

Duct Heat Pump System

Location: _____
 Engineer: _____
 Submitted to: _____
 Submitted by: _____
 Reference: _____

Approval: _____
 Date: _____
 Construction: _____
 Unit #: _____
 Drawing #: _____

Set Model
 Indoor unit model CH-48LCDU/I
 Outdoor unit model CH-NHPR48LCU-230VO



SYSTEM PERFORMANCE DATA

Power supply			
Normal Operational Voltage	(V, Ph, Hz)	208/230V, 1Ph, 60Hz	
Voltage Range	(V)	187-253	
Electrical			
Minimum circuit ampacity(Outdoor)	(A)	42.0	
Max.fuse(Outdoor)	(A)	50.0	
Connection wiring	14AWG*2	Stranded, shielded	
Cooling			
Capacity	(Btu/h)	48000(10300-53100)	
Power Input	(W)	5840(1070-6020)	
Current	(A)	26(6.58-26.29)	
SEER2	(Btu/W)	14.3	
EER2	(Btu/W)	8.2	
Heating			
Capacity	(Btu/h)	52000(11500-63600)	
Power Input	(W)	4650(690-5570)	
Current	(A)	20.5(4.78-24.3)	
HSPF2-4	(Btu/W)	10.3	
HSPF2-5	(Btu/W)	8.4	
COP	W/W	3.28	
Heat at 17°F (H32)	(Btu/h)	39500	
Heat at 5°F (H42)	(Btu/h)	46000	
COP at 5°F (H42)	W/W	2.02	

REFRIGERANT PIPE DATA

Throttle type	Indoor unit	N/A
Design pressure	Outdoor unit	EXV+Throttle valve
Refrigerant Type	(PSIG)	550/340
Refrigerant charge		R410A
Refrigerant precharge	oz	148.00
	(ft)	25.0
	(m)	7.5
Additional charge for each ft	(oz/ft)	0.32
Additional charge for each m	(g/m)	30.0
Liquid side/ Gas side(indoor)	(inch)	3/8"/5/8"
	(mm)	9.52/15.9
Liquid side/ Gas side(outdoor)	(inch)	3/8"/5/8"
	(mm)	9.52/15.9
Max. pipe length	(ft)	213.3
	(m)	65.0
Max. difference in level	(ft)	98.4
	(m)	30.0
Connection method		Flared
Indoor(cooling)	(Deg. °F)	62~90
	(Deg. °C)	17~32
Indoor(heating)	(Deg. °F)	32~86
	(Deg. °C)	0~30
Outdoor(cooling)	(Deg. °F)	5~122
	(Deg. °C)	-15~50
Outdoor(heating)	(Deg. °F)	-22~75
	(Deg. °C)	-30~24

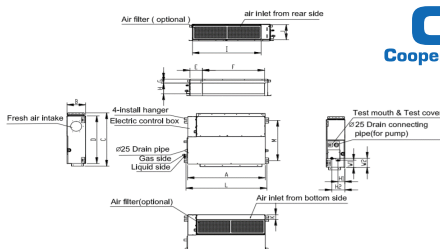
INDOOR UNIT DATA

Indoor fan motor			
Model			ZKFN-560-8-1-1
Qty			1
Input	(W)		560.00
Output	(W)		560.0
RLA	(A)		2.5
Speed(Hi/Mi/Lo)	(r/min)		940/820/740
Air flow & Noise level			
Indoor air flow (Hi/Med/Lo) (No duc)	(CFM)	29.41/1529.41/1117.65/735.29	
Indoor noise level (Hi/Med/Lo)	[dB(A)]	54.5/50.5/47.5	
Dehumidification	(L/H)	4.87	
Indoor unit			
Dimension (WxDxH)	(inch)	47.24x34.41x11.81	
	(mm)	1200x874x300	
Packing(WxDxH)	(inch)	55.31x36.02x14.37	
	(mm)	1405x915x365	
Net/Gross weight	(lbs.)	119.71/141.76	
	(kg)	54.3/64.3	

OUTDOOR UNIT DATA

Compressor			
Type			ROTARY
Model			EAPQ420D1UMUA
Brand			GMCC
Capacity	(Btu/h)		44015
Input	(W)		3565
Rated current (RLA)	(A)		33
Refrigerant oil/oil charge	(ml)	1460±15ml	ESTER OIL VG74
Outdoor fan motor			
Model			ZKFN-85-8-22-5
Qty			2
Input	(W)		126.0
Output	(W)		85
RLA	(A)		1.2
Speed	(r/min)		900/850/800/750
Air flow & Noise level			
Outdoor air flow (Max.)	(CFM)		4500
Outdoor noise level	[dB(A)]		65.0
Outdoor unit			
Dimension (WxDxH)	(inch)	37.48x16.34x52.48	
	(mm)	952x415x1333	
Packing (WxDxH)	(inch)	43.11x19.49x58.27	
	(mm)	1095x495x1480	
Net/ Gross weight	(lbs.)	227.07/255.73	
	(kg)	103/116	

Indoor unit dimension(internal pump)



Model	unit	A	B	C	D	E	F	G	H	I	J	K	L	M	H1	H2	W1	W2
9/12	mm	700	200	506	450	137	537	30	152	599	186	50	741	360	84	140	84	84
	inch	27.6	7.9	19.9	17.7	5.4	21.1	1.2	6.0	23.6	7.3	2.0	29.2	14.2	3.3	5.5	3.3	3.3
18	mm	880	210	674	600	140	706	50	136	782	190	40	920	508	78	148	88	112
	inch	34.6	8.3	26.5	23.6	5.5	27.8	2.0	5.4	30.8	7.5	1.6	36.2	20.0	3.1	5.9	3.5	4.4
24	mm	1100	249	774	700	140	926	50	175	1001	228	5	1140	598	80	150	130	156
	inch	43.3	9.8	30.5	27.6	5.5	36.5	2.0	6.9	39.4	9.0	0.2	44.9	23.5	3.1	5.9	5.1	6.1
36	mm	1360	249	774	700	140	1186	50	175	1261	228	5	1400	598	80	150	130	156
	inch	53.5	9.8	30.5	27.6	5.5	46.7	2.0	6.9	49.6	9.0	0.2	55.1	23.5	3.1	5.9	5.1	6.1
48	mm	1200	300	874	800	123	1044	50	227	1101	280	5	1240	697	80	150	185	210
	inch	47.2	11.8	34.4	31.5	4.8	41.1	2.0	8.9	43.3	11.0	0.2	48.8	27.4	3.1	5.9	7.3	8.3

Outdoor unit dimension

