BCT BROAD Comfort Technology 远大舒适技术

TÜV Rheinland ISO9001

ISO 14001 SGS

TÜV Rheinland CE

US CONFORMS TO UL STD 726, 795 3018577

BROAD MICRO GAS AIR CON

Functions: cooling, heating, hot water
Fuel: NG, town gas, LPG, diesel
Cooling capacity: 16kW, 23kW, 70kW, 115kW
(4.6Rt, 6.6Rt, 20Rt, 33Rt)
Ideal for homes, offices and small buildings,etc.

MAKING HISTORY

History is often written, in today's complex technological world, by those who conquer the seemingly impossible. Broad Air Conditioning Co. Ltd is one global company succeeding in writing history providing – in a whole new way - heating, air conditioning and hot water for homes, offices, retail space and industry worldwide.

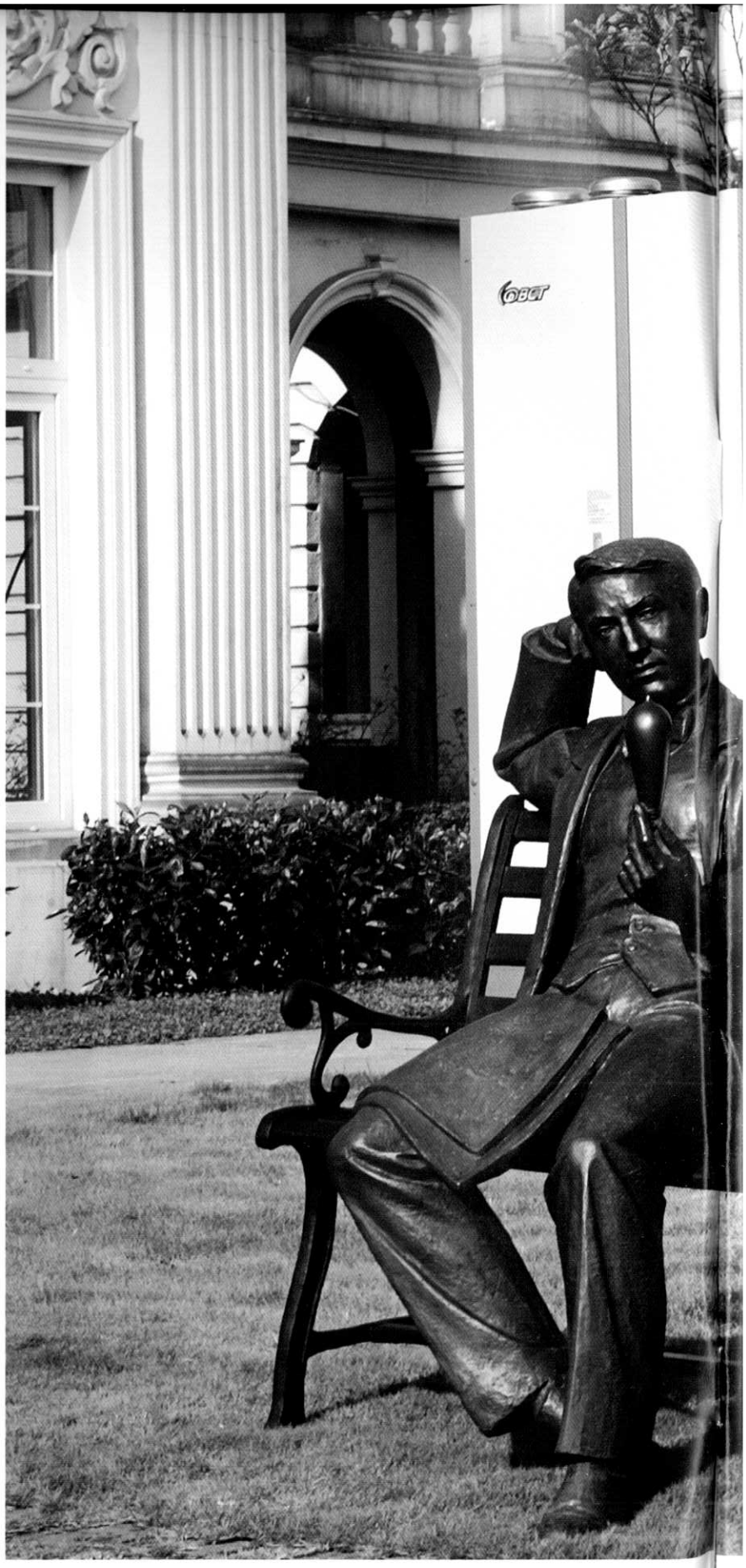
Already written history is BROAD's 1992 launch of China's first Direct Fire Absorption (DFA) chiller/heater and became the world's largest DFA manufacturer in 1996. BROAD's extensive commercial/industrial DFA product line ranges in capacity from 170 kW (48 RT) to 23,000 kW (6,540 RT). Absorption technology is becoming increasingly important because of its energy versatility (natural gas, clean diesel, solar thermal, waste heat, etc.), economy, low emissions and reducing electric peak demand.

Based upon strong market acceptance of its DFA products and studying energy and environmental trends, BROAD initiated intense development of a residential/light commercial heating/air conditioning product offering in capacities from 16 kW (4.6 RT) to 115 kW (33 RT). This seemingly impossible task was conquered through the design, development and testing of hundreds of parts and components and by performing field tests spanning several hundred prototypes. The result of all of this effort was the launch in 2003 of BROAD Comfort Technology's first series of products: the BCT micro gas air con.

Scholars ascribe greatest invention of the 19th century was the electric light, which ended 18,000 years of world history only lit by fire. The greatest invention of air conditioning in the 21st century may well become the BROAD BCT, which is changing decades of old world history where electric driven residential/light commercial air conditioning systems are the only solution.

Time will tell if this will be written into history. Nevertheless, the BROAD BCT has already revolutionalized the thinking about residential/light commercial air conditioning industry and is undoubtedly an inspiration to the world.

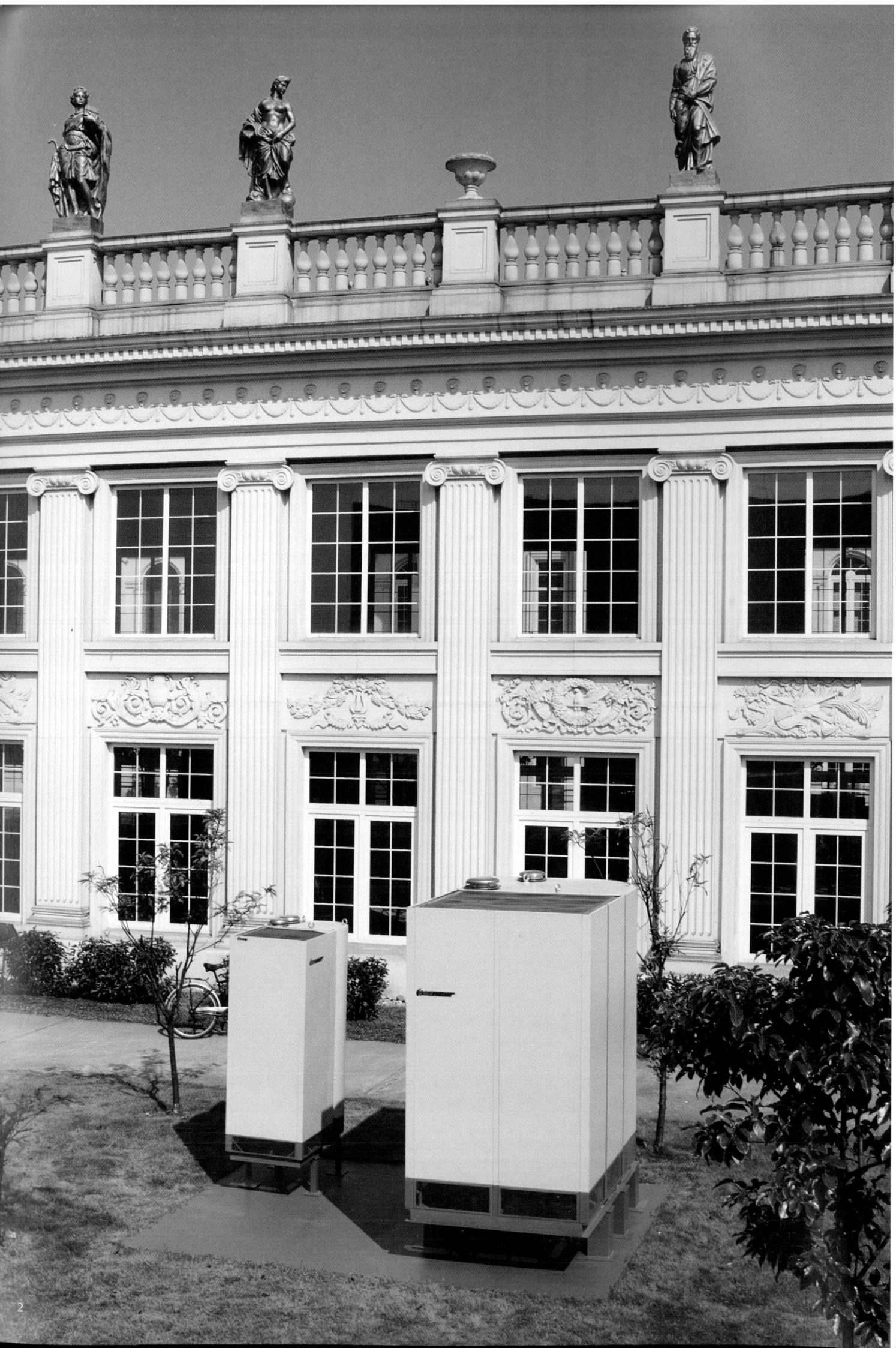
The chaotic world of global energy restructuring, the need for economic growth and the problem of air pollution all point toward a future where the BROAD BCT can reshape the residential and light commercial energy portfolio, drastically reducing utility costs, minimizing reliability-reducing summer on-peak electricity demand and levelizing fuel utilization and thus conserving natural resources.



