

HCU Series

Open-Type Air-Cooled w/
Semi-Hermetic Compressor





HCU

**HCU Series Open-type
Air-cooled Unit With
Semi-hermetic Compressor**





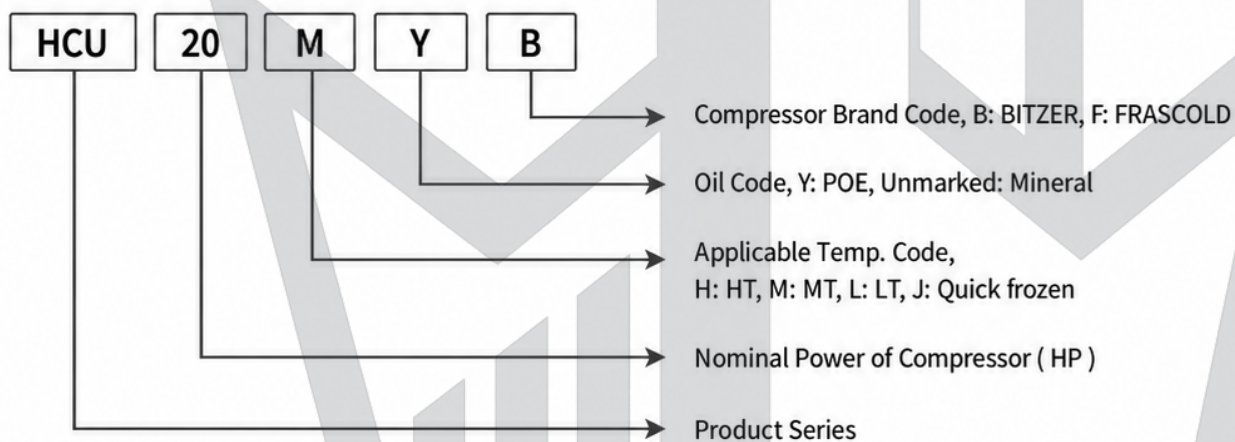
HCU SERIES OPEN-TYPE AIR-COOLED UNIT WITH SEMI-HERMETIC COMPRESSOR

1 PRODUCT DESCRIPTION

HCU series open-type air-cool condensing units have the following characteristics:

- 1 Adopted semi-hermetic piston compressors with BITZER or FRASCOLD. It has good quality and high reliability;
- 2 The air-cooled condenser, compressor and various accessories are installed on an integral frame, which is compact in structure and convenient in operation and maintenance;
- 3 Adopted high duct condenser with external rotor fan, which has low noise and high efficiency;
- 4 The product series is complete, with high, medium, low temperature and quick-frozen working conditions design. It can meet the needs of refrigeration equipment at various temperatures;
- 5 It can meet the requirements of R22, R404A, R507A, R448A, R449A and other refrigerants.

2 MODEL DESCRIPTION





3.1 Series Units With BITZER Semi-hermetic Compressor

3.1.1 High temp. units

1) Refrigerant R404A / R507A

Model		HCU-						
		02HYB	03HYB	03HYB	04HYB	05HYB	06HYB	07HYB
Power Supply		3P / 380V / 50Hz						
Apply Temp.		5°C ~ 15°C						
Comp.	Model	2GES-2Y	2FES-3Y	2DES-3Y	2CES-4Y	4FES-5Y	4EES-6Y	4DES-7Y
	Max. I (A)	5.0	6.1	8.6	10.0	10.8	13.6	16.5
Fan	Voltage (V)	3P / 380V / 50Hz						
	Current (A)	0.52	0.52	1.04	1.04	1.04	2.1	2.1
	Power (W)	240	240	240×2	240×2	240×2	240×4	240×4
	Rev. (r/min)	1330	1330	1330	1330	1330	1330	1330
Capacity / Power (kW)	5°C	5.8/2.3	5.7/2.7	11.0/3.9	13.5/4.8	14.7/5.0	18.6/6.4	22.6/7.6
	Evap. 0°C	5.0/2.1	6.2/2.5	9.6/3.5	11.8/4.3	12.9/4.6	16.2/5.9	19.6/7.0
	Evap. -5°C	4.3/1.9	5.2/2.3	8.1/3.2	10.0/4.0	10.9/4.3	13.7/5.4	16.5/6.5
Suction Line (mm)		Φ16	Φ16	Φ22	Φ22	Φ22	Φ28	Φ28
Liquid Line (mm)		Φ9.5	Φ9.5	Φ12	Φ12	Φ12	Φ12	Φ16
Size	A (mm)	850	850	1435	1435	1435	1550	1550
	B (mm)	800	800	850	850	850	990	990
	C (mm)	830	830	830	830	830	930	930
Install a×b (mm)		456×760	456×760	741×810	741×810	741×810	785×950	785×950
Dimension Drawing		A	A	B	B	B	B	B

Model		HCU-						
		09HYB	12HYB	15HYB	20HYB	25HYB	30HYB	35HYB
Power Supply		3P / 380V / 50Hz						
Apply Temp.		5°C ~ 15°C						
Comp.	Model	4CES-9Y	4TES-12Y	4PES-15Y	4NES-20Y	4HE-25Y	4GE-30Y	4FE-35Y
	Max. I (A)	20.2	25.2	28.2	33.2	44.0	51.2	62.1
Fan	Voltage (V)	3P / 380V / 50Hz						
	Current (A)	2.1	2.1	4.4	4.4	4.4	7.0	7.0
	Power (W)	240×4	240×4	548×4	548×4	548×4	937×4	937×4
	Rev. (r/min)	1330	1330	1380	1380	1380	1378	1378
Capacity / Power (kW)	5°C	27.5/9.5	35.0/11.7	40.1/13.3	47.7/15.8	61.9/20.7	70.7/23.9	83.6/29.7
	Evap. 0°C	23.8/8.7	30.2/10.6	34.5/12.1	41.0/14.3	53.8/18.9	61.6/21.8	73.3/27.1
	Evap. -5°C	20.0/8.0	25.3/9.7	28.8/11.0	34.5/13.0	45.4/17.2	52.0/19.9	62.3/24.8
Suction Line (mm)		Φ28	Φ35	Φ42	Φ42	Φ54	Φ54	Φ54
Liquid Line (mm)		Φ16	Φ16	Φ19	Φ22	Φ22	Φ22	Φ22
Size	A (mm)	1435	1435	1550	1550	1550	1800	1800
	B (mm)	1000	1000	1170	1170	1300	1350	1350
	C (mm)	1430	1430	1630	1630	1630	1880	1880
Install a×b (mm)		900×950	900×950	900×1120	900×1120	900×1250	920×1300	920×1250
Dimension Drawing		C	C	C	C	C	C	C

Note: Calibration of parameters at ambient temperature 32°C.



