

TECHNICAL DATA



Physical Specifications

Model AP.BAI-C		115T	140T	170T	200T	225T	225U	250U	265T	280U	300T	300U	330U	350U	380U	400U	470N
Cooling Capacity	TR	115.4	140.2	170.0	201.7	226.0	225.5	250.5	265.2	280.3	300.1	306.2	333.0	358.0	381.8	410.2	470.8
	kW	406	493	598	709	795	793	881	933	986	1055	1077	1171	1259	1343	1443	1656
Power Input	kW	128.3	155.5	190.4	217.5	243.8	257.2	277.0	284.0	305.7	323.6	337.7	377.2	400.1	412.9	449.9	496.4
Energy efficiency	kW/TR	1.111	1.109	1.120	1.078	1.079	1.141	1.106	1.071	1.091	1.078	1.103	1.133	1.118	1.081	1.097	1.054
COP	kW _e /kW _i	3.164	3.172	3.141	3.261	3.260	3.083	3.180	3.285	3.225	3.262	3.189	3.105	3.147	3.252	3.207	3.335
Compressor																	
Model		1220	1220	1222	1227	1230	1220	1220+	2233	1220	2236	1222+	1222	1227+	1222+	1227	1230
Quantity		1	1	1	1	1	2	1 Each	1	2	1	1 EACH	2	1 EACH	1 EACH	2	2
RPM		3550	3550	3550	3550	3550	3550	3550	3550	3550	3550	3550	3550	3550	3550	3550	3550
Min. % Unit Capacity Reduction		25%	25%	25%	25%	25%	12.5%	12.5%	25%	12.5%	25%	12.50%	12.5%	12.5%	12.5%	12.5%	12.5%
No. Of Refrigerant Circuit		1	1	1	1	1	2	2	1	2	1	2	2	2	2	2	2
Evaporator																	
Model		1CR	1DR	2ER	2FR	EBR	EBR(T)	JCR(T)	JCR	JCR(T)	Q1R	S2R(T)	S2R(T)	2FR	2FR	2FR	EBR
Quantity		1	1	1	1	1	1	1	1	1	1	1	1	2	2	2	2
Water Connector	inches	5	5	6	6	6	6	8	8	8	8	8	8	8	8	8	10
	mm	127.0	127.0	152.4	152.4	152.4	152.4	203.2	203.2	203.2	203.2	203.2	203.2	203.2	203.2	203.2	254.0
Nominal Water Flow	Usgpm	277.0	336.5	408.0	484.1	542.4	541.2	601.2	636.5	672.7	720.2	734.9	799.2	859.2	916.3	984.5	1129.9
	l/s	17.4	21.2	25.7	30.5	34.2	34.1	37.9	40.1	42.4	45.4	46.3	50.3	54.1	57.7	62.0	71.2
Nominal Water Pressure Drop	ft.wg	21.4	22.3	23.0	23.0	24.0	22.6	20.4	22.9	25.0	25.2	19.8	23.0	24.2	27.2	30.5	33.2
	kPa	64.0	66.7	68.8	68.8	71.8	67.6	61.1	68.5	74.8	75.3	59.1	68.8	72.4	81.3	91.2	99.3
Min. Water Flow	Usgpm	117.0	138.0	163.0	188.0	211.0	211.0	252.0	252.0	252.0	280.0	329.0	329.0	375.0	375.0	375.0	421.0
	l/s	7.4	8.7	10.3	11.8	13.3	13.3	15.9	15.9	15.9	17.6	20.7	20.7	23.6	23.6	23.6	26.5
Max. Water Flow	Usgpm	389.0	461.0	543.0	625.0	702.0	702.0	840.0	840.0	840.0	932.0	1096.0	1096.0	1250.0	1250.0	1250.0	1404.0
	l/s	24.5	29.0	34.2	39.4	44.2	44.2	52.9	52.9	52.9	58.7	69.0	69.0	78.8	78.8	78.8	88.5
