

# boreal



## LIGHT COMMERCIAL LINE

Contact us via email:





**ON /  
OFF**

**60Hz On/Off R410A Top  
Discharge Series**



**24K**

220V, 1PH, 60Hz



**36K**

220V, 1PH, 60Hz



**48K & 60K**

220V, 1&3PH, 60Hz,  
380V, 3PH, 60Hz

**Indoor Units**



**24K / 36K / 48K / 60K**



**24K / 36K / 48K / 60K**



**24K / 36K / 48K / 60K**



**36K / 60K**

**INVERTE  
R**

**60Hz Inverter R410A Top  
Discharge Series**



**36K**

220V, 1PH, 60Hz



**60K**

220V, 1PH, 60Hz

**Indoor Units**



**36K / 60K**



**36K / 60K**



**36K / 60K**



**36K / 60K**

## CASSETTE



1 min Faster in cooling/heating



30% Energy saving than normal



20% ↑ Air Flow Volume with optimized fan design



Elegant panel design (Optional)



±1°C Precise Temperature Control

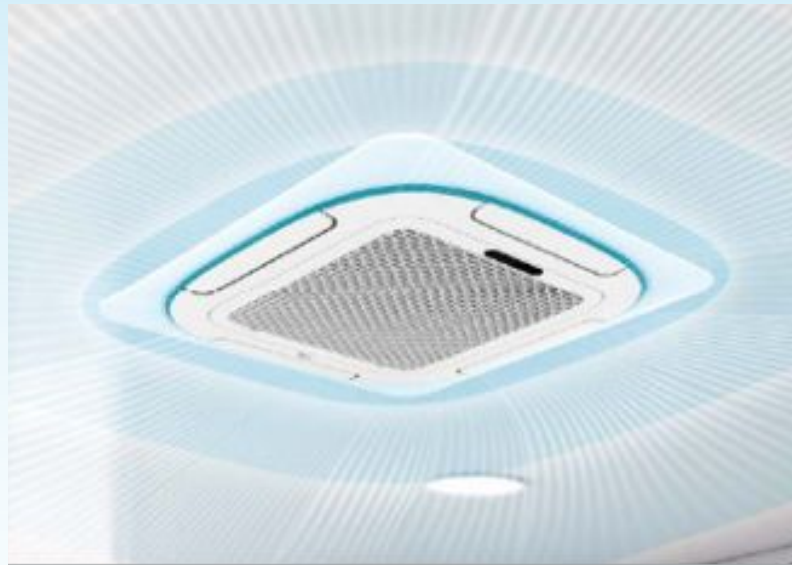


CoolSurround 360°



Noiseless IDU noise 4dB ↓

**360° wide-angle air supply**



**Healthy Breath (optional)**



The filter with activated carbon and silver ions can remove dust, bacteria and formaldehyde.

**Quiet operation**



3D spiral fan blade

Diffuser

Quiet operation by using optimized 3D indoor fan.

**New designed Panel**



New design which is more suitable for room decoration.

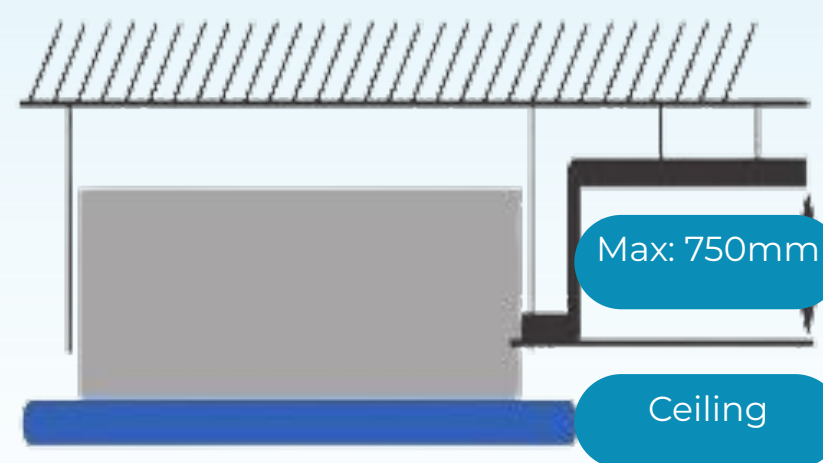
Easy Remove



Easy-clean Filter

**Two steps** to removed easily for cleaning and maintenance.

Higher Drainage



Build-in Drainage Pump

The condensing water can be lifted **up to 1200mm**, which is convenient for installation.

Two Controller



Convenient control

The **Two wired** controller can adjust the units, it is more convenient for you.