3. TECHNICAL DATA

3.1 Series Units With BITZER Semi-hermetic Compressor

3.1.2 Medium temp. units

1) Refrigerant R404A / R507A

Model		HCU02MYB	HCU03MYB	HCU03MYB	HCU04MYB	HCU05MYB
Power Supply		3P / 380V / 50Hz				
Apply Temp.		-5°C ~ 5°C				
Comp.	Model	2GES-2Y	2FES-3Y	2DES-3Y	2CES-4Y	4FES-5Y
	Max. I (A)	5.0	6.1	8.6	10.0	10.8
Fan	Voltage (V)	3P / 380V / 50Hz				
	Current (A)	0.52	0.52	1.04	1.04	1.04
	Power (W)	240	240	240×2	240×2	240×2
	Rev. (r/min)	1330	1330	1330	1330	1330
	-5°C	4.0 / 2.0	4.9 / 2.4	7.6 / 3.4	9.4 / 4.1	10.2 / 4.5
Capacity/ Power (kW)	-10°C	3.3 / 1.8	4.1 / 2.2	6.4 / 3.1	7.9 / 3.7	8.5 / 4.1
	-15°C	2.8 / 1.6	3.4 / 2.0	5.3 / 2.8	6.6 / 3.4	7.1 / 3.7
Suction Line (mm)		φ16	φ16	φ22	φ22	φ22
Liquid Line (mm)		φ9.5	φ9.5	φ12	φ12	φ12
Size	A (mm)	850	850	1435	1435	1435
	B (mm)	800	800	850	850	850
	C (mm)	830	830	830	830	830
Install a×b (mm)		456×760	456×760	741×810	741×810	741×810
Dimension Drawing		A	A	B	B	B

Note: Calibration of parameters at ambient temperature 32°C.

Model		HCU06MYB	HCU07MYB	HCU09MYB	HCU12MYB	HCU15MYB
Power Supply		3P / 380V / 50Hz				
Apply Temp.		-5°C ~ 5°C				
Comp.	Model	4EES-6Y	4DES-7Y	4CES-9Y	4TES-12Y	4PES-15Y
	Max. I (A)	13.6	16.5	20.2	25.2	28.2
Fan	Voltage (V)	3P / 380V / 50Hz				
	Current (A)	1.04	2.1	2.1	2.1	2.1
	Power (W)	240×2	240×4	240×4	240×4	240×4
	Rev. (r/min)	1330	1330	1330	1330	1330
	-5°C	12.9 / 5.8	15.6 / 6.7	18.7 / 8.2	23.6 / 10.3	27.0 / 11.4
Capacity/ Power (kW)	-10°C	10.8 / 5.3	12.9 / 6.2	15.6 / 7.4	19.6 / 9.2	22.3 / 10.2
	-15°C	9.0 / 4.7	10.7 / 5.6	12.9 / 6.7	16.1 / 8.1	18.2 / 9.0
Suction Line (mm)		φ28	φ28	φ28	φ35	φ42
Liquid Line (mm)		φ12	φ16	φ16	φ16	φ19
Size	A (mm)	1435	1550	1435	1435	1435
	B (mm)	850	990	1000	1000	1100
	C (mm)	830	930	1430	1430	1430
Install a×b (mm)		741×810	785×950	900×950	900×950	900×1050
Dimension Drawing		B	B	C	C	C

Note: Calibration of parameters at ambient temperature 32°C.



3. TECHNICAL DATA

3.1 Series Units With BITZER Semi-hermetic Compressor

3.1.2 Medium temp. units

1) Refrigerant R404A / R507A

Model		HCU20MYB	HCU25MYB	HCU30MYB	HCU35MYB	HCU40MYB
Power Supply		3P / 380V / 50Hz				
Apply Temp.		-5°C ~ 5°C				
Comp.	Model	2GES-2Y	2FES-3Y	2DES-3Y	2CES-4Y	4FES-5Y
	Max. I (A)	5.0	6.1	8.6	10.0	10.8
Fan	Voltage (V)	3P / 380V / 50Hz				
	Current (A)	0.52	0.52	1.04	1.04	1.04
	Power (W)	240	240	240×2	240×2	240×2
	Rev. (r/min)	1330	1330	1330	1330	1330
Capacity/ Power (kW)	-5°C	4.0 / 2.0	4.9 / 2.4	7.6 / 3.4	9.4 / 4.1	10.2 / 4.5
	-10°C	3.3 / 1.8	4.1 / 2.2	6.4 / 3.1	7.9 / 3.7	8.5 / 4.1
	-15°C	2.8 / 1.6	3.4 / 2.0	5.3 / 2.8	6.6 / 3.4	7.1 / 3.7
Suction Line (mm)		φ16	φ16	φ22	φ22	φ22
Liquid Line (mm)		φ9.5	φ9.5	φ12	φ12	φ12
Size	A (mm)	850	850	1435	1435	1435
	B (mm)	800	800	850	850	850
	C (mm)	830	830	830	830	830
Install a×b (mm)		456×760	456×760	741×810	741×810	741×810
Dimension Drawing		A	A	B	B	B

Note: Calibration of parameters at ambient temperature 32°C.

