into separate compartments such that compressor noise is kept away from the supply air stream.

Internal insulation of 1/2 inch thick fiber glass and double blowers design further reduce noise level.

Quality Assurance

Each unit is leak-tested, evacuated, fully charged with refrigerant and run tested in DAIKIN's ISO9001 certified factory.

Specifications

General Data

MODEL		UCCP35AE/ADE	UCCP55AE/ADE	UCCP70AE/ADE	UCCP75AE/ADE	
NOMINAL COOLING CAPACITY	kW	32	46.5	64	73.5	
RATED TOTAL POWER INPUT	kW	7.8 (7.8)/13.5 (13.5)	13.1 (12.3)/23.2 (23.2)	16.2 (15.2)/30.0 (29.2)	18.1/39.0	
RATED ELECTRIC HEATING CAPACITY	kW	12	21	27	36	
POWER SUPPLY		380-415/3N~/50Hz				
REFRIGERANT TYPE		R407C				
REFRIGERANT OIL TYPE		POE				
AIR FLOW	m ³ /h	5900	8100	10800	13600	
STANDARD ESP	Pa	100 (0)	150 (0)	150 (0)	200	
SOUND PRESSURE LEVEL	dB(A)	65	67	70	72	
UNIT DIMENSION	LENGTH	mm/in	1278/50	1722/68	1922/76	2000/79
	WIDTH	mm/in	677/27	736/29	836/33	1060/42
	HEIGHT	mm/in	1902/75 (2172/86)	1921/76 (2195/86)	2035/80 (2404/95)	1961/77
PACKING DIMENSION	LENGTH	mm/in	1320/52	1790/70	1990/78	2040/80
	WIDTH	mm/in	720/28	780/31	895/35	1110/44
	HEIGHT	mm/in	2090/82 (2410/95)	2100/83 (2410/95)	2230/88 (2530/100)	2150/85
UNIT NET WEIGHT	kg/lb	280/617 (300/660) 293/646 (313/690)	455/1003 (485/1067) 473/1043 (503/1109)	610/1344 (650/1433) 632/1393 (672/1481)	720/1587 760/1675	
CONDENSATE DRAIN SIZE	mm/in	25.4/1	25.4/1	25.4/1	25.4/1	
WATER PIPE CONNECTION	TYPE		FEMALE THREAD			
	SIZE	mm/in	31.75/1.25	50.80/2.00	50.80/2.00	50.80/2.00
REFRIGERANT CHARGE	kg/lb	2.9/6.39	3.1+1.45/6.83+3.2	3.7+3.9/8.16+8.6	4.0×2/8.8×2	
REFRIGERANT OIL CHARGE	L	3.253	3.253+1.685	3.253×2	3.253×2	

NOTES:

1. ALL SPECIFICATIONS ARE SUBJECTED TO CHANGE BY THE MANUFACTURER WITHOUT PRIOR NOTICE.
2. NOMINAL COOLING AND HEATING CAPACITY ARE BASED ON THE CONDITIONS BELOW: COOLING 27°CDB/19°CWB INDOOR AND ENTER COOLING WATER TEMPERATURE 30°C, RATED WATER FLOW.
3. SOUND PRESSURE LEVEL TEST METHOD: POSITION OF THE MEASUREMENT POINT IS 1m IN FRONT AND 1m BELOW THE UNIT.
4. THE NUMBERS IN THE PARENTHESES ARE APPLICABLE FOR THE UNITS WITH PLENUM.

General Data

MODEL		UCCP85AE/ADE	UCCP100AE/ADE	UCCP115AE/ADE	UCCP125AE/ADE	
NOMINAL COOLING CAPACITY	kW	82	95	110	118	
RATED TOTAL POWER INPUT	kW	20/40	25.4/46	29.2/53.5	30/55.5	
RATED ELECTRIC HEATING CAPACITY	kW	36	42	48	48	
POWER SUPPLY		380-415/3N~/50Hz				
REFRIGERANT TYPE		R407C				
REFRIGERANT OIL TYPE		POE				
AIR FLOW	m ³ /h	14500	17000	19800	22000	
STANDARD ESP	Pa	200	250	250	250	
SOUND PRESSURE LEVEL	dB(A)	72	74	75	75	
UNIT DIMENSION	LENGTH	mm/in	2000/79	2000/79	2220/87	2220/87
	WIDTH	mm/in	1060/42	1060/42	1243/49	1243/49
	HEIGHT	mm/in	1989/78	1989/78	2068/81	2068/81
PACKING DIMENSION	LENGTH	mm/in	2040/80	2040/80	2250/89	2250/89
	WIDTH	mm/in	1110/44	1110/44	1290/51	1290/51
	HEIGHT	mm/in	2150/85	2150/85	2240/88	2150/86
UNIT NET WEIGHT	kg/lb	800/1763 840/1852	930/2050 960/2116	1010/2226 1060/2337	1030/2270 1080/2381	
CONDENSATE DRAIN SIZE	mm/in	25.4/1	25.4/1	25.4/1	25.4/1	
WATER PIPE CONNECTION	TYPE	FEMALE THREAD				
	SIZE	mm/in	50.80/2.00	63.50/2.50	63.50/2.50	63.50/2.50
REFRIGERANT CHARGE	kg/lb	4.2×2/9.2×2	7.3×2+2.7/16×2+5.4	4.7×3/10.3×3	4.8×3/10.6×3	
REFRIGERANT OIL CHARGE	L	1.685×4	3.253×2+1.774	3.253×3	3.253×3	

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2. NOMINAL COOLING AND HEATING CAPACITY ARE BASED ON THE CONDITIONS BELOW: COOLING 27°CDB/19°CWB INDOOR AND ENTER COOLING WATER TEMPERATURE 30°C, RATED WATER FLOW.
3. SOUND PRESSURE LEVEL TEST METHOD: POSITION OF THE MEASUREMENT POINT IS 1m IN FRONT AND 1m BELOW THE UNIT.

General Data

MODEL		UCCP135AE/ADE	UCCP145AE/ADE	UCCP165AE/ADE	UCCP185AE	UCCP205AE	
NOMINAL COOLING CAPACITY	kW	132	144	154	180	199	
RATED TOTAL POWER INPUT	kW	33/55.5	34.4/67.5	39.0/71	42	49.4	
RATED ELECTRIC HEATING CAPACITY	kW	48	60	60	55 (External)	55 (External)	
POWER SUPPLY		380-415/3N~/50Hz					
REFRIGERANT TYPE		R407C					
REFRIGERANT OIL TYPE		POE					
AIR FLOW	m ³ /h	22000	24600	26400	28800	33000	
STANDARD ESP (OPTION)	Pa	300(350/400/450)	300(350/400/450)	350(400/450)	350(400/450/500)	350(400/450/500)	
SOUND PRESSURE LEVEL	dB(A)	76	77	77	78	79	
UNIT DIMENSION	LENGTH	mm/in	2420/95	2420/95	2420/95	2675/105	3002/118
	WIDTH	mm/in	1243/49	1243/49	1243/49	1243/49	1534/60
	HEIGHT	mm/in	2068/81	2068/81	2068/81	2068/81	2083/82
PACKING DIMENSION	LENGTH	mm/in	2450/96	2450/96	2450/96	2700/106	3085/121
	WIDTH	mm/in	1290/51	1290/51	1290/51	1290/51	1700/67
	HEIGHT	mm/in	2240/88	2240/88	2240/88	2240/88	2300/91
UNIT WEIGHT	kg/lb	1225/2700 1255/2767	1235/2722 1265/2789	1250/2755 1280/2822	1350/2975	1400/3086	
CONDENSATE DRAIN SIZE	mm/in	25.4/1	25.4/1	25.4/1	25.4/1	25.4/1	
WATER PIPE CONNECTION	TYPE	FEMALE THREAD					
	SIZE	mm/in	63.50/2.50	63.50/2.50	76.20/3.00	76.20/3.00	76.20/3.00
REFRIGERANT CHARGE	kg/lb	3.9×4/8.6×4	4.0×3+3.8/ 8.8×3+8.4	4.5×4/9.9×4	4.6×4+3.3/ 10.1×4+7.3	7.1×3+6.9×2/ 15.6×3+15.2	
REFRIGERANT OIL CHARGE	L	3.253×3+1.774	3.253×3+1.774	3.253×4	3.253×4+1.774	3.253×5	

NOTES:

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2. NOMINAL COOLING AND HEATING CAPACITY ARE BASED ON THE CONDITIONS BELOW: COOLING 27°CDB/19°CWB INDOOR AND ENTER COOLING WATER TEMPERATURE 30°C, RATED WATER FLOW.
3. SOUND PRESSURE LEVEL TEST METHOD: POSITION OF THE MEASUREMENT POINT IS 1m IN FRONT AND 1m BELOW THE UNIT.

Components Data

MODEL			UCCP35AE/ ADE	UCCP55AE/ ADE	UCCP70AE/ ADE	UCCP75AE/ ADE	
COMPRESSOR	TYPE		SCROLL				
	QUANTITY		1	2	2	2	
CONDENSER	TYPE		TUBE IN TUBE		SHELL AND TUBE		
	WATER FLOW	m ³ /h	6.5	9.8	12.4	14.2	
	PRESSURE DROP	KPa/mH ₂ O	70/7.1	61/6.2	18/1.8	21/2.1	
	WATER PIPE SIZE	in	Rc1-1/4"	Rc2"			
FAN	TYPE		LOW-NOISE DOUBLE SUCTION MULTI-BLADE CENTRIFUGAL TYPE				
	QUANTITY		1				
	MATERIAL		GI				
	DRIVE		Belt Drive				
	DIAMETER	mm/in	300/12	380/15	460/18	380/15	
MOTOR	TYPE		SQUIRREL CAGE INDUCTION				
	QUANTITY		1				
	INSULATION GRADE		F				
	PROTECTION INDEX		IP54				
	PULLEY QUANTITY		2	2	2	2	
EVAPORATOR COIL	TUBE	MATERIAL	COPPER				
	FIN	MATERIAL	ALUMINUM				
		FACE AREA	m ² /ft ²	0.82/8.83	1.05/11.3	1.35/14.53	2.05/22.07
FILTER	TYPE		NYLON				
	QUANTITY		pc	1	1	1	6
	SIZE	LENGTH	mm/in	1025/40.35	1466/57.72	1656/65.20	529/20.83
		WIDTH	mm/in	775/30.51	725/28.54	825/32.48	660/25.98
		THICKNESS	mm/in	8/0.315			
REFRIGERANT	TYPE		R407C				
	CONTROL		CAPILLARY				
CASING	MATERIAL		EG				
	COLOUR		LIGHT GREY(RALF032)				

NOTE:

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Components Data

MODEL			UCCP85AE/ ADE	UCCP100AE/ ADE	UCCP115AE/ ADE	UCCP125AE/ ADE	
COMPRESSOR	TYPE		SCROLL				
	OIL TYPE		POE				
	QUANTITY		4	3	3	3	
CONDENSER	TYPE		SHELL AND TUBE				
	WATER FLOW	m ³ /h	15.6	19.8	22.9	23.4	
	PRESSURE DROP	KPa/mH ₂ O	29/3.0	17/1.7	29/3.0	20/2.0	
	WATER PIPE SIZE	in	Rc2"	Rc2-1/2"			
FAN	TYPE		LOW-NOISE DOUBLE SUCTION MULTI-BLADE CENTRIFUGAL TYPE				
	QUANTITY		1				
	MATERIAL		GI				
	DRIVE		Belt Drive				
	DIAMETER	mm/in	380/15	380/15	380/15	380/15	
MOTOR	TYPE		SQUIRREL CAGE INDUCTION				
	QUANTITY		1				
	INSULATION GRADE		F				
	PROTECTION INDEX		IP54				
	PULLEY QUANTITY		2	2	2	2	
EVAPORATOR COIL	TUBE	MATERIAL		COPPER			
	FIN	MATERIAL		ALUMINUM			
		FACE AREA	m ² /ft ²	2.05/22.14	2.05/22.14	2.39/25.49	2.39/25.49
FILTER	TYPE		NYLON				
	QUANTITY		6				
	SIZE	LENGTH	mm/in	529/20.83	529/20.83	595/23.35	595/23.35
		WIDTH	mm/in	660/25.98	660/25.98	686/27.00	686/27.00
		THICKNESS	mm/in	8/0.315			
REFRIGERANT	TYPE		R407C				
	CONTROL		CAPILLARY				
CASING	MATERIAL		EG				
	COLOUR		LIGHT GREY(RALF032)				

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Components Data

MODEL			UCCP135AE/ ADE	UCCP145AE/ ADE	UCCP165AE/ ADE	UCCP185AE	UCCP205AE	
COMPRESSOR	TYPE		SCROLL					
	OIL TYPE		POE					
	QUANTITY		4	4	4	5	5	
CONDENSER	TYPE		SHELL AND TUBE					
	WATER FLOW	m ³ /h	28	26.2	30.9	37.1	39.9	
	PRESSURE DROP	KPa/ mH ₂ O	29/3.0	28/2.9	33/3.4	60/6.3	80/8.2	
	WATER PIPE SIZE	in	Rc2-1/2"		Rc3"			
FAN	TYPE		DOUBLE INLET CENTRIFUGAL					
	QUANTITY		1				2	
	MATERIAL		GI					
	DRIVE		Belt Drive					
	DIAMETER	mm/in	380/15	460/18	460/18	460/18	460/18	
MOTOR	TYPE		SQUORREL CAGE INDUCTION					
	QUANTITY		1				2	
	INSULATION GRADE		F					
	PROTECTION INDEX		IP54					
	PULLEY	QUANTITY	2	2	2	2	4	
EVAPORATOR COIL	TUBE	MATERIAL	COPPER					
	FIN	MATERIAL	ALUMINUM					
		FACE AREA	m ² /ft ²	2.66/28.40	2.66/28.40	2.66/28.40	3.00/28.40	3.47/38.32
FILTER	TYPE		NYLON					
	QUANTITY	pc	6	6	6	6	8	
	SIZE	LENGTH	mm/in	661/26	661/26	661/26	686/27	629/25
		WIDTH	mm/in	686/27	686/27	686/27	744/29	673/26
		THICKNESS	mm/in	8/0.315				
REFRIGERANT	TYPE		R407C					
	CONTROL		CAPILLARY					
CASING	MATERIAL		EG					
	COLOUR		LIGHT GREY(RALF032)					

NOTE:

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Electrial Parameter

MODEL	Minimum cross-sectionalarea of power cord (mm ²)			Rated Running Current	Max. Running Current
	Live Wire (R/S/T)	Neutral Wire	Earth Wire	(A)	(A)
UCCP35AE	4	4	4	14.8 (14.8)	20.5 (20.5)
UCCP55AE	6	6	6	24.8 (23.3)	29.8 (29.8)
UCCP70AE	10	10	10	30.7 (28.8)	36.9 (36.9)
UCCP75AE	10	10	10	34.3	41.15
UCCP85AE	10	10	10	37.9	45.47
UCCP100AE	16	16	16	48.1	57.8
UCCP115AE	25	16	16	55.3	66.39
UCCP125AE	25	16	16	56.9	68.3
UCCP135AE	25	16	16	62.5	70
UCCP145AE	25	16	16	65.2	78.22
UCCP165AE	35	25	16	73.9	88.7
UCCP185AE	35	25	16	79.6	96
UCCP205AE	50	35	25	93.6	116.9

MODEL	Minimum cross-sectionalarea of power cord (mm ²)			Rated Running Current (Cooling/Heating)	Max. RunningCurrent
	Live Wire (R/S/T)	Neutral Wire	Earth Wire	(A)	(A)
UCCP35ADE	6	6	6	14.8(14.8)/25.6	25.6
UCCP55ADE	10	10	10	24.8(23.3)/44	44
UCCP70ADE	16	16	16	30.7(28.8)/56.8	56.8
UCCP75ADE	25	16	16	34.3/73.9	73.9
UCCP85ADE	25	16	16	37.9/75.8	75.8
UCCP100ADE	35	25	16	48.1/87.2	87.2
UCCP115ADE	35	25	16	55.3/101.4	101.4
UCCP125ADE	35	25	16	56.9/105.2	105.2
UCCP135ADE	35	25	16	62.5/105.2	105.2
UCCP145ADE	50	35	25	65.2/127.9	127.9
UCCP165ADE	50	35	25	73.9/134.6	134.6

NOTES:

1. THE PARAMETERS IN THE PARENTHESES ARE APPLICABLE FOR THE UNITS WITH PLENUM BOX.

Safety Devices

MODEL		MWCP35AE/ADE~55AE/ADE	MWCP70AE/ADE~205AE/ADE
HIGH PRESSURE SWITCH	TYPE	AUTO RESET CARTRIDGE	
	OPEN	2.8MPA /406PSI	2.5MPA/363PSI
	CLOSE	2.3MPA/334PSI	1.9MPA/276PSI
LOW PRESSURE SWITCH	TYPE	AUTO RESET CARTRIDGE	
	OPEN	0.3MPA/43.5PSI	
	CLOSE	0.15PSI/21.75PSI	
PHASE PROTECTION	TYPE	PHASE SEQUENCER	
ELETRIC HEATER PROTECTION	TYPE	AIR PRESSURE DIFFERENCE SWITCH (20Pa)	
		TEMPERATURE THERMOSTAT PROTECTION	
		FUSE PROTECTION	