Min. Water Pressure Drop	ft.wg	4.4	4.5	6.1	4.5	4.5	4.5	4.4	4.4	4.4	4.7	4.8	4.8	5.4	5.4	5.4	5.7
	kPa	13.2	13.5	18.2	13.5	13.5	13.5	13.2	13.2	13.2	14.1	14.4	14.4	16.1	16.1	16.1	17.0
Max. Water Pressure Drop	ft.wg	38.6	39.3	53.0	39.0	39.0	39.0	38.4	38.4	38.4	40.6	41.5	41.5	47.2	47.2	47.2	49.6
	kPa	115.4	117.5	158.5	116.6	116.6	116.6	114.8	114.8	114.8	121.4	124.1	124.1	141.1	141.1	141.1	148.3
Condenser																	
Total Air Flow	ft ³ /min	104,370	95,550	134,190	166,320	166,320	181,440	211,680	196,560	200,655	226,800	241,920	229,320	272,160	257,985	257,985	332,640
	m ³ /hr	177,325	162,339	227,989	282,578	282,578	308,267	359,644	333,955	340,913	385,333	411,022	389,615	462,400	438,317	438,317	565,155
Total Face Area	sq.ft	164.69	164.69	211.75	282.33	282.33	308.00	359.33	333.67	359.33	385.00	410.67	410.67	462.00	462.00	462.00	546.67
	sq.m	15.30	15.30	19.67	26.23	26.23	28.61	33.38	31.00	33.38	35.77	38.15	38.15	42.92	42.92	42.92	50.79
No. of Fans		7	7	9	11	11	12	14	13	14	15	16	16	18	18	18	22
Fan Dia	mm	900 (50HZ)															
	mm	860 (60HZ)															
Fan Motor HP		3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
General																	
Unit Length	inches	206	206	251	297	297	333	379	351	379	399	424	424	470	470	470	562
	mm	5230	5230	6380	7540	7540	8460	9620	8910	9620	10130	10770	10770	11930	11930	11930	14270
Unit Width	inches	88	88	88	88	88	88	88	88	88	88	88	88	88	88	88	88
	mm	2240	2240	2240	2240	2240	2240	2240	2240	2240	2240	2240	2240	2240	2240	2240	2240
Unit Height	inches	88	88	88	98	98	98	98	98	98	98	98	98	98	98	98	98
	mm	2240	2240	2240	2490	2490	2490	2490	2490	2490	2490	2490	2490	2490	2490	2490	2490
Shipping Weight	lbs	8984	9563	10935	12751	13013	18267	18842	16619	20668	18124	20709	22594	20826	20826	22886	24057
	kg	4075	4338	4960	5784	5903	8286	8547	7538	9375	8221	9393	10248	9446	9446	10381	10912
Operating Weight	lbs	9248	9927	11354	13191	13454	18752	19258	17104	21220	18676	21173	23476	21432	23496	23768	25028
	kg	4195	4503	5150	5984	6103	8506	8735	7758	9625	8471	9604	10649	9721	10658	10781	11352
Operating Charge R134a	lbs	275.6	330.7	374.8	463.0	518.1	518.1	573.2	606.3	639.3	683.4	683.4	749.6	793.7	859.8	903.9	1058.2
	kg	125	150	170	210	235	235	260	275	290	310	310	340	360	390	410	480

