


Submittal Data: ACiQ-48-HPB / ACiQ-48-ACL	
Location: _____ Engineer: _____ Submitted to: _____ Submitted by: _____ Reference: _____	Approval: _____ Date: _____ Construction: _____ Unit #: _____ Drawing #: _____

Indoor unit model - ACiQ-48-ACL
 Outdoor unit model - ACiQ-48-HPB

Certified

AHRI	
UL	



SYSTEM PERFORMANCE DATA

Power supply		
Normal Operational Voltage	(V, Ph, Hz)	208/230V, 1Ph, 60Hz
Voltage Range	(V)	187-253
Electrical		
Minimum circuit ampacity	(A)	34
Max.fuse	(A)	50
Connection wiring		18AWG
Cooling		
Rated Capacity	(Btu/h)	48000
Capacity Range	(Btu/h)	12000-48000
Power Input (Max)	(W)	5650(540-5330)
Rated current	(A)	22.3(3-22.5)
SEER	(Btu/W)	14.3
EER	(Btu/W)	8.6
Heating (Standard conditions)		
Rated Capacity	(Btu/h)	51000
Capacity Range	(Btu/h)	11000-54000
Power Input (Max)	(W)	5150(710-5580)
Rated current	(A)	22(3.6-22.5)
HSPF4	(Btu/W)	8.3
HSPF5	(Btu/W)	6.6
COP	W/W	2.90
Heating at 5F		
Capacity	(Btu/h)	28000
COP	W/W	1.8

REFRIGERANT PIPE DATA

Design pressure	(PSIG)	550/340
Refrigerant Type		R410A
Refrigerant charge	(kg)	4.7
	(oz)	165.8
Additional charge for each ft	(oz/ft)	0.69
	(g/m)	65
Liquid side/ Gas side	(inch)	3/8" / 3/4"
	(mm)	Φ9.52 / Φ19
Max. pipe length	(ft)	213.0
	(m)	65
Max. difference in level	(ft)	98.0
	(m)	30
Connection method	Indoor	Braze
	Outdoor	Flared to braze

Indoor(cooling)	(Deg. °F / °C)	62-90/17 ~ 32
Indoor(heating)	(Deg. °F / °C)	32-86 / 0-30
Outdoor(cooling)	(Deg. °F / °C)	5-122 / -15 ~ 50
Outdoor(heating)	(Deg. °F / °C)	5-75 / -15 - 24

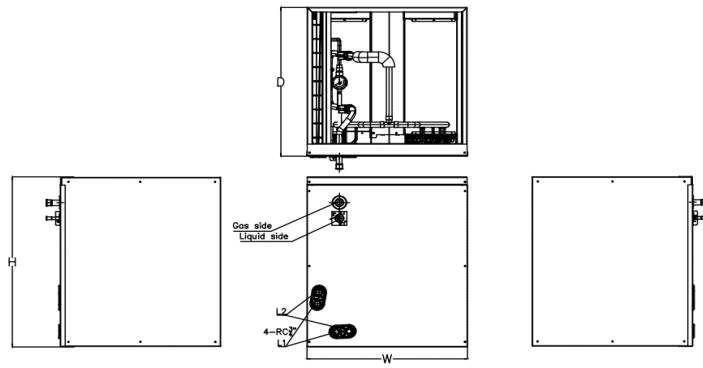
INDOOR UNIT DATA

Throttle		TXV for Cooling
IRV	inch ³	158
Air flow	SCFM	1015
Pressure drop	Pa	70
	In. wg.	0.28
Indoor unit		
Dimension (WxDxH)	(inch)	20.98x20.98x23.98
	(mm)	533x533x609
Packing(WxDxH)	(inch)	23.43x25.59x25.39
	(mm)	595x650x645
Net/Gross weight	(lbs.)	66.58/77.16
	(kg)	30.2/35