| SPECIFICATIONS (LIGHT COMMERCIAL A/C) |                              |          |                          |                          |                          |
|---------------------------------------|------------------------------|----------|--------------------------|--------------------------|--------------------------|
| Q8 Cassette Indoor                    |                              |          | 2 ton                    | 3 ton                    | 5 ton                    |
| Model name                            |                              |          | BUMAT24COJ2CAST          | BUMAT36COJ2CAST          | BUMAT60COJ2CAST          |
| Power Supply                          |                              | V//Hz/Ph | 208-230V~/60Hz           | 208-230V~/60Hz           | 208-230V~/60Hz           |
| Cooling                               | Capacity                     | Btu/h    | 24000                    | 36000                    | 55000                    |
|                                       | Capacity                     | W        | 7032                     | 10550                    | 16119                    |
|                                       | Input                        | W        | 2430                     | 4138                     | 6153                     |
|                                       | Rated current                | A        | 11.1                     | 17.60                    | 26.30                    |
|                                       | EER                          | W/W      | 2.89                     | 2.55                     | 2.62                     |
| Indoor coil                           | Number of row                |          | 2                        | 2                        | 2                        |
|                                       | Fin spacing                  | mm       | 1.4                      | 1.3                      | 1.3                      |
|                                       | Fin material                 |          | Hydrophilic & Louver Fin | Hydrophilic & Louver Fin | Hydrophilic & Louver Fin |
|                                       | Tube outside diameter        | mm       | φ7                       | φ7                       | φ7                       |
|                                       | Tube material                |          | Innergroover tube type   | Innergroover tube type   | Innergroover tube type   |
|                                       | Coil length x height x width | mm       | 1899×168×25.4            | 1899×252×25.4            | 1899×252×25.4            |
|                                       | Number of circuit            |          | 8                        | 12                       | 12                       |
| Indoor fan motor                      | Brand                        |          | Weiling                  | Lifeng                   | Lifeng                   |
|                                       | Model                        |          | YKT-60-6-241             | SJ56G                    | SJ56G                    |
|                                       | Input                        | W        | 122/82/66/52             | 202/178/144/115          | 202/178/144/115          |
|                                       | Running current              | A        | 0.53/0.355/0.295/0.235   | 0.89/0.77/0.64/0.53      | 0.89/0.77/0.64/0.53      |
|                                       | Capacit                      | uF       | 3.0                      | 3.5                      | 3.5                      |
|                                       | Speed (Hi/Me/Lo)             | rpm      | 640/500/440/390          | 730/680/550/430          | 730/680/550/430          |
| Indoor air flow (Hi/Me/Lo)            |                              | m3/h     | 1200/1050/900            | 1600/1300/1000           | 1600/1300/1000           |
| Indoor noise level (Hi/Me/Lo)         |                              | dB(A)    | 44/39/36                 | 47/44/42                 | 47/44/42                 |
| Indoor dimension                      | Unit (WxHxD)                 | mm       | 830x230x830              | 830x290x830              | 830x290x830              |
|                                       | Packing (WxHxD)              | mm       | 925x290x925              | 925x360x925              | 925x360x925              |
| Indoor weight                         | Net                          | kg       | 26                       | 28                       | 30                       |
|                                       | Gross                        | kg       | 30                       | 33                       | 35.5                     |
| Panel                                 | Unit (WxHxD)                 | mm       | 950×45×950               | 950×45×950               | 950×45×950               |
|                                       | Packing (WxHxD)              | mm       | 1035×90×1035             | 1035×90×1035             | 1035×90×1035             |
|                                       | Net/Gross                    | kg       | 6.0/9.0                  | 6.0/9.0                  | 6.0/9.0                  |
| Refrigerant                           | Type                         |          | R410A                    | R410A                    | R410A                    |
| Refrigerant pipe                      | Liquid side                  | mm       | φ9.52                    | φ9.52                    | φ9.52                    |
|                                       | Gas side                     | mm       | φ15.88                   | φ19.05                   | φ19.05                   |
| Drainage water pipe diameter          |                              | mm       | OD25                     | OD32                     | OD32                     |
| Operation temperature range           |                              | ℃        | 16~3                     | 16~3                     | 16~3                     |
| Operation Control                     |                              |          | Remote controller        | Remote controller        | Remote controller        |



NOTES

1. Nominal cooling capacities are based on the following conditions:

Indoor temp: 27°CDB, 19°CWB; Outdoor temp: 35°CDB; Equivalent ref. piping: 7.5m (horizontal)

2. Nominal heating capacities are based on the following conditions:

Indoor temp: 20°CDB; Outdoor temp: 7°CDB, 6°CWB; Equivalent ref. piping: 7.5m (horizontal)

3. Actual noise level may differ, depending on the room structure, etc, since these noise values are from an anechoic room.

Remark: The above design and specification are subject to change without prior notice for



## CEILING & FLOOR



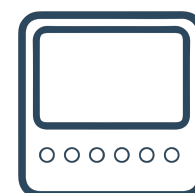
140° wide angle of Air Flow



Quiet Design with unique large centrifugal fan blade design



2-Styles Installation, fashionable design and streamline appearance, suitable for different room styles



Two wired Controllers (optional)



3D Airflow with horizontal and vertical swing



Dual Direction of Drainage

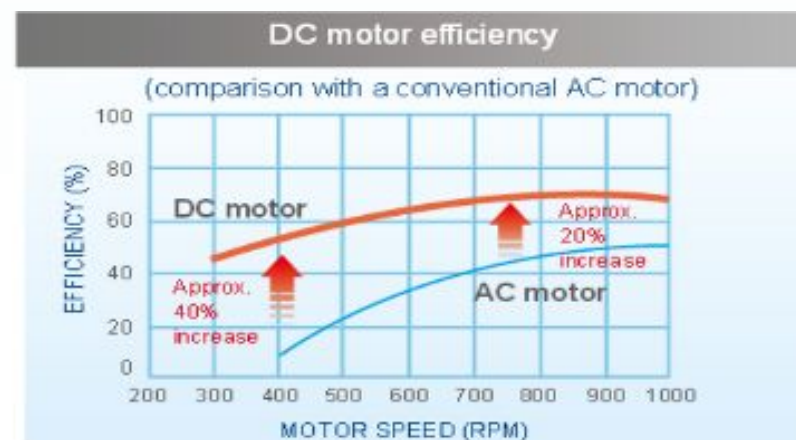
**LED Display**



LED Display

Fashionable design with clear LED display of temperature and error codes.

**Quiet operation**



DC design make the noise more smaller.