* Consult factory for Model AP.BAI-C470N with power supply 380V/3P/50Hz or 380V/3Ph/60Hz

Notes: 1. The above data are rated in accordance with AHRI Standard 550/590 with following conditions:

Evaporator leaving fluid temperature 44°F [6.7°C] with fluid flow rate 2.4 Usgpm/ton; ambient temperature at 95°F [35°C]; evaporator fouling factor 0.0001hr.ft².°F/Btu

2. To consult nearest American Pro sales office for computer selections other than above operating conditions

Performance Data

LWT °F	Model AP.BAI-C	Ambient temperature °F														
		85			95			105			115**			125**		
		TR	kW ^o	kW ⁱ	TR	kW ^o	kW ⁱ	TR	kW ^o	kW ⁱ	TR	kW ^o	kW ⁱ	TR	kW ^o	kW ⁱ
40	115T	113.7	400.0	96.7	106.5	374.5	107.7	99.4	349.7	119.6	92.0	323.5	133.2	86.1	302.9	144.0
	140T	134.8	474.3	117.1	130.4	458.5	134.4	125.6	441.9	154.3	120.7	424.6	178.9	89.8	315.9	146.7
	170T	163.5	575.1	142.5	158.2	556.5	163.0	152.5	536.3	187.2	146.6	515.5	216.4	111.5	392.2	182.7
	200T	193.8	681.6	162.7	187.6	659.6	185.1	181.2	637.3	210.0	174.7	614.3	239.3	142.3	500.6	222.4
	225T	217.5	764.8	186.5	210.2	739.2	209.6	202.4	711.8	235.3	194.3	683.3	264.7	141.8	498.8	222.3
	225U	222.6	782.8	198.7	208.4	732.9	220.7	194.0	682.3	245.4	179.2	630.2	273.3	153.6	540.3	246.8
	250U	246.6	867.2	210.8	231.4	814.0	234.1	216.3	760.7	255.7	200.8	706.0	279.8	176.5	620.8	294.6
	265T	255.6	898.9	216.0	247.1	869.1	243.6	238.3	838.1	274.4	229.1	805.8	310.7	168.6	593.0	261.8
	280U	269.7	948.4	229.7	260.7	916.9	263.6	251.5	884.7	302.7	241.5	849.5	350.6	191.5	673.6	309.5
	300T	289.7	1019.0	245.7	279.7	983.7	276.5	269.4	947.3	310.9	258.7	909.8	350.4	193.3	679.7	301.9
	300U	301.9	1061.8	259.3	283.3	996.4	287.3	264.6	930.7	313.6	245.5	863.4	343.1	205.3	722.0	336.6
	330U	320.3	1126.5	286.3	309.7	1089.2	328.4	298.3	1049.0	378.2	286.4	1007.3	438.5	213.0	749.3	357.7
	350U	352.0	1238.0	309.5	330.4	1161.9	342.8	308.6	1085.4	374.0	286.2	1006.5	408.9	217.9	766.5	364.1
	380U	367.1	1291.0	313.0	355.1	1249.0	356.9	342.3	1203.7	408.8	329.1	1157.3	470.4	243.0	854.6	382.1
	400U	394.6	1387.8	345.1	381.7	1342.5	392.1	368.1	1294.5	447.1	353.9	1244.8	512.7	244.5	859.8	371.6
470N*	452.7	1592.0	380.5	437.6	1539.1	427.1	421.4	1481.9	479.5	404.4	1422.1	539.8	288.6	1014.9	424.4	
42	115T	118.4	416.6	98.1	110.9	390.0	109.2	103.5	364.1	121.1	96.0	337.5	134.5	87.9	309.0	138.2
	140T	139.9	492.0	118.6	135.2	475.4	136.1	130.4	458.5	156.3	125.0	439.6	181.8	90.8	319.3	143.0
	170T	169.6	596.4	144.3	164.1	577.0	165.1	158.1	556.1	189.6	151.9	534.1	219.9	111.3	391.4	176.5
	200T	201.0	706.8	164.9	194.5	684.1	187.2	187.9	660.7	212.9	181.0	636.6	242.7	143.5	504.6	217.8
	225T	225.5	793.0	189.8	218.0	766.7	212.8	210.0	738.5	238.9	201.5	708.5	268.9	144.7	508.8	213.9