OUTDOOR UNIT DATA

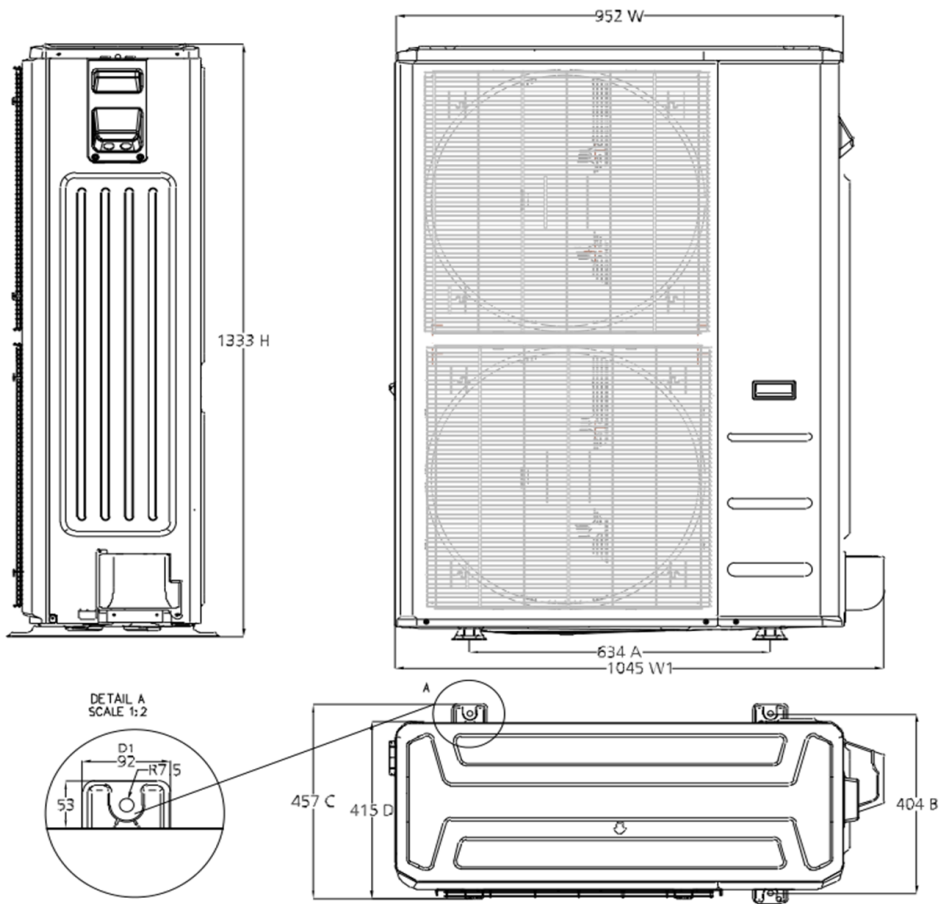
Compressor		
Type		KTQ420D1UMU
Model		ROTARY
Brand		GMCC
Capacity	(Btu/h)	13700
Input	(W)	3700
Rated current (RLA)	(A)	24
Refrigerant oil/oil charge	(ml)	VG74/1400
Throttle		EEV for heating
Outdoor fan motor		
Model		ZKFN-85-8-22-5
Qty		2
Input	(W)	126
RLA	(A)	2.4
Speed	(r/min)	850/750/650
Air flow & Noise level		
Outdoor air flow (Max.)	(CFM)	4500.0
Outdoor noise level	[dB(A)]	63
Outdoor unit		
Dimension (WxDxH)	(inch)	37.48x16.34x52.48
	(mm)	952x415x1333
Packing (WxDxH)	(inch)	43.11x19.49x58.27
	(mm)	1095x495x1480
Net/ Gross weight	(lbs.)	217.59/248.68
	(kg)	98.7/112.8

Indoor unit dimension



Model	Unit	Dimensions (mm)			Drain hole	
		W	D	H	L1	L2
12K-24K	mm	445	533	457		
	inch	17 1/2	21	18		
30K-48K	mm	533	533	609	Main drain hole	Overflow drain hole
	inch	21	21	24		
60K	mm	622	533	711		
	inch	24	21	28		

Outdoor unit dimension



68	TC	43198	43256	43305	43363	45796	45850	45903	45957	48496	48558	48621	51317	51383	51438	51501	51564	
	S/T	0.50	0.57	0.67	0.76	0.53	0.60	0.71	0.81	0.56	0.64	0.75	0.86	0.97	1.00	1.00	1.00	
	PI	3.73	3.73	3.74	3.74	3.95	3.96	3.96	3.96	4.19	4.19	4.20	4.43	4.44	4.44	4.45	4.45	
	77	TC	42997	43055	43103	43162	45583	45636	45690	45743	48282	48345	48407	51103	51169	51224	51287	51351
		S/T	0.51	0.59	0.69	0.78	0.54	0.62	0.73	0.83	0.58	0.66	0.77	0.88	1.00	1.00	1.00	1.00
		PI	3.98	3.98	3.99	3.99	4.22	4.22	4.23	4.23	4.47	4.47	4.48	4.73	4.74	4.74	4.75	4.75
	86	TC	42817	42875	42923	42981	45391	45444	45498	45552	48091	48153	48215	50911	50977	51033	51096	51159
		S/T	0.52	0.59	0.69	0.79	0.55	0.63	0.74	0.84	0.59	0.67	0.78	0.89	1.00	1.00	1.00	1.00
		PI	4.42	4.42	4.43	4.43	4.68	4.69	4.69	4.70	4.96	4.97	4.97	5.25	5.26	5.27	5.27	5.28
	95	TC	42621	42678	42726	42784	45182	45236	45289	45343	47882	47944	48007	50703	50769	50824	50887	50951
		S/T	0.53	0.61	0.71	0.81	0.57	0.65	0.75	0.86	0.60	0.68	0.80	0.91	0.64	0.74	0.85	0.97
		PI	4.71	4.72	4.72	4.73	4.99	5.00	5.01	5.01	5.29	5.30	5.31	5.60	5.61	5.62	5.62	5.63
	104	TC	40732	40787	40833	40888	43176	43229	43283	43336	45875	45938	46000	48696	48762	48817	48880	48944
		S/T	0.56	0.64	0.75	0.85	0.59	0.68	0.79	0.90	0.63	0.72	0.84	0.96	1.00	1.00	1.00	1.00
		PI	1.88	1.89	1.89	1.89	2.00	2.00	2.00	2.00	2.12	2.12	2.12	2.42	2.43	2.43	2.44	2.45
	114.8	TC	38922	38975	39019	39071	41253	41306	41360	41413	43952	44015	44077	46773	46839	46894	46957	47021
		S/T	0.57	0.65	0.76	0.86	0.60	0.69	0.80	0.91	0.64	0.73	0.85	0.97	1.00	1.00	1.00	1.00
		PI	0.75	0.75	0.76	0.76	0.80	0.80	0.80	0.80	0.85	0.85	0.85	0.90	0.90	0.90	0.90	0.90
	122	TC	37189	37239	37280	37331	39410	39463	39517	39571	42110	42172	42234	44931	44996	45052	45115	45178
		S/T	0.59	0.67	0.78	0.89	0.62	0.71	0.83	0.95	0.66	0.75	0.88	1.00	1.00	1.00	1.00	1.00
		PI	0.30	0.30	0.30	0.30	0.32	0.32	0.32	0.32	0.34	0.34	0.34	0.36	0.36	0.36	0.36	0.36