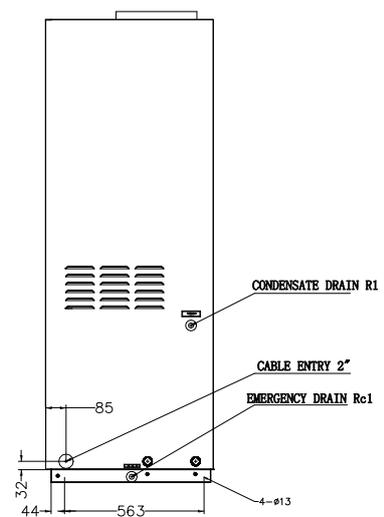
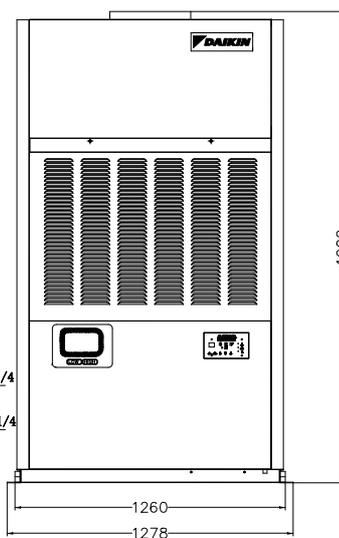
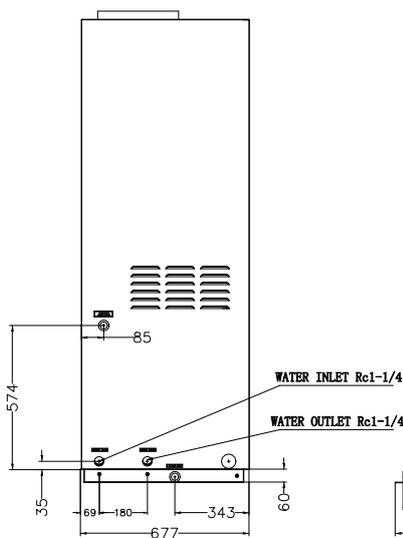
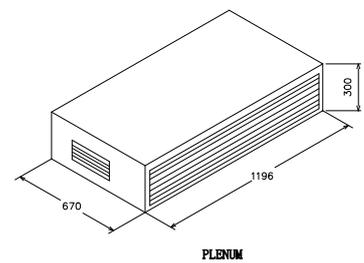
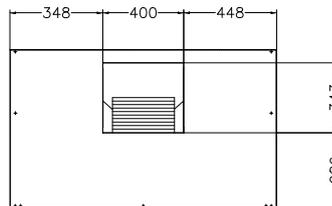
NOTE:

ELECTRONIC HEATING PROTECTION IS ONLY AVAILABLE FOR UNIT WITH ELECTRONIC HEATER

Dimensions

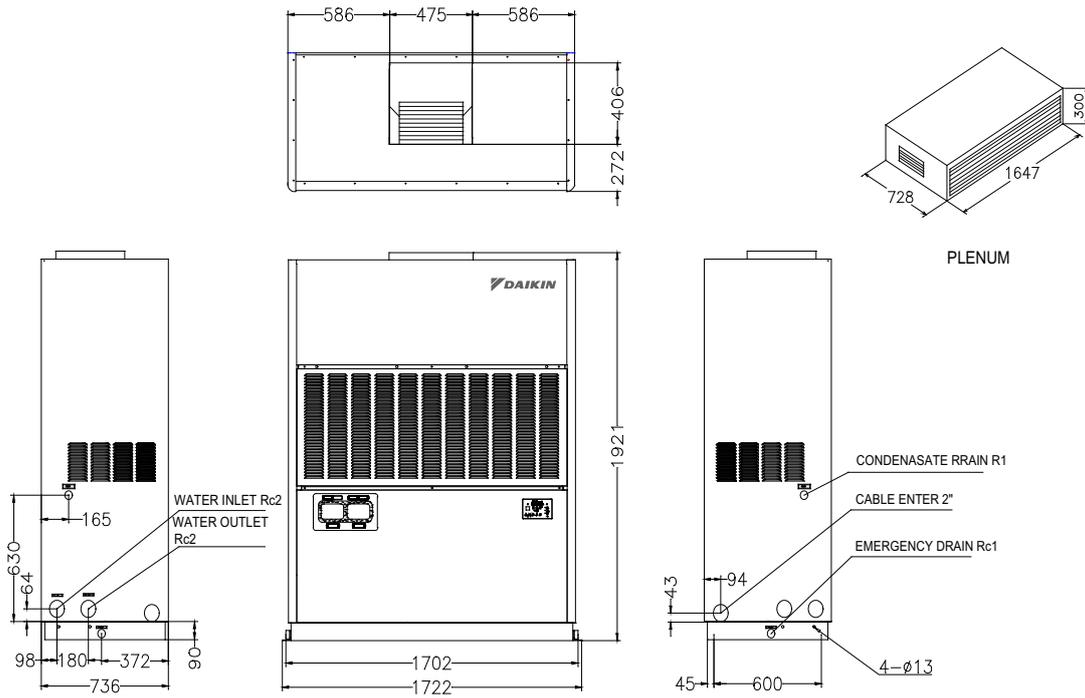
MODEL: UCCP35AE/ADE

Dimensions in mm



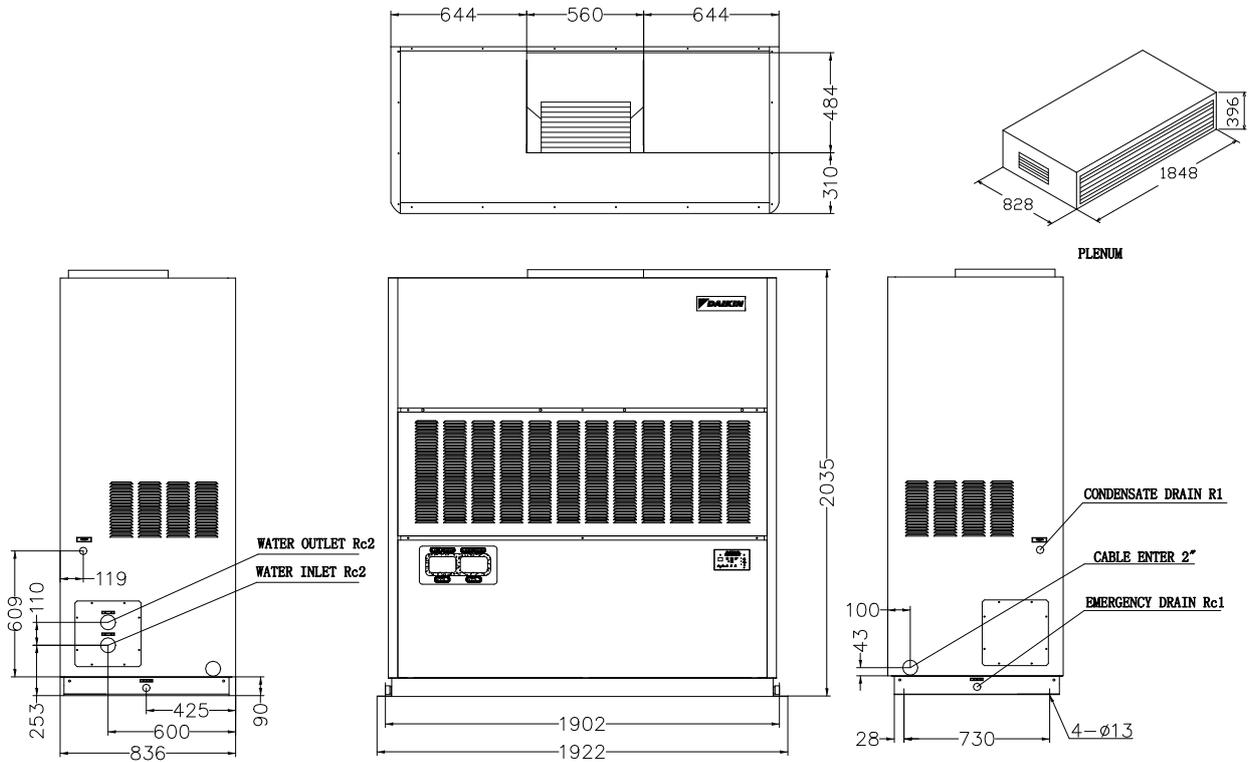
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Dimensions in mm



MODEL: UCCP70AE/ADE

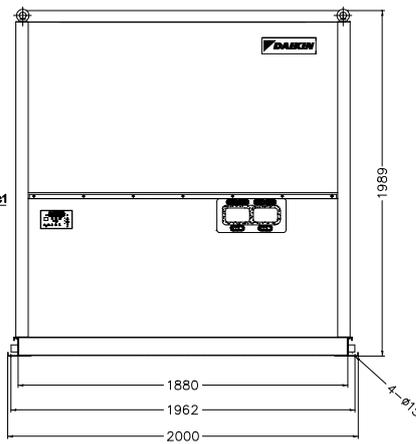
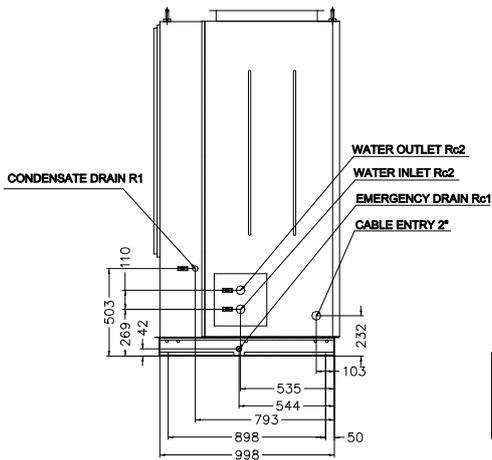
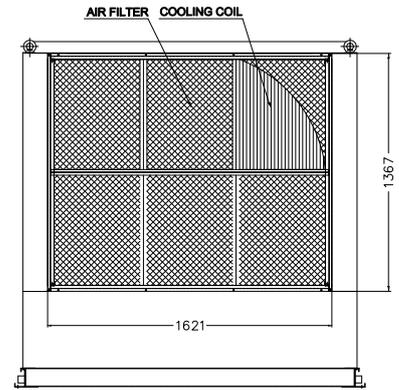
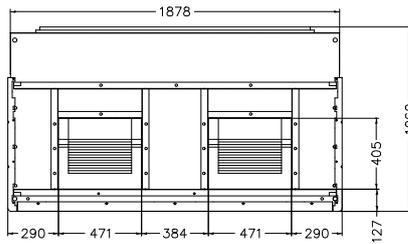
Dimensions in mm



MODEL: UCCP75AE/ADE UCCP85AE/ADE UCCP100AE/ADE

Dimensions in mm

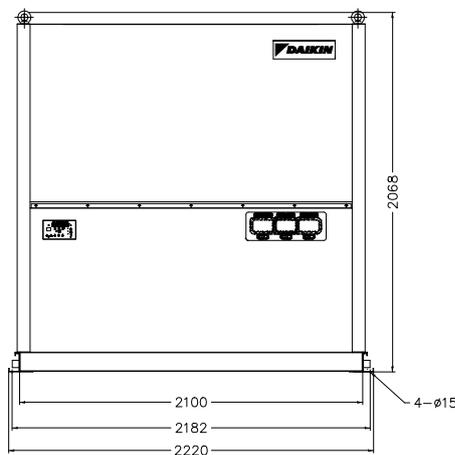
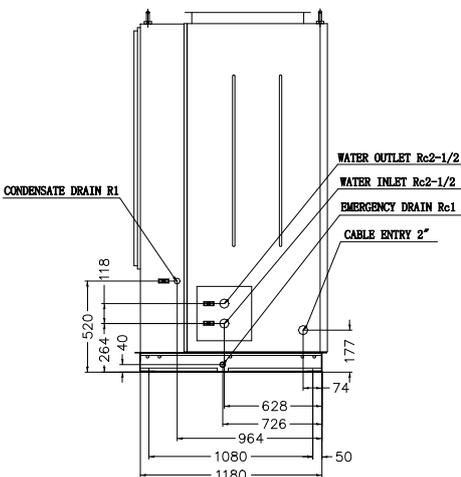
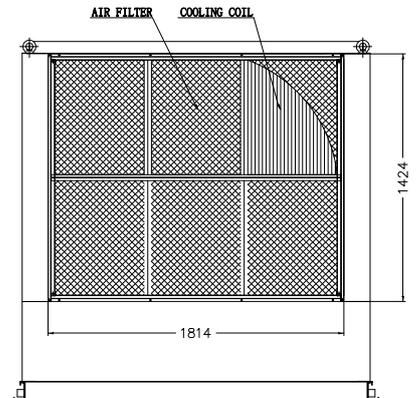
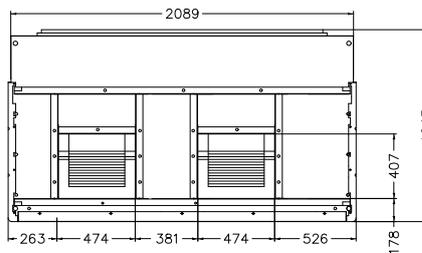
MODEL	N(DIMENSION)
UCCP75AE/ADE	Rc 2
UCCP85AE/ADE	Rc 2
UCCP100AE/ADE	Rc 2-1/2



Remarks: MWCP75AE/ADE, MWCP85AE/ADE coupled with two pressure gauge, AWCP100AE/ADE coupled with three pressure gauge.

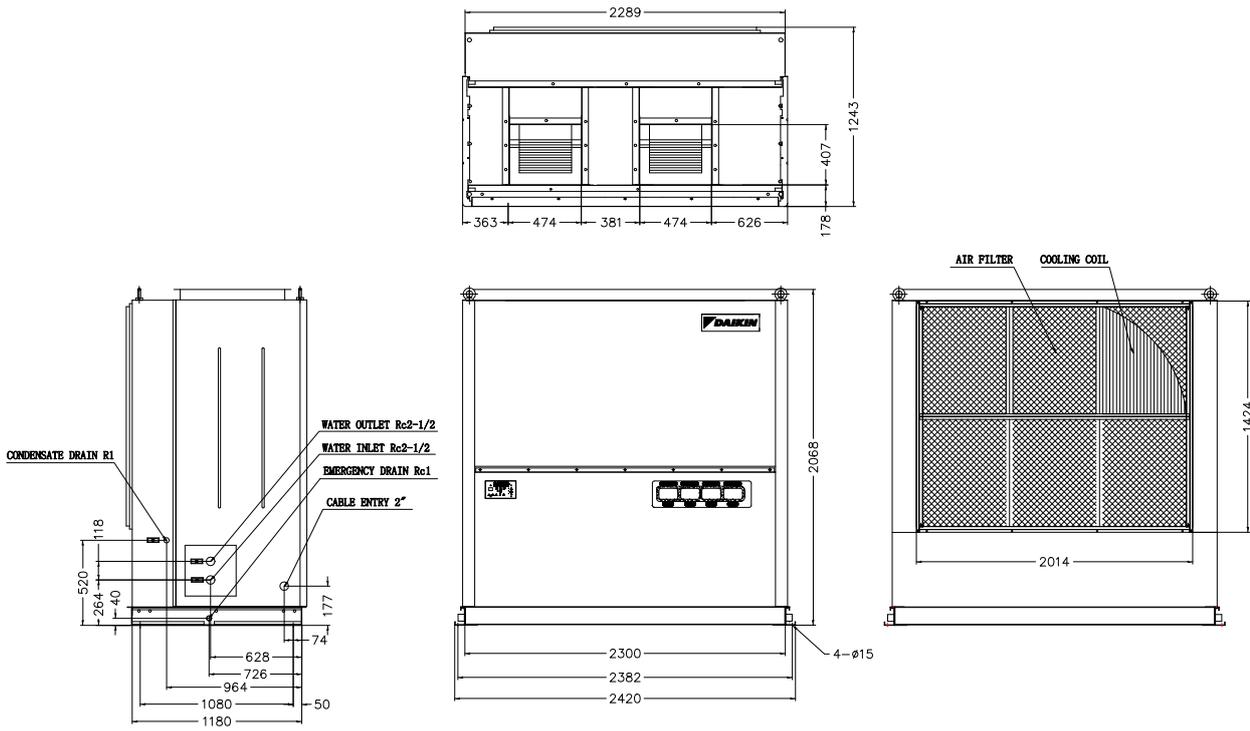
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Dimensions in mm