	225U	231.5	814.4	201.4	216.9	763.0	223.6	201.9	710.2	248.5	186.9	657.4	276.0	156.1	549.1	238.5
	250U	256.3	901.3	213.6	240.5	845.9	237.9	225.0	791.2	259.9	208.8	734.3	284.0	178.9	629.1	286.9
	265T	264.9	931.6	219.7	256.1	900.7	247.1	247.0	868.7	278.4	237.3	834.5	315.2	171.0	601.4	250.5
	280U	279.7	983.6	232.7	270.5	951.4	267.0	260.7	916.9	306.5	250.5	880.9	354.3	193.5	680.7	302.0
	300T	300.5	1056.9	249.3	290.0	1019.8	280.5	279.2	981.9	315.3	268.0	942.6	355.3	196.9	692.6	290.6
	300U	313.7	1103.1	263.0	294.2	1034.8	292.3	275.0	967.2	318.6	255.2	897.4	348.5	207.6	730.1	329.6
	330U	332.2	1168.2	290.0	320.9	1128.7	333.4	309.3	1087.8	383.0	297.0	1044.6	444.3	215.2	757.0	343.8
	350U	365.7	1286.2	309.3	343.3	1207.3	348.8	320.8	1128.3	380.6	297.9	1047.6	415.5	220.1	773.9	357.6
	380U	381.1	1340.3	317.6	368.5	1296.1	362.6	353.3	1249.7	414.4	341.5	1201.2	477.0	247.0	868.7	367.3
	400U	409.3	1439.4	350.8	396.2	1393.3	398.0	381.9	1343.2	454.0	359.0	1262.4	501.9	248.5	874.0	357.4
470N*	469.9	1652.5	387.3	454.3	1597.8	434.3	437.5	1538.8	487.7	419.7	1476.1	549.1	293.5	1032.1	407.7	
44	115T	123.3	433.6	99.5	115.4	405.9	110.6	107.7	378.9	122.6	99.6	350.5	136.4	88.8	312.3	131.6
	140T	144.9	509.6	120.2	140.2	493.1	137.8	135.0	474.6	158.7	129.5	455.4	184.2	92.6	325.6	136.3
	170T	175.8	618.4	146.2	170.0	597.9	167.7	164.0	576.6	192.1	157.4	553.5	222.8	114.4	402.4	171.8
	200T	208.4	732.8	167.3	201.7	709.4	189.8	194.8	685.2	215.4	189.6	666.9	248.8	144.7	508.9	213.2
	225T	233.8	822.3	192.7	226.0	794.8	216.1	217.7	765.6	242.6	208.6	733.8	273.7	147.0	516.8	205.4
	225U	240.7	846.6	204.6	225.5	793.1	227.0	210.1	738.8	251.6	194.4	683.8	279.4	158.4	557.2	230.7
	250U	266.2	936.1	217.6	250.5	881.0	241.7	233.7	822.0	265.1	217.1	763.6	289.5	180.9	636.3	279.6
	265T	274.5	965.5	222.9	265.2	932.7	251.2	255.7	899.2	283.0	245.7	864.3	319.8	171.7	603.8	251.2
	280U	289.9	1019.5	235.8	280.3	985.8	270.4	270.3	950.6	310.5	259.4	912.4	359.9	192.2	676.0	288.4
	300T	311.3	1094.8	253.5	300.1	1055.5	285.8	289.2	1017.2	319.8	277.5	976.0	360.4	200.5	705.1	280.0
	300U	325.6	1145.2	268.0	306.2	1076.9	297.4	285.6	1004.5	325.5	265.0	932.1	355.6	209.5	737.0	322.7
	330U	344.2	1210.7	294.5	333.0	1171.2	336.9	320.7	1128.0	387.9	310.7	1092.9	457.3	220.0	773.8	332.0
	350U	380.8	1339.1	314.4	358.0	1259.1	354.7	333.9	1174.4	389.2	309.9	1090.1	424.4	222.2	781.4	349.3
	380U	394.8	1388.4	322.3	381.8	1342.8	367.5	368.0	1294.3	420.5	353.4	1242.8	485.2	250.8	882.2	351.9
	400U	424.2	1492.1	356.1	410.2	1442.7	404.5	395.2	1390.0	461.4	379.9	1336.0	529.4	251.8	885.5	344.7
470N*	486.9	1712.3	393.2	470.8	1655.8	441.0	453.2	1593.8	495.7	434.5	1528.2	559.3	297.3	1045.7	392.2	