3.1.3 Low temp. unit

1) Refrigerant R404A / R507A

Model		02LYB	03LYB	04LYB	05LYB	06LYB	09LYB	12LYB
Power Supply		3P / 380V / 50Hz						
Apply Temp.		-15°C ~ -30°C						
Comp.	Model	2DES-2Y	2CES-3Y	4EES-4Y	4DES-5Y	4CES-6Y	4TES-9Y	4PES-12Y
	Max. I (A)	7.5	9.1	12.2	14.5	17.7	19.9	22.7
Fan	Voltage (V)	3P / 380V / 50Hz						
	Current (A)	0.52	0.52	1.04	1.04	1.04	2.1	2.1
	Power (W)	240	240	240×2	240×2	240×2	240×4	240×4
	Rev. (r/min)	1330	1330	1330	1330	1330	1330	1330
Capacity/ Power (kW)	-20°C	3.6 / 2.6	4.5 / 3.2	6.1 / 4.4	7.3 / 5.2	8.8 / 6.2	10.8 / 7.4	12.0 / 8.1
	-25°C	2.9 / 2.2	3.6 / 2.8	4.9 / 3.8	5.9 / 4.6	7.0 / 5.4	8.6 / 6.4	9.5 / 6.9
	-30°C	2.3 / 1.9	2.9 / 2.4	3.9 / 3.3	4.7 / 3.9	5.6 / 4.6	6.7 / 5.4	7.3 / 5.8
	-35°C	1.7 / 1.6	2.2 / 2.0	3.1 / 2.8	3.6 / 3.3	4.3 / 3.9	5.1 / 4.4	5.5 / 4.7
	-40°C	1.3 / 1.3	1.6 / 1.7	2.3 / 2.3	2.8 / 2.8	3.2 / 3.2	3.8 / 3.6	4.0 / 3.8
Suction Line (mm)		φ22	φ22	φ28	φ28	φ28	φ35	φ35
Liquid Line (mm)		φ12	φ12	φ12	φ12	φ12	φ16	φ16
Size	A (mm)	950	950	1435	1435	1435	1435	1435
	B (mm)	850	850	850	850	850	1000	1000
	C (mm)	830	830	830	830	830	1430	1430
Install a×b (mm)		556×810	556×810	741×810	741×810	741×810	900×950	900×950
Dimension Drawing		A	A	B	B	B	C	C

Note: Calibration of parameters at ambient temperature 32°C.





3. TECHNICAL DATA

3.1.3 Low temp. unit

1) Refrigerant R404A / R507A

Model		HCU-							
		14LYB	18LYB	23LYB	28LYB	28LYB	34LYB	44LYB	
Power Supply		3P / 380V / 50Hz							
Apply Temp.		-15°C ~ -30°C							
Compressor Model	Model	4NES-14Y	4HE-18Y	4GE-23Y	4FE-28Y	6HE-28Y	6GE-34Y	6FE-44Y	
	Max. Current (A)	26.6	36.7	43.9	52.8	53.2	65.5	83.2	
Fan	Voltage (V)	3P / 380V / 50Hz							
	Current (A)	2.1	2.1	2.1	4.4	4.4	4.4	4.4	
	Power (W)	240×4	240×4	240×4	548×4	548×4	548×4	548×4	
	Rev. (r/min)	1330	1330	1330	1380	1380	1380	1380	
Capacity / Power (kW)	Evap. Temp.	-20°C	14.7/10.0	20.7/13.8	24.2/16.4	29.0/19.7	30.5/20.4	36.4/25.0	43.4/30.0
		-25°C	11.7/8.6	16.7/12.0	19.7/14.3	23.5/17.1	24.6/17.7	29.7/21.8	35.3/26.2
		-30°C	9.1/7.2	13.2/10.3	15.7/12.2	18.8/14.7	19.5/15.1	23.8/18.8	28.2/22.6
		-35°C	7.0/6.0	10.2/8.7	12.3/10.4	14.7/12.4	15.1/12.7	18.8/16.0	22.0/19.3
		-40°C	5.2/4.9	7.7/7.3	9.3/8.7	11.2/10.3	11.4/10.5	14.4/13.4	16.7/16.2
Suction Line (mm)		φ35	φ42	φ54	φ54	φ54	φ54	φ54	
Liquid Line (mm)		φ16	φ19	φ22	φ22	φ22	φ22	φ28	
Size	A (mm)	1435	1435	1550	1550	1550	1550	1880	
	B (mm)	1000	1220	1300	1300	1300	1300	1350	
	C (mm)	1430	1430	1630	1630	1630	1630	1880	
Install a×b (mm)		900×950	900×1170	900×1250	700×1250	700×1250	700×1250	900×1300	
Dimension Drawing		C	C	C	C	C	C	C	

Note: Calibration of parameters at ambient temperature 32°C.