An interesting contrast of Edison's electric light and the BROAD BCT lies in comparing the relative efforts. Edison's small team spent years and thousands of dollars in research and development whereas the BROAD's BCT represents a combination of many years of hard dedicated work by over 1,000 research and development engineers and an eight digit USD investment. Starting from the outdoor chiller/heater to the indoor fan coils and hot water tanks, from the system integration to the field installation process, from the intelligent control to the network communication, the revolutionary innovations appear throughout the system with more than 40 patented inventions.

BROAD BCT technically provides solutions to the numerous problems that have plagued the heating, air conditioning and hot water production industry over the last century. The BROAD BCT system is reliable, durable, easy to install, operate and maintain. The BROAD BCT is environmentally friendly and it reduces monthly utility expenditure while simultaneously providing increased comfort. The BROAD BCT is the realization of the dreams of architects and engineers worldwide and has already satisfied the reasonable and even impractical expectations of the most fastidious users.

BROAD prides itself in breaking records and making history in the worldwide air conditioning industry and is proud to add the BCT to its award winning portfolio.

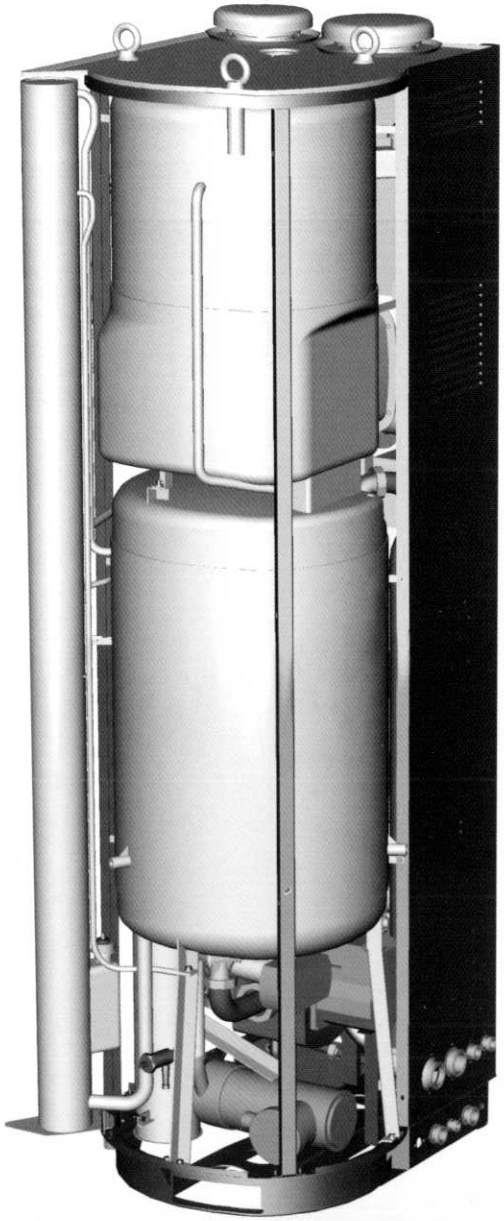


RELIABLE PERFORMANCE & LOW COST

BCT Outdoor Unit Technical Features

Low cost comfort – takes advantage of efficient absorption cooling and distributed air handling to deliver superior comfort at a lower cost.
Precise control - consistent cooling in the summer and warm heat in the winter and year-round constant temperature hot water.
Economic and environmentally friendly fuels – powered by natural gas, LPG and other clean energy fuels.
Quiet operation – no noisy compressors or loud condenser fans

Built to last - designed to operate for 15 years with very few moving parts.
Environmentally friendly refrigerant – uses advanced absorption technology where water is the refrigerant and LiBr the absorbent.
Complete automatic operation - 24 hours per day, 365 days per year.
Worry-free - automatic cooling tower operation keeps the cooling tower water clean and prevents scale and algae formation.
State-of-the-Art computer controlled operation - simple yet extremely effective control assuring precise operation, remote access and energy savings.

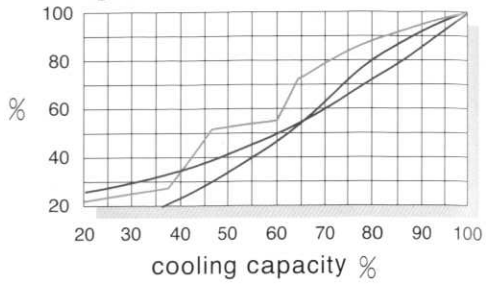


Rated Performance Data of Outdoor Unit

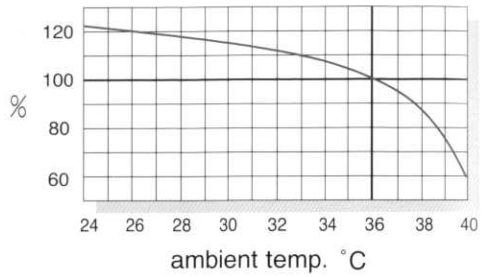
Model		BCT16	BCT23	BCT70	BCT115
cooling capacity	kW	16	23	70	115
	HP	7	10	30	50
heating capacity	kW	16	23	70	115
	10^4kcal/h	1.4	2	6	10
hot water capacity	kW	7.7	7.7	39	39
	10^4kcal/h	0.66	0.66	3.35	3.35
Chilled/heating water					
chilled water O/I temp.	°C	7/14	7/14	7/14	7/14
heating water O/I temp.	°C	57/50	57/50	57/50	57/50
flowrate	m^3/h	2.0	2.9	8.6	14.3
head	mH_2O	8	8	11	12
Hot water					
outlet/inlet temp.	°C	80/60	80/60	80/60	80/60
flowrate	m^3/h	0.33	0.33	1.68	1.68
Max. fuel consumption					
cooling natural gas	m^3/h	1.5	2.2	6.7	11.2
diesel oil	kg/h	1.24	1.82	5.54	9.26
heating natural gas	m^3/h	1.8	2.6	7.8	13.0
diesel oil	kg/h	1.49	2.15	6.45	10.75
hot water natural gas	m^3/h	0.9	0.9	4.3	4.3
diesel oil	kg/h	(only NG,LPG and TG can be used)		4.14	4.14
Max. electricity and water consumption					
cooling	kW	1.00	1.45	3.95	5.78
heating	kW	0.40	0.68	1.70	2.34
hot water	kW	0.14	0.14	0.50	0.50
water (cooling)	m^3/h	0.04	0.06	0.18	0.30
noise	dB(A)	62	63	65	65
ship. weight	kg	420	510	1550	2340
Chilled/heating water	L	7	10	32	48

Performance Curves

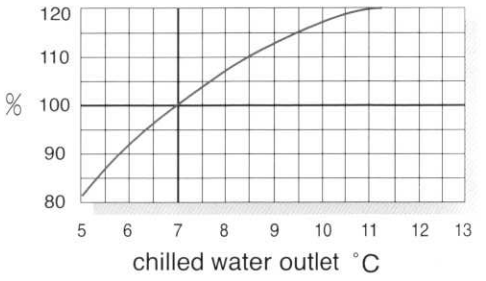
cooling capacity changes



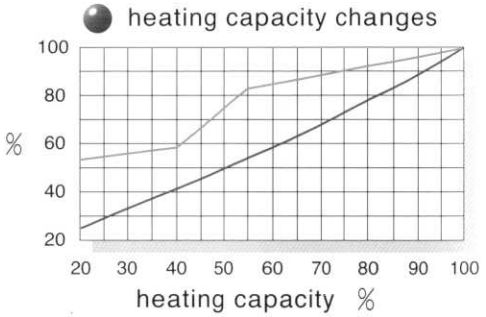
ambient temp. changes



chilled water temp. changes



heating capacity changes



cooling capacity ——
fuel consumption ——
electric consumption ——
water consumption ——

Notes:

1. Fuels: NG, LPG, town gas, diesel, please specify it in purchase orders.
   Natural gas consumption is calculated per heating value of 8600kcal/Nm^3 and dielsel oil per heating value of 10400kcal/kg(Diesel cannot be used for hot water burner of BCT16, BCT23).
2. Climate for rated cooling operation: temp. 36° C, relative humidity 50%.
   Applicable climate ≤ 45° C in Summer and ≥ −30 °C dry bulb temp. in winter.
3. Permitted pressure limit for chilled/heating/hot water: 40m H_2O(0.4MPa)
4. Lowest permitted outlet temp. for chilled water: 5° C. Highest permitted outlet temp. for hot water: 90° C
5. The hot water can only be used after secondary heat exchanging, so it is called "primary heating water".
6. BCT16, BCT23: 1 ph,220V,50Hz or 1 ph, 110V,60Hz; BCT70, BCT117: 3ph,380V,50Hz or 3 ph, 400V, 60Hz. Special requirements (voltage and frequency) should be specified.

Cooling Cycle

Making cold from hot! Here's how easily it is done.

When a liquid absorbs heat from its surroundings it evaporates. For example, when you spread alcohol on your hand, your hand will feel very cool as the alcohol absorbs heat from your hand and evaporates into the air. Air conditioning equipment is designed according to this principle.

