

Gemini Series

MT/LT Fixed Speed Reciprocating Condensing Units



Indoor Version



Outdoor Version

Customer Values

- Excellent BITZER semi-hermetic reciprocating compressors, low noise, low vibration
- Large cooling capacity, high efficiency
- Damping pipeline design, low vibration
- Large-capacity condenser, higher reliability, good refrigeration in poor working conditions
- Standard oil separator, stable oil return, reliable running
- Integrated type, split type, indoor and outdoor types, covering all applications

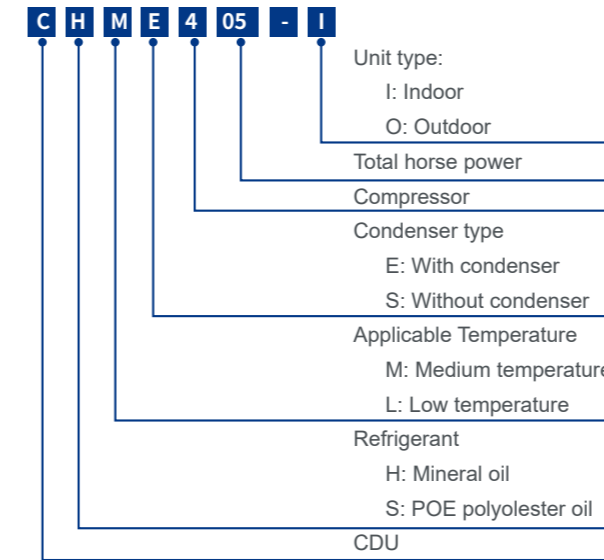
Product Features

- Full series**
- 2-7HP MT units, 2-7HP LT units
 - Integrated type, split type, indoor type, outdoor type
 - R22/R404A dual-refrigerant

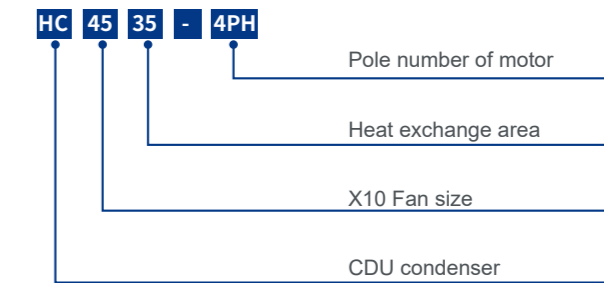
Product Features

- Highly reliable**
 - Standard oil separator, stable oil return
 - Large-capacity condenser, good refrigeration effect in poor working conditions
 - Condensing pressure switch design, ensuring smooth operation in low ambient temperature
 - Using hydrophilic aluminum foil fins, good corrosion resistance
 - High waterproof grade of the indoor units, easy to install and replace, high reliability
- Wide range of applications**
 - Ambient temperature range: -15°C ~43°C
 - MT units: evaporating temperature range -15°C ~50°C
 - LT units: evaporating temperature range -40°C ~15°C
 - Low noise, low vibration
- Low noise, low vibration**
 - BITZER compressor, soft vibration pads in combination with damping pipes, maximizing vibration absorption and noise reduction
 - Well-known brand fan, low noise, large air volume

Naming Rule of Condensing Units



Naming Rule of Condensers



* All comparisons are based on the product performances of last generation.

Technical Parameters

Technical Parameters of MT Fixed Speed Reciprocating CDU (R22)

Model		CHME(S)402-I(O)	CHME(S)403-I(O)	CHME(S)404-I(O)	CHME(S)405-I(O)	CHME(S)406-I(O)	CHME(S)407-I(O)	
Refrigerant		R22						
Cooling Capacity	kW	4.44	6.81	10.01	10.67	13.61	15.77	
Input Power	kW	1.77	2.48	3.50	3.81	4.89	5.54	
COP	W/W	2.50	2.75	2.86	2.80	2.78	2.85	
Evaporating Temperature Range	°C	-15°C~-5°C						
Power Type		380V - 3~ - 50Hz						
Compressor		Type: Silent, efficient, semi-hermetic reciprocating compressor						
		Model	2GES-2	2EES-3	2CES-4	4FES-5	4EES-6	4DES-7
Noise @1m	Intergrated (with Condensing fan)	dB	52.7	57.7	58.7	59.2	61.6	62.0
	Remote (without Condensing fan)	dB	48.6	51.6	52.6	54.2	57.2	59.3
Condensing Fan	Quantity x Diameter [mm]		1×Ø500	1×Ø500	1×Ø550	1×Ø550	2×Ø500	2×Ø500
	Air Volume [m³/h]		4750	5200	5900	5900	10100	10100
Total Current	Fan Nominal Current [A]	A	0.54	0.68	0.67	0.67	1.36	1.36
	Compressor Starting Current	A	22.5	37.0	44.2	62.2	62.2	82.4
	Compressor Max. Continuous Current	A	5.0	7.5	10.0	10.8	13.6	16.5
Reservoir Volume	L	8				14		
Lubricating Oil	Model	B5.2						
	Oil Charge	L	1	1.5	1.5	2.0	2.0	2.0
Connection	Liquid Line	mm	12.7	12.7	15.88	15.88	15.88	15.88
	Gas Return	mm	15.88	22.22	22.22	22.22	28.58	28.58
	Gas out (Remote, connect to the condenser)	mm	12.7	12.7	15.88	15.88	22.22	22.22
	Liquid Return (Remote, back to the reservoir)	mm	12.7	12.7	12.7	12.7	15.88	15.88

(1) Testing conditions of nominal cooling capacity and nominal power: ambient temperature 32°C, Evaporation temperature -7°C, gas return temperature 18°C.