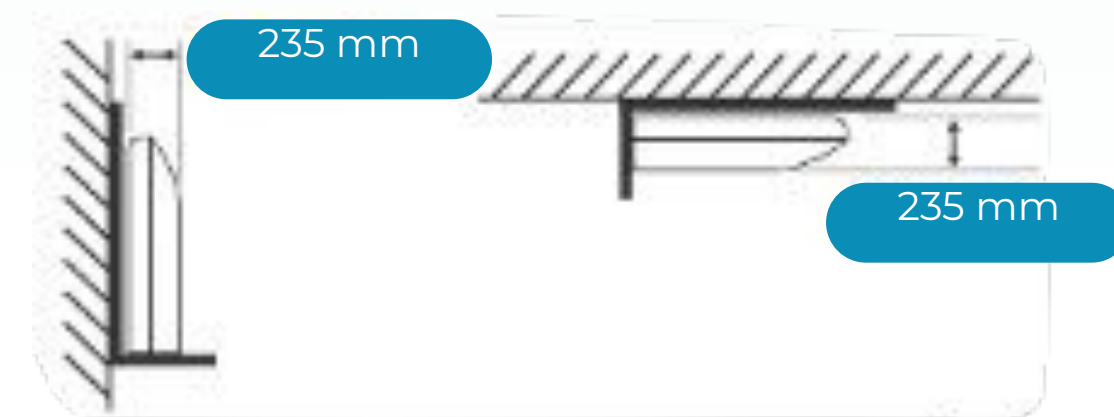
**Ultra-thin Design**



235 mm

Compact design which fits for various room styles

**Flexible Installation**

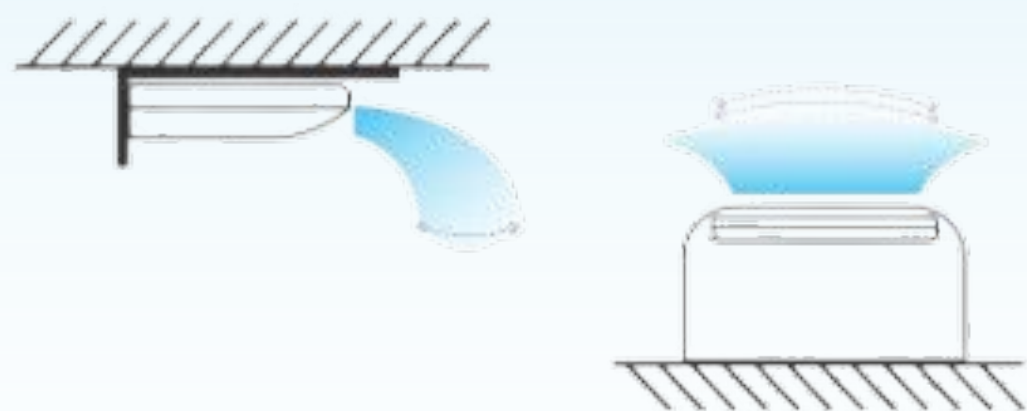


235 mm

235 mm

Two ways of installation available, either ceiling suspended or floor standing.

Wider Range



Wide Range Air Flow

**140° air** is supplied in a wider angle with cross-direction swing.

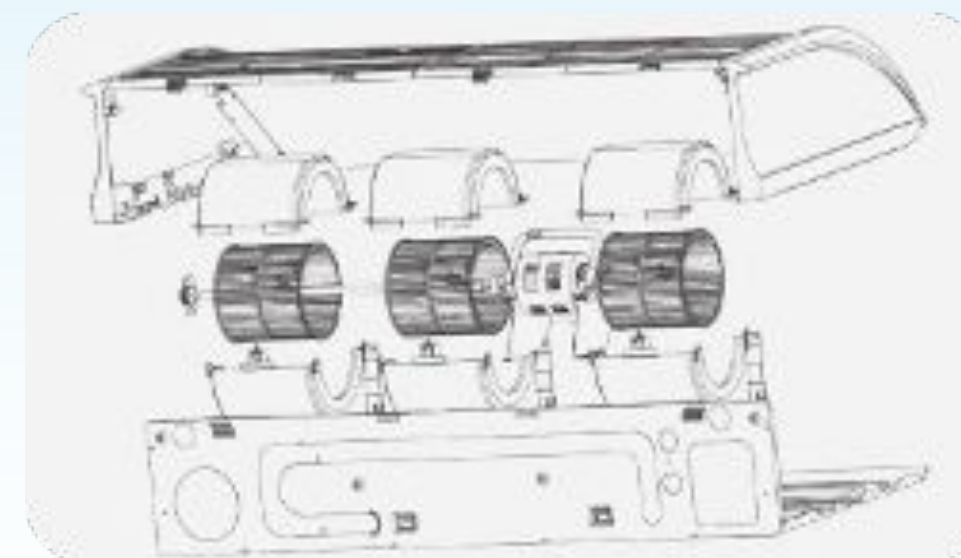
Dual Drainage



Dual Direction Drainage

Condensing water can be drained either from left or from right.

Module Design



Convenient Repair

Universal designed parts and assemblies applied, which is easy for maintenance.

| SPECIFICATIONS (LIGHT COMMERCIAL A/C) |                              |          |                          |                          |
|---------------------------------------|------------------------------|----------|--------------------------|--------------------------|
| CEILING FLOOR TYPE                    |                              |          | 3 ton                    | 5 ton                    |
| Model name                            | Ceiling Floor Indoor         |          | BUMAT36COJ1FAST          | BUMAT60COJ1FAST          |
| Power supply                          |                              | V//Hz/Ph | 220V~/60Hz/1P            | 220V~/60Hz/1P            |
| Cooling                               | Capacity                     | Btu/h    | 36000                    | 55000                    |
|                                       | Capacity                     | W        | 10550                    | 10550                    |
|                                       | Input                        | W        | 4200                     | 6630                     |
|                                       | Rated current                | A        | 17                       | 28.6                     |
|                                       | EER                          | W/W      | 2.51                     | 2.43                     |
| Indoor coil                           | Number of row                |          | 3                        | 2                        |
|                                       | Fin spacing                  | mm       | 1.5                      | 1.5                      |
|                                       | Fin material                 |          | Hydrophilic & Louver Fin | Hydrophilic & Louver Fin |
|                                       | Tube outside diameter        | mm       | φ7                       | φ7                       |
|                                       | Tube material                |          | Innergroover tube type   | Innergroover tube type   |
|                                       | Coil length x height x width | mm       | 940×294×38.1             | 1300×294×25.4            |
|                                       | Number of circuit            |          | 5                        | 6                        |
| Indoor fan motor                      | Brand                        |          | BROAD-OCEAN/Lifeng       | BROAD-OCEAN/Lifeng       |
|                                       | Model                        |          | Y6S443C508/SJ132B        | Y6S443C807/SJ68A         |
|                                       | Input                        | W        | 220/200/175              | 159/154/152/150          |
|                                       | Running current              | A        | 1.02/0.93/0.81           | 0.78/0.77/0.76/0.75      |
|                                       | Capacitor                    | uF       | 4.5                      | 6.0                      |
|                                       | Applied QTY.                 |          | 1                        | 2                        |
|                                       | Speed (Hi/Me/Lo)             | rpm      | 1155/1085/960            | 1330/1250/1175/1050      |
| Indoor air flow (Hi/Me/Lo)            |                              | m3/h     | 1450/1300/1150           | 2300/2100/1900/1700      |
| Indoor noise level (Hi/Me/Lo)         |                              | dB(A)    | 51/50/49                 | 53/51/48                 |
| Indoor dimension                      | Unit (WxHxD)                 | mm       | 1275×235×675             | 1635x235x675             |
|                                       | Packing (WxHxD)              | mm       | 1350x305x748             | 1710×305×748             |
| Indoor weight                         | Net                          | kg       | 29                       | 39.5                     |
|                                       | Gross                        | kg       | 35                       | 46.5                     |
| Refrigerant                           | Type                         |          | R410A                    | R410A                    |
| Refrigerant pipe                      | Liquid side                  | mm       | φ9.52                    | φ9.52                    |
|                                       | Gas side                     | mm       | φ19.05                   | φ19.05                   |
| Drainage water pipe diameter          |                              | mm       | OD25                     | OD25                     |
| Operation temperature range           |                              | °C       | 16~31                    | 16~31                    |
| Operation Control                     |                              |          | Remote controller        | Remote controller        |