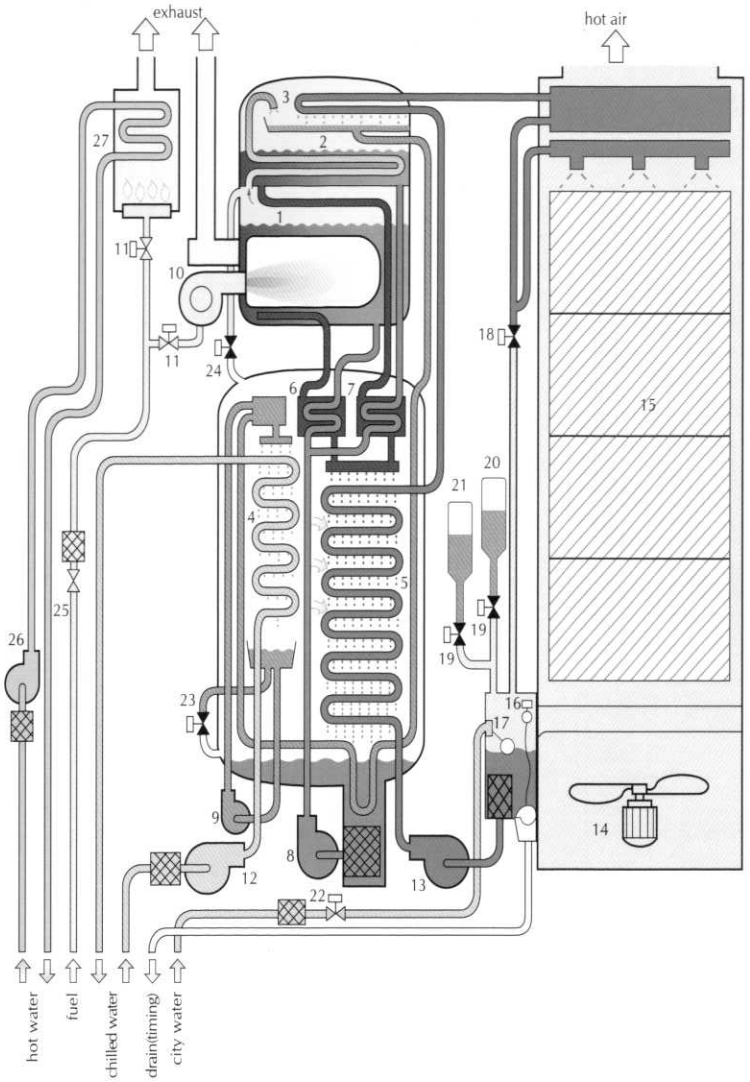
Water evaporates at 100 °C under normal atmospheric pressure, but water can also evaporate at very low temperatures under vacuum conditions. By creating a vacuum (6-mmHg pressure) in the air tight vessel of the BCT outdoor unit, water can evaporate even at 4° C.

The BCT outdoor unit utilizes lithium bromide as the absorbent, water as the refrigerant and natural gas as the heating source. Because lithium bromide solution is a very strong absorbent, it can absorb the surrounding vapor and maintain the low pressure condition in the evaporator.

Chilled water at 14° C enters the inside of the copper evaporator tubes and the refrigerant water at 4° C is sprayed on the outside of the tubes (under vacuum). The refrigerant water absorbs heat from the chilled water and evaporates (becomes vapor); thereby the chilled water temperature is reduced to 7° C. Concentrated lithium bromide solution in the absorber, attracts and absorbs the refrigerant vapor and then transfers the heat from the vapor to the cooling water. The cooling water heat is released to the ambient air via the cooling tower. The diluted lithium bromide solution is pumped to the high temperature generator where it is reheated and refrigerant vapor evaporates from the solution making the solution concentrated once again. The concentrated solution repeats the absorbing process and the steam goes to the condenser where it is liquefied and returned to the evaporator to begin the cycle again.

Heating Cycle

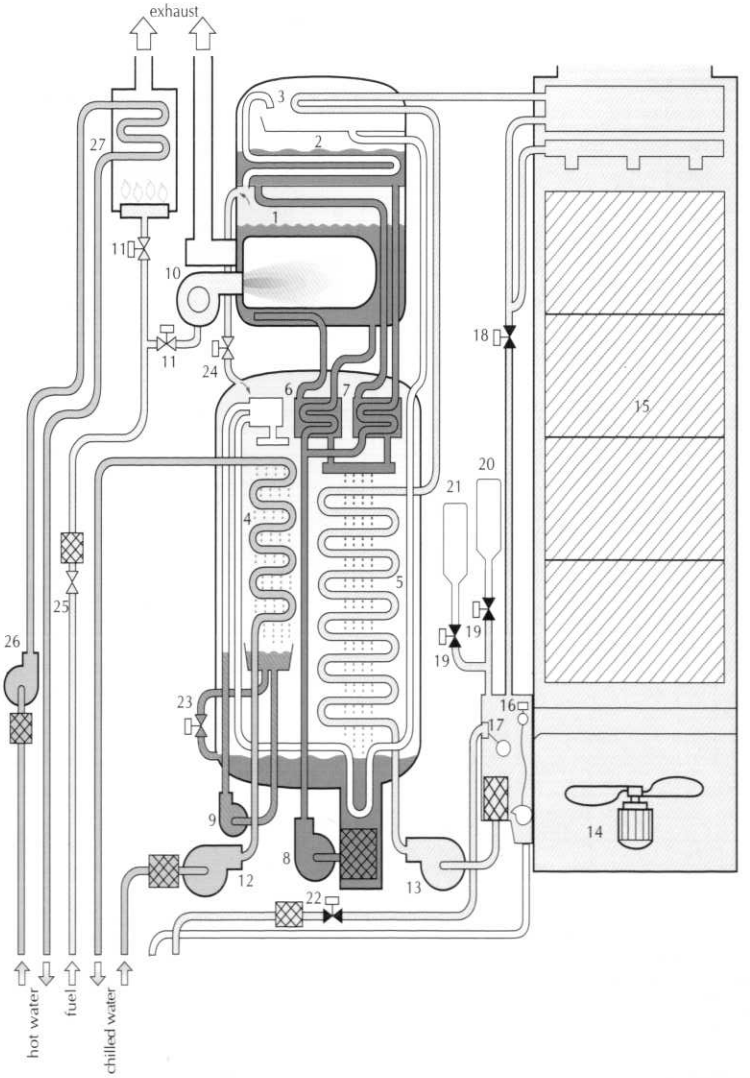
Combustion heats the lithium bromide solution in the high temp. generator. The hot vapor produced by the solution migrates to the low pressure vessel heating the water in the heat exchanger tubes to provide space heating. This heat transfer condenses and returns the vapor to the Lithium Bromide solution and is pumped into the high temp. generator to repeat the cycle.



Legend

- Concentrated solution
- Diluted solution
- Refrigerant vapor
- Refrigerant
- Chilled water
- Cooling water
- Hot water

01. high temp. generator (HTG)
02. low temp. generator (LTG)
03. condenser
04. evaporator
05. absorber
06. high temp. heat exchanger (LTHE)
07. low temp. heat exchanger (LTHE)
08. solution pump
09. refrigerant pump
10. burner
11. gas train
12. chilled /heating water pump
13. cooling water pump
14. cooling fan
15. cooling tower
16. discharge switch (timing)
17. water make-up floating ball valve
18. cooling water by-pass valve
(open when ambient temp. is low)
19. water quality stabilizer valve
20. antiseptic
21. bactericide
22. water make-up motor valve (open)
23. refrigerant motor valve (close)
24. cooling/heating switch motor valve (close)
25. main fuel valve
26. hot water pump
27. water heater