Legend

LWT : Leaving Chilled Water Temperature kW^o : Cooling Capacity In kW kWⁱ : Compressor Power Input In kW TR : Cooling Capacity In TR.

* Consult factory for Model AP.BAI-C470N with power supply 380V/3P/50Hz or 380V/3Ph/60Hz

** Data are not applicable to standard ambient series

Notes: 1. Rating is based on 10°F temperature different at evaporator inlet/outlet fluid temperature, and evaporator fouling factor 0.0001hr.ft².°F/Btu

2. Interpolation between ratings is permissible but extrapolation is NOT.

Performance Data

LWT °F	Model AP.BAIC-C	Ambient temperature °F														
		85			95			105			115**			125**		
		TR	kW ^o	kW ⁱ	TR	kW ^o	kW ⁱ	TR	kW ^o	kW ⁱ	TR	kW ^o	kW ⁱ	TR	kW ^o	kW ⁱ
46	115T	128.1	450.5	101.1	120.1	422.5	112.1	112.0	394.0	124.2	103.8	365.2	137.8	89.9	316.3	126.0
	140T	150.2	528.1	122.0	145.2	510.8	139.6	139.9	492.0	160.8	134.2	472.0	186.7	94.2	331.3	131.0
	170T	182.1	640.4	148.4	176.2	619.5	169.8	169.9	597.5	194.5	163.0	573.3	225.8	116.2	408.6	164.2
	200T	215.7	758.8	170.0	208.0	731.7	192.4	201.8	709.7	218.4	194.2	683.0	249.6	145.9	513.2	208.4
	225T	242.1	851.5	196.1	234.1	823.4	219.9	225.4	792.6	246.9	216.2	760.5	278.1	148.5	522.4	196.7
	225U	250.1	879.7	207.9	234.7	825.4	230.0	218.6	768.9	254.8	202.1	710.9	283.4	160.5	564.4	223.3
	250U	277.3	975.2	220.3	260.6	916.5	245.3	243.8	857.5	269.3	226.6	797.0	293.6	182.7	642.6	273.7
	265T	284.1	999.3	226.6	274.7	966.2	254.8	264.8	931.2	287.1	254.3	894.4	324.4	176.5	620.8	233.2
	280U	300.3	1056.2	238.8	290.7	1022.5	273.2	280.1	985.1	314.4	268.8	945.4	364.7	198.0	696.5	284.9
	300T	322.6	1134.5	257.2	311.3	1094.8	288.7	299.6	1053.6	324.4	287.3	1010.6	365.5	203.9	717.2	270.6
	300U	339.4	1193.6	271.3	318.6	1120.5	301.8	297.9	1047.7	330.4	276.7	973.1	360.5	211.0	742.2	317.1
	330U	356.7	1254.6	298.2	344.9	1212.9	342.0	332.0	1167.5	393.9	318.6	1120.7	457.5	223.0	784.2	317.7
	350U	394.5	1387.4	324.5	370.7	1303.7	360.2	346.6	1219.1	394.5	321.7	1131.5	430.2	225.0	791.2	339.4
	380U	408.7	1437.3	327.0	395.3	1390.2	372.8	380.9	1339.5	426.9	365.9	1287.0	492.0	254.5	894.9	338.2
	400U	439.2	1544.7	361.8	424.7	1493.5	410.5	409.2	1439.1	468.8	368.8	1297.1	482.3	255.4	898.1	333.3
470N*	504.1	1772.8	400.0	487.4	1714.1	448.6	469.2	1650.3	504.2	438.3	1541.3	542.4	301.4	1060.1	378.8	
48	115T	133.3	468.6	102.5	125.0	439.5	113.6	116.6	409.9	125.8	108.0	380.0	139.6	91.3	321.1	121.6
	140T	155.5	546.9	123.6	150.4	528.8	141.7	144.8	509.3	163.2	137.0	481.8	188.3	95.6	336.3	126.0
	170T	188.7	663.5	150.3	182.4	641.5	171.9	175.8	618.4	197.5	168.8	593.8	229.1	118.1	415.5	158.0
	200T	223.6	786.6	171.9	216.5	761.3	195.1	209.0	735.0	221.4	201.1	707.2	253.1	147.8	519.7	201.0
	225T	250.8	881.9	199.1	242.3	852.3	223.7	233.5	821.2	250.7	223.8	787.2	283.1	150.9	530.9	190.5
	225U	260.1	914.9	210.8	243.6	856.9	233.5	227.2	799.0	258.6	210.1	738.8	286.9	162.5	571.6	215.9
	250U	287.9	1012.5	223.7	270.7	952.0	248.2	253.4	891.2	273.9	235.5	828.1	298.6	184.0	647.0	268.5