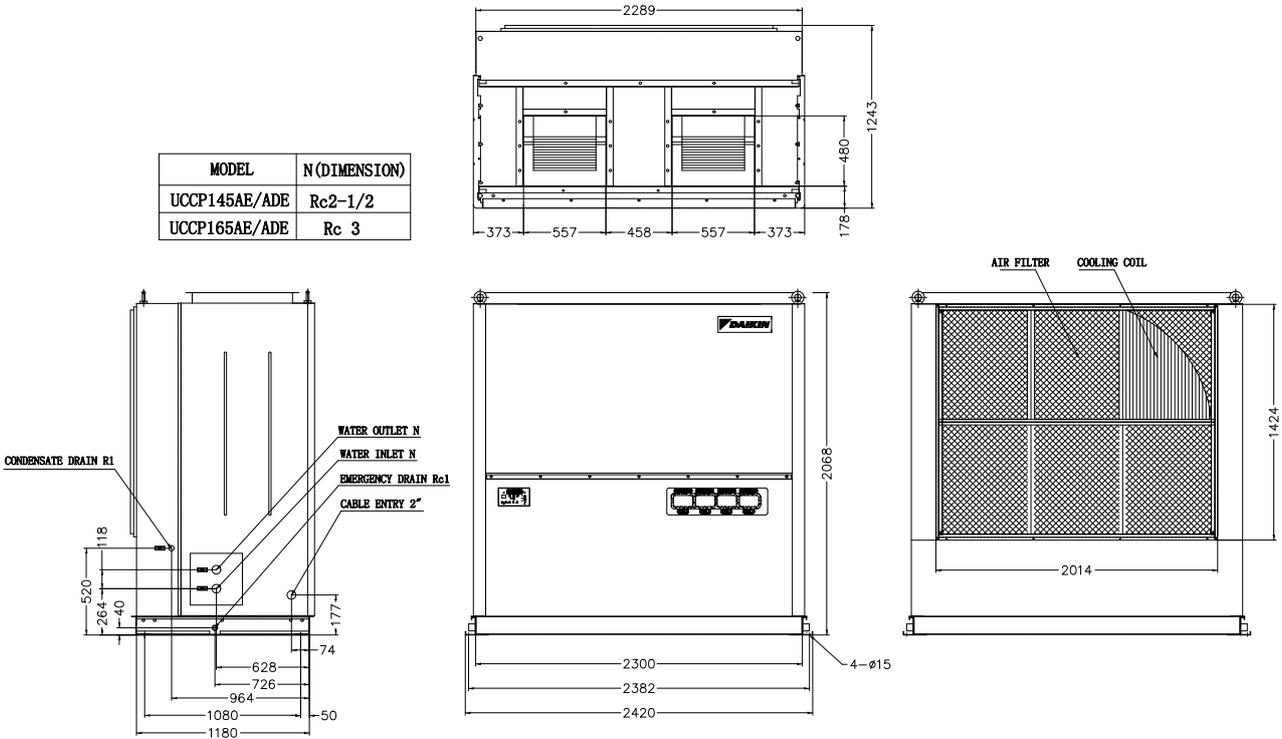
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Dimensions in mm



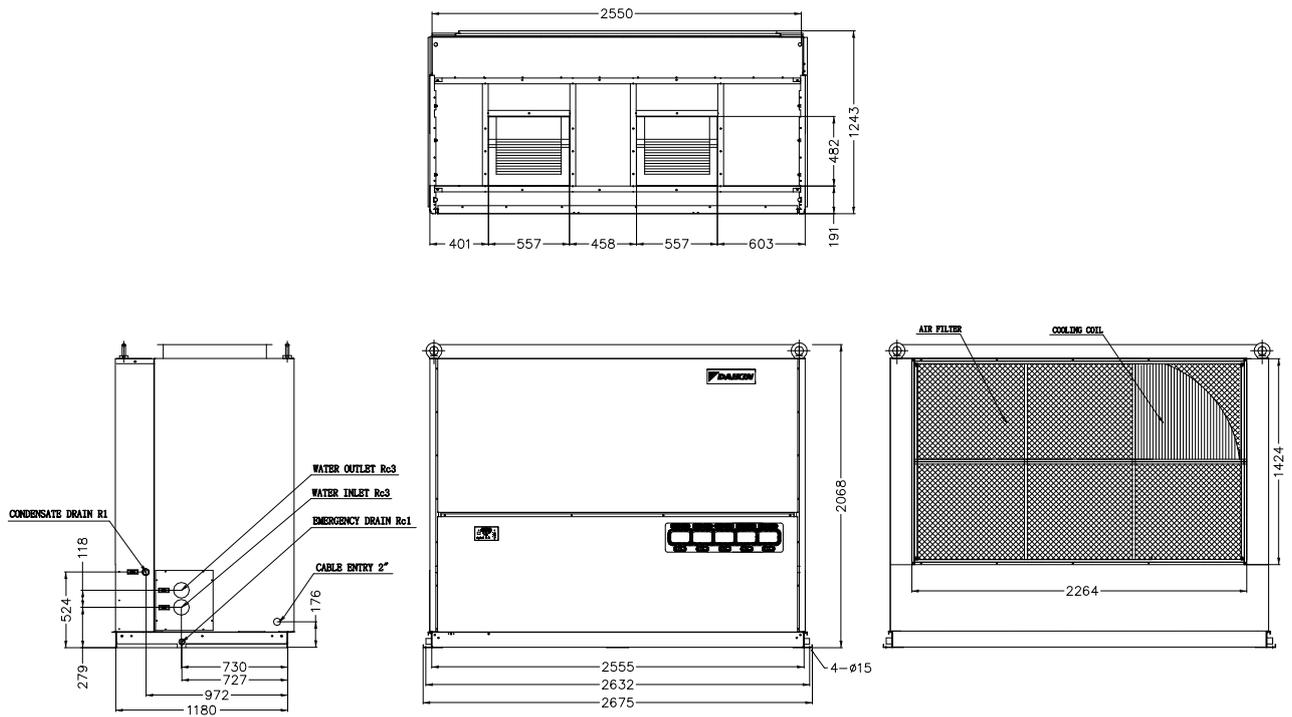
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Dimensions in mm



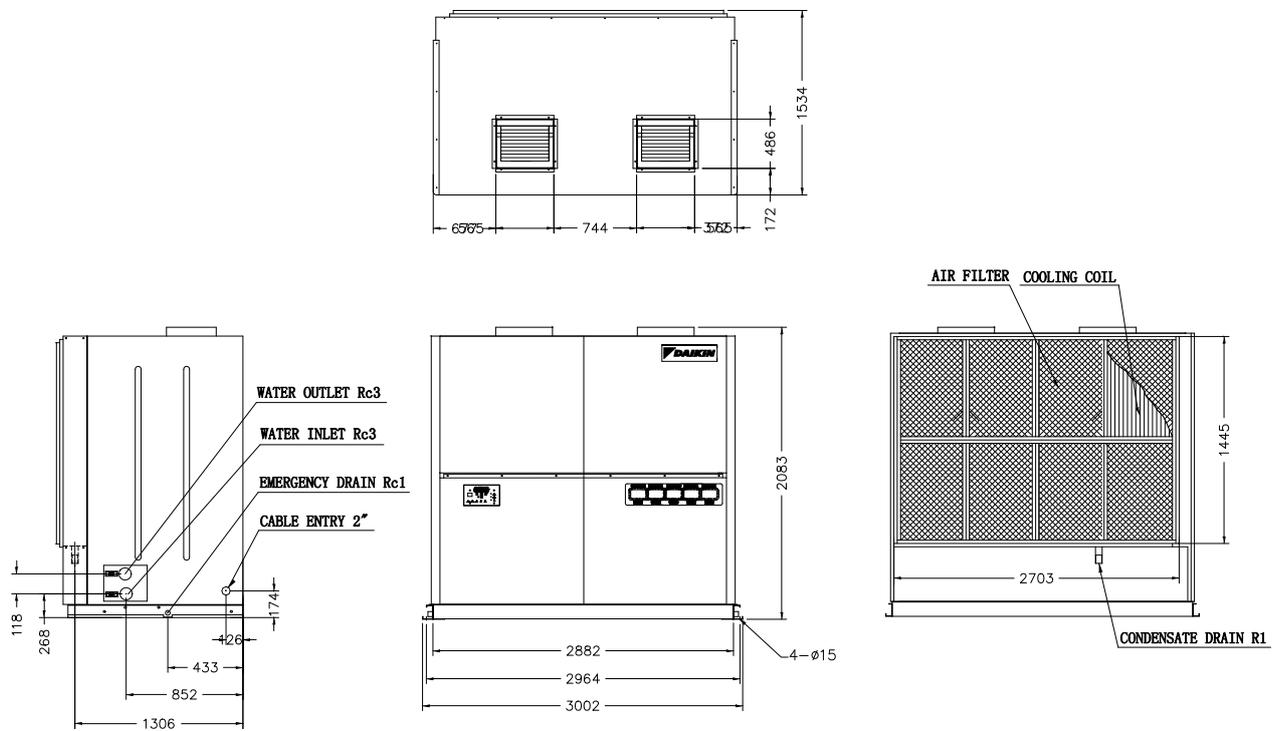
MODEL: UCCP185AE

Dimensions in mm

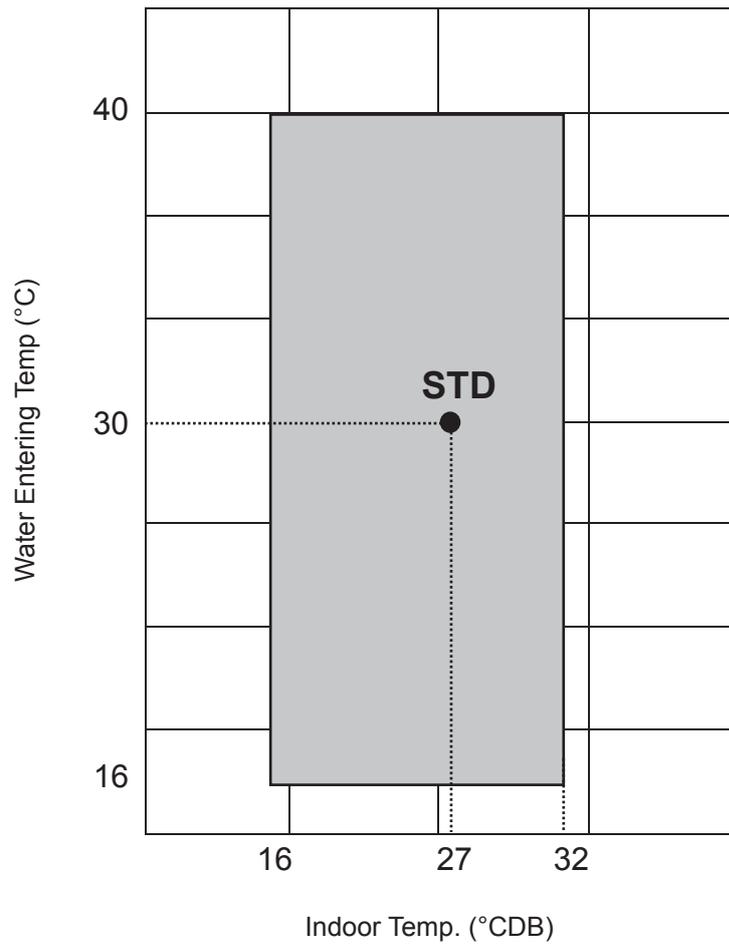


MODEL: UCCP205AE

Dimensions in mm

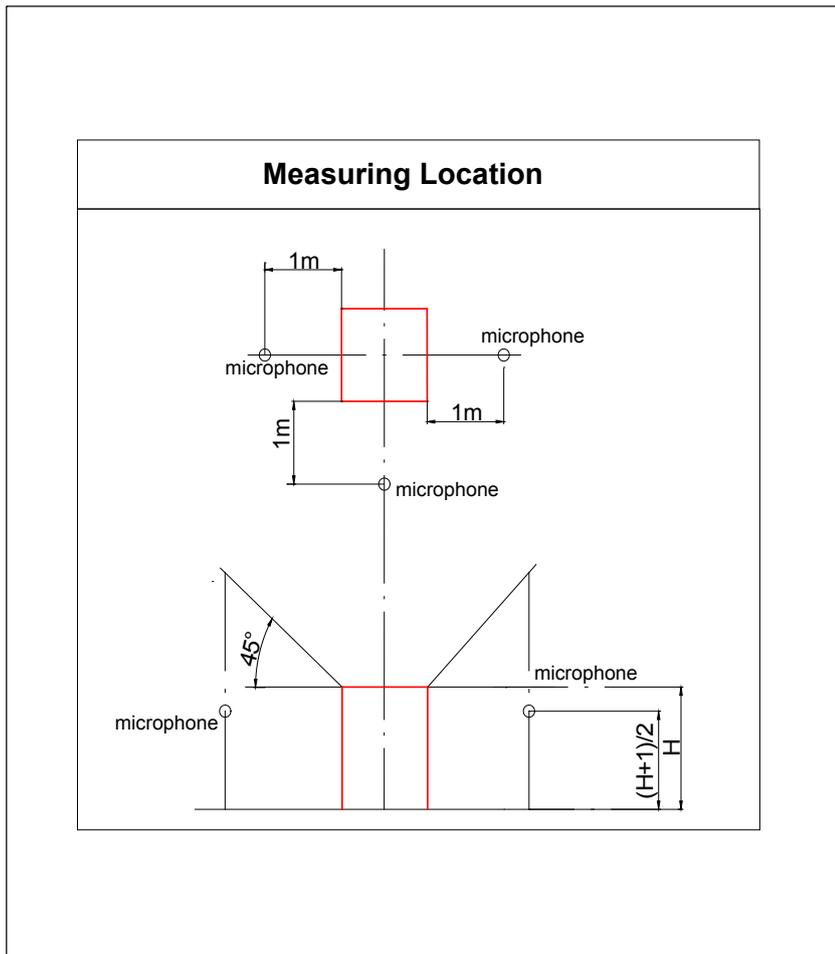


Operating Limit



Sound Data

SOUND PRESSURE LEVEL									
OUTDOOR UNITS	1/1 OCTAVE SOUND PRSEEURE LEVEL (dB,ref 20μPa)								Overall (dB(A))
	63Hz	125Hz	250Hz	500Hz	1000Hz	2000Hz	4000Hz	8000Hz	
UCCP35AE/ADE	42.0	56.0	56.0	59.0	60.0	57.0	51.0	48.0	65.0
UCCP55AE/ADE	50.0	57.0	59.0	61.5	61.5	58.0	54.5	51.5	67.0
UCCP70AE/ADE	47.0	57.0	63.0	64.0	67.0	64.0	56.0	47.0	70.0
UCCP75AE/ADE	49.0	60.0	63.0	66.0	67.0	64.0	59.0	55.0	72.0
UCCP85AE/ADE	49.0	63.0	65.0	66.0	67.0	63.0	58.0	55.0	72.0
UCCP100AE/ADE	51.0	61.0	67.0	68.0	71.0	68.0	60.0	51.0	74.0
UCCP115AE/ADE	58.0	64.0	65.0	69.0	69.0	67.5	62.5	59.5	75.0
UCCP125AE/ADE	56.0	63.0	65.0	70.0	70.0	67.0	63.0	60.0	75.0
UCCP135AE/ADE	53.0	67.0	67.0	70.0	71.0	68.0	62.0	59.0	76.0
UCCP145AE/ADE	60.0	67.0	67.0	71.5	71.5	68.0	64.5	61.5	77.0
UCCP165AE/ADE	54.0	64.0	70.0	71.0	74.0	71.0	63.0	54.0	77.0
UCCP185AE	55.0	66.0	71.0	72.0	75.0	71.5	64.0	55.0	78.0
UCCP205AE	56.0	70.0	70.0	73.0	74.0	71.0	65.0	62.0	79.0

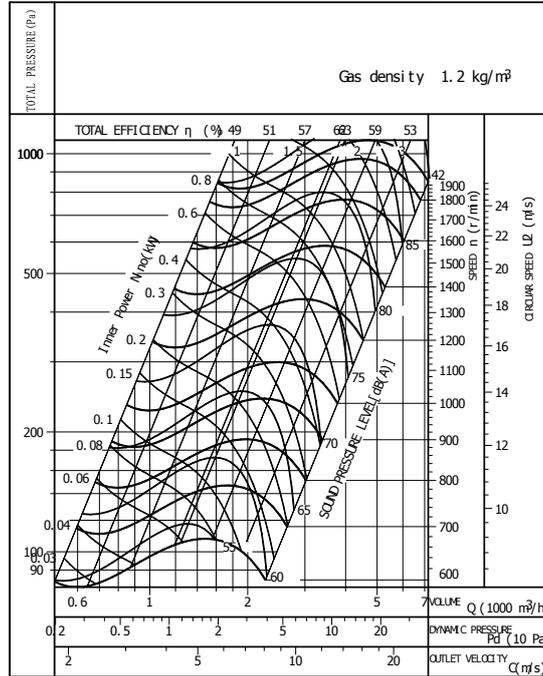


NOTES:

1. RED FRAME REPRESENTS THE UNIT.
2. THE TEST METHODS: POSITION OF THE MEASUREMENT POINT IS 1m IN FRONT AND 1m BELOW THE UNIT.