Legend

- Solution
- Vapov
- Condensate
- Hot water

01. high temp. generator (HTG)
02. low temp. generator (LTG)
03. condenser
04. evaporator
05. absorber
06. high temp. heat exchanger (LTHE)
07. low temp. heat exchanger (LTHE)
08. solution pump
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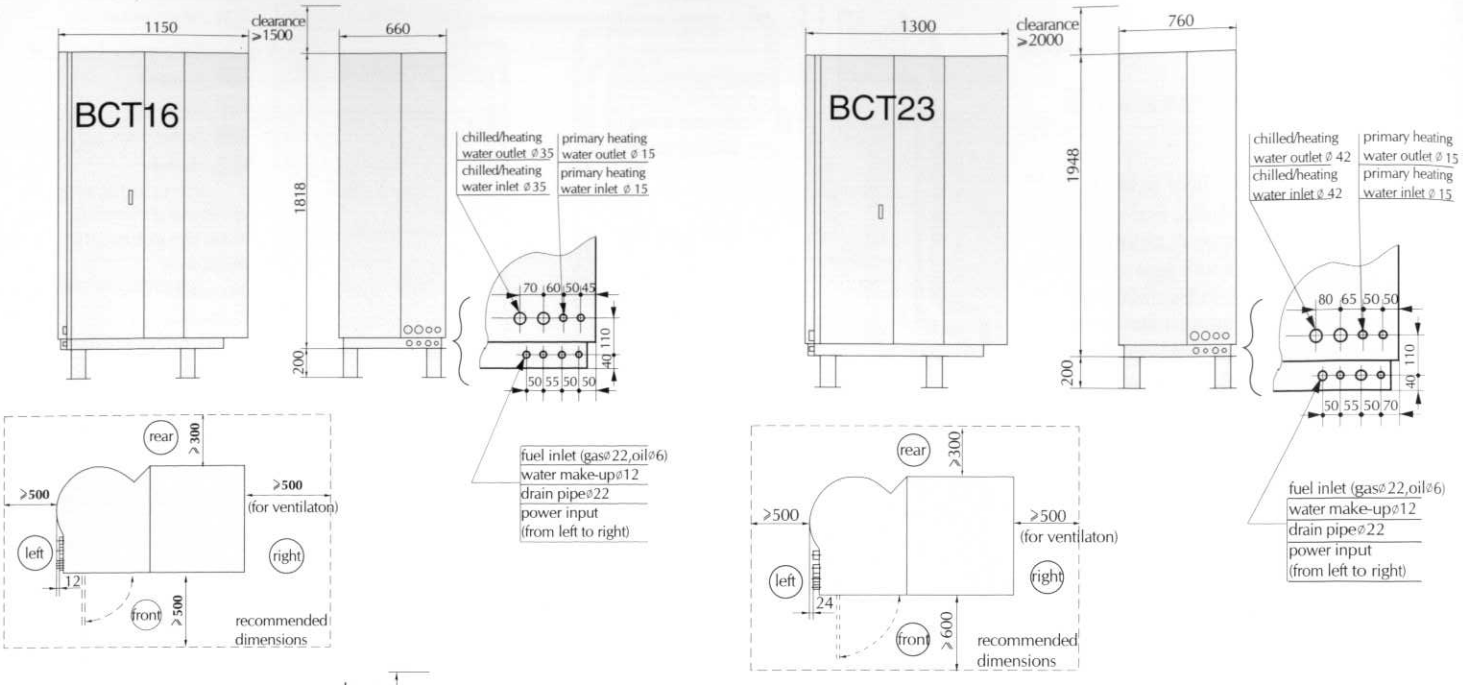
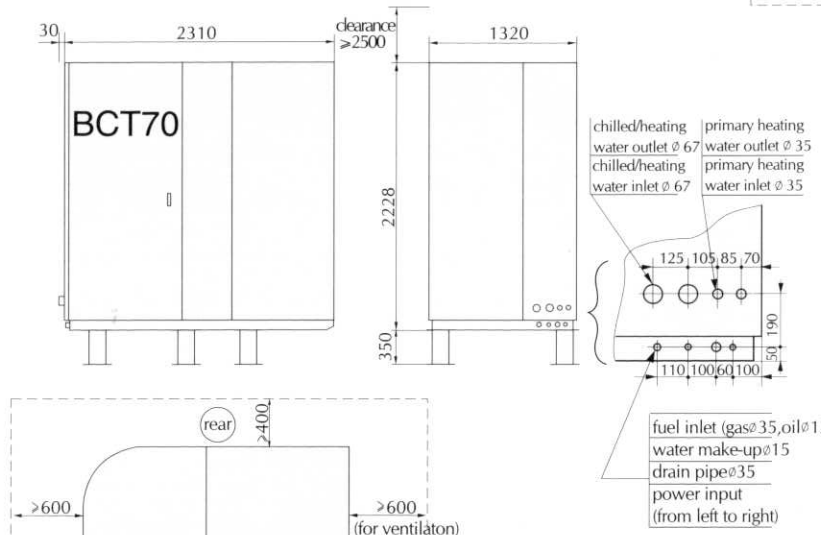
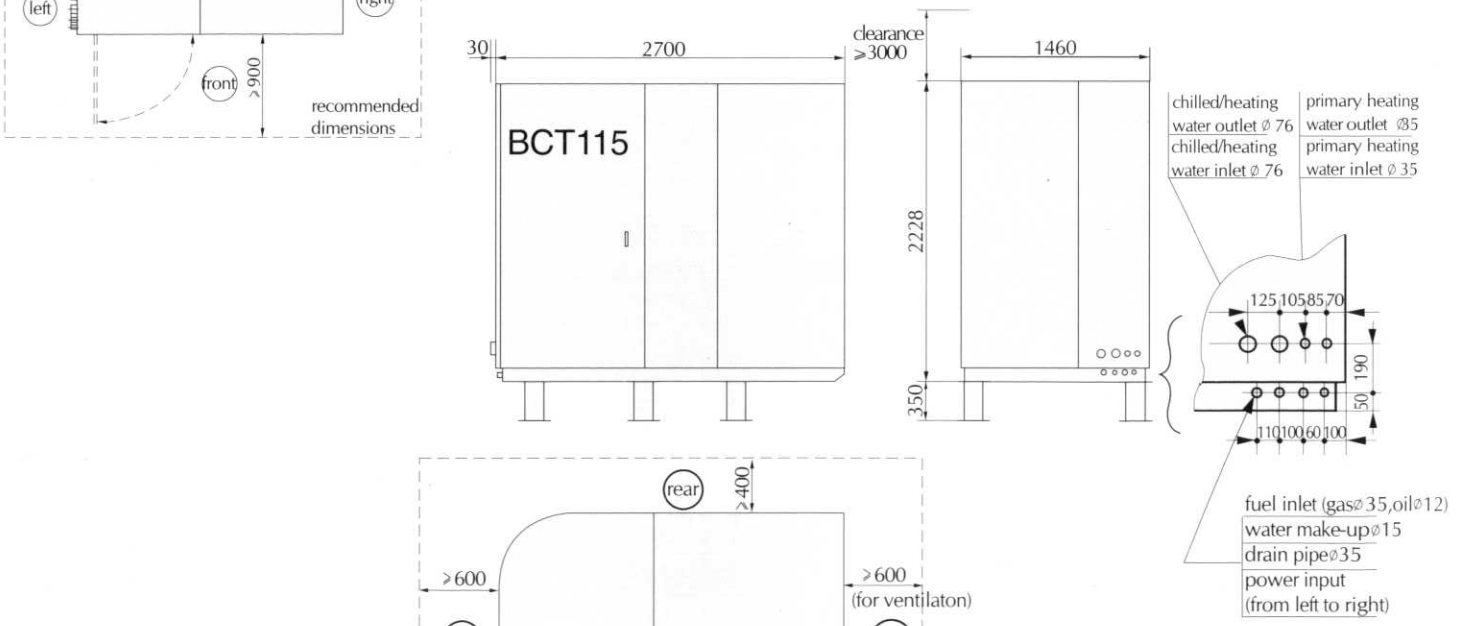
Dimensions



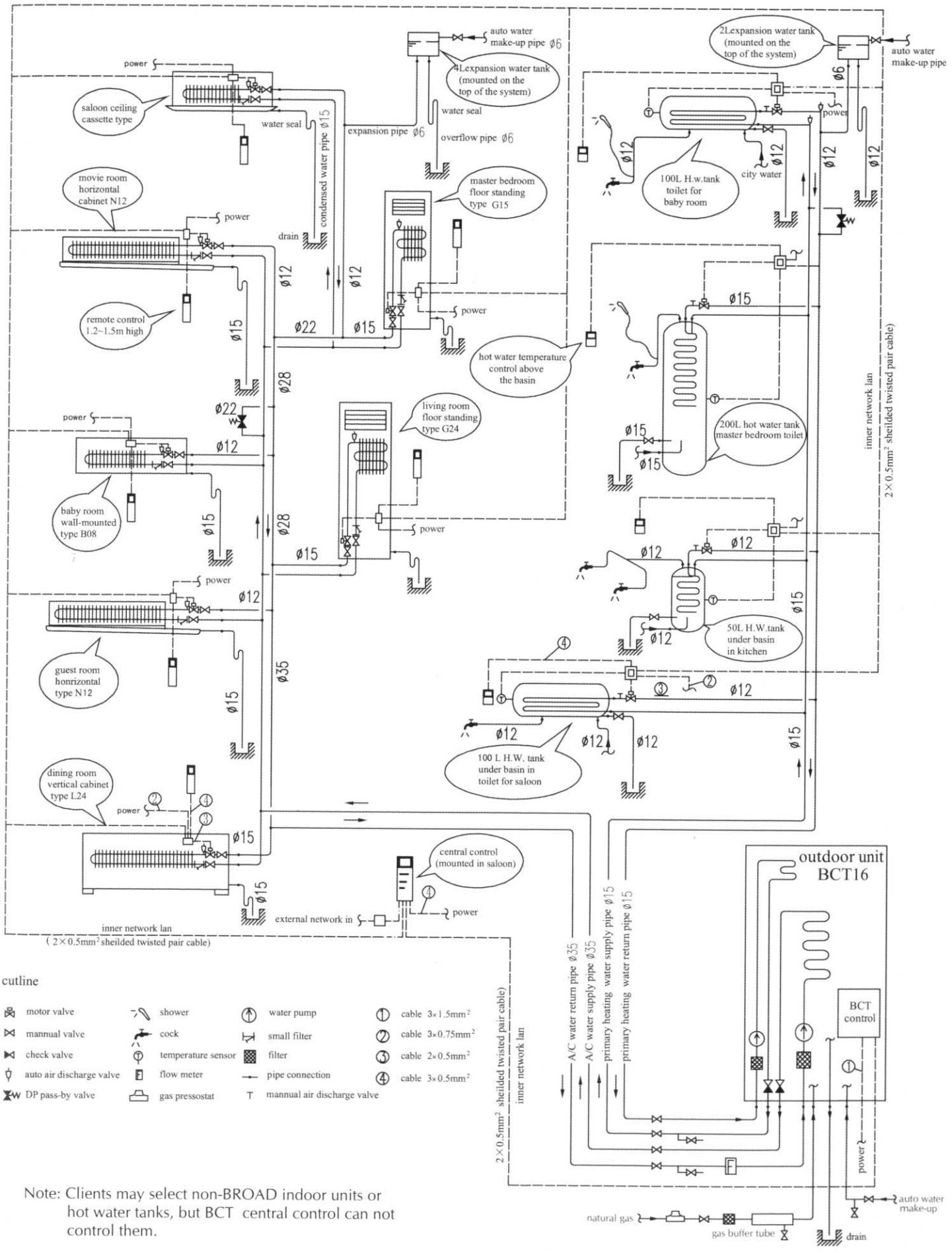




Note:Plinth pads are to be shipped with chillers for site installation.