3.1.4 Freezing unit with two stage compressor

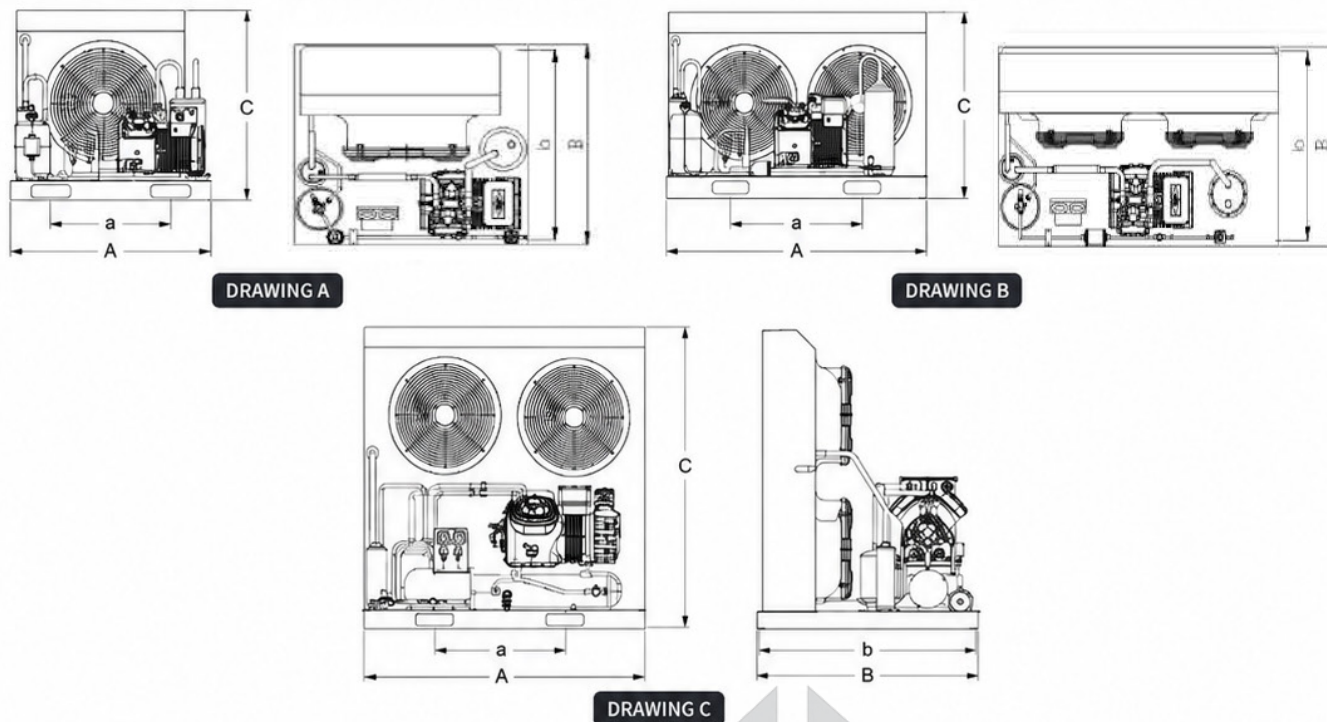
1) Refrigerant R404A / R507A

Model		HCU-							
		05JYB	08JYB	12JYB	16JYB	20JYB	25JYB	30JYB	
Power Supply					3P / 380V / 50Hz				
Apply Temp.					-25°C ~ -55°C				
Compressor Model	Model	S4T5.2Y	S4N8.2Y	S4G12.2Y	S6L16.2Y	S6H20.2Y	S6G25.2Y	S6F30.2Y	
	Max. Current (A)	14.0	17.0	24.0	31.0	37.0	43.0	51.0	
Fan	Voltage (V)				3P / 380V / 50Hz				
	Current (A)	1.04	1.04	2.2	2.2	4.4	4.4	4.4	
	Power (W)	240×2	240×2	548×2	548×2	548×4	548×4	548×4	
	Rev. (r/min)	1330	1330	1380	1380	1380	1380	1380	
Capacity / Power (kW)	Evap. Temp.	-30°C	7.0/5.0	9.8/7.2	15.1/10.8	21.0/15.4	24.1/17.9	27.5/20.5	32.5/24.4
		-35°C	5.7/4.6	8.1/6.5	12.6/9.8	17.6/13.8	20.3/16.0	23.1/18.4	27.3/21.9
		-40°C	4.6/4.1	6.5/5.8	10.4/8.8	14.6/12.3	16.8/14.3	19.2/16.4	22.7/19.6
		-45°C	3.7/3.6	5.2/5.2	8.4/7.8	11.9/10.9	13.7/12.6	15.6/14.5	18.6/17.3
		-50°C	2.9/3.2	4.1/4.5	6.7/6.8	9.5/9.5	11.0/11.0	12.5/12.7	14.9/15.2
		-55°C	2.2/2.7	3.1/3.9	5.2/5.9	7.4/8.3	8.6/9.6	9.8/11.0	11.7/13.1
	-60°C	1.7/2.3	2.4/3.3	3.9/4.9	5.7/7.0	6.6/8.1	7.5/9.3	9.0/11.1	
Suction Line (mm)		φ28	φ28	φ35	φ42	φ42	φ42	φ42	
Liquid Line (mm)		φ12	φ12	φ16	φ22	φ22	φ22	φ22	
Size	A (mm)	1435		1435	1550	1550	1550	1550	
	B (mm)	1050	1050	1150	1300	1300	1300	1300	
	C (mm)	830	830	1430	1630	1630	1630	1630	
Install a×b (mm)		900×1010	900×1010	900×1100	700×1250	700×1250	700×1250	700×1250	
Dimension Drawing		B	B	C	C	C	C	C	

Note: Calibration of parameters at ambient temperature 32°C.



3.2 DIMENSION DRAWING



3.3 CONFIGURATION TABLE OF UNITS

PARTS	HCU SERIES – MODEL OF UNIT													
	02H 02M	03H 03M	04H 04M	05H 05M	06H 06M	07H 07M	09H 09M	12H 12M	15H 15M	20H 20M	25H 25M	30H 30M	35H 35M	40M
Compressor	●	●	●	●	●	●	●	●	●	●	●	●	●	●
Oil Heater	●	●	●	●	●	●	●	●	●	●	●	●	●	●
Discharge Vibration Damper	▲	▲	▲	▲	▲	▲	▲	▲	▲	▲	▲	▲	▲	▲
Oil Separator	▲	▲	▲	▲	▲	▲	▲	▲	▲	▲	▲	▲	▲	▲
Air Condenser	●	●	●	●	●	●	●	●	●	●	●	●	●	●
AC Motor	●	●	●	●	●	●	●	●	●	●	●	●	●	●
Receiver	●	●	●	●	●	●	●	●	●	●	●	●	●	●
Liquid Filter	●	●	●	●	●	●	●	●	●	●	●	●	●	●
Sight Glass	●	●	●	●	●	●	●	●	●	●	●	●	●	●
Solenoid Valve	▲	▲	▲	▲	▲	▲	▲	▲	▲	▲	▲	▲	▲	▲
HP/LP Switch	▲	▲	▲	▲	▲	▲	▲	▲	▲	▲	▲	▲	▲	▲
Oil Protective Switch	/	/	▲	▲	▲	▲	▲	▲	▲	▲	●	●	●	●
HP/LP Gauge	●	●	●	●	●	●	●	●	●	●	●	●	●	●
Accumulator	▲	▲	▲	▲	▲	▲	▲	▲	▲	▲	▲	▲	▲	▲
Electric Control for Unit	▲	▲	▲	▲	▲	▲	▲	▲	▲	▲	▲	▲	▲	▲