TC:Total Cooling Capacity (BTU/hr)
S/T:Sensible Cooling Capacity Ratio
PI:Power Input(kW)
Extrapolated Data



ACiQ-48-ACL-HEATING									
AIRFLOW (CFM)	HEATING PERFORMANCE AT INDOOR DRY BULB TEMPERATURE								
	OUTDOOR R DB (°F)	TC : TOTAL CAPACITY IN KILOWATTS				PI : TOTAL POWER IN KILOWATTS			
		Indoor Conditions (DB °F)				Indoor Conditions (DB °F)			
		60.8	68.0	71.6	75.2	60.8	68.00	71.6	75.2
	16.0	20.0	22.0	24.0	16.0	20.00	22.0	24.0	
812	-22.0	10109	10316	10526	10633	4.05	4.07	4.09	4.11
	-10.0	16869	17214	17565	17742	4.41	4.43	4.46	4.48
	0.0	22502	22962	23430	23667	4.72	4.74	4.76	4.79
	5.0	25319	25836	26363	26629	4.87	4.89	4.92	4.94
	14.0	30389	31009	31642	31962	5.14	5.17	5.20	5.22
	17.0	32079	32734	33402	33739	5.24	5.26	5.29	5.32
	22.0	33537	34221	34920	35272	5.34	5.37	5.39	5.42
	27.0	34995	35709	36438	36806	5.44	5.47	5.50	5.52
	32.0	36453	37197	37956	38339	5.54	5.57	5.60	5.63
	37.0	37910	38684	39474	39872	5.65	5.67	5.70	5.73
	42.0	38916	39710	40520	40930	5.59	5.62	5.65	5.68
	44.6	39318	40120	40939	41352	5.57	5.60	5.62	5.65
	52.0	40926	41761	42613	43044	5.48	5.51	5.54	5.56
	57.0	41931	42787	43660	44101	5.42	5.45	5.48	5.51
	62.0	42936	43812	44707	45158	5.37	5.40	5.42	5.45
64.4	43338	44223	45125	45581	5.35	5.37	5.40	5.43	
1082	-22.0	13087	13354	13626	13764	4.09	4.11	4.13	4.15
	-10.0	21837	22283	22738	22967	4.46	4.48	4.50	4.52
	0.0	29129	29724	30331	30637	4.77	4.79	4.81	4.84
	5.0	32776	33444	34127	34472	4.92	4.94	4.97	4.99
	14.0	39339	40141	40961	41374	5.20	5.22	5.25	5.28
	17.0	41526	42374	43238	43675	5.29	5.32	5.34	5.37
	22.0	43413	44299	45203	45660	5.39	5.42	5.45	5.47
	27.0	45301	46225	47168	47645	5.50	5.52	5.55	5.58
	32.0	47188	48151	49133	49630	5.60	5.63	5.66	5.68
	37.0	49075	50077	51099	51615	5.70	5.73	5.76	5.79
	42.0	50376	51404	52453	52983	5.65	5.68	5.70	5.73
	44.6	50897	51935	52995	53531	5.62	5.65	5.68	5.71
	52.0	52979	54060	55163	55720	5.54	5.56	5.59	5.62
	57.0	54280	55387	56518	57089	5.48	5.51	5.53	5.56
	62.0	55581	56715	57873	58457	5.42	5.45	5.48	5.51
64.4	56101	57246	58415	59005	5.40	5.43	5.46	5.48	