Case: A/C and Hot Water System for a House

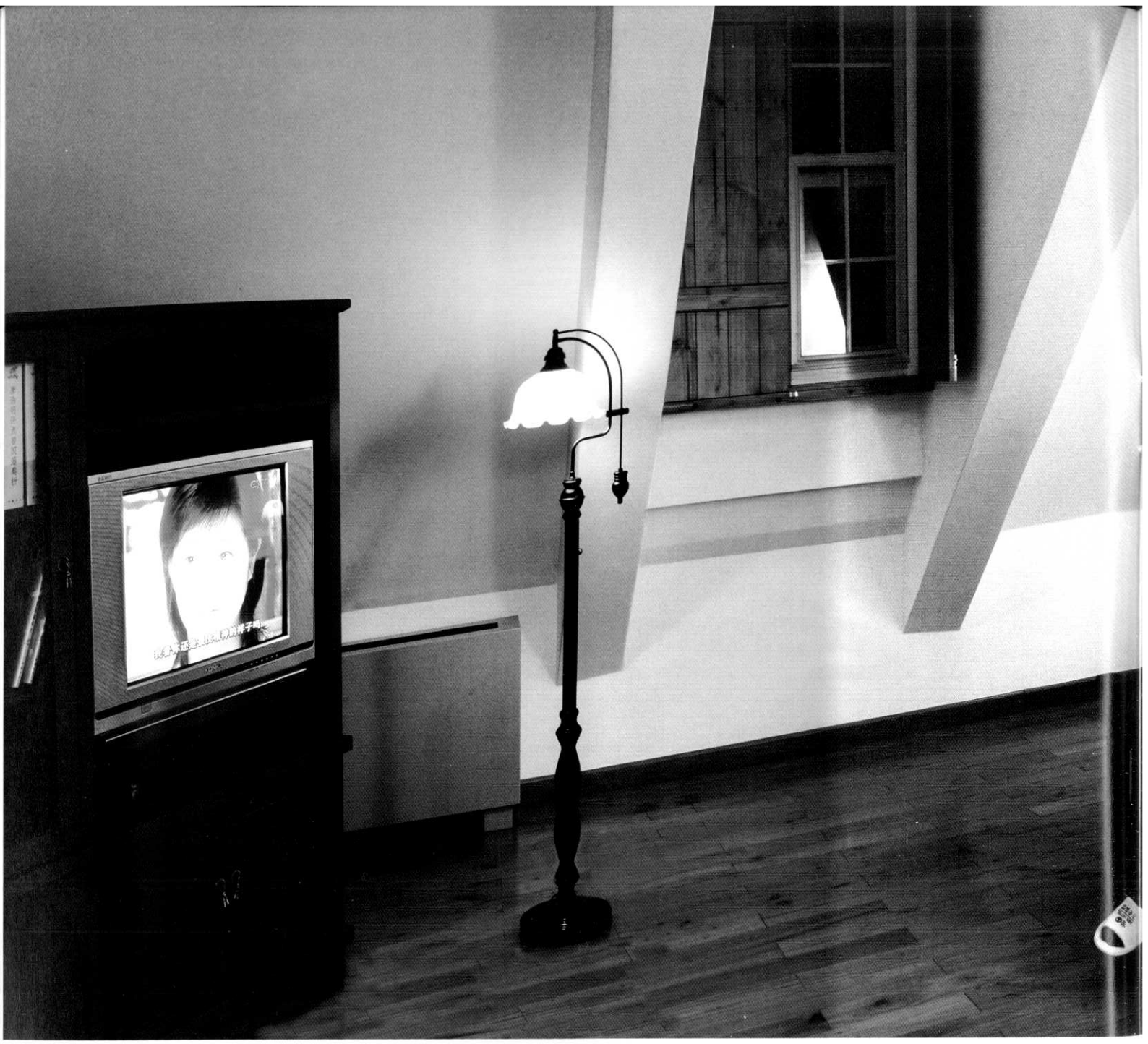
(Note:Except the pipes and cables, all in the diagram are in BROAD supply scope.)



cutline

motor valve	shower	water pump	① cable 3×1.5mm²
mannual valve	cock	small filter	② cable 3×0.75mm²
check valve	temperature sensor	filter	③ cable 2×0.5mm²
auto air discharge valve	flow meter	pipe connection	④ cable 3×0.5mm²
DP pass-by valve	gas pressostat	T mannual air discharge valve	

Note: Clients may select non-BROAD indoor units or hot water tanks, but BCT central control can not control them.



BROAD INDOOR UNITS

The basic series BCT Indoor Units consist of traditional concealed ceiling fan coil units and a wide variety of floor, wall mound and ceiling cassette fan coil units are optional allowing custom solutions for homes, office buildings, schools, hospitals and theatres worldwide. BROAD indoor units can not only match BCT outdoor units but also other BROAD chillers.

BROAD indoor units are provided with all valves factory-packaged to assure quality of motor valves, filters, air vent, soft conduit and controllers.

The design of the BROAD indoor unit is for easy installation avoiding costly pipe and valve leaks, protecting customer's costly decorations and to provide years of reliable operation.

Features of BROAD BCT Indoor Units:

To avoid cooling or heating losses, a two way motor valve is installed which will automatically manages the chilled / heating water for coil.

Factory mounted automatic air vent to prevent air blockade or need for pipe slope saving space and field labor.

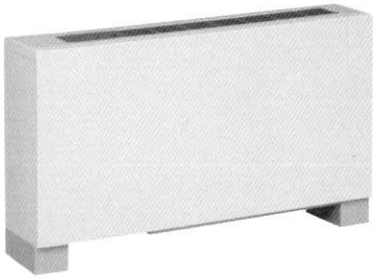
Equipped with water filter to eliminate coil blockage.

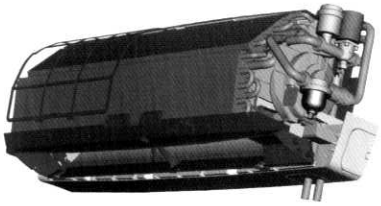
Equipped union fittings for ease of servicing.

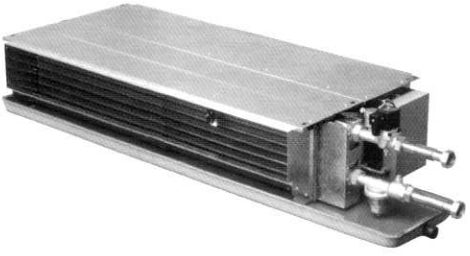
Supplied with air filter sensor to remind occupants to clean the air filter, keeping fresh air.

Specially designed fan providing ultra quiet operation.

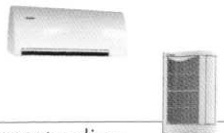
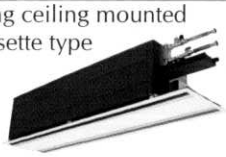
Room temperature controlled three-speed fan automatically modulates.







Rated Performance Data

Type	Model	Cooling capacity (HP)	Rated air flow m^3/h	cooling capacity kW		Water flow m^3/h		Resistance drop kPa		Heating capcacity kW		Power W	Noise dB (A)
				Low flow 7/14°C	High flow 7/12°C	Low flow 7/14°C	High flow 7/12°C	Low flow 7/14°C	High flow 7/12°C	High flow	High flow		
Wall-mounted type 	B08	0.8	400 300 200	1.6	2.0	0.20	0.36	4.3	12	2.4	3.0	35 30 26	37 34 29
	B12	1.2	510 380 260	2.2	2.7	0.28	0.48	6.2	16	3.3	4.1	40 34 30	38 33 30
Floor standing type 	G15	1.5	680 510 340	2.9	3.6	0.36	0.64	9.3	26	4.4	5.4	80 69 56	39 36 28
	G24	2.4	1020 770 510	4.3	5.4	0.54	0.95	16	42	6.5	8.1	100 85 70	45 42 39
Ceiling mounted cassette type 	F15	1.5	680 510 340	2.9	3.6	0.36	0.64	9.3	26	4.4	5.4	70 60 50	42 40 37
	F24	2.4	1020 770 510	4.3	5.4	0.54	0.95	16	42	6.5	8.1	120 100 80	43 41 39
Long ceiling mounted cassette type 	C24	2.4	1020 770 510	4.3	5.4	0.54	0.95	16	42	6.5	8.1	80 68 56	42 31 25
	C40	4.0	1700 1280 850	7.2	9.0	0.90	1.56	19	48	10.8	13.5	145 120 95	45 34 26
Vertical cabinet 	L12	1.2	510 380 260	2.2	2.7	0.28	0.48	6.2	16	3.3	4.1	40 35 30	35 26 23
	L24	2.4	1020 770 510	4.3	5.4	0.54	0.95	16	42	6.5	8.1	80 68 56	42 31 25
	L40	4.0	1700 1280 850	7.2	9.0	0.90	1.56	19	48	10.8	13.5	145 120 95	45 34 26
Horizontal type 	N12	1.2	510 380 260	2.2	2.7	0.28	0.48	6.2	16	3.3	4.1	40 35 30	35 26 23
	N15	1.5	680 510 340	2.9	3.6	0.36	0.64	7.6	26	4.4	5.4	50 45 36	39 32 25
	N20	2.0	850 640 430	3.6	4.5	0.45	0.79	14	38	5.4	6.8	65 58 46	41 32 27
	N24	2.4	1020 770 510	4.3	5.4	0.54	0.95	16	42	6.5	8.1	75 67 55	42 31 28
	N32	3.2	1360 1020 680	5.8	7.2	0.72	1.25	17	43	8.7	10.8	110 92 78	44 35 30
	N40	4.0	1700 1280 850	7.2	9.0	0.90	1.56	19	48	10.8	13.5	130 105 95	45 34 30
Air handling unit	air flow:3,000m^3/h ~ 200,000m^3/h Model:: Flow standing , vertical, combined. Special order is available to meet customers' requirements.												

Technical conditions:

1.cooling operating mode: inlet air dry bulb temperature is 27°C, wet bulb temperature is 19.5°C , inlet water temperature is 7°C.

2.heating operation mode: inlet air dry bulb temperature is 21°C, inlet water temperature is 57°C.

3.climate: temperature 5°C -45°C, humidity 90%.

4.medium: water 2°C -70°C.

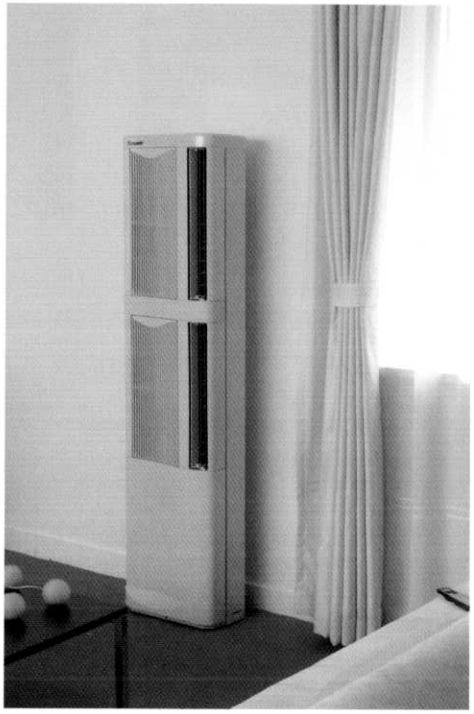
5.max. pressure limit: 1.2MPa.