● Standard Configuration ▲ Optional (needs extra cost) / Not Available



3.3 CONFIGURATION TABLE OF UNITS

PARTS	HCU-B Model of Unit												
	02L	03L	04L	05L	06L	09L	12L	14L	18L	23L	28L	34L	44L
Compressor	●	●	●	●	●	●	●	●	●	●	●	●	●
Oil Heater	●	●	●	●	●	●	●	●	●	●	●	●	●
Discharge Vibration Damper	▲	▲	▲	▲	▲	●	●	●	●	●	●	●	●
Oil Separator	▲	▲	▲	▲	▲	●	●	●	●	●	●	●	●
Air Condenser	●	●	●	●	●	●	●	●	●	●	●	●	●
AC Motor	●	●	●	●	●	●	●	●	●	●	●	●	●
Receiver	●	●	●	●	●	●	●	●	●	●	●	●	●
Liquid Filter	●	●	●	●	●	●	●	●	●	●	●	●	●
Sight Glass	●	●	●	●	●	●	●	●	●	●	●	●	●
Solenoid Valve	▲	▲	▲	▲	▲	▲	▲	▲	▲	▲	▲	▲	▲
HP/LP Switch	●	●	●	●	●	●	●	●	●	●	●	●	●
Oil Protective Switch	/	▲	▲	▲	▲	▲	▲	▲	▲	▲	▲	▲	▲
HP/LP Gauge	●	●	●	●	●	●	●	●	●	●	●	●	●
Accumulator	▲	▲	▲	▲	▲	▲	▲	▲	▲	▲	▲	▲	▲
Electric Control for Unit	▲	▲	▲	▲	▲	▲	▲	▲	▲	▲	▲	▲	▲

PARTS	HCU-B Model of Unit						
	05J	08J	12J	16J	20J	25J	30J
Two stage Compressor	●	●	●	●	●	●	●
Oil Heater	●	●	●	●	●	●	●
Discharge Vibration Damper	●	●	●	●	●	●	●
Oil Separator	●	●	●	●	●	●	●
Air Condenser	●	●	●	●	●	●	●
AC Motor	●	●	●	●	●	●	●
Receiver	●	●	●	●	●	●	●
Liquid Filter	●	●	●	●	●	●	●
Sight Glass	●	●	●	●	●	●	●
Economizer assembly	●	●	●	●	●	●	●
Solenoid Valve	●	●	●	●	●	●	●
HP/LP Switch	●	●	●	●	●	●	●
Oil Protective Switch	●	●	●	●	●	●	●
HP/LP Gauge	●	●	●	●	●	●	●
Accumulator	●	●	●	●	●	●	●
Electric Control for Unit	▲	▲	▲	▲	▲	▲	▲

● Standard Configuration; ▲ Optional, needs extra cost; / Not Available



4. TECHNICAL DATA

4.1 Series Units With Frascold Semi-hermetic Compressor

4.1.1 High temp. unit

1) Refrigerant R404A / R507A

Model			HCU02HYF	HCU03HYF	HCU04HYF	HCU05HYF	HCU07HYF	HCU07HYF
Power Supply			3P / 380V / 50Hz					
Apply Temp.			5°C ~ 15°C					
Compressor Model			D2-11.1Y	D3-13.1Y	D4-16.1Y	Q5-24.1Y	Q7-28.1Y	Q7-33.1Y
Max Current (A)			7.1	8.8	11.6	13.8	17.6	20.0
Voltage (V)			3P / 380V / 50Hz					
Fan	Current (A)		1.04	1.04	1.04	2.1	2.1	2.1
	Power (W)		240×2	240×2	240×2	240×4	240×4	240×4
	Rev. (r/min)		1330	1330	1330	1330	1330	1330
Capacity / Power	Cooling Capacity (kW)	5°C	9.3/3.3	10.9/3.9	14.0/5.2	19.5/6.8	23.3/8.3	26.9/9.7
	Power Input (kW)	0°C	7.9/3.1	9.3/3.6	11.9/4.8	16.7/6.3	20.0/7.6	23.1/8.9
	Evap. Temp. (°C)	-5°C	6.7/2.9	7.9/3.3	10.1/4.4	14.1/5.7	17.0/7.0	19.6/8.2
Suction Line (mm)			φ22	φ28	φ28	φ28	φ35	φ35
Liquid Line (mm)			φ9.5	φ12	φ12	φ12	φ16	φ16
Size (mm)	A (mm)		850	1435	1435	1550	1550	1435
	B (mm)		800	850	850	990	990	1000
	C (mm)		830	830	830	930	930	1430
Install a×b (mm)			456×760	741×810	741×810	785×950	785×950	900×950
Dimension Drawing			A	B	B	B	B	C

Model			HCU12HYF	HCU15HYF	HCU20HYF	HCU25HYF	HCU30HYF	HCU35HYF
Power Supply			3P / 380V / 50Hz					
Apply Temp.			5°C ~ 15°C					
Compressor Model			S12-42Y	S15-52Y	S20-56Y	V25-71Y	V30-84Y	V35-103Y
Max Current (A)			22.4	32.4	38.4	43.5	49.2	61.0
Voltage (V)			3P / 380V / 50Hz					
Fan	Current (A)		2.1	4.4	4.4	4.4	7.0	7.0
	Power (W)		240×4	548×4	548×4	548×4	937×4	937×4
	Rev. (r/min)		1330	1380	1380	1380	1378	1378
Capacity / Power	Cooling Capacity (kW)	5°C	33.7/11.4	43.6/14.8	47.9/16.5	59.3/20.2	71.1/23.8	82.7/32.9
	Power Input (kW)	0°C	28.7/10.4	37.4/13.6	41.1/15.1	50.5/18.6	60.7/22.1	71.0/29.9
	Evap. Temp. (°C)	-5°C	24.2/9.4	31.8/12.4	35.0/13.7	42.6/17.1	51.3/20.2	60.6/26.9
Suction Line (mm)			φ35	φ42	φ42	φ54	φ54	φ54
Liquid Line (mm)			φ16	φ19	φ22	φ22	φ22	φ22
Size (mm)	A (mm)		1435	1550	1550	1550	1800	1800
	B (mm)		1000	1170	1170	1300	1350	1350
	C (mm)		1430	1630	1630	1630	1880	1880
Install a×b (mm)			900×950	900×1120	900×1120	900×1250	900×1300	900×1300
Dimension Drawing			C	C	C	C	C	C

Note: Calibration of parameters at ambient temperature 32°C.