## NOTES

### 1. Nominal cooling capacities are based on the following conditions:

Indoor temp: 27°CDB, 19°CWB; Outdoor temp: 35°CDB;  
Equivalent ref. piping: 7.5m (horizontal)

### 2. Nominal heating capacities are based on the following conditions:

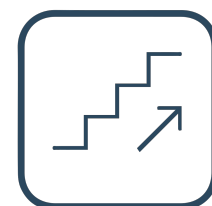
Indoor temp: 20°CDB; Outdoor temp: 7°CDB, 6°CWB; Equivalent ref. piping: 7.5m (horizontal)

### 3. Actual noise level may differ, depending on the room structure, etc, since these noise values are from an anechoic room.

Remark: The above design and specification are subject to change without prior notice for product improvement.



## AIR HANDLER



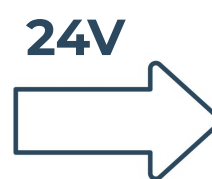
Large air flow



Silence



Healthy Breath filter (optional)



24V Capability



Easy & Flexible Installation



- Universal indoor type for CO and HP condenser unit
- Tube & Coil: copper tube and anti-corrosion golden fin,
- Expansion Device: Use orifice/piston as expansion device for better throttling in cooling mode,
- Optional TXV expansion device
- High ESP (0~300Pa)
- Multi position design: standard vertical up flow or horizontal right flow. Able to converted to vertical down flow or horizontal left flow by



**Standard unit provide vertical up flow or horizontal right flow.**



**A vertical up flow unit may be converted to vertical down flow, by removing the panel and indoor coil and reinstall 180° from original position. Same for horizontal left flow.**

| SPECIFICATIONS (LIGHT COMMERCIAL A/C) |                              |          |                          |                          |
|---------------------------------------|------------------------------|----------|--------------------------|--------------------------|
|                                       |                              |          | 3 ton                    | 5 ton                    |
| Model name                            |                              |          | BUMAT36COJ1AHAST         | BUMAT60COJ1AHAST         |
| Power supply                          |                              | V//Hz/Ph | 208-230V~/60Hz/1P        | 208-230V~/60Hz/1P        |
| Cooling                               | Capacity                     | Btu/h    | 36000                    | 55000                    |
|                                       | Capacity                     | W        | 10550                    | 16115                    |
|                                       | Input                        | W        | 440                      | 600                      |
|                                       | Rated current                | A        | 2.0                      | 2.7                      |
|                                       | IDRS                         |          | /                        | /                        |
| Indoor coil                           | Number of row                |          | 3                        | 4                        |
|                                       | Fin spacing                  | mm       | 1.5                      | 1.5                      |
|                                       | Fin material                 |          | Hydrophilic & Louver Fin | Hydrophilic & Louver Fin |
|                                       | Tube outside diameter        | mm       | φ7                       | φ7                       |
|                                       | Tube material                |          | Innergroover tube type   | Innergroover tube type   |
|                                       | Coil length x height x width | mm       | 840*410*50.8             | 840*410*50.8             |
|                                       | Number of circuit            |          | 6                        | 8                        |
| Indoor fan motor                      | Brand                        |          | dayang                   | dayang                   |
|                                       | Model                        |          | YDK220-6G08              | YDK420-6G01              |
|                                       | Motor type                   |          | AC motor                 | AC motor                 |
|                                       | Input                        | W        | 440/410/380              | 600/530/480              |
|                                       | Running current              | A        | 2.0/1.85/1.7             | 2.7/2.4/2.2              |
|                                       | Capacitor                    | uF       | 10                       | 15                       |
|                                       | Speed (Hi/Me/Lo)             | rpm      | 830/780/740              | 1020/940/870             |
| Indoor air flow (Hi/Me/Lo)            |                              | m3/h     | 2200/2000/1850           | 2800/2500/2200           |
| Indoor noise level (Hi/Me/Lo)         |                              | dB(A)    | 49/47/45                 | 53/51/49                 |
| Indoor dimension                      | Unit (WxHxD)                 | mm       | 1155x533x533             | 1155x533x533             |
|                                       | Packing (WxHxD)              | mm       | 1195x622x572             | 1195x622x572             |
| Indoor weight                         | Net                          | kg       | 52.5                     | 56.5                     |
|                                       | Gross                        | kg       | 66                       | 70                       |
| Panel                                 | Unit (WxHxD)                 | mm       | /                        | /                        |
|                                       | Packing (WxHxD)              | mm       | /                        | /                        |
|                                       | Net/Gross                    | kg       | /                        | /                        |
| Refrigerant                           | Type                         |          | /                        | /                        |
| Refrigerant pipe                      | Liquid side                  | mm       | 9.52                     | 9.52                     |
|                                       | Gas side                     | mm       | 19.05                    | 19.05                    |
| Drainage water pipe diameter          |                              | mm       | OD19.05                  | OD19.05                  |
| Operation temperature range           |                              | °C       | /                        | /                        |
| Operation Control                     |                              |          | temperature controller   | temperature controller   |