6.resistance drop includes that of both coils and inlet/ outlet water valves.

The Freedom of Choice

The floor and surface mounted air handlers combine small size with easy installation providing an ideal solution for home or retrofit applications and the built-in or semi built-in air handlers are ideal for new construction, commercial and office applications. Particular attention has been paid to cabinet design aesthetics providing flexibility for interior design.

The wall surface mount and floor standing units are very economical as they are mass-produced and aesthetically pleasing assuring good design on a tight budget.



BCT HOT WATER

Bathe As You Like

BCT hot water system is an independent heating system; hot water tanks can be located near each water faucet. Hot water will be provided as soon as the water faucet is like a 5-star hotel and unlike traditional central hot water systems which require a hot water pump to run continuously.

Traditional commercial hot water systems seem advanced but they waste energy through heat radiation through pipes and 24 hour pump operation. The customer experience from this type of systems maybe worse as the on and off of every water faucet will affect the water pressure of other faucets causing unstable water temperatures, discomfort and even scalding. Traditional residential systems find the homeowner waiting many minutes for the hot water to migrate form the taken to the faucet.

BROAD engineers with their great love towards mankind have rejected conventional technologies in place of providing a new level of comfort, convenience and more importantly with environmental sustainability in mind.

The BCT split hot water tank system can maintain any constant water temperature. In the bathroom for parents this permits setting a lower hot water temperature of about 48° C for their children. Water temperature can be set at 30° C in public bathrooms for convenient use. For those who need to quickly heat large tub or like to take hot showers the water temperature can be set at 70° C with much mixed cold water.

Individual hot water temperature control is provided for each hot water tank. The hot water temperature can be freely set.

Hot Water Tank Specification

capacity L	wt. kg	install type	dimensions mm length	diameter	external pipe connecting hot water, make-up water	primary heating water
50	75	vertical type	720	Φ 460	Φ12x0.7	Φ 12x0.7
100	140	vertical,horizonta, wall-mounted type	1225	Φ 460	Φ12x0.7	Φ12x0.7
200	270	vertical, horizontal type	1245	Φ 620	Φ15x0.7	Φ15x0.7
300	390	vertical, horizontal type	1715	Φ 620	Φ15x0.7	Φ15x0.7
500	720	vertical, horizontal type	1800	Φ 800	Φ28x0.7	Φ22x0.7
1000	1400	vertical, horizontal type	2000	Φ 1000	Φ42x1.0	Φ35x1.0
2000	2700	vertical, horizontal type	3790	Φ 1000	Φ76x1.5	Φ35x1.0
4000	5000	vertical, horizontal type	4060	Φ 1300	Φ89x1.5	Φ35x1.0

Copper tubes are recommended for external connection pipes, the thickness is the recommended value.

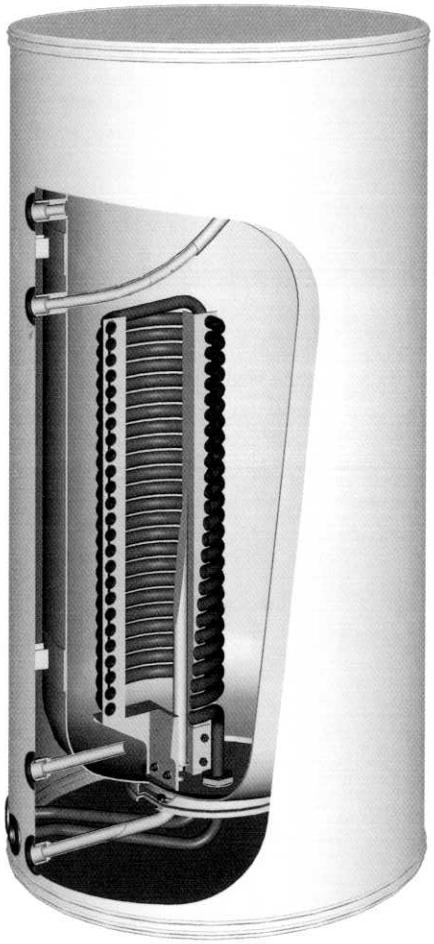
Hot Water Tank Technical Features:

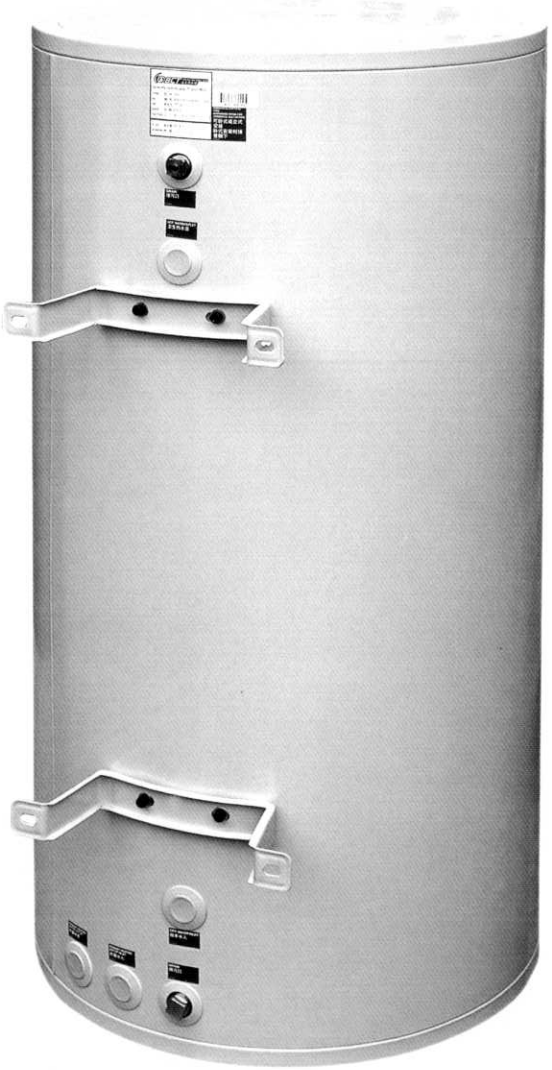
Unique primary water heating system providing constant water pressure and temperature
Independent water heater supplies a large volume of hot water without effect to cooling and heating
Water temperature can be set randomly
Set each tank temperature alone in multi-tank system
Equipped with temperature controls, motor valves, drain valves, etc.
Energy savings through 50 mm of insulation, twice the thickness of conventional systems
Enamel coated inner canister with sealed primary loop copper heating tubes containing clean primary heating water.
Small-sized pipe system for primary heating water, with low cost and less installation space can be freely installed vertically or horizontally, can also be floor standing or wall-mounted.
stud connector, simple but no leakage

Hot Water Tank Working Principle:

When water temperature in the tank is lower than the setting, motor valve starts automatically and water heater of outdoor unit ignites. The cycling of primary water heats the hot water in the tank. When hot water temperature is at upper limit, the motor valve will shut off to stop heating.

The BCT system offers an additional level of comfort. The engine combustion system is located outdoors completely eliminating, any question of fire hazard, flue stacks and the need for carbon monoxide detectors. The BCT hot water system strengthens the BCT comfort role and further safeguards the home.





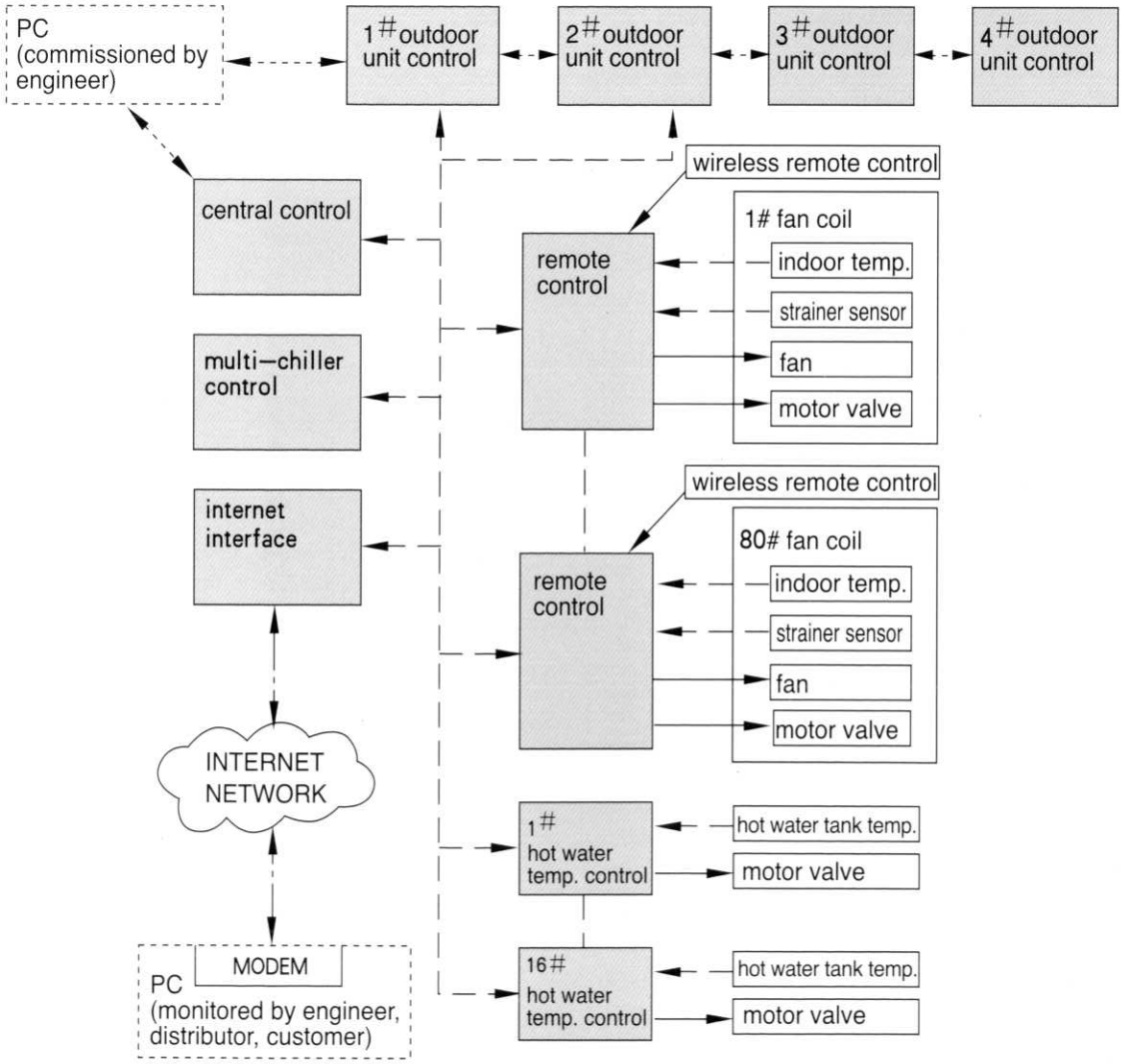
CONTROL SYSTEM FULL OF FUN

BCT IT integrated control system ushers in a new home information era for space conditioning and domestic hot water. Control logic diagram below simply describes the overall operating logic of the BCT system.