4. TECHNICAL DATA



4.1 Series Units With Frascold Semi-hermetic Compressor

4.1.2 Medium temp. unit

1) Refrigerant R404A / R507A

Model		HCU-							
		02MYF	03MYF	04MYF	05MYF	07MYF	07MYF	12MYF	
Power Supply		3P / 380V / 50Hz							
Apply Temp.		-5°C ~ 5°C							
Comp.	Model	D2-11.1Y	D3-13.1Y	D4-16.1Y	Q5-24.1Y	Q7-28.1Y	Q7-33.1Y	S12-42Y	
	Max. I (A)	7.1	8.8	11.6	13.8	17.6	20.0	22.4	
Fan	Voltage (V)	3P / 380V / 50Hz							
	Current (A)	0.52	1.04	1.04	1.04	2.1	2.1	2.1	
	Power (W)	240	240×2	240×2	240×2	240×4	240×4	240×4	
	Rev. (r/min)	1330	1330	1330	1330	1330	1330	1330	
Capacity / Power (kW)	Evap.	-5°C	6.3 / 2.9	7.4 / 3.4	9.5 / 4.6	13.2 / 5.9	15.9 / 7.2	18.4 / 8.4	22.6 / 9.7
		-10°C	5.3 / 2.7	6.2 / 3.1	8.0 / 4.2	11.0 / 5.4	13.4 / 6.5	15.5 / 7.6	18.9 / 8.6
		-15°C	4.0 / 2.4	5.1 / 2.8	6.6 / 3.7	9.1 / 4.8	11.2 / 6.0	12.9 / 6.8	15.6 / 7.7
Suction Line (mm)		Φ22	Φ28	Φ28	Φ28	Φ35	Φ35	Φ35	
Liquid Line (mm)		Φ9.5	Φ12	Φ12	Φ12	Φ16	Φ16	Φ16	
Size	A (mm)	850	1435	1435	1435	1550	1435	1435	
	B (mm)	800	850	850	850	990	1000	1000	
	C (mm)	830	830	830	830	930	1430	1430	
Install a×b (mm)		456×760	741×810	741×810	741×810	785×950	900×950	900×950	
Dimension Drawing		A	B	B	B	B	C	C	

Note: Parameter calibration condition, ambient temperature 32°C.

Model		HCU15MYF	HCU20MYF	HCU25MYF	HCU30MYF	HCU35MYF	HCU40MYF	
Power Supply		3P / 380V / 50Hz						
Apply Temp.		-5°C ~ 5°C						
Comp.	Model	S15-52Y	S20-56Y	V25-71Y	V30-84Y	V35-103Y	Z40-126Y	
	Max. I (A)	32.4	38.4	43.5	49.2	61.0	71.9	
Fan	Voltage (V)	3P / 380V / 50Hz						
	Current (A)	2.1	4.4	4.4	4.4	7.0	7.0	
	Power (W)	240×4	548×4	548×4	548×4	937×4	937×4	
	Rev. (r/min)	1330	1380	1380	1380	1378	1378	
Capacity / Power (kW)	Evap.	-5°C	29.9 / 12.3	32.8 / 14.4	42.1 / 14.5	49.4 / 17.5	60.1 / 21.1	71.0 / 29.8
		-10°C	25.3 / 11.6	27.6 / 13.0	35.6 / 13.2	41.7 / 15.9	51.4 / 19.4	59.4 / 26.9
		-15°C	21.2 / 10.4	23.0 / 11.6	29.8 / 11.9	35.1 / 14.4	43.9 / 17.6	49.1 / 24.1
Suction Line (mm)		Φ42	Φ42	Φ54	Φ54	Φ54	Φ54	
Liquid Line (mm)		Φ19	Φ22	Φ22	Φ22	Φ22	Φ22	
Size	A (mm)	1435	1550	1550	1550	1800	1800	
	B (mm)	1100	1170	1300	1300	1350	1350	
	C (mm)	1430	1630	1630	1630	1880	1880	
Install a×b (mm)		900×1050	900×1120	700×1250	700×1250	900×1300	900×1300	
Dimension Drawing		C	C	C	C	C	C	

Note: Parameter calibration condition, ambient temperature 32°C.



4. TECHNICAL DATA

4.1 Series Units With Frascold Semi-hermetic Compressor

4.1.3 Low temp. unit

1) Refrigerant R404A / R507A

Model			HCU02LYF	HCU03LYF	HCU04LYF	HCU05LYF	HCU08LYF	HCU10LYF
Power Supply			3P / 380V / 50Hz					
Apply Temp.			-15℃ ~ -30℃					
Compressor	Model /		D2-13.1Y	D3-16.1Y	D4-24.1Y	D5-33.1Y	S8-42Y	S10-52Y
	Max. Current (A)		7.1	9.9	11.7	14.4	20.3	24.5
Fan	Voltage (V)		3P / 380V / 50Hz					
	Current (A)		0.52	0.52	1.04	1.04	2.1	2.1
	Power (W)		240	240	240×2	240×2	240×4	240×4
	Rev. (r/min)		1330	1330	1330	1330	1330	1330
Capacity / Power (kW)	Evap. Temp.	-20℃	3.6/2.8	4.4/3.5	6.1/4.4	9.0/6.6	11.7/7.8	14.7/10.1
		-25℃	2.9/2.4	3.6/3.0	4.9/3.8	7.4/5.7	9.5/6.8	12.1/8.7
		-30℃	2.3/2.1	2.8/2.6	3.9/3.3	5.9/4.8	7.5/5.8	9.8/7.4
		-35℃	1.8/1.8	2.1/2.1	2.9/2.8	4.6/4.1	5.8/4.8	7.7/6.3
		-40℃	1.4/1.5	1.5/1.7	2.1/2.3	3.5/3.4	4.2/3.9	5.8/5.2
Suction Line (mm)			φ22	φ28	φ28	φ35	φ35	φ35
Liquid Line (mm)			φ12	φ12	φ12	φ15	φ16	φ16
Size (mm)	A (mm)		950	950	1435	1435	1435	1435
	B (mm)		850	850	850	850	1000	1000
	C (mm)		830	830	830	830	1430	1430
Install a×b (mm)			556×810	556×810	741×810	741×810	900×950	900×950
Dimension Drawing			A	A	B	B	C	C

Calibration of parameters at ambient temperature 32°C.