## FAN COIL



Ultra Slim Design



Dual Direction of Water  
Drainage



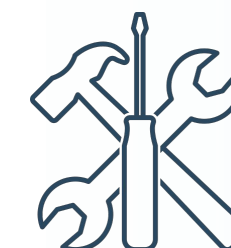
Silence



Flexible Air Intake



Optional panel



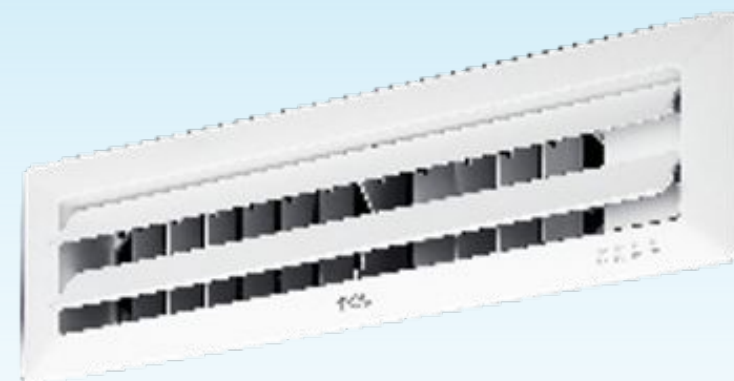
Easy Maintenance

# FAN COIL

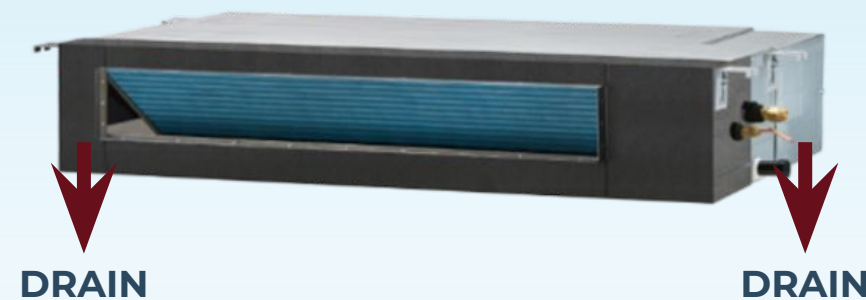
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INTERNATIONAL