(2) Different operating environment may lead to different noise values. Affected by wall sound reflection and other factors may lead to differences between measured values and nominal values at the installation field. Acoustic attenuation due to distance only exists in theory. Sound reflection and resonance may lead to different results of measurement, including total noise and frequency.

(3) Split units are without condenser and condenser fan. The parameters of the condenser fan motor in the table are the parameters of the corresponding condenser fan.

Note: All data and pictures are for reference only. Carrier reserves the right to change without prior notice.

Technical Parameters

Technical Parameters of LT Fixed Speed Reciprocating CDU (R22)

Model		CHME(S)402-I(O)	CHME(S)403-I(O)	CHME(S)404-I(O)	CHME(S)405-I(O)	CHME(S)406-I(O)	CHME(S)407-I(O)	CHME(S)407-I(O)	
Refrigerant		R22							
Cooling Capacity	kW	3.11	4.66	6.21	7.29	9.33	9.53	11.65	
Input Power	kW	1.79	2.64	3.46	4.08	5.02	4.96	6.29	
COP	W/W	1.73	1.77	1.80	1.79	1.86	1.92	1.85	
Evaporating Temperature Range	°C	-40°C~-20°C							
Power Type		380V - 3~ - 50Hz							
Compressor		Type: Silent, efficient, semi-hermetic reciprocating compressor							
		Model	2EES-2	2CES-3	4EES-4	4DES-5	4CES-6	4VES-7	4TES-9
Noise @1m	Intergrated (with Condensing fan)	dB	55.4	59.1	60.8	60.3	62.7	64.1	65.5
	Remote (without Condensing fan)	dB	55.4	56.84	58.8	58.04	60.3	63.3	64.7
Condensing Fan	Quantity x Diameter [mm]		1×Ø400	1×Ø500	1×Ø500	1×Ø500	1×Ø550	1×Ø550	2×Ø500
	Air Volume [m³/h]		3200	4750	5200	5200	5900	5900	10100
Total Current	Fan Nominal Current [A]	A	0.44	0.54	0.68	0.68	0.67	0.67	1.36
	Compressor Starting Current	A	26.0	37.0	53.5	62.2	82.4	68.0	81.0
	Compressor Max. Continuous Current	A	6.0	9.1	12.2	14.5	17.7	16.6	19.9
Reservoir Volume	L	8				14			
Lubricating Oil	Model	B5.2							
	Oil Charge	L	1.5	1.5	2.0	2.0	2.0	2.6	2.6
Connection	Liquid Line	mm	12.7	12.7	12.7	12.7	15.88	15.88	15.88
	Gas Return	mm	22.22	22.22	28.58	28.58	28.58	28.58	34.92
	Gas out (Remote, connect to the condenser)	mm	12.7	12.7	15.88	15.88	15.88	15.88	22.22
	Liquid Return (Remote, back to the reservoir)	mm	12.7	12.7	12.7	12.7	12.7	12.7	15.88

(1) Testing conditions of nominal cooling capacity and nominal power: ambient temperature 32°C, Evaporation temperature -23°C, gas return temperature 5°C.

(2) Noise measurement standard: dB(A)@1m, different operating environment may lead to different noise values. Affected by wall sound reflection and other factors may lead to differences between measured values and nominal values at the installation field. Acoustic attenuation due to distance only exists in theory. Sound reflection and resonance may lead to different results of measurement, including total noise and frequency.

(3) Split units are without condenser and condenser fan. The parameters of the condenser fan motor in the table are the parameters of the corresponding condenser fan.

Note: All data and pictures are for reference only. Carrier reserves the right to change without prior notice.