If you are a parent who worries about daily family expenses, or a mother who cares about her children, or a busy person who merely enjoys touching a button once-a-year, or a child just tall enough for the lowest button, the BCT control system can make all family members happy. Even if you are traveling on business, you can still see the air conditioning and hot water operation at home on your PC.

BCT control system reflects the hi-tech essence, which brings about physical and psychological comfort for the future.

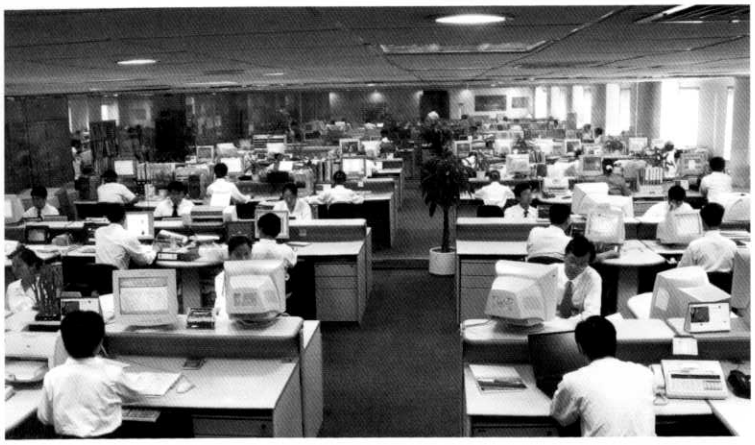
Control Schematics




轻放 请勿弯折

EXTENSIVE APPLICATIONS

BCT chillers are not only ideal for homes but also shops, restaurants, office buildings or even for star hotels and clubs. For buildings with big investment, more BCT chillers can be used for different load requirements, which is more convenient and more energy- saving, more money-saving and more flexible for chiller location.



BCT chiller can be for a 6,000m^2 building

For instance, seven BCT chillers are used in a hotel to provide air conditioning and hot water for deluxe suites, lobby, dining-rooms, meeting rooms, entertainment center and fitness center.

BCT outdoor units can be located nicely outside the hotel.

All kinds of indoor units can be built in the decorations, which do not affect the style aesthetically.

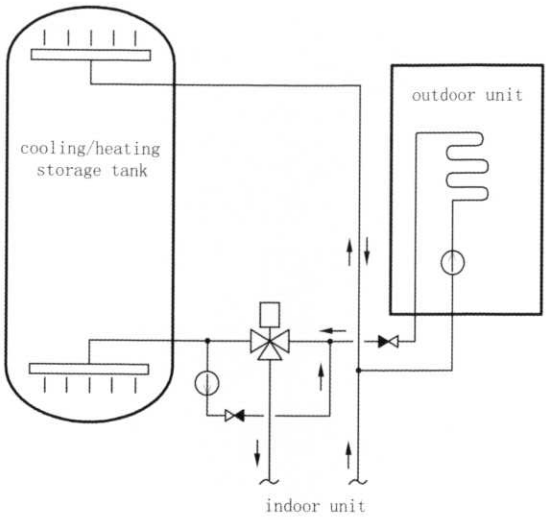
MODEL SELECTION OF OUTDOOR UNITS

Recommended load selection:
Low load site (e.g. homes, offices, hotel rooms): 60 ~ 90W/m^2
High load site (e.g. shops, restaurants, churches, clinics): 150 ~ 250W/m^2

Recommended chiller quantities:
Dialectics tells us: there is no product that is 100% fault-free in the world. Therefore, two chillers are recommended to every system (total load does not exceed the above-mentioned data). One chiller can be selected on the condition that clients' system is below 300m^2, and clients can tolerate an unexpected-fault-stop once a year.

Recommended cooling storage tank:
If cooling storage tank is used, outdoor unit load can be lowered and system reliability be improved. For example, a 2000m^2 restaurant usually needs 4 units of BCT115, if a 50m^3 cooling storage tank is selected, only 2 units of BCT115 are required. Another example like a 600m^2 villa, usually 2 units of BCT23 are needed. If a 15m^3 cooling storage tank is selected, one BCT23 is needed.

During transitional periods in spring and autumn outdoor units need to be on once within several days, most of the time only a chilled/heating water pump is on, which saves much fuel and electricity.



Cooling(heating) storage tank installation

LOCATIONS OF OUTDOOR UNITS

The disadvantages of BCT outdoor units vs electric chillers:
1) Large size(limited to absorption cooling principle)
2) vapor discharge and emission release
3) maintenance twice a year

Location should be convenient for access and out of human sight. It's good to be in the back yard or accessible rooftop. Service space must be as much as possible for chiller maintenance.

Location near many houses is forbidden.

No matter how far BCT outdoor units are from indoor units, for water is the medium, distance does not affect air conditioning or hot water effect. Outdoor units and indoor units can be as far as 50m.

BCT outdoor units look big. If clients do not like eye-catching industrial equipment, they may purchase from BROAD a standardized wooden enclosure or clients may build a big-sized wooden fence or plant a few trees.

PIPING SYSTEM TIPS

Clients may entrust experienced HVAC engineers with BCT piping designing. For small projects may be designed by experienced central air conditioning installers. For the materials here are for references only.

Piping system should be as simple as possible. Short piping and fewer elbows result in low cost, good quality installation and A/C effect.

There are 3 piping system modes to be chosen according to different construction structure and A/C load:

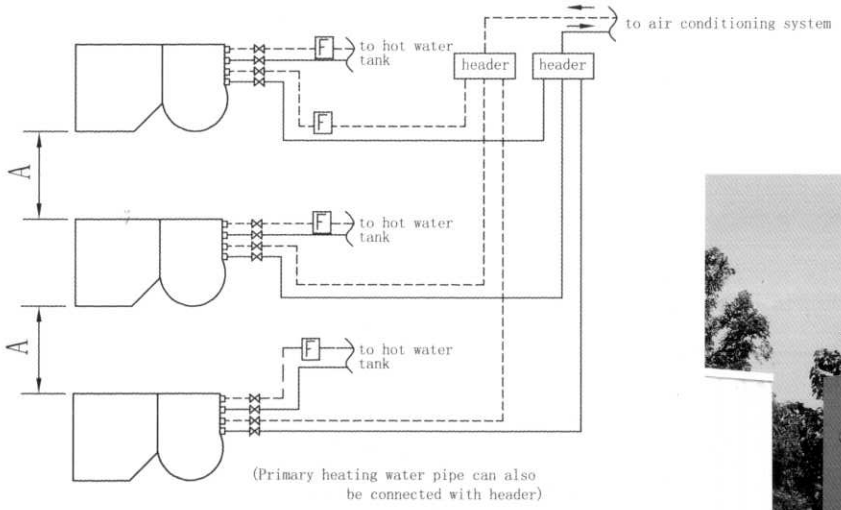
a. For small system (such as a house), because the resistance of each loop is almost the same and easy to be modulated, normally choose "direct system" to save pipe and space.

b. Choose "centralized pipe system" to keep temperature and water resistance of each indoor unit as the same, reduce intermediate connectors and elbows. This system installs the main pipe to a place near several indoor units, connecting each indoor unit with a header.

c. For large system, reverse system is recommended to keep temperature and water resistance of each indoor unit as the same, which is convenient for water flow adjustment; "vertical reverse system" is recommended for multiple floors; "branch reverse system" is recommended for large area of single floor.

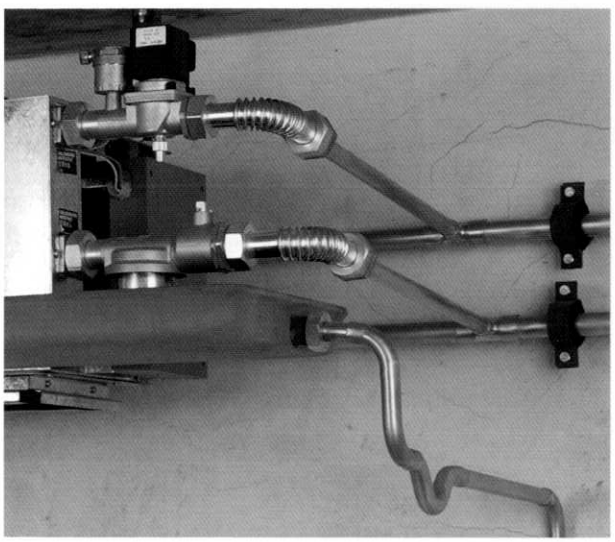
d."Direct system" is recommended for primary heating water system, as the possibility for heating hot water tanks at the same time is very low.