**Ultra Slim Design**



**Optional panel**



**Dual Direction of  
Water Drainage**



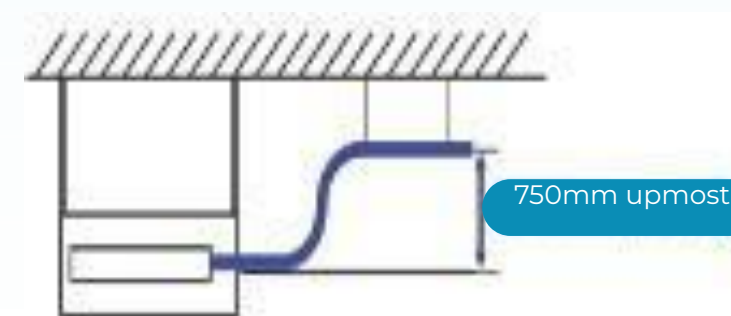
**Silence**



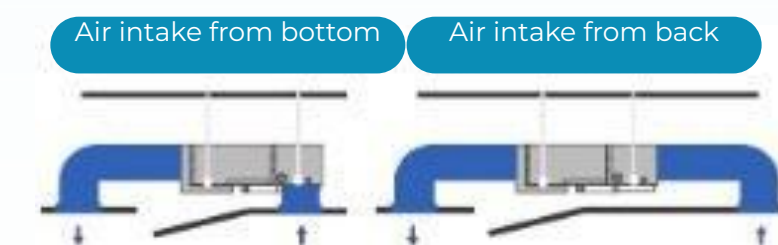
**Easy Maintenance**



**Healthy Breath  
(optional)**



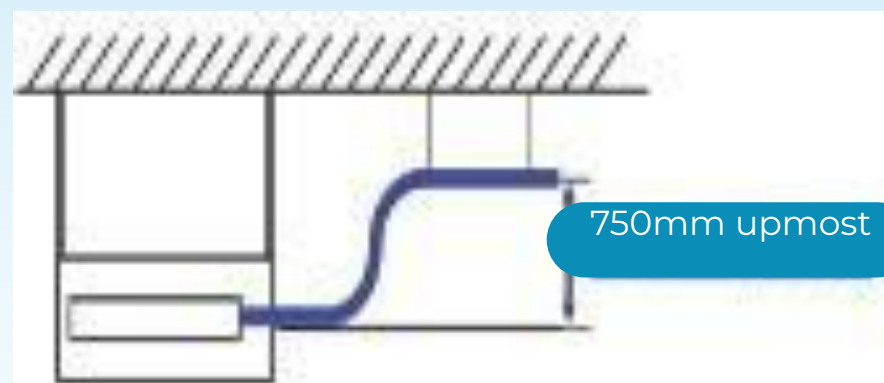
**Built-in Drain Pump  
(optional)**



**Flexible Air Intake**

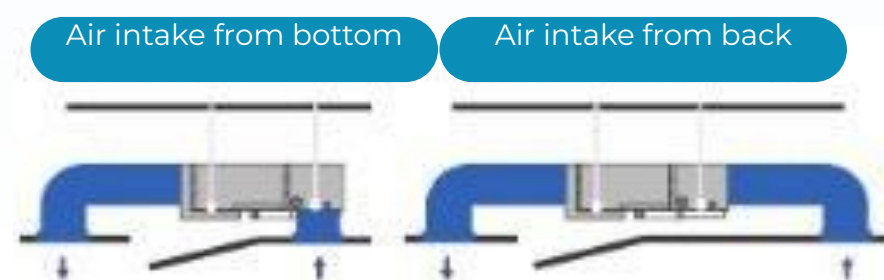
# FAN COIL

## Built-in Drain Pump (optional)



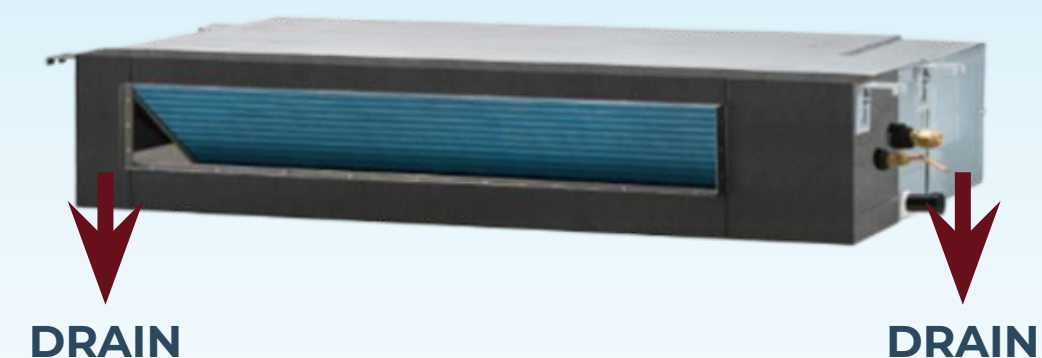
The drainage pump can lift the condensing water up to 750mm.

## Flexible Air Intake



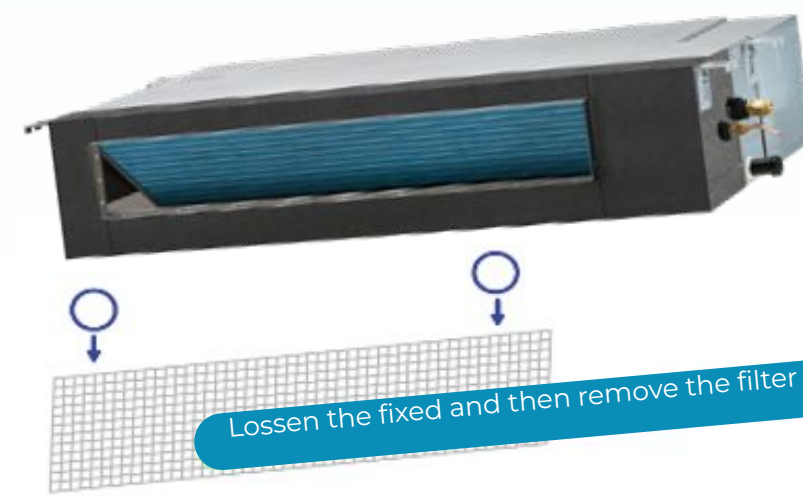
It is optional to have air inlet from back or bottom with the same size of plate, which will be very flexible and convenient for installation.

## Built-in Drain Pump (optional)



The condensing water can be drained either from the left or right.

## Easy Maintenance



Filters can be easily removed for cleaning.

| SPECIFICATIONS (LIGHT COMMERCIAL A/C) |                              |                    |                          |                          |
|---------------------------------------|------------------------------|--------------------|--------------------------|--------------------------|
| Model name                            | FAN COIL                     |                    | BUMAT36COJ1DAST          | BUMAT60COJ1DAST          |
| Power supply                          |                              | V/Ph/Hz            | 208-230V~/60Hz           | 208-230V~/60Hz           |
| Cooling                               | Capacity                     | Btu/h              | 36000                    | 55000                    |
|                                       | Capacity                     | W                  | 10550                    | 16119                    |
|                                       | Input                        | W                  | 4180                     | 6400                     |
|                                       | Rated current                | A                  | 17.60                    | 25.3                     |
|                                       | EER                          | W/W                | 2.52                     | 2.52                     |
| Indoor coil                           | Number of row                |                    | 3                        | 4                        |
|                                       | Fin spacing                  | mm                 | 1.4                      | 1.4                      |
|                                       | Fin material                 |                    | Hydrophilic & Louver Fin | Hydrophilic & Louver Fin |
|                                       | Tube outside diameter        | mm                 | φ7                       | φ7                       |
|                                       | Tube material                |                    | Innergroover tube type   | Innergroover tube type   |
|                                       | Coil length x height x width | mm                 | 948×336×38.1             | 1030×378×50.8            |
|                                       | Number of circuit            |                    | 8                        | 8                        |
| Indoor fan motor                      | Brand                        |                    | BROAD-OCEAN3             | BROAD-OCEAN              |
|                                       | Model                        |                    | Y7S623C257               | Y6S443C807               |
|                                       | Input                        | W                  | 232/209/156/126          | 433/306/150/119          |
|                                       | Running current              | A                  | 1.2/0.97/0.69/0.55       | 1.2/0.97/0.69/0.55       |
|                                       | Capacitor                    | uF                 | 10.0                     | 10.0                     |
|                                       | Applied QTY.                 |                    | 1                        | 1                        |
|                                       | Speed (Hi/Me/Lo)             | rpm                | 915/845/690/600          | 915/845/690/600          |
| Indoor air flow (Hi/Me/Lo)            |                              | Wm <sup>3</sup> /h | 1350/1200/950            | 1800/1600/1100           |
| Indoor external static pressure (Hi)  |                              | Pa                 | 80                       | 100                      |
| Indoor noise level (Hi/Me/Lo)         |                              | dB(A)              | 51/49/47                 | 52/50/48                 |
| Indoor dimension                      | Unit (WxHxD)                 | mm                 | 1140×270×775             | 1200×300×865             |
|                                       | Packing (WxHxD)              | mm                 | 1341×341×830             | 1400×371×920             |
| Indoor weight                         | Net                          | kg                 | 35                       | 48                       |
|                                       | Gross                        | kg                 | 40                       | 55                       |
| Refrigerant                           | Type                         |                    | R410A                    | R410A                    |
| Refrigerant pipe                      | Liquid side                  | mm                 | 9.52                     | 9.52                     |
|                                       | Gas side                     | mm                 | φ19.05                   | φ19.05                   |
| Drainage water pipe diameter          |                              | mm                 | OD25                     | OD25                     |
| Operation temperature range           |                              | °C                 | 16~31                    | 16~31                    |
| Operation Control                     |                              |                    | Remote controller        | Remote controller        |