Model		HCU15LYF	HCU15LYF	HCU20LYF	HCU25LYF	HCU30LYF	HCU40LYF	
Power Supply				3P / 380V / 50Hz				
Apply Temp.				-15°C ~ -30°C				
Compressor	Model /	S15-56Y	V15-71Y	V20-84Y	V25-103Y	Z30-126Y	Z40-154Y	
	Max. Current (A)	30.7	32.2	46.2	52.3	55.7	77.9	
Fan	Voltage (V)			3P / 380V / 50Hz				
	Current (A)	2.1	2.1	2.1	4.4	4.4	4.4	
	Power (W)	240×4	240×4	240×4	548×4	548×4	548×4	
	Rev. (r/min)	1330	1330	1330	1380	1380	1380	
Capacity / Power (kW)	Evap. Temp.	-20°C	16.2/10.8	19.9/14.0	22.5/15.8	28.2/21.0	33.6/22.8	44.1/30.3
		-25°C	13.3/9.3	16.3/12.0	18.4/13.7	22.6/18.1	27.1/19.8	36.3/26.1
		-30°C	10.7/8.0	13.2/10.2	14.7/11.7	17.7/15.4	21.4/16.9	29.4/22.2
		-35°C	8.3/6.7	10.3/8.5	11.4/9.9	13.5/12.9	16.4/14.2	23.1/18.6
		-40°C	6.2/5.6	7.7/7.0	8.5/8.2	9.8/10.8	12.1/11.7	17.2/15.4
Suction Line (mm)		φ42	φ42	φ54	φ54	φ54	φ54	
Liquid Line (mm)		φ16	φ19	φ22	φ22	φ22	φ28	
Size (mm)	A (mm)	1435	1435	1550	1550	1550	1800	
	B (mm)	1000	1220	1300	1300	1300	1350	
	C (mm)	1430	1430	1630	1630	1630	1880	
Install a×b (mm)		900×950	900×1170	700×1250	700×1250	700×1250	900×1300	
Dimension Drawing		C	C	C	C	C	C	

Calibration of parameters at ambient temperature 32°C.



4. TECHNICAL DATA

4.1 Series Units With Frascold Semi-hermetic Compressor

4.1.4 Freezing unit with two-stage compressor

1) Refrigerant R404A / R507A

Model			HCU07JYF	HCU10JYF	HCU15JYF	HCU20JYF	HCU25JYF	HCU30JYF
Power Supply			3P / 380V / 50Hz					
Apply Temp.			-25℃ ~ -55℃					
Compressor	Model		S7 - 27.19Y	2V10 - 42.29Y	2Z15 - 60.30Y	2Z20 - 72.36Y	2Z25 - 84.42Y	2Z30 - 102.51Y
	Max. I (A)		18.0	23.0	31.0	37.0	45.0	53.0
Fan	Voltage (V)		3P / 380V / 50Hz					
	Current (A)		1.04	2.2	2.2	4.4	4.4	4.4
	Power (W)		240×2	548×2	548×2	548×4	548×4	548×4
	Rev. (r/min)		1330	1380	1380	1380	1380	1380
Capacity / Power (kW)	Evap.	-30℃	9.5/7.5	13.8/11.4	18.9/15.2	23.1/18.1	27.3/21.3	34.1/27.0
		-35℃	8.0/6.7	11.6/10.1	16.0/13.5	19.5/16.2	23.0/19.0	28.6/23.8
		-40℃	6.6/5.9	9.7/9.0	13.3/12.0	16.2/14.4	19.1/16.7	23.7/20.9
		-45℃	5.4/5.2	8.0/7.8	11.0/10.5	13.3/12.7	15.8/14.7	19.4/18.2
		-50℃	4.3/4.5	6.5/6.8	8.9/9.1	10.8/11.2	12.8/12.8	15.6/15.7
		-55℃	3.4/3.9	5.2/6.0	7.1/7.9	8.6/9.7	10.2/11.1	12.5/13.5
		-60℃	2.7/3.3	4.1/5.0	5.6/6.7	6.8/8.3	8.0/9.4	9.8/11.4
Suction Line (mm)			Φ35	Φ35	Φ42	Φ42	Φ42	Φ42
Liquid Line (mm)			Φ16	Φ16	Φ22	Φ22	Φ22	Φ22
Size	A (mm)		1435	1435	1550	1550	1550	1550
	B (mm)		1050	1150	1300	1300	1300	1300
	C (mm)		830	1430	1630	1630	1630	1630
Install a×b (mm)			900×1010	900×1100	700×1250	700×1250	700×1250	700×1250
Dimension Drawing			B	B	C	C	C	C

4.2 Configuration Table of Units

Parts	Model of unit											
	02H 02M	03H 03M	04H 04M	05H 05M	07H 07M	12H 12M	15H 15M	20H 20M	25H 25M	30H 30M	35H 35M	40M
Compressor	●	●	●	●	●	●	●	●	●	●	●	●
Oil Heater	●	●	●	●	●	●	●	●	●	●	●	●
Discharge Vibration Damper	▲	▲	▲	▲	▲	▲	▲	▲	▲	▲	▲	▲
Oil Separator	▲	▲	▲	▲	▲	▲	▲	▲	▲	▲	▲	▲
Condenser	●	●	●	●	●	●	●	●	●	●	●	●
AC Motor	●	●	●	●	●	●	●	●	●	●	●	●
Receiver	●	●	●	●	●	●	●	●	●	●	●	●
Liquid Filter	●	●	●	●	●	●	●	●	●	●	●	●
Sight Glass	●	●	●	●	●	●	●	●	●	●	●	●
Solenoid Valve	▲	▲	▲	▲	▲	▲	▲	▲	▲	▲	▲	▲
H/P /LP Switch	●	●	●	●	●	●	●	●	●	●	●	●
Oil Pressure Switch	●	●	●	●	●	●	●	●	●	●	●	●
H/P /LP Gauge	●	●	●	●	●	●	●	●	●	●	●	●
Accumulator	▲	▲	▲	▲	▲	▲	▲	▲	▲	▲	▲	▲
Electric Control Unit	▲	▲	▲	▲	▲	▲	▲	▲	▲	▲	▲	▲