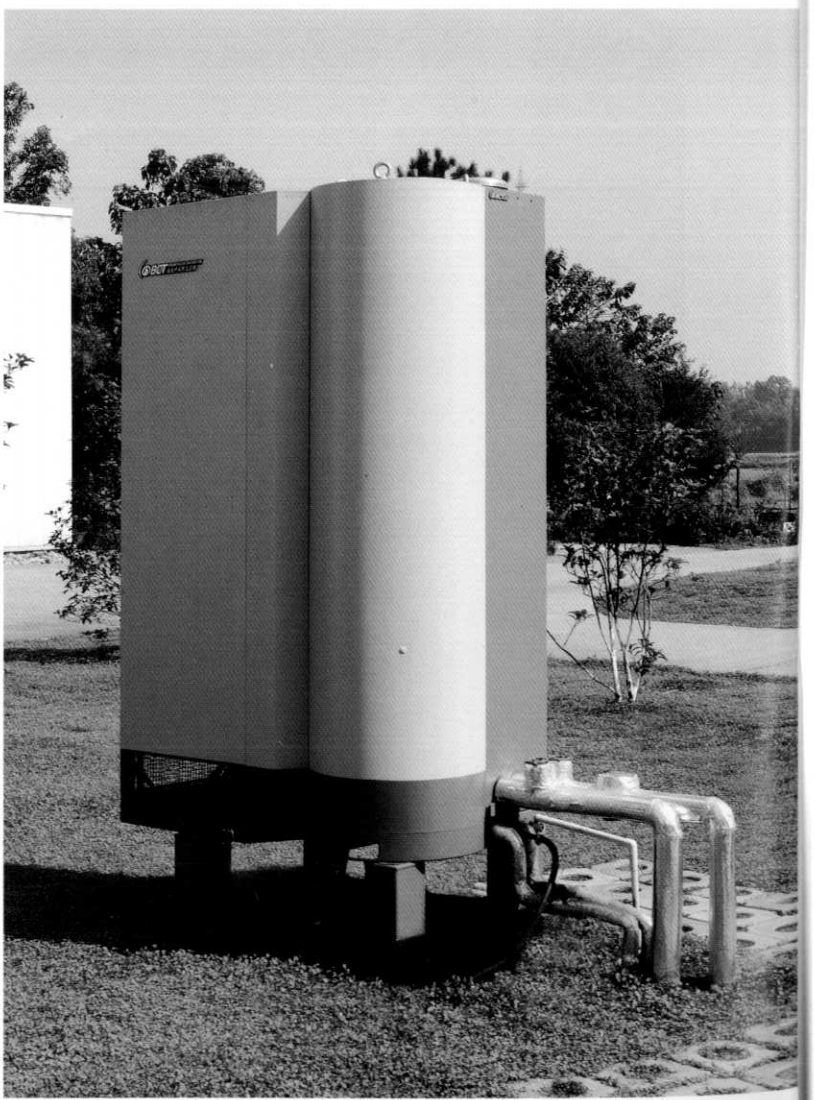
For the individual measuring system or possible later, the indoor units in each house should be centralized in one loop in designing.

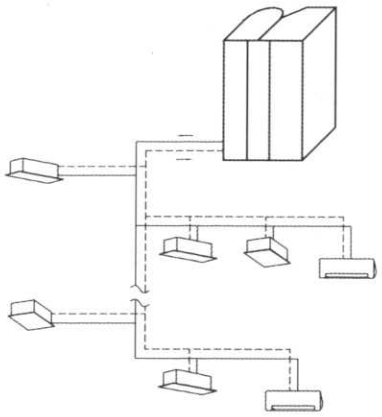


model	BCT16	BCT23	BCT70	BCT115
A	≥ 600	≥ 700	≥1200	≥1300

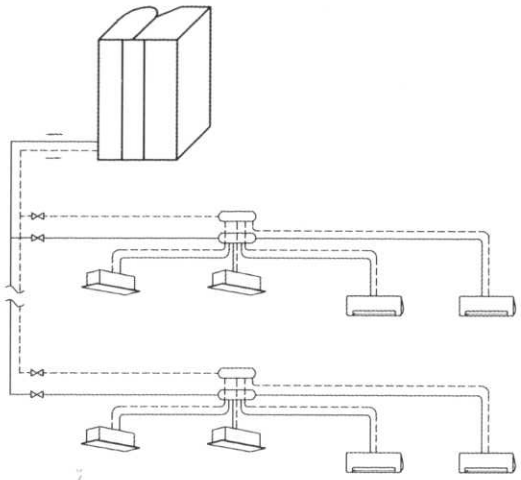
Multi-outdoor units in parallel installation:



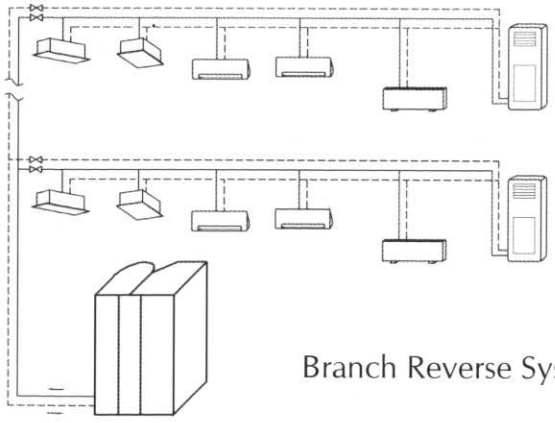




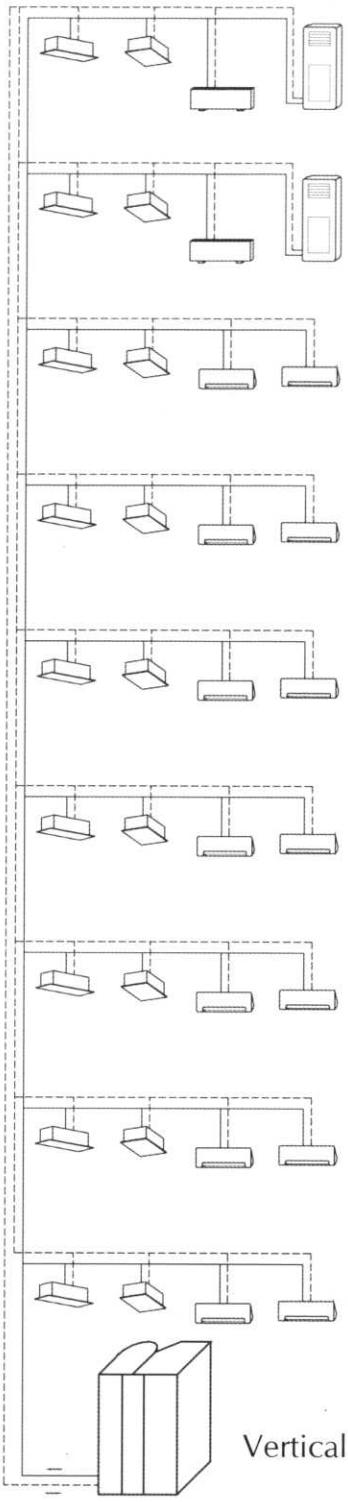
Direct System



Centralized Pipe System



Branch Reverse System



Vertical Reverse System

STRINGENT QUALITY SYSTEM

Production lines of BCT outdoor units are BROAD-designed, adopting the most cutting-edge facilities and instruments, consisting of more than 200 processes.

BROAD has the quality deviation upper limit of 0.002%, which requires very qualified staff. Management staff, engineers and workers co-set up the quality management system with meticulous care.

BCT quality control features are as follows: 100% inspection for all parts purchased, every vacuum part must be helium checked, the whole chiller shot blasted, chiller coated with high temperature resistant resin. Every chiller must be tested and experimented not less than 24 hours.

BCT system got CE marked and ETL listed in 2004, which include outdoor units, indoor units, hot water tanks and control system.

BCT system up to 2004 has been sold in more than 10 countries like China, European, American and Asian ones.

CERTIFICATE

TÜV

of Conformity
Low Voltage Directive 73/23/EEC
as last amended by EEC Directive 93/68/EEC

Registration No.: AN 50037853 0001

Report No.: 16000995 001

Holder:
Broad Air Conditioning
Broad Town
Changsha, Hunan 410138
P.R. China

Product:
Klimagerät
(House Gas Air Conditioner)

Identification:
Type Designation : BCT16x-y BCT23x-y
BCT70x-y BCT115x-y
Variable x = C, D, E (indicates type of fuel).
Variable y = k, d, w or blank

Serial No. : n.a.
Remark: Refer to test report 16000995 001 for details.

This certificate of conformity is based on an evaluation of a sample of the above mentioned product. Technical Report and documentation are at the Licence Holder's disposal.This is to certify that the tested sample is in conformity with all revision of Annex I of Council Directive 73/23/EEC, in its latest amended version, referred to as the Low Voltage Directive. This certificate does not imply assessment of the series-production of the product and does not permit the use of a TÜV Rheinland mark of conformity. The holder of the certificate is authorized to use this certificate in connection with the EC declaration of conformity according to Annex III of the Directive.

TÜV Rheinland Product Safety GmbH TÜV Rheinland Zertifizierungsstelle

Certification Body

Cologne, 05.02.2004

Dipl.-Ing. F. Nispel

TÜV Rheinland Product Safety GmbH - Am Grauen Stein - D-51105 Köln

CE The CE marking may be used if all relevant and effective EC Directives are complied with. CE


max 120 Kg


BCT23
GENERAL ASSEMBLY LINE
总装线


TCM
BCT70. 115
GENERAL ASSEMBLY LINE
总装线

Special tips:
Refer to BCT Technical Manual for details about model slection, ordering, designing, installation and operation.

BROAD established in 1988 is the world's largest manufacturer of gas air conditioning with 1,800 employees now. BROAD was awarded one of "Top 20 —the most admired companies in China" and one of "Top 16—Chinese enterprises with international competition capabilities" .BROAD was China's Number One taxpayer and Number Two taxpayer among private companies in 2002 and 2003.

LIU SAI a member from BROAD SALES, is mainly engaged in BCT & BZY clients'information management and clients'reception.

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