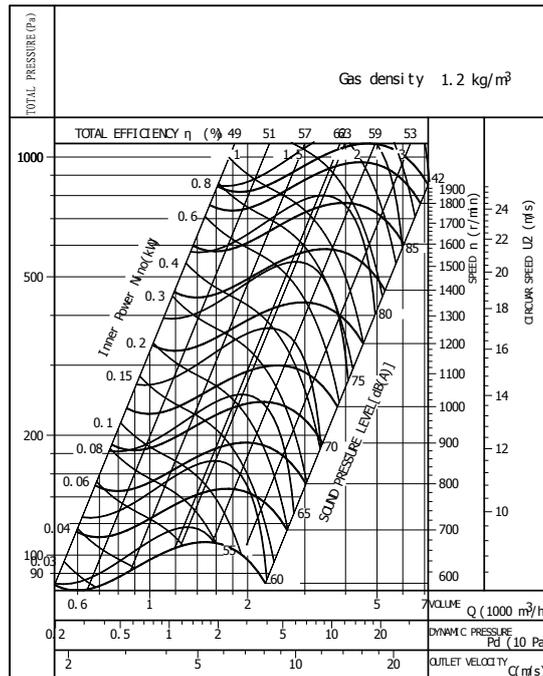
Fan Curves

MODEL: UCCP35AE/ADE



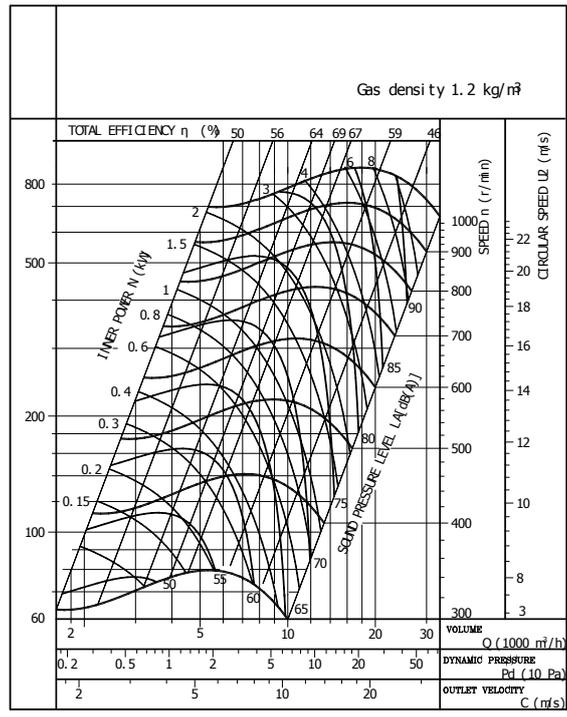
MODEL: UCCP55AE/ADE/75AE/ADE/85AE/ADE/100AE/ADE/115AE/ADE/125AE/ADE/135AE/ADE

(UCCP75AE/ADE/85AE/ADE/100AE/ADE/115AE/ADE/125AE/ADE/135AE/ADE use Double Blowers)



■ MODEL: UCCP70AE/145AE/165AE/185AE/205AE

(UCCP145AE/165AE/185AE/205AE use Double Blowers)

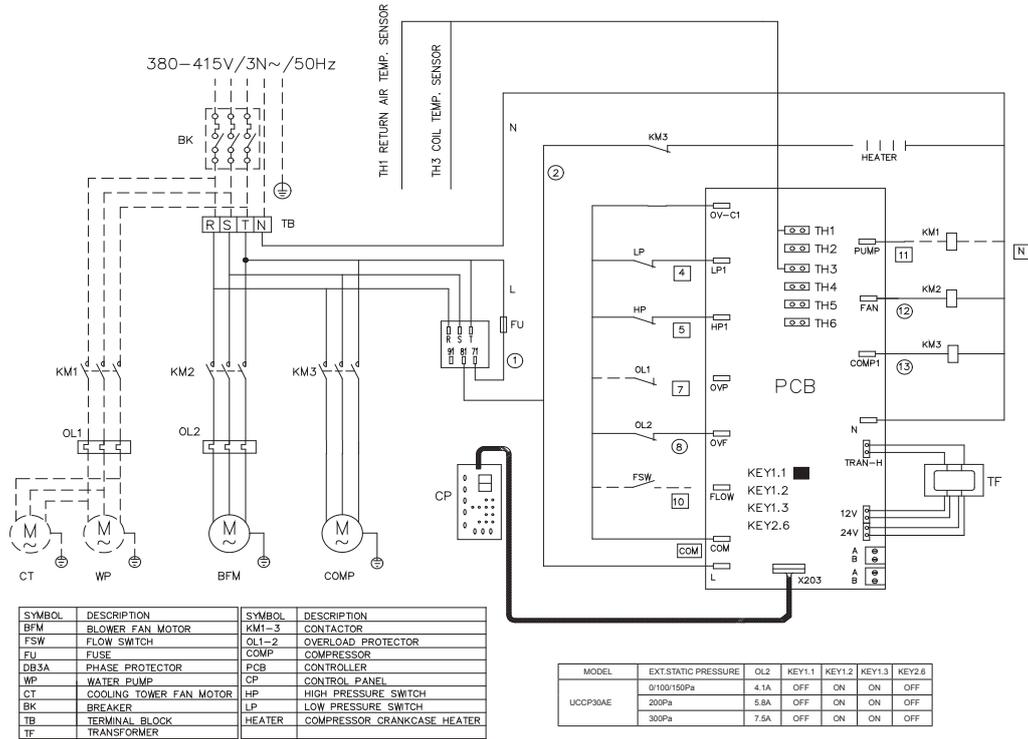


Performance Table

MODEL	AIR ON EVAPORATOR			LWT					
				21°C		35°C		40°C	
	NOMINAL AIR FLOW (m³/h)	DB TEMP (°C)	WB TEMP (°C)	TOTAL CAPACITY (kW)	INPUT (kW)	TOTAL CAPACITY (kW)	INPUT (kW)	TOTAL CAPACITY (kW)	INPUT (kW)
UCCP35AE	5900	21	15	29.63	6.37	29.18	7.12	24.61	7.82
		27	19	32.59	6.88	32.00	7.80	27.05	8.60
		32	23	35.20	7.43	34.88	8.66	30.39	9.66
UCCP55AE	8100	21	15	42.84	9.64	42.27	11.95	36.78	11.98
		27	19	47.08	10.60	46.50	13.10	40.41	13.16
		32	23	50.85	11.66	50.87	14.54	45.41	14.79
UCCP70AE	10800	21	15	58.69	12.87	58.11	14.78	46.20	15.99
		27	19	65.08	14.16	64.00	16.20	50.77	17.57
		32	23	71.59	15.57	70.08	17.91	57.05	19.74
UCCP75AE	13600	21	15	64.12	13.96	66.89	16.51	50.04	17.15
		27	19	70.60	15.22	73.50	18.10	54.98	18.85
		32	23	78.36	16.59	80.48	20.04	61.78	21.18
UCCP85AE	14500	21	15	66.25	14.50	74.62	18.26	53.83	18.01
		27	19	73.46	15.79	82.00	20.00	59.16	19.79
		32	23	81.53	17.19	90.20	22.20	66.47	22.24
UCCP100AE	17000	21	15	87.66	18.68	86.55	23.16	77.09	23.01
		27	19	97.00	20.36	95.00	25.40	84.72	25.28
		32	23	107.18	22.19	105.36	28.22	95.19	28.41
UCCP115AE	19800	21	15	103.47	23.42	100.65	26.63	84.16	28.10
		27	19	112.58	25.79	110.00	29.20	92.49	30.87
		32	23	123.73	28.39	121.99	32.40	103.92	34.69
UCCP125AE	22000	21	15	113.80	24.30	107.65	27.39	90.50	28.99
		27	19	125.31	26.49	118.00	30.00	99.45	31.86
		32	23	137.21	28.87	130.99	33.27	111.74	35.80
UCCP135AE	22000	21	15	131.26	28.55	115.82	29.37	107.98	34.39
		27	19	144.71	31.41	132.00	32.20	118.65	37.79
		32	23	159.69	34.55	141.22	35.74	133.32	42.46
UCCP145AE	24600	21	15	118.95	26.60	131.33	31.41	105.47	31.91
		27	19	130.99	29.21	144.00	34.40	115.90	35.07
		32	23	142.12	32.07	159.70	38.06	130.22	39.40
UCCP165AE	26400	21	15	147.12	30.18	140.45	35.60	132.22	37.41
		27	19	161.99	33.23	154.00	39.00	145.30	41.11
		32	23	164.42	36.59	170.63	43.21	163.26	46.19
UCCP185AE	28800	21	15	153.92	36.78	164.34	38.30	135.08	44.14
		27	19	169.50	40.09	180.00	42.00	148.43	48.51
		32	23	175.52	43.70	199.71	46.58	166.78	54.50
UCCP205AE	33000	21	15	173.03	44.18	181.69	45.05	147.20	50.00
		27	19	190.54	48.16	199.00	49.40	165.39	54.95
		32	23	197.30	52.49	220.79	54.78	185.83	61.74

Wiring Diagrams

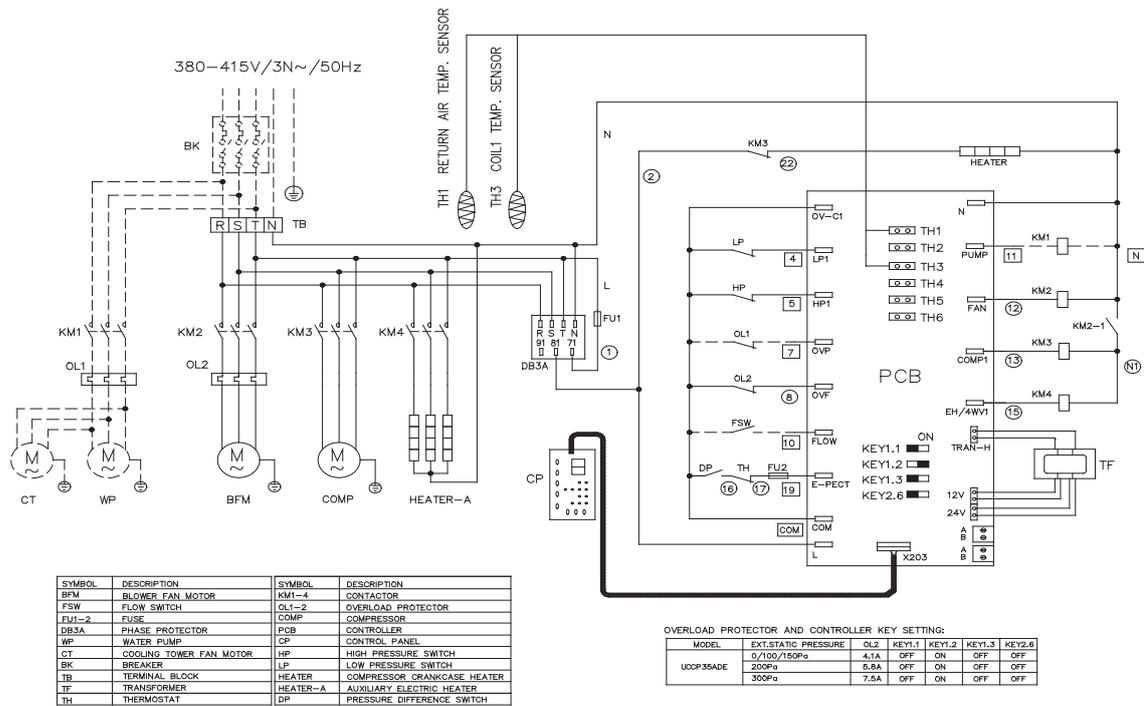
MODEL: UCPC35AE



NOTE:
WARRANTY MAY BE VOIDED UNLESS RECOMMENDED WIRING IS FOLLOWED.

NOTE: --- FIELD WIRING
—— FACTORY WIRING

MODEL: UCPC35ADE



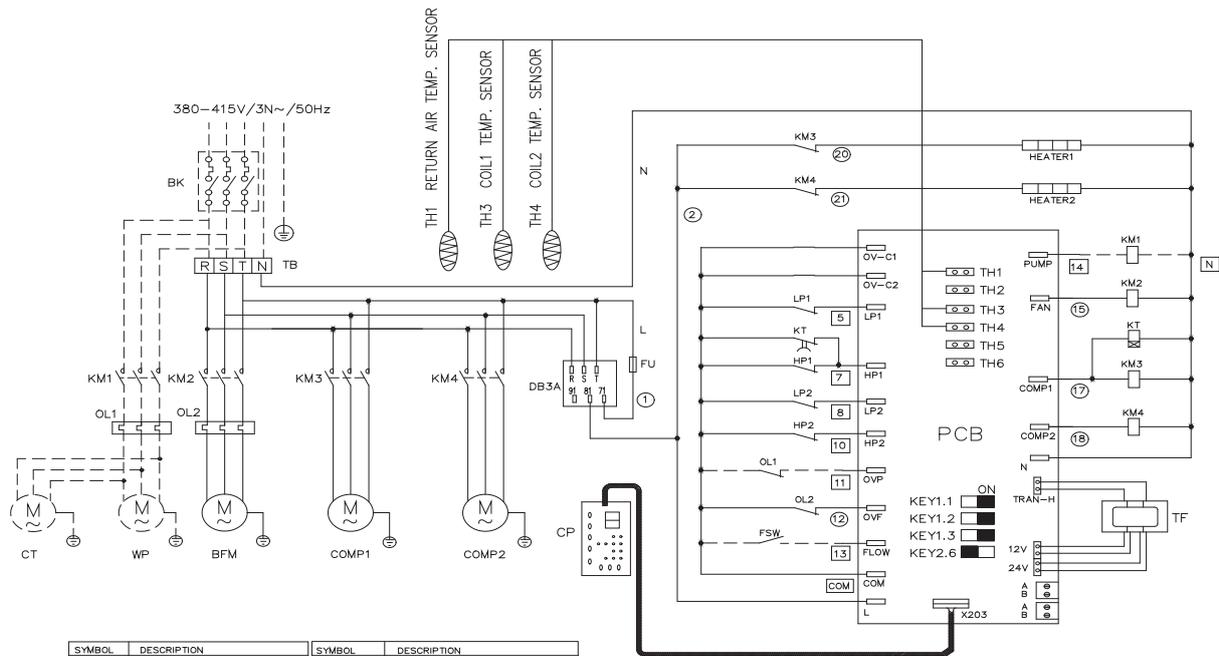
NOTE:
WARRANTY MAY BE VOIDED UNLESS RECOMMENDED WIRING IS FOLLOWED.

OVERLOAD PROTECTOR AND CONTROLLER KEY SETTING:

MODEL	EXT.STATIC PRESSURE	OL2	KEY1.1	KEY1.2	KEY1.3	KEY2.6
UCPC35ADE	0/100/150Pa	4.1A	OFF	ON	OFF	OFF
	200Pa	5.8A	OFF	ON	OFF	OFF
	300Pa	7.5A	OFF	ON	OFF	OFF

NOTE: --- FIELD WIRING
—— FACTORY WIRING

MODEL: UCCP55AE



SYMBOL	DESCRIPTION	SYMBOL	DESCRIPTION
BFM	BLOWER FAN MOTOR	KM1-4	CONTACTOR
FSW	FLOW SWITCH	OL1-2	OVERLOAD RELAY
FU	FUSE	COMP1-2	COMPRESSOR
DB3A	PHASE PROTECTOR	PCB	CONTROLLER
WP	WATER PUMP	CP	CONTROL PANEL
CT	COOLING TOWER FAN MOTOR	HP1-2	HIGH PRESSURE SWITCH
BK	BREAKER	LP1-2	LOW PRESSURE SWITCH
TB	TERMINAL BLOCK	HEATER1-2	COMPRESSOR CRANKCASE HEATER
TF	TRANSFORMER	KT	TIME DELAY RELAY

NOTE:
WARRANTY MAY BE VOIDED UNLESS RECOMMENDED WIRING IS FOLLOWED.

