

STANDARD SPECIFICATION

HEAT PUMP WATER HEATER & CHILLER WATER UNIT

Model :	BTCH	15	24	35	50	60	75	90	110	140	170	200											
Norminal Heating Capacity	Total (Btu/h)	31,500	48,930	70,350	104,790	118,440	156,450	181,650	224,490	275,520	357,210	438,900											
	Total (Watt)	9,232	14,341	20,618	30,712	34,713	45,853	53,239	65,794	80,750	104,692	128,634											
	Chilled water(Btu/h)	15,000	23,300	33,500	49,900	56,400	74,500	86,500	106,900	131,200	170,100	209,000											
	Chilled water(Watt)	4,396	6,829	9,818	14,625	16,530	21,835	25,352	31,331	38,453	49,853	61,254											
	Hot water (Btu/h)	16,500	25,630	36,850	54,890	62,040	81,950	95,150	117,590	144,320	187,110	229,900											
	Hot water (Watt)	4,836	7,512	10,800	16,087	18,183	24,018	27,887	34,464	42,298	54,839	67,380											
Power Consumption	Kw.	1.77	2.62	3.84	5.30	5.85	8.05	9.25	11.30	13.70	17.90	22.30											
	Kw. / TON	0.67	0.64	0.66	0.61	0.59	0.62	0.61	0.60	0.60	0.60	0.61											
	COP.	5.22	5.47	5.37	5.79	5.93	5.70	5.76	5.82	5.89	5.85	5.77											
Compressor (HEAT&COOL)	Type	Scroll																					
	V. / Ph. / Hz.	220 / 1 / 50					380 / 3 / 50																
	Qty.	1																					
Coil	Type / Material	Copper Tube & Alu. Fin or Copper Fin (Option)																					
	QTY.	1					2																
Fan Blade	Type	Aluminium propellers fan																					
	Qty.	1					2																
Condenser Motor	V. / Ph. / Hz.	220 / 1 / 50					380 / 3 / 50					220 / 1 / 50	380 / 3 / 50										
	Qty.	1					2																
Refrigerant	Type	R-22																					
Water Chiller Type		Shell & Tube or Plate																					
Water Condenser Type		Tube In Tube or Plate																					
Chilled Water Temp. In	°C , °F	12.77 , 55																					
Chilled Water Temp. Out	°C , °F	7.22 , 45																					
Chilled Water Flow Rate	GPM.	3.00	4.66	6.70	9.98	11.28	14.90	17.30	21.38	26.24	34.02	41.80											
	Liter. /Min.	11.36	17.64	25.36	37.77	42.69	56.40	65.48	80.92	99.32	128.77	158.21											
Chilled Water Pressure Drop	Ft.WG	6.00																					
HOT Water Temp. In	°C , °F	25 , 77	50 , 122	25 , 77	50 , 122	25 , 77	50 , 122	25 , 77	50 , 122	25 , 77	50 , 122	25 , 77	50 , 122	25 , 77	50 , 122	25 , 77	50 , 122	25 , 77	50 , 122	25 , 77	50 , 122		
HOT Water Temp. Out	°C , °F	55 , 131																					
Hot Water Flow Rate	GPM.	0.61	3.23	0.95	5.02	1.36	7.22	2.03	10.75	2.30	12.15	3.04	16.05	3.52	18.63	4.36	23.02	5.35	28.26	6.93	36.64	8.51	45.01
	Liter. /Min.	2.31	12.23	3.59	18.99	5.17	27.31	7.69	40.68	8.70	45.98	11.49	60.73	13.34	70.52	16.48	87.15	20.23	106.96	26.23	138.67	32.23	170.38
Hot Water Pressure Drop	Ft.WG	3.0	6.0	3.0	6.0	3.0	6.0	3.0	6.0	3.0	6.0	3.0	6.0	3.0	6.0	3.0	6.0	3.0	6.0	3.0	6.0	3.0	6.0
Chilled Water Connection In/Out	Inch (FPT.)	1/2		3/4		1.0					1-1/4			1-1/2			2.0						
Hot Water Connection In/Out	Inch (FPT.)	1/2		3/4		1.0					1-1/4			1-1/2			2.0						
Dimension	Width	950			1150			1150			1450			1600				2100					
	Height	1000					1100					1500				1750		1900					
	Depth	750					800					950			1050				1140				
Ambient Working Temp.	°C	5 -> 40																					
Operation Weight	Kgs.	115	130	175	195	250	330	365	405	500	560	700											

SPECIFICATIONS ARE SUBJECT TO CHANGE WITHOUT NOTICE FOR FURTHER IMPROVEMENT.

NOTE:-

- Nominal Cooling Capacity Based 38 °F Suction Temp. and 77 °F Hot Water Inlet Temp.,
 - Fouling Factor 0.0005 Ft2 .h.°F/Btu

- RLA = Rate Load Amp.
 - MOCA = Maximum Operating Current Amp.