## NOTES

### 1. Nominal cooling capacities are based on the following conditions:

Indoor temp: 27°CDB, 19°CWB; Outdoor temp: 35°CDB;  
Equivalent ref. piping: 7.5m (horizontal)

### 2. Nominal heating capacities are based on the following conditions:

Indoor temp: 20°CDB; Outdoor temp: 7°CDB, 6°CWB; Equivalent ref. piping: 7.5m (horizontal)

### 3. Actual noise level may differ, depending on the room structure, etc, since these noise values are from an anechoic room.

Remark: The above design and specification are subject to change without prior notice for product improvement.

## ▶ CONDENSER

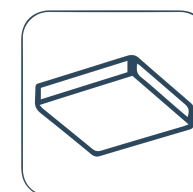


24V



### 24V Communication Connection

The voltage required for communication connection is as low as 24V, which is much safer and convenient, especially in operation and maintenance.



### Universal design

Universal design of spare parts, which is convenient for stocks and maintenance.



### Multiple protection

Safety procedures include exhausted temperature, high pressure protection, low pressure protection, etc.



### Anti-Rust

Specially design of metal grille to protect against rust.



# ON-OFF 13 SEER ODU

6 MULTIPLE PROTECTION TO KEEP WORKING WELL

boreal  
INTERNATIONAL



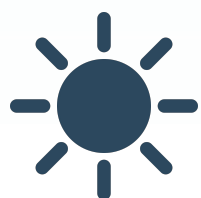
## High/low pressure protection

Ensure that the components of the system run in the safe range.



## Exhausted Temp protection

Ensure the system works well.



## Motor overload protection

Protection the motor working longer



## Protection of compressor reverse rotation (3 PH models)

Prevent the compressor from operating reversely to avoid compressor damage.



## Leakage refrigerant protection

System leakage the refrigerant can protect the total system



## Compressor overcurrent protection

Prevent overcurrent to avoid compressor damage.

| SPECIFICATIONS (LIGHT COMMERCIAL A/C) |                              |         |                               |                               |                               |
|---------------------------------------|------------------------------|---------|-------------------------------|-------------------------------|-------------------------------|
|                                       | Universal Outdoor Unit       |         | 3 ton                         | 5 ton                         | 5 ton/3ph                     |
| Model name                            |                              |         | BUMAT36COJ1OAST               | BUMAT60COJ1OAST               | BUMAT60CON1OAST               |
| Power supply                          |                              | V/Ph/Hz | 208-230V/1Ph/60Hz             | 208-230V/1Ph/60Hz             | 220V/3Ph/60Hz/3P              |
| Max. input consumption                |                              | W       | 5000                          | 8000                          | 7350                          |
| Max. current                          |                              | A       | 22.0                          | 40.0                          | 24.0                          |
| Starting current                      |                              | A       | 100.0                         | 125.0                         | 137.0                         |
| Max Operating Pressure(MPa)           | Discharge                    | MPa     | 4.5                           | 4.5                           | 4.5                           |
|                                       | Suction                      | MPa     | 1.2                           | 1.2                           | 1.2                           |
| Compressor                            | Brand                        |         | HIGHLY                        | SANYO                         | Copeland                      |
|                                       | Model                        |         | ATH356UN-C9EU                 | C-SBP160H16A                  | ZP54KUE-TF5-52E               |
|                                       | Type                         |         | Rotary                        | Scroll                        | Scroll                        |
|                                       | Capacity                     | W       | 10450                         | 15600                         | 15900                         |
|                                       | Input                        | W       | 3480                          | 5750                          | 4950                          |
|                                       | Rated current(RLA)           | A       | 17.0                          | 27.4                          | 15.1                          |
|                                       | Locked rotor Amp(LRA)        | A       | 89                            | /                             | 128                           |
|                                       | Thermal protector            |         | internal                      | internal                      | internal                      |
|                                       | Capacitor                    | mF      | 80                            | 60                            | /                             |
|                                       | Refrigerant oil              | ml      | 880                           | 1400                          | 1500                          |
| Outdoor coil                          | Number of row                |         | 1                             | 1                             | 1                             |
|                                       | Fin spacing                  | mm      | 1.5                           | 1.5                           | 1.5                           |
|                                       | Fin material                 |         | Louver or Corrugated Fin      | Louver or Corrugated Fin      | Louver or Corrugated Fin      |
|                                       | Tube outside diameter        | mm      | φ7                            | φ7                            | φ7                            |
|                                       | Tube material                |         | Innergroover tube type        | Innergroover tube type        | Innergroover tube type        |
|                                       | Coil length x height x width | mm      | 1441×714×12.7                 | 2187×798×12.7                 | 2187×798×12.7                 |
|                                       | Number of circuit            |         | 3                             | 5                             | 5                             |
| Outdoor fan motor                     | Brand                        |         | BROAD-OCEAN/Lifeng            | BROAD-OCEAN                   | BROAD-OCEAN                   |
|                                       | Model                        |         | Y7S623B051L/SJ(AL)86A         | Y7S623E098L                   | Y7S623E098L                   |
|                                       | Input                        | W       | 148/165                       | 354                           | 354                           |
|                                       | Output                       | W       | 86                            | 217                           | 217                           |
|                                       | Running current              | A       | 0.7/0.75                      | 1.63                          | 1.63                          |
|                                       | Capacitor                    | mF      | 6.0                           | 12.0                          | 12.0                          |
|                                       | Speed                        | rpm     | 1080                          | 1100                          | 1100                          |
| Outdoor air flow                      |                              | m3/h    | 4000                          | 7400                          | 7400                          |
| Outdoor noise level                   |                              | dB(A)   | 60                            | 62                            | 62                            |
| Outdoor dimension                     | Unit (WxHxD)                 | mm      | 554×759×554                   | 740×843×740                   | 740×843×740                   |
|                                       | Packing (WxHxD)              | mm      | 584×782×584                   | 769×865×769                   | 769×865×769                   |
| Outdoor weight                        | Net                          | kg      | 50                            | 77                            | 72                            |
|                                       | Gross                        | kg      | 54                            | 82                            | 77.5                          |
| Refrigerant                           | Type                         |         | R410A                         | R410A                         | R410A                         |
|                                       | Charge                       | g       | 1630                          | 2350                          | 2250                          |
| Throttle type                         |                              |         | Piston orifice in indoor unit | Piston orifice in indoor unit | Piston orifice in indoor unit |
| Refrigerant pipe                      | Liquid side                  | mm      | 9.52                          | 9.52                          | 9.52                          |
|                                       | Gas side                     | mm      | 19.05                         | 19.05                         | 19.05                         |
|                                       | Max. refrigerant pipe length | m       | 30                            | 50                            | 50                            |
|                                       | Max. difference in level     | m       | 20                            | 30                            | 30                            |
| Ambient temperature range             | Cooling                      | ℃       | 21~43                         | 21~43                         | 21~43                         |
|                                       | Heating                      | ℃       | /                             | /                             | /                             |