OVERLOAD RELAY, TIME DELAY RELAY AND CONTROLLER KEY SETTING:

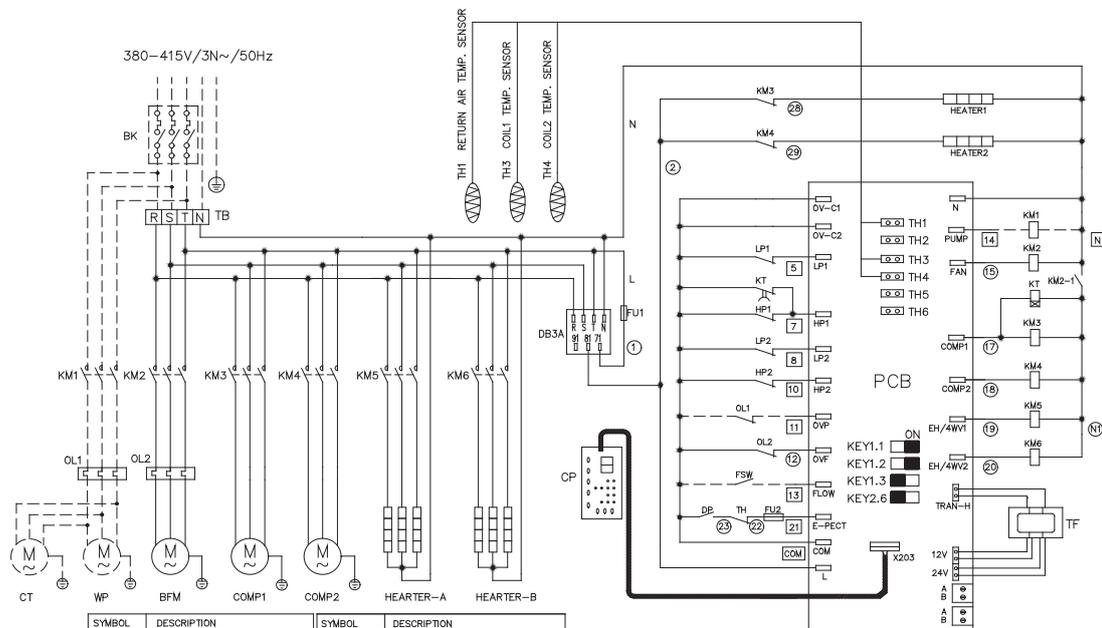
MODEL	EXT.STATIC PRESSURE	OL2	KEY1.1	KEY1.2	KEY1.3	KEY2.6	KT
UCCP55AE	0/150/200Pa	5.7A	ON	ON	ON	OFF	15s

NOTE: - - - - - FIELD WIRING
————— FACTORY WIRING

NOTE:

THE E.S.P IN THE FORM IS OPTIONAL, IF YOU NEED A E.S.P DIFFERENT WITH THE STANDARD UNITS,PLEASE CONTACT WITH FACTORY.

MODEL: UCCP55ADE



SYMBOL	DESCRIPTION	SYMBOL	DESCRIPTION
BFM	BLOWER FAN MOTOR	KM1-6	CONTACTOR
FSW	FLOW SWITCH	OL1-2	OVERLOAD PROTECTOR
FU1-2	FUSE	COMP1-2	COMPRESSOR
DB3A	PHASE PROTECTOR	PCB	CONTROLLER
WP	WATER PUMP	CP	CONTROL PANEL
CT	COOLING TOWER FAN MOTOR	HP1-2	HIGH PRESSURE SWITCH
BK	BREAKER	LP1-2	LOW PRESSURE SWITCH
TB	TERMINAL BLOCK	HEATER1-2	COMPRESSOR CRANKCASE HEATER
TF	TRANSFORMER	HEATER-A/B	AUXILIARY ELECTRIC HEATER
TH	THERMOSTAT	DP	PRESSURE DIFFERENCE SWITCH
KT	TIME DELAY RELAY		

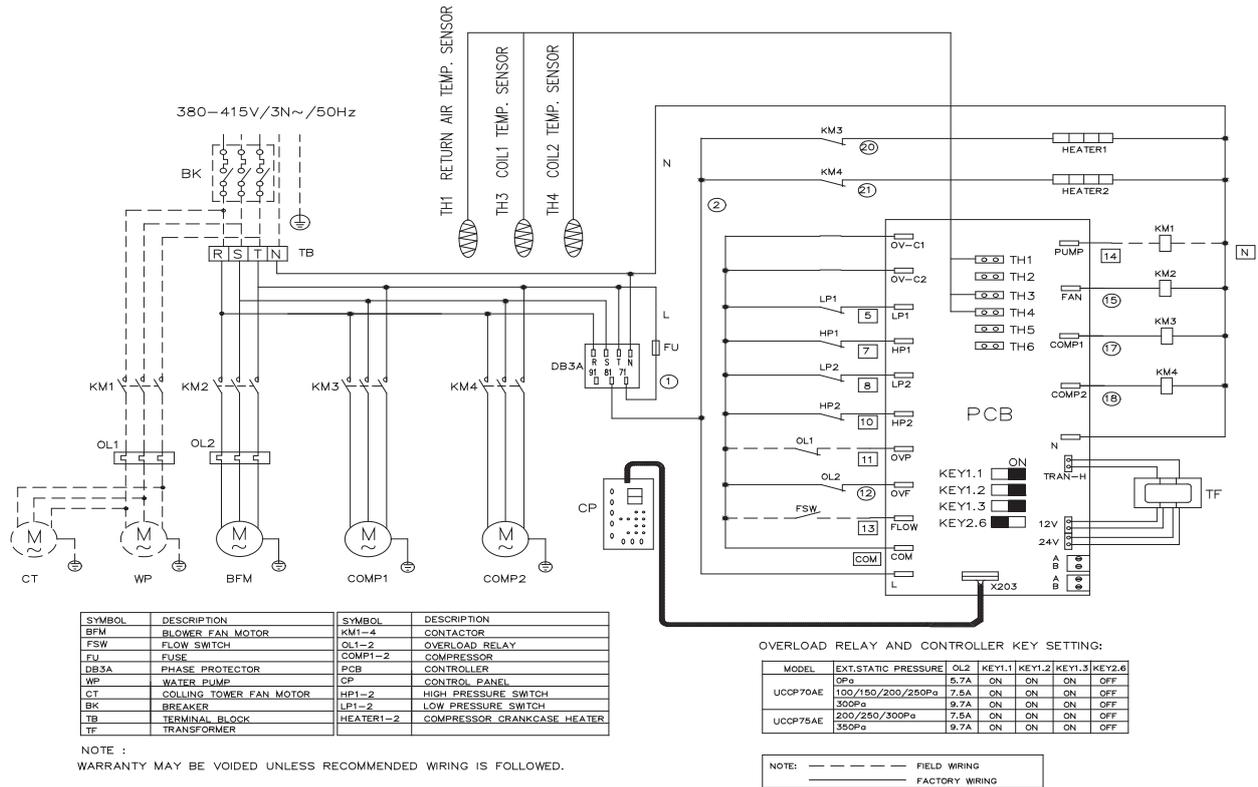
NOTE :
WARRANTY MAY BE VOIDED UNLESS RECOMMENDED WIRING IS FOLLOWED.

OVERLOAD PROTECTOR, TIME DELAY RELAY AND CONTROLLER KEY SETTING:

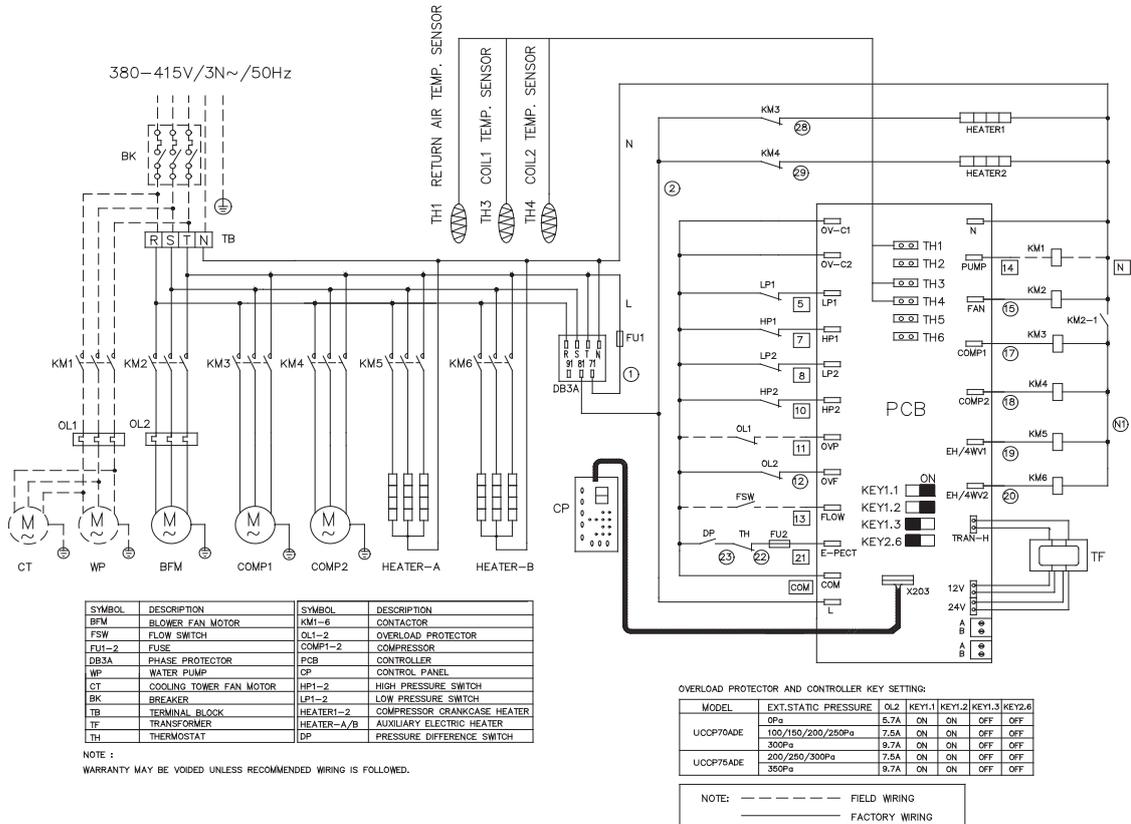
MODEL	EXT.STATIC PRESSURE	OL2	KEY1.1	KEY1.2	KEY1.3	KEY2.6	KT
UCCP55ADE	0/150/200Pa	5.7A	ON	ON	OFF	OFF	15s

NOTE: - - - - - FIELD WIRING
————— FACTORY WIRING

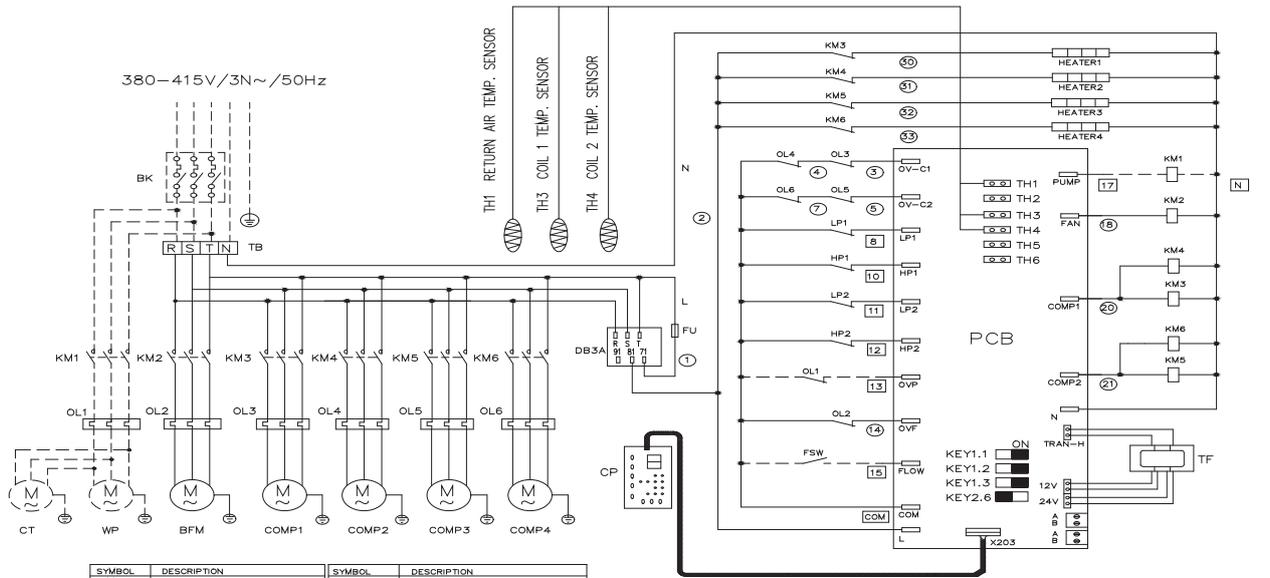
MODEL: UCCP70AE/75AE



MODEL: UCCP70ADE/75ADE



MODEL: UCCP85AE



SYMBOL	DESCRIPTION	SYMBOL	DESCRIPTION
BFM	BLOWER FAN MOTOR	KM1-6	CONTACTOR
FSW	FLOW SWITCH	OL1-6	THERMAL OVERLOAD RELAY
FU	FUSE	COMP1-4	COMPRESSOR
DB3A	PHASE PROTECTOR	PCB	CONTROLLER
WP	WATER PUMP	CP	CONTROL PANEL
CT	COOLING TOWER FAN MOTOR	HP1-2	HIGH PRESSURE SWITCH
BK	BREAKER	LP1-2	LOW PRESSURE SWITCH
TB	TERMINAL BLOCK	HEATER1-4	COMPRESSOR CRANKCASE HEATER
TF	TRANSFORMER		

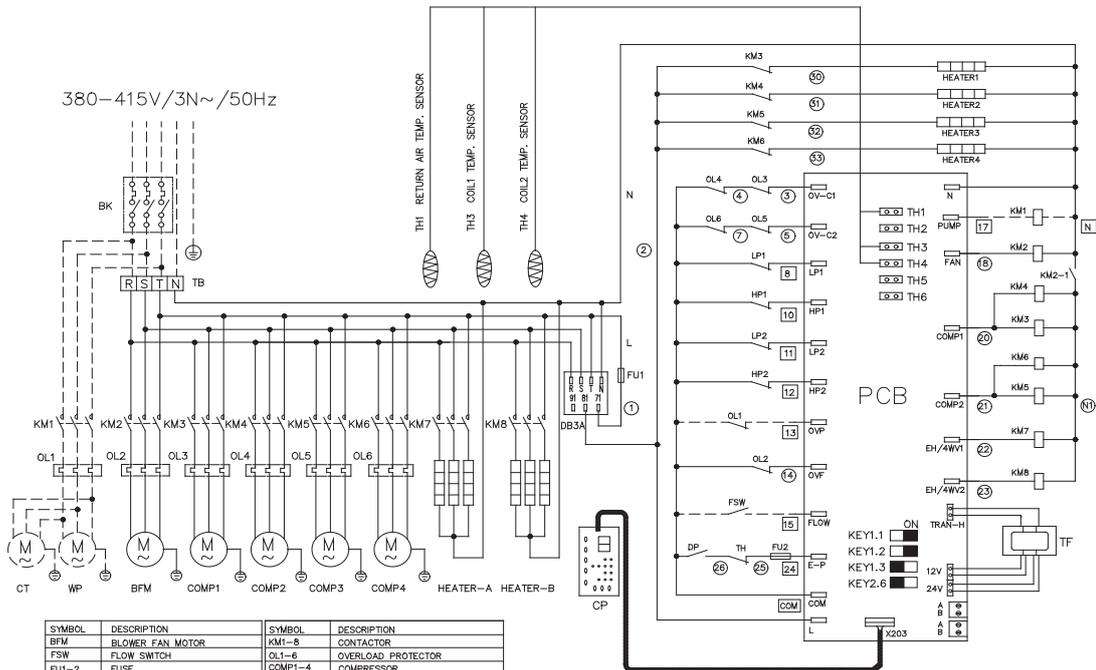
NOTE :
WARRANTY MAY BE VOIDED UNLESS RECOMMENDED WIRING IS FOLLOWED.