● Standard Configuration; ▲ Optional, needs extra cost;



4.2 CONFIGURATION TABLE OF UNITS

PARTS	HCU-F MODEL OF UNIT / MODEL OF UNIT											
	02L	03L	04L	05L	08L	10L	15L/S15	15L/V15	20L	25L	30L	40L
Compressor	●	●	●	●	●	●	●	●	●	●	●	●
Oil Heater	●	●	●	●	●	●	●	●	●	●	●	●
Discharge Vibration Damper	▲	▲	▲	▲	●	●	●	●	●	●	●	●
Oil Separator	▲	▲	▲	▲	●	●	●	●	●	●	●	●
Condenser	●	●	●	●	●	●	●	●	●	●	●	●
AC Motor	●	●	●	●	●	●	●	●	●	●	●	●
Receiver	●	●	●	●	●	●	●	●	●	●	●	●
Liquid Filter	●	●	●	●	●	●	●	●	●	●	●	●
Sight Glass	●	●	●	●	●	●	●	●	●	●	●	●
Solenoid Valve	▲	▲	▲	▲	▲	▲	▲	▲	▲	▲	▲	▲
HP/LP Switch	●	●	●	●	●	●	●	●	●	●	●	●
Oil Pressure Switch	/	▲	▲	▲	▲	▲	▲	●	●	●	●	●
HP/LP Gauge	●	●	●	●	●	●	●	●	●	●	●	●
Accumulator	▲	▲	▲	▲	▲	▲	▲	▲	▲	▲	▲	▲
Electric Control for Unit	▲	▲	▲	▲	▲	▲	▲	▲	▲	▲	▲	▲

PARTS	HCU07JYF	HCU10JYF	HCU15JYF	HCU20JYF	HCU25JYF	HCU30JYF
Two-stage Compressor	●	●	●	●	●	●
Oil Heater	●	●	●	●	●	●
Discharge Vibration Damper	●	●	●	●	●	●
Oil Separator	●	●	●	●	●	●
Condenser	●	●	●	●	●	●
AC Motor	●	●	●	●	●	●
Receiver	●	●	●	●	●	●
Liquid Filter	●	●	●	●	●	●
Sight Glass	●	●	●	●	●	●
ECO Assembly	●	●	●	●	●	●
Solenoid Valve	●	●	●	●	●	●
HP/LP Switch	●	●	●	●	●	●
Oil Pressure Switch	●	●	●	●	●	●
HP/LP Gauge	●	●	●	●	●	●
Accumulator	●	●	●	●	●	●
Electric Control for Unit	▲	▲	▲	▲	▲	▲

● Standard Configuration; ▲ Optional, needs extra cost;



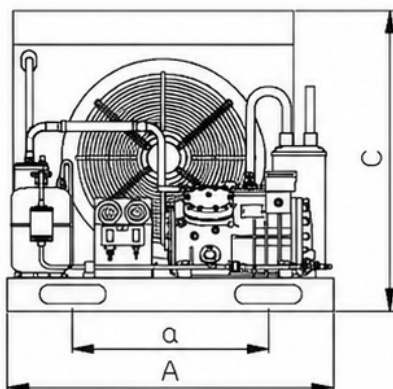
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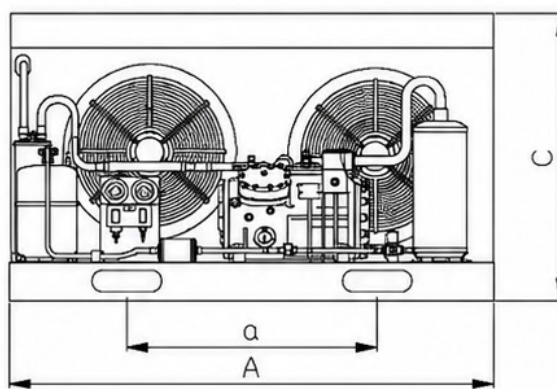
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HCU SERIES

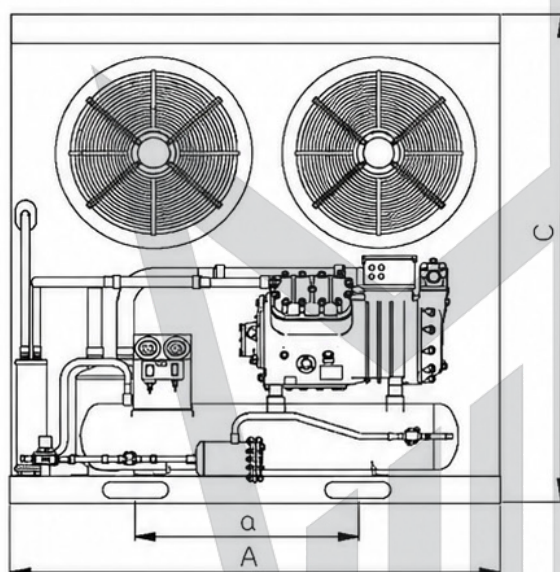
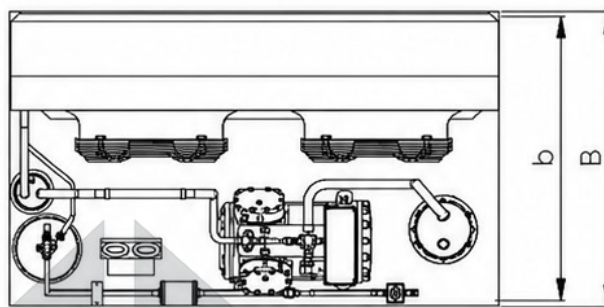
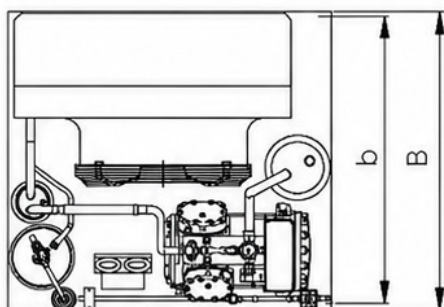
4.3 DIMENSION DRAWING



DRAWING A



DRAWING B



DRAWING C