NOTES

1. Nominal cooling capacities are based on the following conditions:

Indoor temp: 27°CDB, 19°CWB; Outdoor temp: 35°CDB;  
Equivalent ref. piping: 7.5m (horizontal)

2. Nominal heating capacities are based on the following conditions:

Indoor temp: 20°CDB; Outdoor temp: 7°CDB, 6°CWB; Equivalent ref. piping: 7.5m (horizontal)

3. Actual noise level may differ, depending on the room structure, etc, since these noise values are from an anechoic room.

Remark: The above design and specification are subject to



# SEER 18 INVERTER ODU

ALL USE TOP 3 BRANDS TO KEEP HIGH QUALITY

boreal  
INTERNATIONAL



4-way valve



Inner groove  
copper tube



Hydrophilic  
Aluminum fin



DC inverter  
compressor



DC Motor



DC EXV

| SPECIFICATIONS (LIGHT COMMERCIAL A/C) |                              |         |                        |                        |
|---------------------------------------|------------------------------|---------|------------------------|------------------------|
| Model name                            |                              |         | BUMAT36COJ10A18        | BUMAT60COJ10A18        |
| Universal Outdoor Unit                |                              |         | 3 ton Inverter         | 5 ton Inverter         |
| Power supply                          |                              | V/Ph/Hz | 208~230V/60Hz/1ph      | 208~230V/60Hz/1ph      |
| Max. input consumption                |                              | W       | 4400                   | 6700                   |
| Max. current                          |                              | A       | 20                     | 30.5                   |
| Starting current                      |                              | A       | /                      | /                      |
| Max Operating Pressure(MPa)           | Discharge                    | MPa     | 4.2                    | 4.2                    |
|                                       | Suction                      | MPa     | 1.5                    | 1.5                    |
| Compressor                            | Brand                        |         | GMCC                   | HIGHLY                 |
|                                       | Model                        |         | KTM240D43UMT           | GTH420SKPC8DQ          |
|                                       | Type                         |         | Rotary                 | Rotary                 |
|                                       | Capacity                     | W       | 7740                   | 11800                  |
|                                       | Input                        | W       | 2065                   | 3580                   |
|                                       | Rated current(RLA)           | A       | 9.4                    | 15.8                   |
|                                       | Locked rotor Amp(LRA)        | A       | /                      | /                      |
|                                       | Thermal protector            |         | /                      | /                      |
|                                       | Capacitor                    | mF      | /                      | /                      |
|                                       | Refrigerant oil              | ml      | 620                    | 1050                   |
| Outdoor coil                          | Number of row                |         | 2                      | 2                      |
|                                       | Fin spacing                  | mm      | 1.2                    | 1.2                    |
|                                       | Fin material                 |         | Louver or Corrugated   | Louver or Corrugated   |
|                                       | Tube outside diameter        | mm      | Φ15.88                 | Φ15.88                 |
|                                       | Tube material                |         | Innergroover tube type | Innergroover tube type |
|                                       | Coil length x height x width | mm      | 2187×585×23.2          | 2187×800×23.2          |
|                                       | Number of circuit            |         | 4                      | 10                     |
| Outdoor motor                         | Motor type                   |         | DC motor               | DC motor               |
|                                       | Brand                        |         | BROADOCEAN             | BROADOCEAN             |
|                                       | Model                        |         | ZW511D000018L          | ZW511D000018L          |
|                                       | Capacitor                    | mF      | /                      | /                      |
|                                       | Speed                        | rpm     | 1000                   | 1050                   |
| Outdoor air flow                      |                              | m3/h    | 5500                   | 7000                   |
| Outdoor noise level                   |                              | dB(A)   | 61                     | 62                     |
| Outdoor dimension                     | Unit (WxHxD)                 | mm      | 740×633×740            | 740×843×740            |
|                                       | Packing (WxHxD)              | mm      | 769×656×769            | 769×865×769            |
| Outdoor weight                        | Net                          | kg      | 52                     | 66                     |
|                                       | Gross                        | kg      | 57                     | 61                     |
| Refrigerant                           | Type                         |         | R410a                  | R410a                  |
|                                       | Charge                       | g       | 2300                   | 3000                   |
| Throttle type                         |                              |         | electronic expansion   | electronic expansion   |
| Refrigerant pipe                      | Liquid side                  | mm      | 9.52                   | 9.52                   |
|                                       | Gas side                     | mm      | 15.88                  | 19.05                  |
|                                       | Max. refrigerant pipe length | m       | 25                     | 30                     |
|                                       | Max. difference in level     | m       | 15                     | 20                     |
| Ambient temperature range             | Charge                       | ℃       | 5~48                   | 5~48                   |
|                                       | Charge                       | ℃       | /                      | /                      |



# Thank you!

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