THERMAL OVERLOAD RELAY AND CONTROLLER KEY SETTING:

MODEL	EXT.STATIC PRESSURE	OL2	OL3	OL4	OL5	OL6	KEY1.1	KEY1.2	KEY1.3	KEY2.6
UCCP85AE	200/250/300/350Pa	9.7A	13A	13A	13A	13A	ON	ON	ON	OFF

NOTE: --- FIELD WIRING
— FACTORY WIRING

MODEL: UCCP85ADE



SYMBOL	DESCRIPTION	SYMBOL	DESCRIPTION
BFM	BLOWER FAN MOTOR	KM1-8	CONTACTOR
FSW	FLOW SWITCH	OL1-6	OVERLOAD PROTECTOR
FU1-2	FUSE	COMP1-4	COMPRESSOR
DB3A	PHASE PROTECTOR	PCB	CONTROLLER
WP	WATER PUMP	CP	CONTROL PANEL
CT	COOLING TOWER FAN MOTOR	HP1-2	HIGH PRESSURE SWITCH
BK	BREAKER	LP1-2	LOW PRESSURE SWITCH
TB	TERMINAL BLOCK	HEATER1-4	COMPRESSOR CRANKCASE HEATER
TF	TRANSFORMER	HEATER-A/B	AUXILIARY ELECTRIC HEATER
TH	THERMOSTAT	DP	PRESSURE DIFFERENCE SWITCH

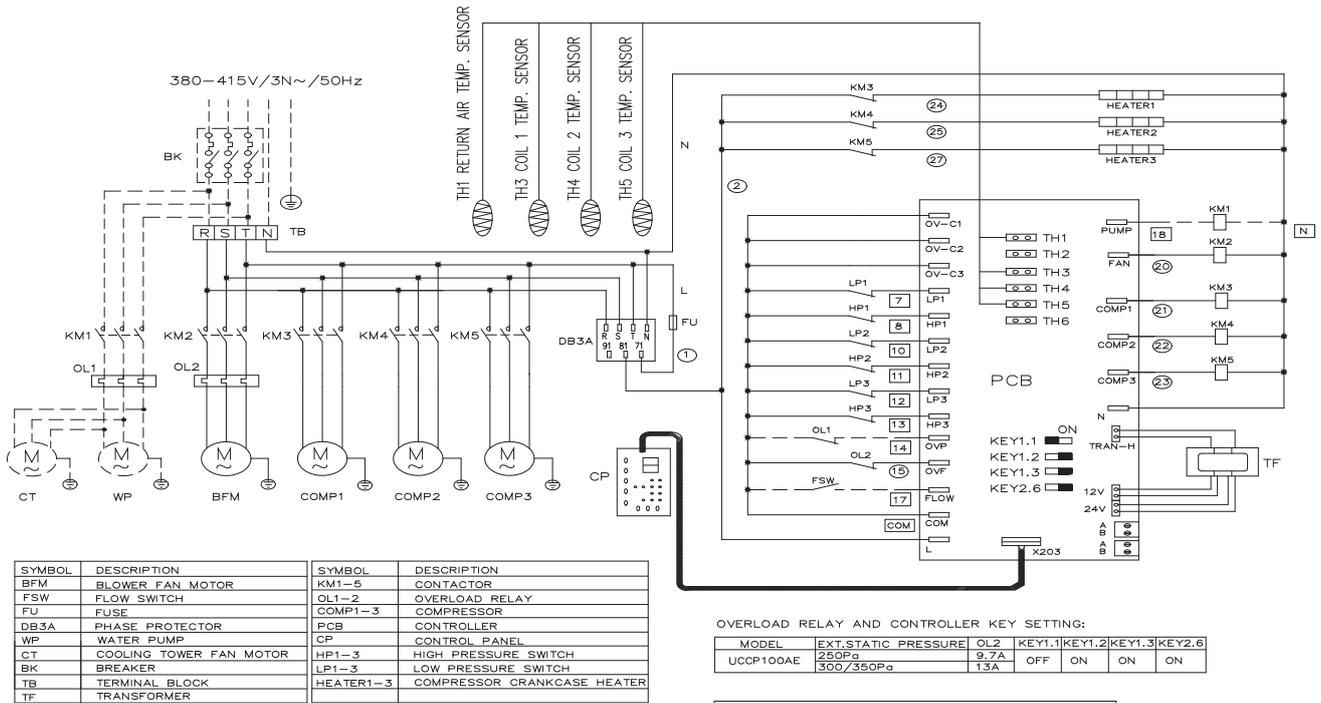
NOTE :
WARRANTY MAY BE VOIDED UNLESS RECOMMENDED WIRING IS FOLLOWED.

OVERLOAD PROTECTOR AND CONTROLLER KEY SETTING:

MODEL	EXT.STATIC PRESSURE	OL2	OL3	OL4	OL5	OL6	KEY1.1	KEY1.2	KEY1.3	KEY2.6
UCCP85ADE	200/250Pa 300/350Pa	9.7A	13A	13A	13A	13A	ON	ON	OFF	OFF

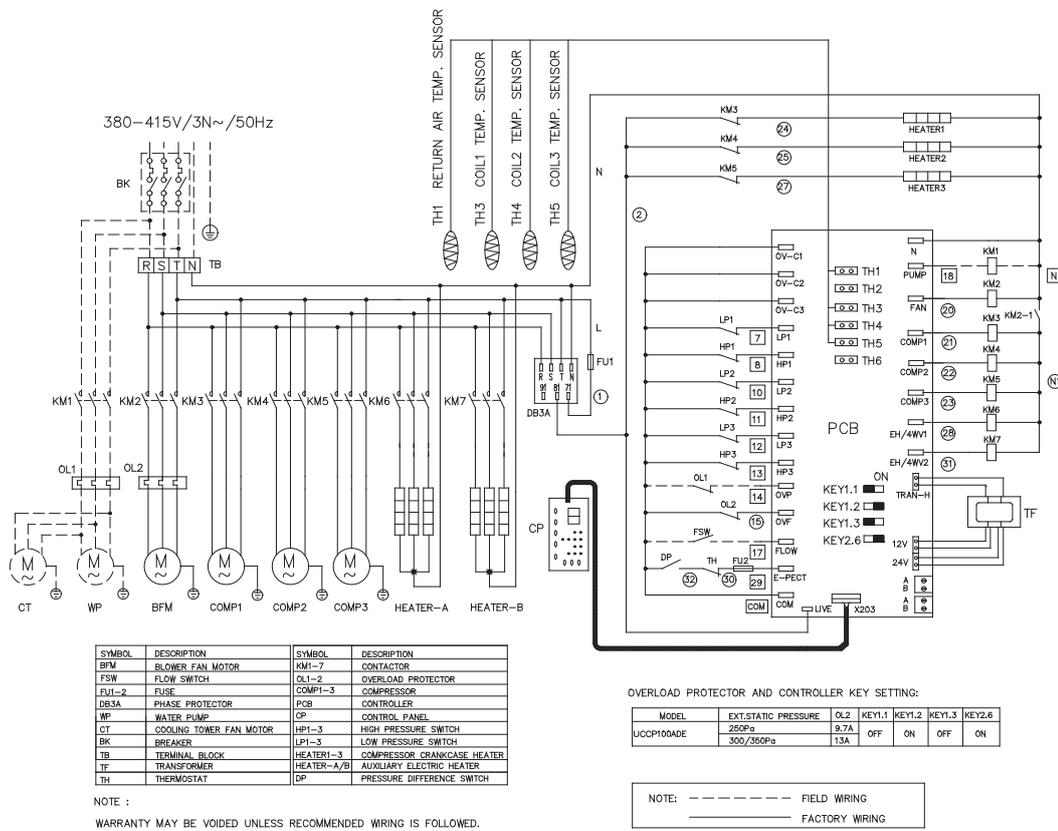
NOTE: --- FIELD WIRING
— FACTORY WIRING

■ MODEL: UCCP100AE



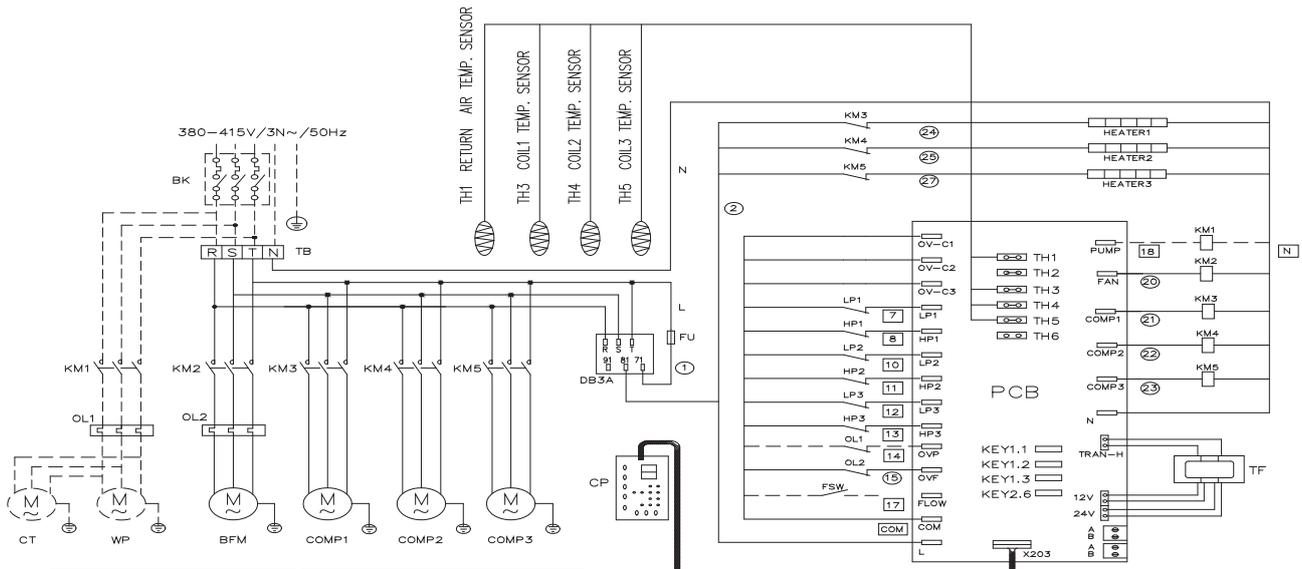
NOTE:
WARRANTY MAY BE VOIDED UNLESS RECOMMENDED WIRING IS FOLLOWED.

■ MODEL: UCCP100ADE



NOTE:
WARRANTY MAY BE VOIDED UNLESS RECOMMENDED WIRING IS FOLLOWED.

MODEL: UCCP115AE/125AE



SYMBOL	DESCRIPTION	SYMBOL	DESCRIPTION
BFM	BLOWER FAN MOTOR	KM1-5	CONTACTOR
FSW	FLOW SWITCH	OL1-2	OVERLOAD RELAY
FU	FUSE	COMP1-3	COMPRESSOR
DB3A	PHASE PROTECTOR	PCB	CONTROLLER
WP	WATER PUMP	CP	CONTROL PANEL
CT	COOLING TOWER FAN MOTOR	HP1-3	HIGH PRESSURE SWITCH
BK	BREAKER	LP1-3	LOW PRESSURE SWITCH
TB	TERMINAL BLOCK	HEATER1-3	COMPRESSOR CRANKCASE HEATER
TF	TRANSFORMER		

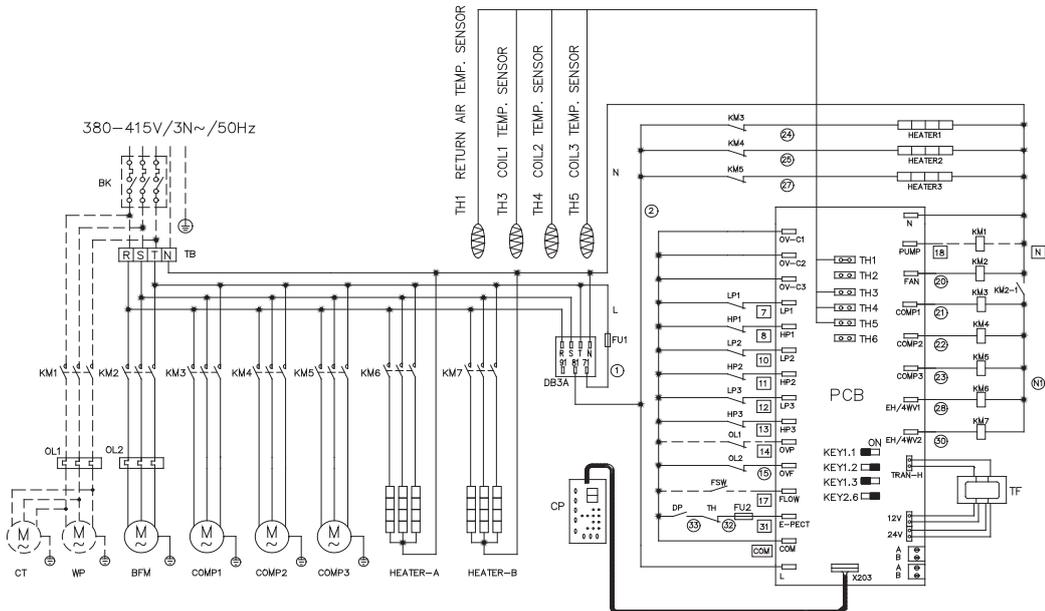
NOTE:
WARRANTY MAY BE VOIDED UNLESS RECOMMENDED WIRING IS FOLLOWED

OVERLOAD RELAY AND CONTROLLER KEY SETTING:

MODEL	EXT.STATIC PRESSURE	OL2	KEY1.1	KEY1.2	KEY1.3	KEY2.6
UCCP115AE	250Pa	13A	OFF	ON	ON	ON
	300/350/400Pa	17.2A	OFF	ON	ON	ON
UCCP125AE	250/300/350/400Pa	17.2A	OFF	ON	ON	ON

NOTE: - - - - - FIELD WIRING
————— FACTORY WIRING

MODEL: UCCP115ADE/125ADE



SYMBOL	DESCRIPTION	SYMBOL	DESCRIPTION
BFM	BLOWER FAN MOTOR	KM1-7	CONTACTOR
FSW	FLOW SWITCH	OL1-2	OVERLOAD PROTECTOR
FU1-2	FUSE	COMP1-3	COMPRESSOR
DB3A	PHASE PROTECTOR	PCB	CONTROLLER
WP	WATER PUMP	CP	CONTROL PANEL
CT	COOLING TOWER FAN MOTOR	HP1-3	HIGH PRESSURE SWITCH
BK	BREAKER	LP1-3	LOW PRESSURE SWITCH
TB	TERMINAL BLOCK	HEATER1-3	COMPRESSOR CRANKCASE HEATER
TF	TRANSFORMER	HEATER-A/B	AUXILIARY ELECTRIC HEATER
TH	THERMOSTAT	DP	PRESSURE DIFFERENCE SWITCH

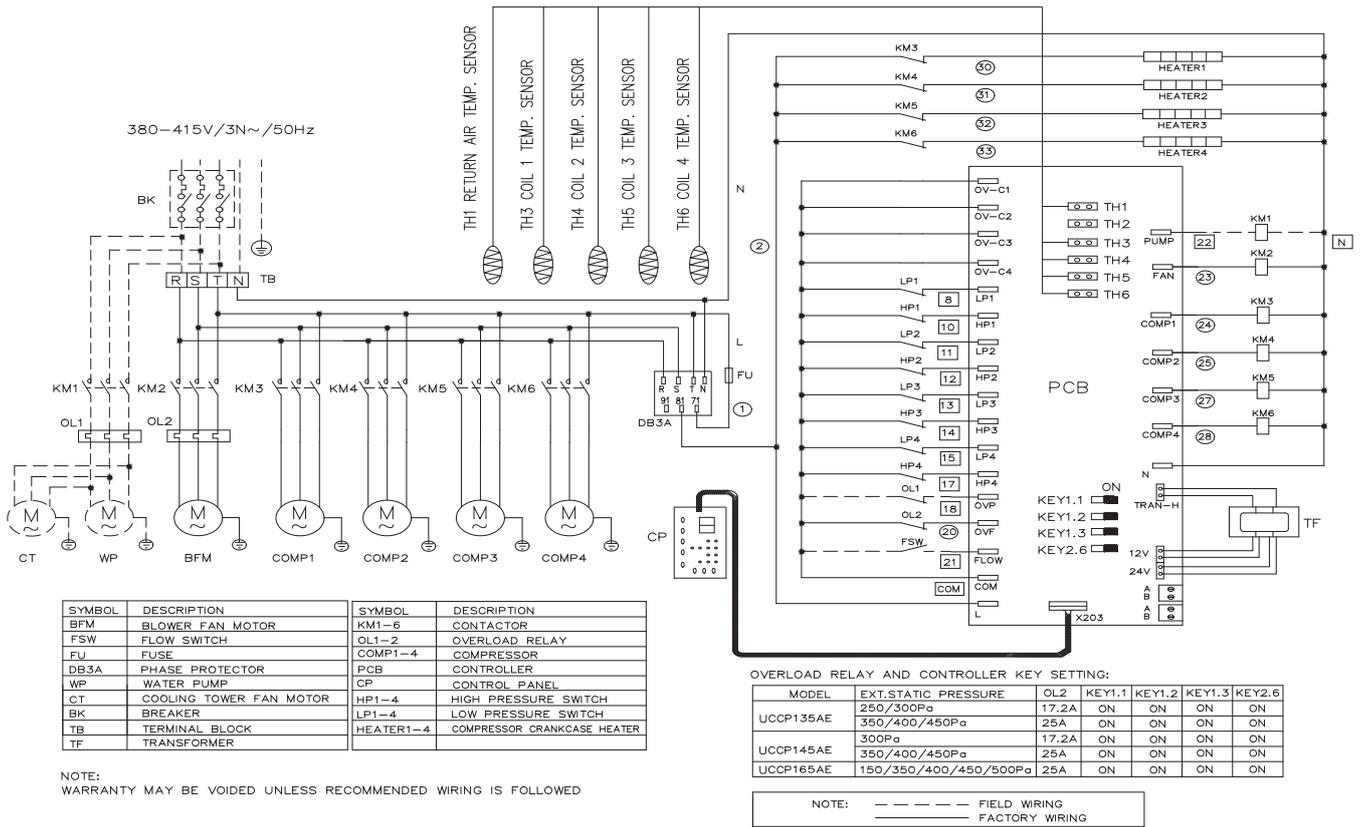
NOTE :
WARRANTY MAY BE VOIDED UNLESS RECOMMENDED WIRING IS FOLLOWED

OVERLOAD PROTECTOR AND CONTROLLER KEY SETTING:

MODEL	EXT.STATIC PRESSURE	OL2	KEY1.1	KEY1.2	KEY1.3	KEY2.6
UCCP115ADE	250Pa	13A	OFF	ON	OFF	ON
	300/350/400Pa	17.2A	OFF	ON	OFF	ON
UCCP125ADE	250/300/350/400Pa	17.2A	OFF	ON	OFF	ON

NOTE: - - - - - FIELD WIRING
————— FACTORY WIRING

MODEL: UCCP135AE/145AE/165AE

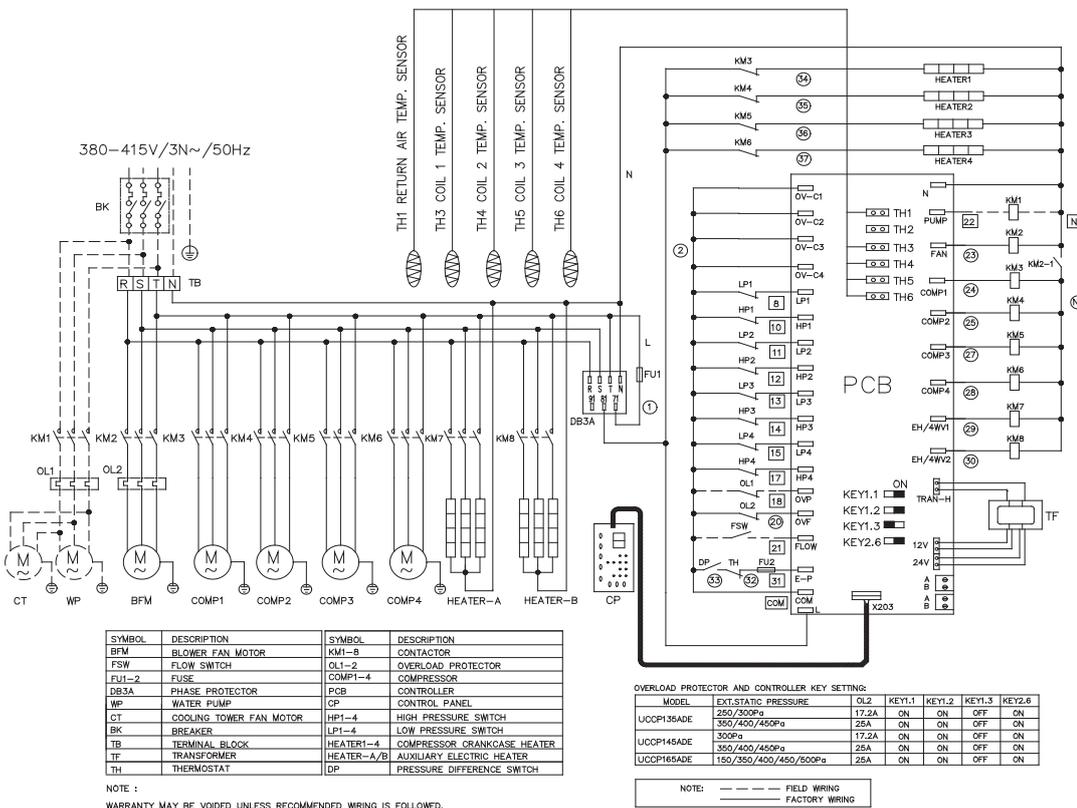


OVERLOAD RELAY AND CONTROLLER KEY SETTING:

MODEL	EXT.STATIC PRESSURE	OL2	KEY1.1	KEY1.2	KEY1.3	KEY2.6
UCCP135AE	250/300Pa	17.2A	ON	ON	ON	ON
UCCP145AE	350/400/450Pa	25A	ON	ON	ON	ON
UCCP165AE	150/350/400/450/500Pa	25A	ON	ON	ON	ON

NOTE: - - - - - FIELD WIRING
————— FACTORY WIRING

MOEDL: UCCP135ADE/145ADE/165ADE

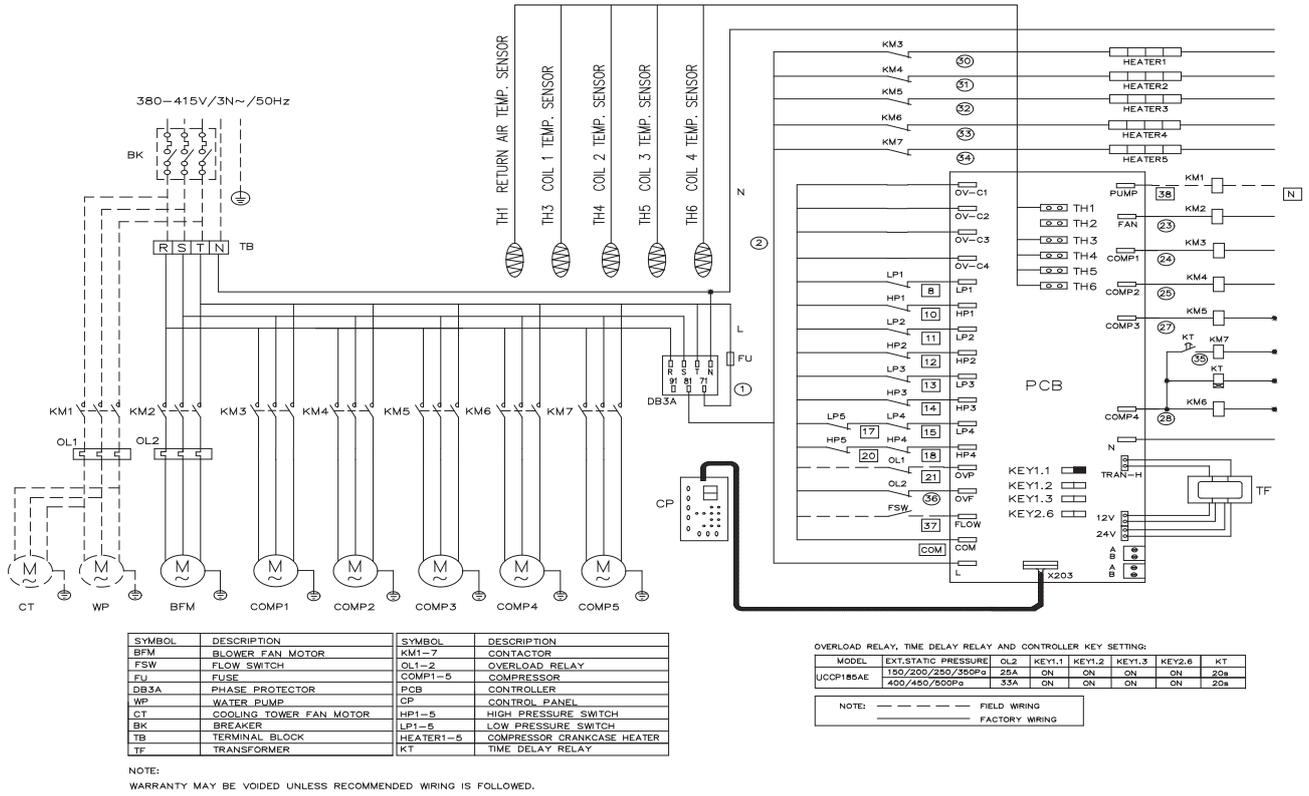


OVERLOAD PROTECTOR AND CONTROLLER KEY SETTING:

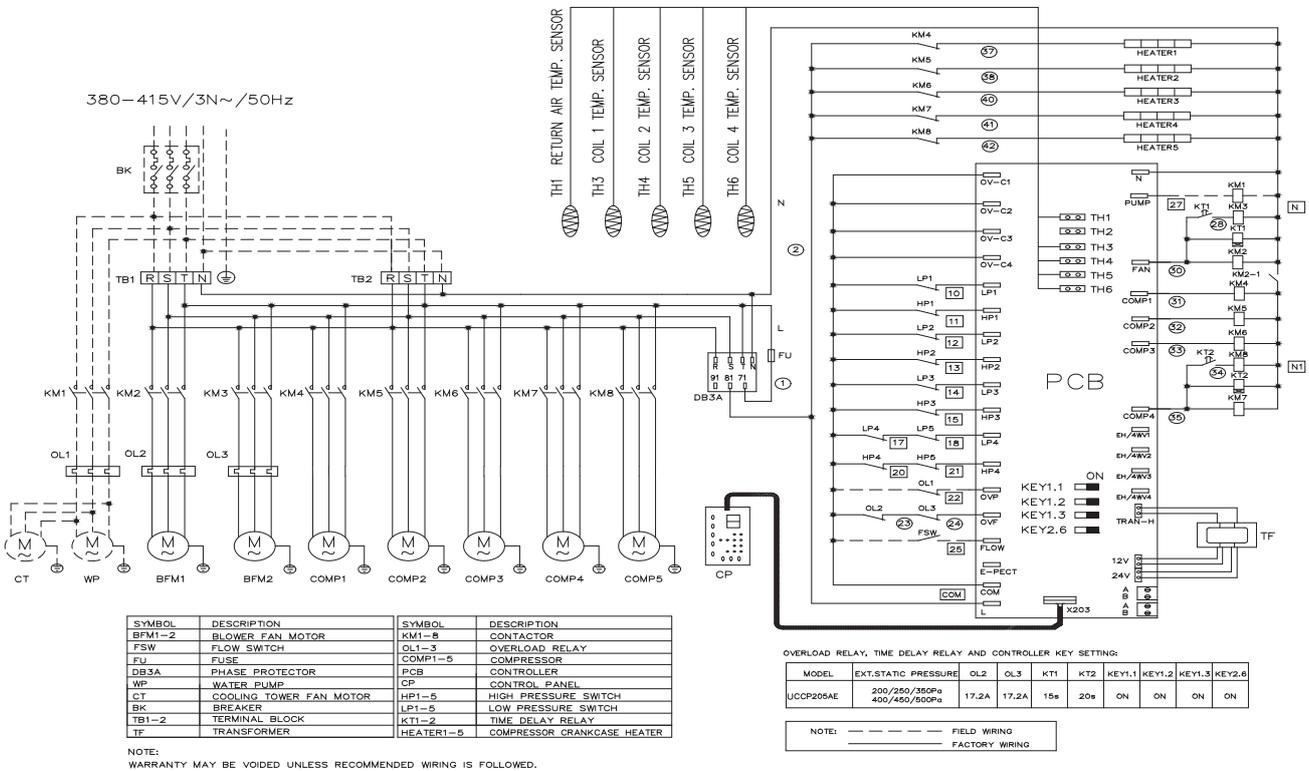
MODEL	EXT.STATIC PRESSURE	OL2	KEY1.1	KEY1.2	KEY1.3	KEY2.6
UCCP135ADE	250/300Pa	17.2A	ON	ON	OFF	ON
UCCP145ADE	350/400/450Pa	25A	ON	ON	OFF	ON
UCCP165ADE	150/350/400/450/500Pa	25A	ON	ON	OFF	ON

NOTE: - - - - - FIELD WIRING
————— FACTORY WIRING

MODEL: UCCP185AE



MODEL: UCCP205AE



Installation

General

CAUTION: This equipment must be installed and serviced by authorized DAIKIN service personnel or a qualified service person experienced in air conditioning equipment installation. Installation must comply with all applicable codes, particularly in regard to electrical wiring and other safety elements such as relief valves, HP cutout settings, design working pressures and ventilation requirements consistent with the amount and type of refrigerant charge.

Inspection

As soon as the unit is received, it should be inspected for any damage that may have occurred in transit. If damage is evident, it should be noted on the carrier's freight bill. A separate request for inspection by the carrier's agent should be made in writing at once.

Check shipment against the bill of lading to verify that all items were delivered. Any shortages should be noted on the delivery receipt, and a claim filed immediately.

Limitations

1. An excessively high waterflow and a low water temperature may cause condensate to freeze on the surface of the evaporator coil.
2. An excessively low waterflow and a high water temperature may cause the unit to shut down on its high pressure cutout.
3. The range of water flow rate is 80%~130%, the range of ambient temperature is 16~35°C, the range of relative humidity is below 90%
4. These units are not suitable for outdoor installation.
5. These units should be installed in accordance with:
 - a) Regulations of local utility or other authorities having jurisdiction.
 - b) Wiring must conform to provisions of local ordinances.
 - c) A breaker device shall be installed at power supply incoming line, it shall have at least 3mm contact separation. The breaker device shall have short circuit and ground fault protection function. The breaker device shall be provided and installed by user.
6. Voltage fluctuation range, Fluctuations in grid frequency range and phase voltage unbalance rate:
 - a) Voltage fluctuation range is within $\pm 10\%$
 - b) Fluctuations in grid frequency range is within $\pm 1\%$
 - c) Phase voltage unbalance rate between any two phases shall be below 2% of the rated voltage

Handling

Each unit is skidded at the factory. Care should be used during handing to avoid damage to the unit and components.

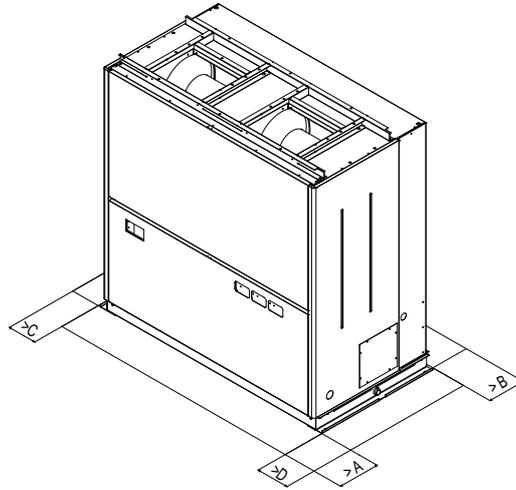
Normally, the unit can be moved into position using a lift truck or pipe rollers and under no circumstances should they be 'walked' on the corners of the crate.

The skids should not be removed till the unit is set in position. If the unit must be lifted by a crane or hoist, spreader bars and pads must be used to prevent damage. (See Table 1 for shipping weights.)

Installation Space

There should be sufficient space for maintenance and repair around the unit. If the conditions allow, large maintenance space shall be reserved.

The image below shows the size of the minimum space for the unit.



Model	A (mm)	B (mm)	C (mm)	D (mm)
UCCP 35/55/70	1500	900	900	900
UCCP 75/85/100/115/125/ 135/145/165/185/205	900	1500	900	900

Location and Clearances

The packaged unit is designed for installation on a flat and level concrete foundation. It must be capable of supporting the operating weight of the unit.

TABLE 1 –SHIPPING WEIGHTS

MODEL	WEIGHT(kg)	MODEL	WEIGHT (kg)
UCCP35AE/ADE	300 (320)/ 313 (333)	UCCP125AE/ADE	1075/1125
UCCP55AE/ADE	480 (510)/ 498 (528)	UCCP135AE/ADE	1275/1305
UCCP70AE/ADE	640 (680)/ 672 (702)	UCCP145AE/ADE	1285/1315
UCCP75AE/ADE	760/800	UCCP165AE/ADE	1300/1330
UCCP85AE/ADE	840/880	UCCP185AE	1405
UCCP100AE/ADE	970/1000	UCCP205AE	1460
UCCP115AE/ADE	1055/1105		

NOTE: MAKE SURE THERE IS ADEQUATE CLEARANCES AND FLOOR STRENGTH THROUGH DOORS AND PASSAGE WAYS. THE PARAMETERS IN THE PARENTHESES ARE APPLICABLE FOR THE UNITS WITH PLENUM BOX.

Forbid installing the unit in the site where make corrosion metal and other electrical components are easy to be corrosive. In order to avoid the cooling water becoming corrosion, please notice the installation location of the cooling tower. Forbid installing the cooling tower in the polluted river, coast, electroplating factory, chemical factory and trunk road which is covered by harmful gases, at the same time, please increase the frequency of checking the water quality. Forbid installing in the vent of Ammonia equipment and toilet, the vent of operating room, and nearby sewer. That the pipe of condenser is corrosive will lead to leak the gas. ON INSTALLATIONS WHERE THE UNIT OR COOLING TOWER COULD BE EXPOSED TO LOW AMBIENT CONDITIONS, FREEZE PROTECTION IS THE RESPONSIBILITY OF OTHERS.

Installation should allow for water drain, ventilation and clearances for service, including removal of compressor(s) and condenser. Recommended minimum clearances are shown on the unit dimensions drawing.