Technical Parameters

Technical Parameters of MT Fixed Speed Reciprocating CDU (R404A)

Model		CPME(S)402-I(O)	CPME(S)403-I(O)	CPME(S)404-I(O)	CPME(S)405-I(O)	CPME(S)406-I(O)	CPME(S)407-I(O)	
Refrigerant		R404A						
Cooling Capacity	kW	4.54	7.27	10.71	11.60	14.56	17.01	
Input Power	kW	1.95	2.75	3.90	4.19	5.50	6.29	
COP	W/W	2.33	2.64	2.74	2.77	2.64	2.70	
Evaporating Temperature Range	°C	-15°C~-5°C						
Power Type		380V - 3~ - 50Hz						
Compressor	Type	Silent, efficient, semi-hermetic reciprocating compressor						
	Model	2GES-2Y	2EES-3Y	2CES-4Y	4FES-5Y	4EES-6Y	4DES-7Y	
Noise @1m	Intergrated (with Condensing fan)	dB	52.7	57.7	58.7	59.2	61.6	62.0
	Remote (without Condensing fan)	dB	48.6	51.6	52.6	54.2	57.2	59.3
Condensing Fan	Quantity x Diameter [mm]	1×Ø500	1×Ø500	1×Ø550	1×Ø550	2×Ø500	2×Ø500	
	Air Volume [m³/h]	4750	5200	5900	5900	10100	10100	
Total Current	Fan Nominal Current [A]	A	0.54	0.68	0.67	0.67	1.36	1.36
	Compressor Starting Current	A	22.5	37.0	44.2	62.2	62.2	82.4
	Compressor Max. Continuous Current	A	5.0	7.5	10.0	10.8	13.6	16.5
Reservoir Volume	L	8				14		
Lubricating Oil	Model	BSE32						
	Oil Charge	L	1	1.5	1.5	2.0	2.0	2.0
Connection	Liquid Line	mm	12.7	12.7	15.88	15.88	15.88	15.88
	Gas Return	mm	15.88	22.22	22.22	22.22	28.58	28.58
	Gas out (Remote, connect to the condenser)	mm	12.7	12.7	15.88	15.88	22.22	22.22
	Liquid Return (Remote, back to the reservoir)	mm	12.7	12.7	12.7	12.7	15.88	15.88

(1) Testing conditions of nominal cooling capacity and nominal power: ambient temperature 32°C, Evaporation temperature -7°C, gas return temperature 18°C.

(2) Different operating environment may lead to different noise values. Affected by wall sound reflection and other factors may lead to differences between measured values and nominal values at the installation field. Acoustic attenuation due to distance only exists in theory. Sound reflection and resonance may lead to different results of measurement, including total noise and frequency.

(3) Split units are without condenser and condenser fan. The parameters of the condenser fan motor in the table are the parameters of the corresponding condenser fan.

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Technical Parameters

Technical Parameters of LT Fixed Speed Reciprocating CDU (R404A)

Model		CPL(S)402-I(O)	CPL(S)403-I(O)	CPL(S)404-I(O)	CPL(S)405-I(O)	CPL(S)406-I(O)	CPL(S)407-I(O)	CPL(S)408-I(O)	
Refrigerant		R404A							
Cooling Capacity	kW	3.32	5.02	6.78	7.85	9.70	9.77	12.04	
Input Power	kW	1.99	2.94	4.05	4.61	5.57	5.37	6.87	
COP	W/W	1.67	1.71	1.68	1.70	1.74	1.82	1.75	
Evaporating Temperature Range	°C	-40°C~-20°C							
Power Type		380V - 3~ - 50Hz							
Compressor	Type	Silent, efficient, semi-hermetic reciprocating compressor							
	Model	2EES-2Y	2CES-3Y	4EES-4Y	4DES-5Y	4CES-6Y	4VES-7Y	4TES-9Y	
Noise @1m	Intergrated (with Condensing fan)	dB	55.4	59.1	60.8	60.3	62.7	64.1	65.5
	Remote (without Condensing fan)	dB	55.4	56.84	58.8	58.04	60.3	63.3	64.7
Condensing Fan	Quantity x Diameter [mm]	1×Ø400	1×Ø500	1×Ø500	1×Ø500	1×Ø550	1×Ø550	2×Ø500	
	Air Volume [m³/h]	3200	4750	5200	5200	5900	5900	10100	
Total Current	Fan Nominal Current [A]	A	0.44	0.54	0.68	0.68	0.67	0.67	1.36
	Compressor Starting Current	A	26.0	37.0	53.5	62.2	82.4	68.0	81.0
	Compressor Max. Continuous Current	A	6.0	9.1	12.2	14.5	17.7	16.6	19.9
Reservoir Volume	L	8				14			
Lubricating Oil	Model	BSE32							
	Oil Charge	L	1.5	1.5	2.0	2.0	2.0	2.6	2.6
Connection	Liquid Line	mm	12.7	12.7	12.7	12.7	15.9	15.88	15.88
	Gas Return	mm	22.22	22.22	28.58	28.58	28.58	28.58	34.92
	Gas out (Remote, connect to the condenser)	mm	12.7	12.7	15.88	15.88	15.88	15.88	22.22
	Liquid Return (Remote, back to the reservoir)	mm	12.7	12.7	12.7	12.7	12.7	12.7	15.88

(1) Testing conditions of nominal cooling capacity and nominal power: ambient temperature 32°C, Evaporation temperature -23°C, gas return temperature 5°C.

(2) Different operating environment may lead to different noise values. Affected by wall sound reflection and other factors may lead to differences between measured values and nominal values at the installation field. Acoustic attenuation due to distance only exists in theory. Sound reflection and resonance may lead to different results of measurement, including total noise and frequency.

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