STANDARD SPECIFICATION

HEAT PUMP WATER HEATER & CHILLER WATER UNIT

Model :	BTCH	260	400	500	700	800	1000	1200	1600	1900	2100	2600											
Normal Heating Capacity	Total (Btu/h)	551,250	877,800	1,102,500	1,428,840	1,755,600	2,205,000	2,633,400	3,307,500	3,960,600	4,410,000	5,512,500											
	Total (Watt)	161,562	257,268	323,124	418,769	514,537	646,249	771,805	969,373	1,160,785	1,292,497	1,615,621											
	Chilled water(Btu/h)	262,500	418,000	525,000	680,400	836,000	1,050,000	1,254,000	1,575,000	1,886,000	2,100,000	2625000											
	Chilled water(Watt)	76,934	122,509	153,869	199,414	245,018	307,737	367,526	461,606	552,755	615,475	769,343											
	Hot water (Btu/h)	288,750	459,800	577,500	748,440	919,600	1,155,000	1,379,400	1,732,500	2,074,600	2,310,000	2,887,500											
	Hot water (Watt)	84,628	134,760	169,256	219,355	269,519	338,511	404,279	507,767	608,030	677,022	846,278											
Power Consumption	Kw.	26.90	44.60	53.80	71.60	89.20	107.60	133.80	161.40	196.80	215.20	269											
	Kw. / TON	0.59	0.61	0.59	0.60	0.61	0.59	0.61	0.59	0.60	0.59	0.59											
	COP.	6.01	5.77	6.01	5.85	5.77	6.01	5.77	6.01	5.90	6.01	6.01											
Compressor (HEAT&COOL)	Type	Scroll																					
	V. / Ph. / Hz.	380 / 3 / 50																					
	Qty.	1	2		4				6			4	4	8	10								
Coil	Type / Material	Copper Tube & Alu. Fin or Copper Fin (Option)																					
	Tube size (Inch)	3/8																					
Fan Blade	Type	Aluminium propellers fan																					
	Qty.	2	4		8				12			16		20									
Condenser Motor	V. / Ph. / Hz.	380 / 3 / 50				220 / 1 / 50		380 / 3 / 50															
	Qty.	2	4		8				12			16		20									
Refrigerant	Type	R-22																					
Water Chiller Type		Shell & Tube or Plate																					
Water Condenser Type		Tube In Tube or Plate																					
Chilled Water Temp. In	°C , °F	12.77 , 55																					
Chilled Water Temp. Out	°C , °F	7.22 , 45																					
Chilled Water Flow Rate	GPM.	52.50	83.60	105.00	136.08	167.20	210.00	250.80	315.00	377.20	420.00	525.00											
	Liter. /Min.	198.71	316.43	397.43	515.06	632.85	794.85	949.28	1192.28	1427.70	1589.70	1987.13											
Chilled Water Pressure Drop	Ft.WG	7.00																					
HOT Water Temp. In	°C , °F	25 , 77	50 , 122	25 , 77	50 , 122	25 , 77	50 , 122	25 , 77	50 , 122	25 , 77	50 , 122	25 , 77	50 , 122	25 , 77	50 , 122	25 , 77	50 , 122	25 , 77	50 , 122	25 , 77	50 , 122		
HOT Water Temp. Out	°C , °F	55 , 131																					
Hot Water Flow Rate	GPM.	10.69	56.54	17.03	90.03	21.39	113.07	27.72	146.54	34.06	180.06	42.78	226.15	51.09	270.09	64.17	339.22	76.84	406.21	85.56	452.30	106.94	565.37
	Liter. /Min.	40.48	213.99	64.46	340.76	80.96	427.99	104.92	554.67	128.91	681.52	161.91	855.97	193.37	1,022.28	242.87	1,283.96	290.83	1,537.49	323.83	1,711.95	404.78	2,139.93
Hot Water Pressure Drop	Ft.WG	4.0	7.0	4.0	7.0	4.0	7.0	4.0	7.0	4.0	7.0	4.0	7.0	4.0	7.0	4.0	7.0	4.0	7.0	4.0	7.0	4.0	7.0
Chilled Water Connection In/Out	Inch (FPT.)	2		2-1/2				3.0		4.0			5.0			6.0							
Hot Water Connection In/Out	Inch (FPT.)	2		2-1/2				3.0		4.0			5.0			6.0							
Dimension	Width	2100		4050				3500		4350			6450			8500				10600			
	Height	1900																					
	Depth	1140				2000		2200															
Ambient Working Temp.	°C	5 -> 40																					
Operation Weight	Kgs.	835	1130	1410	1920	2030	2460	3200	3410	4470	4615	6050											

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NOTE:-

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- Fouling Factor 0.0005 Ft2 .h.°F/Btu

- RLA. = Rate Load Amp.
- MOCA = Maximum Operating Current Amp.