Acoustical Considerations

With any mechanical system, a certain amount of vibration and noise is generated. To insure a successful installation of these units, DAIKIN has provided the following:

1. Internal vibration isolators for compressors.
2. Acoustically treated fan section(standard).

If return air duct is to be used, a flex connector must be field supplied.

Care must be exercised to isolate the unit and piping from walls and ceiling.

Besides vibration which is transmitted by conduction, radiated noise and fan noise must also be addressed. Compressors, pumps etc., all generated noise can be radiated to the occupied space. The most common approach to reducing this possibility, is to locate the units in least sensitive areas. This could be near stairs, elevators or lavatories.

Good acoustical practices should be employed when designing the walls between the machine room and the occupied space. All openings around doors should be sealed. The return air opening must be acoustically treated. Noise will also be carried through the fan and supply ductwork to the occupied space. When the sound attenuation package is required, you should consider installing sound attenuation in the supply ductwork.

Piping Connections

■ General

All system piping should be installed in accordance with local codes ordinances. The piping should be designed with a minimum number of bends and changes in elevation to keep costs to a minimum and unit performance to a maximum.

A good installation should include the following:

1. Vibration eliminators to reduce vibration and noise transmission to the building.
2. Shut-off valves to isolate the unit from the piping system during service.
3. Manual or automatic air vent valves at the high points of the system.
4. Some means of maintaining adequate system water pressure(e.g., regulating valve and/or expansion tank).
5. Install temperature and pressure indicators at the unit to aid in servicing and trouble shooting.
6. Installation of a strainer to remove foreign matter from the water before it enters the pump. It should be located far enough upstream of the pump to prevent cavitation at the inlet.

■ Condenser Water Piping

All internal condenser water piping is completed factory assembled. Field piping should be connected to the pipes that are stubbed out at the panels. Supply water must be connected to the factory piping as indicated by the markings on the unit.

■ Water Cooling Tower Piping

When installing these units with a cooling tower, some means of controlling head pressure must be provided. Units' max working pressure can't be more than the value marked on nameplate.

Water flow through the cooling tower should be constant at the same time. It must be possible to vary the water flow through the condenser to keep the condensing pressure and temperature constant according to load and outside temperature and wet bulb conditions to assure proper operation of the thermal expansion valve or valves. This may be accomplished by installing a 3-way water regulating valve as shown in Fig.1. The valve should be set to maintain 18.3°C minimum leaving condenser water temperature.

The use of a three way water regulating valve with bypass is highly recommended since it maintains constant condensing pressure regardless of outside temperature conditions and insures proper operation of the evaporator expansion valve.

It is important to follow the instructions of the water regulating valve manufacturer in regard to installation recommendations and valve adjustment procedures.

Thermometer wells should be located at the condenser inlet and outlet to aid in performance and service work.

■ Condensate Drain

Two standard drain connections:

1. On the drain pan that forms the partition between the coil and condensing section.
2. On the auxiliary drain pan that forms the unit base.

A trap should be placed in the evaporator condensate drain line to prevent hot outside air from being pulled into the evaporator section and to allow the condensate to drain away. The trap can be placed at any location in the drain line as long as it has a minimum of 2" head as shown in Fig.2.

Drain lines running to the outside of the building should be extended beyond the wall to prevent condensate from running down the building surface.

Condensate Drain insulation: The drain should be insulated where water drippage, due to condensation.

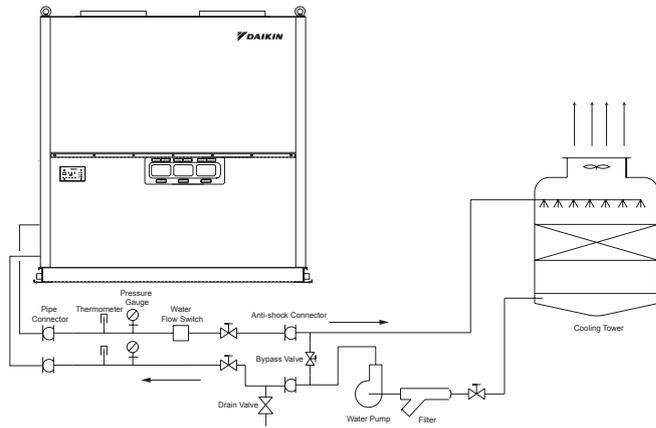


FIG.1-CONDENSER WATER PIPING COOLING TOWER

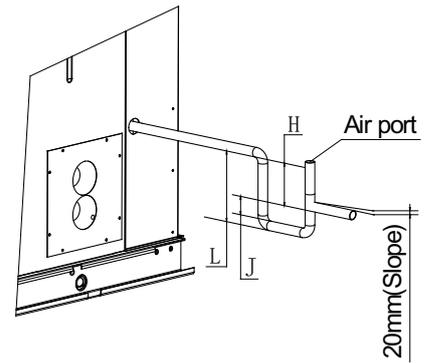


FIG.2-CONDENSATE DRAIN TRAP

■ Water Quality

The water system must be preliminary softening treatment, aimed to protecting plate exchanger from scaling. In addition, the unsoften water may be scaled on the pipeline, leading to increasing the water resistance, and the water flow and water pump will be impacted.

Project			Reference value	Tendency	
				Corrosion	Softening
Reference Item	pH value(25°C)		6.5~8.0	○	○
	Electric conductivity(25°C)	μS/cm	<800	○	○
	Cl ⁻	mg(Cl ⁻)/L	<200	○	
	SO ²⁻	mg(SO ²⁻)/L	<200	○	
	Acid consumption(pH=4.8)	mg(CaCO ₃)/L	<100		○
	Full hardness	mg(CaCO ₃)/L	<200		○
Reference Project	Fe ⁴	mg(Fe ⁴)/L	<1.0	○	○
	S ²⁻	mg(S ²⁻)/L	No containing	○	
	NH ⁺	mg(NH ⁺)/L	<1.0	○	
	SiO ₂	mg(SiO ₂)/L	<50		○

NOTE: ○ STANDS FOR FACTORS OF CORROSION AND SOFTENING TENDENCY

If the water in the system can't accord with the requirement, the normal way is as below:

1. Using water-water plate heat ex-changer to separate the system water and cooling water, this special plate heat ex-changer should be anti-corrup and easy washing.
2. Selecting some equipment to deal with the water in the system, you can look for detailed information from special company.

Duct Connections

■ Supply Air

The standard DAIKIN UCCP unit is provided with a fan outlet collar for connection of supply ductwork. DAIKIN recommends that a straight duct having the same dimensions as the fan outlet be used. This duct should be at least 3 duct diameters in length prior to installing any elbows or transition. See Table 2 for the minimum length of straight duct required for your particular unit.

TABLE 2 – DUCT CONNECTION SIZES

MODEL	FAN SUPPLY	MINIMUM LENGTH	MODEL	FAN SUPPLY	MINIMUM LENGTH
	SIZE (mm)	STRAIGHT DUCT (mm)		SIZE (mm)	STRAIGHT DUCT (mm)
UCCP35	300	900	UCCP125	460	1140
UCCP55	380	1140	UCCP135	460	1140
UCCP70	460	1380	UCCP145	460	1380
UCCP75	380	1140	UCCP165	460	1380
UCCP85	380	1140	UCCP185	460	1380
UCCP100	380	1140	UCCP205	560	1380
UCCP115	460	1140			

If the required length of straight ductwork is not used and transitions or elbows are installed close to the fan outlet, extra pressure losses will occur. These losses are referred to as "system effects". For more details on this subject refer to A.M.C.A. Standard 210, titled "Fan and System".

Notes:

- 1.The models with the plenum box can not be used to connect to the air duct. Otherwise, the unit may be damaged due to air volume insufficient.
- 2.The electric heater models should be connected with same size duct of corresponding cooling only unit.

■ Return Air

The DAIKIN UCCP units are designed for "free air return". The equipment room serves as the return air plenum. If the return air is ducted to the unit, a flex connection must be supplied. Only return air should be ducted to the unit. Outside air should not be brought into the return area.

■ Insulation

Insulate ductwork that passes through unconditioned space during cooling. Insulation should include a vapour barrier to prevent absorption of moisture.

Operation

General

The DAIKIN UCCP unit is designed for single power supply connection. No separate supply is required for the controls. The units are supplied for use on 380-415V/3N~/50Hz power supply. The control voltage for the control panel operation is 220-240V~/50Hz.

Caution

The unit must not be restarted within 3 minutes after shutting down.

Make sure that the unit is properly grounded by checking the ground terminal.

Each system contains factory mounted, wired, adjusted and tested controls required to operate and protect the unit.

The control system includes compressor overload protection, motor winding protection, high and low pressure cutouts, to guard against compressor damage due to high discharge head pressure and system leakage.

The unit has a single point power connection with each compressor circuit being individually fused. This will permit additional compressors to operate when other compressor is down

After Installation About Prior To Start Up

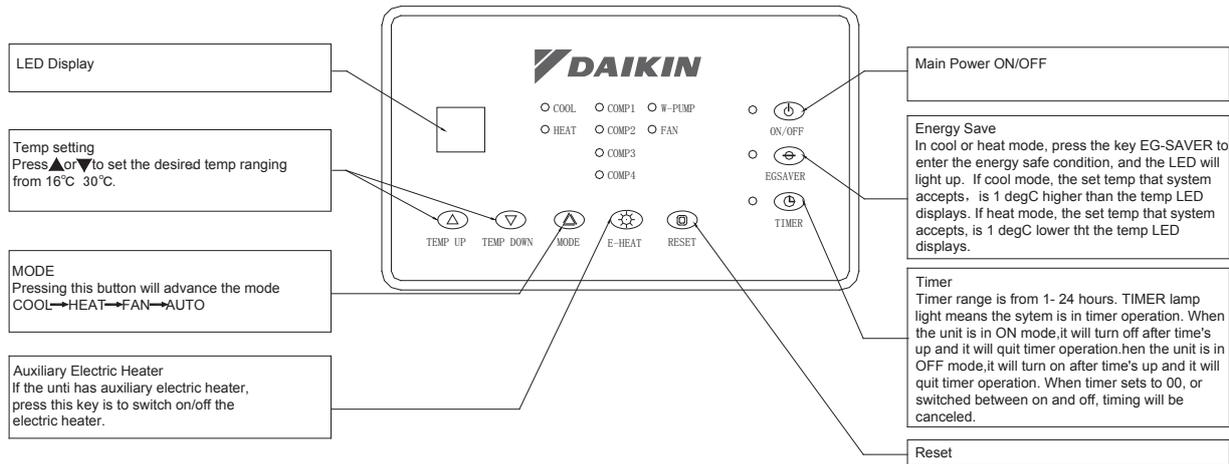
- 1) Visually check power wiring for size and type. It must meet all local codes and N.E.C. codes.
- 2) Verify that field wiring matches the 3-phase power requirements of the unit. See caution on schematic diagram in the control panel.
- 3) Check the unit visually for indication of leaks in the refrigerant circuit.
- 4) Check the drive alignment of the pulleys using the four points method prior to adjusting belt tension.
- 5) Check the fan wheel position in the scroll, by rotating the fan manually. If any rubbing occurs, make necessary corrections.
- 6) Install all panels on the air side of the unit after internal unit inspection is completed.
- 7) Be sure all sensors are installed in the ductwork (supply and return) and in the cooling water lines.
- 8) Check to see that all piping such as cooling water and drains are completed and tested. The steam and drain traps must be installed.
- 9) Verify that water pumps (cooling) function properly and that proper flows have been set.
- 10) Are recommended pressure taps and temperature wells installed for trouble shooting, if required.
- 11) Be sure cooling tower fans are wired correctly and fans are turning in the right direction.

Function Instruction

1) Features:

- Operation Mode: COOL/HEAT/FAN/AUTO;
- Room temperature setting, ranging from 16°C~30°C;
- TIMER On/Off setting, ranging from 1~24hours, If the LED display 0, timing function disable;
- Energy saver function (EG-SAVER);
- Alarm function;
- LED display indicates the states of the unit;
- Auto re-start after power failure (Optional).

2) Control panel operation instruction:



Operation Steps

- 1) Finish checking all the items (after installation but prior to start up).
- 2) Press MODE button to select the operation mode.
- 3) If required, press TIMER button to preset time.
- 4) Press ON/OFF button to start up the unit.
 - In Cool Mode, the start sequence is, Switch ON → Water pump on → 50s → Fan on → 10s → Comp on → 30S → Next comp on → 30S → Next comp on → 30S → Next comp on
 - In Fan Mode, Switch ON → Fan On.
- 5) When the unit runs, you can press TEMP button or EG-SAVER button, so that the temperature indoor is according to your requirement.
- 6) Shut off the unit

In Cool Mode, the start sequence is, Switch OFF → 7S → Comp OFF → 2S → Next Comp OFF → 2S → Next Comp OFF → 2S → Next Comp OFF → 7S → Fan OFF → 40S → Water pump OFF

Troubleshooting

Error Code:

Error Code	Error Description	Error Code	Error Description
L1	Comp 1 Low pressure	H0	Fan motor overload
H1	Comp 1 High pressure	E7	Water pump overload
L2	Comp 2 Low pressure	L8	Shortage of water flow
H2	Comp 2 High pressure	H9	Pressure switch input
L3	Comp 3 Low pressure	E0	Return air sensor fault
H3	Comp 3 High pressure	E1	Coil 1 sensor fault
L4	Comp 4 Low pressure	E2	Coil 2 sensor fault
H4	Comp 4 High pressure	E3	Coil 3 sensor fault
H5	Comp 1 Overload	E4	Coil 4 sensor fault
H6	Comp 2 Overload	L0	No feedback signal
H7	Comp 3 Overload	E9	Communication fault
H8	Comp 4 Overload	E8	Memorizer reading fault

- 1) Once an alarm occurs, LED will display the error code, meanwhile, the alarm output switch will be close. When there are more than one error, the LED will display their error codes one by one per second.
- 2) When the trouble is settled, the system still maintains the state of error. Only after pressing the key RESET, the system will resume to work
- 3) When there is an Alarm, press key RESET, it will release the Alarm for service. Press the key RESET one more time, the system will check the Alarm signal again, if the trouble is still there, the system will alarm again, but temperature sensor fault and no feedback fault will reset automatically
- 4) Cool and Fan Mode can be selected before unit startup and related indicate lamp will light up. After unit startup, the lamp of ON/OFF will light up, and then, other indicate lamps will light up when its equipment is running.

Unit Address Setting

The control system with networking can connect up to 1024unit via RS-485 communication port. The unit address can be set via On or Off of KEY2.1—KEY2.5. In one networking system, there is no same unit address for different units. Our factory can provide the open communication protocol, please contact the factory if needed.

Unit Address Table:

Key2.5	Key2.4	Key2.3	Key2.2	Key2.1	Unit address
OFF	OFF	OFF	OFF	OFF	00
OFF	OFF	OFF	OFF	ON	01
OFF	OFF	OFF	ON	OFF	02
OFF	OFF	OFF	ON	ON	03
OFF	OFF	ON	OFF	OFF	04
OFF	OFF	ON	OFF	ON	05
OFF	OFF	ON	ON	OFF	06
OFF	OFF	ON	ON	ON	07
OFF	ON	OFF	OFF	OFF	08
OFF	ON	OFF	OFF	ON	09
OFF	ON	OFF	ON	OFF	10
OFF	ON	OFF	ON	ON	11
OFF	ON	ON	OFF	OFF	12
OFF	ON	ON	OFF	ON	13
OFF	ON	ON	ON	OFF	14
OFF	ON	ON	ON	ON	15
ON	OFF	OFF	OFF	OFF	16
ON	OFF	OFF	OFF	ON	17
ON	OFF	OFF	ON	OFF	18
ON	OFF	OFF	ON	ON	19
ON	OFF	ON	OFF	OFF	20
ON	OFF	ON	OFF	ON	21
ON	OFF	ON	ON	OFF	22
ON	OFF	ON	ON	ON	23
ON	ON	OFF	OFF	OFF	24
ON	ON	OFF	OFF	ON	25
ON	ON	OFF	ON	OFF	26
ON	ON	OFF	ON	ON	27
ON	ON	ON	OFF	OFF	28
ON	ON	ON	OFF	ON	29
ON	ON	ON	ON	OFF	30
ON	ON	ON	ON	ON	31

NOTE:

THE DIP SWITCH KEY1.1, KEY1.2, KEY1.3 AND KEY2.6 HAVE BEEN SET READY BEFORE EX-FACTORY, PLEASE DO NOT CHANGE THE SETTING, OR THE UNIT MAY NOT BE RUNNING.

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.



The air conditioners manufactured by Daikin Industries have received **ISO 9001 series** certification for quality assurance.

Certificate Number. 9601019



The airconditioning factories of Daikin Industries have received environmental management system standard **ISO 14001** certification.

Certificate Number. EMS80362

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

DAIKIN INDUSTRIES, LTD.

Head Office:
Umeda Center Bldg., 2-4-12, Nakazaki-Nishi,
Kita-ku, Osaka, 530-8323 Japan
http://www.daikin.com/global_ac/

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