	265T	294.3	1035.0	229.9	284.3	1000.0	259.0	274.1	964.0	291.2	263.0	925.0	329.9	179.0	629.6	225.7
	280U	311.2	1094.4	241.9	301.0	1058.5	277.3	290.1	1020.3	318.5	278.4	979.1	370.0	201.5	708.8	273.0
	300T	333.9	1174.2	261.5	322.2	1133.0	293.4	310.1	1090.8	328.9	297.2	1045.2	371.5	206.3	725.7	260.4
	300U	352.2	1238.7	275.7	331.1	1164.4	305.6	309.7	1089.1	336.4	287.5	1011.2	366.8	212.6	747.9	312.6
	330U	369.4	1299.2	302.1	357.1	1256.0	346.4	343.8	1209.2	399.0	329.5	1158.7	465.5	226.6	797.0	306.2
	350U	406.1	1428.1	329.4	381.5	1341.6	364.4	356.8	1254.8	400.1	333.5	1173.0	437.2	227.0	798.3	332.3
	380U	422.9	1487.3	332.1	409.1	1438.8	378.5	394.3	1386.6	432.7	378.3	1330.5	500.5	258.3	908.5	326.3
	400U	454.4	1598.0	367.6	439.3	1545.1	417.4	423.2	1488.5	475.9	373.0	1312.0	469.2	257.7	906.5	321.3
470N*	521.6	1834.4	406.4	504.3	1773.6	456.6	485.6	1707.9	512.6	448.1	1576.0	540.4	305.0	1072.9	366.0	
50	115T	138.3	486.4	104.2	129.9	456.8	115.2	121.2	426.2	127.4	112.4	395.2	141.3	92.5	325.2	117.3
	140T	161.0	566.1	125.5	155.7	547.7	143.5	149.9	527.3	165.6	139.1	489.3	181.8	96.9	340.8	121.5
	170T	195.3	687.0	152.3	188.9	664.3	174.1	182.0	640.0	200.4	172.2	605.7	231.0	119.9	421.6	152.3
	200T	231.6	814.4	174.3	224.1	788.0	197.8	216.4	761.0	224.5	208.0	731.7	257.1	149.8	526.9	192.3
	225T	259.5	912.6	202.5	251.0	882.6	227.1	241.6	849.7	255.1	221.9	780.6	268.4	152.8	537.3	184.2
	225U	270.1	950.1	214.2	253.0	889.9	237.1	236.1	830.5	261.9	218.4	768.1	290.4	164.6	578.9	209.3
	250U	298.5	1049.8	227.2	280.9	987.9	252.2	262.9	924.5	278.6	244.5	860.0	303.7	185.3	651.8	264.4
	265T	304.5	1071.1	233.7	294.3	1035.0	262.7	283.4	996.7	296.0	263.3	926.1	320.4	181.0	636.5	218.1
	280U	322.3	1133.4	245.0	311.6	1095.9	280.9	300.1	1055.5	323.8	288.2	1013.5	375.1	204.1	717.8	261.2
	300T	345.7	1215.8	265.3	333.6	1173.1	297.6	320.8	1128.3	334.3	307.4	1081.2	377.2	209.1	735.3	252.1
	300U	365.1	1284.1	280.0	343.3	1207.3	311.0	321.1	1129.3	342.3	298.3	1049.2	373.0	213.6	751.1	308.4
	330U	382.3	1344.5	306.7	369.6	1299.9	351.7	355.9	1251.6	405.7	328.8	1156.5	439.2	229.8	808.3	295.6
	350U	415.4	1461.0	330.7	389.0	1368.1	370.1	365.5	1285.5	404.8	343.8	1209.1	445.9	229.8	808.1	322.5
	380U	437.6	1539.1	336.8	423.2	1488.4	384.0	407.8	1434.1	439.9	374.5	1317.1	466.3	261.2	918.8	314.6
	400U	470.1	1653.2	373.8	454.4	1598.0	424.1	439.2	1544.7	478.0	398.5	1401.4	488.2	279.2	982.0	335.1
470N*	539.5	1897.5	413.7	521.8	1835.2	464.1	502.3	1766.6	521.6	447.5	1574.0	520.7	307.5	1081.7	353.4	

Legend

LWT : Leaving Chilled Water Temperature kW^o : Cooling Capacity In kW kWⁱ : Compressor Power Input In kW TR : Cooling Capacity In TR.

* Consult factory for Model AP.BAIC470N with power supply 380V/3P/50Hz or 380V/3Ph/60Hz

** Data are not applicable to standard ambient series

Notes: 1. Rating is based on 10°F temperature different at evaporator inlet/outlet fluid temperature, and evaporator fouling factor 0.0001hr.ft².°F/Btu

2. Interpolation between ratings is permissible but extrapolation is NOT.