

Advanced Intelligent Energy-Saving Air Conditioning System

iQ HVAC System

DDC (Direct Digital Control) Model

JohnPoint®

約翰點子 空調自動控制專家



Easy Installing With Simple Wiring

iQ-500 Series : Compatible with AC Induction Motor Fans

iQ-700 Series : Compatible with DC Brushless Motor Fans

Wisdom. Energy Saving. Carbon Reduction. Love the Earth!



Industrial progress has indirectly harmed the Earth's ecosystem. We don't produce energy, but we can use it wisely. How can we sustainably contribute to the world?

Green energy is the 21st century's key technology. Energy conservation is more critical and easier than energy development. IoT-based smart control is humanity's goal.

JohnPoint : Air conditioning automation experts, offering high-quality products from Taiwan.

Founded in 1991, Cannex Technology Co., Ltd. Tech expanded in 2006 with a modern facility, integrating R&D, production, and sales for full-process services.

We provide integrated services, faster product development, superior talent, and advanced equipment, aiming for quality and efficiency to earn customer trust.



CONTENTS



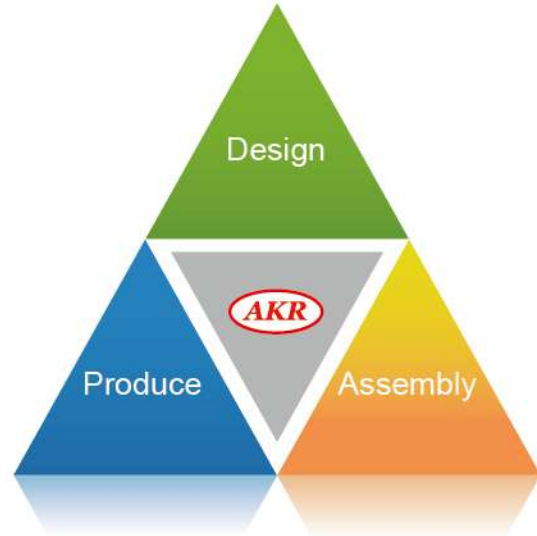
| | | | |
|----------|---|--|--|
| 1 | iQ HVAC DDC System Series | iQ HVAC Series Introduction | 04 |
| 2 | iQ 700 Series Next-Gen BLDC VAV FCU Temperature Controller | Next-Gen iQ-700 BLDC Motor VAV FCU iCN-653(TH) Standalone Thermostat iCN-753 BLDC Motor Standalone Thermostat iCN-753N BLDC Motor Network Thermostat (32-unit) DC Inverter FCU Blower BN-23WA-S DC Energy-saving Circular Fan (Outlet Type) | 08 12 13 14 15 17 |
| 3 | iQ 500 Series AC Motor Fan Coil Temperature Controller | iQ-500 Series AC Standalone Thermostat (Network/Group Control Support) iCN-633(TH) AC Standalone Thermostat iCN-733 1:1 AC Thermostat iCN-733N 32-unit Network AC Thermostat Replacement FCU Blower with 3-speed EC Motor | 19 20 21 22 23 |
| 4 | HVAC Temperature Controllers | F-101 Wireless Remote T-386 Dual-Blessing Thermostat T-486 Deluxe Model T-530 Electronic Thermostat | 25 26 |
| 5 | Valves & HVAC Accessories | 2/3-way Motorized Valves Motorized Valves (2/3-way), Expansion Tanks, Vibration Pads CT-700 CT-703 Solar/Water Heater Timer Thermostat Refrigeration Controls CT-101 CT-500 CT-600 CT-601 T-α Temperature Monitoring Tracker CH-601 Precision Thermostat Controller Engineering Labels (Various Types) BN-23WA-S DC Inverter Energy-saving Circulating Fan | 27 28 29 30 31 33 35 37 |

Full Process

Sharpen your tools to do a good job.
” Design, production, and assembly are done in-house with strict quality control.

We established plastic injection and mold manufacturing to support full-process services. Advanced injection molding machines offer services from design to processing, providing diverse options for customers.

Cannex Technology Co., Ltd. has anti-static floors, two automated SMT lines, and Japanese equipment, ensuring high quality with minimal defects.



iQ HVAC System Introduction

- ◆ From the leader in temperature control
- ◆ Equipped with RS485 communication interface, ModBUS-RTU open protocol
- ◆ Capable of controlling up to 1024 fans simultaneously
- ◆ The iQ-500 series is designed for AC motor fans
- ◆ The iQ-700 series is designed for DC motor fans

iQ HVAC System function comparison table

- : Applicable
- ▲ : No delay / 1 minute / 3 minutes
- N : Not applicable
- : 30 seconds / Always on
- : Power failure memory, Power-on auto start, Power-on remain off
- ★ : Four-pipe / Electric heating, Two-pipe / Heat pump / Boiler
- ◎ : On / Off
- : Auto, Low, Medium, High
- ◆ : Cooling mode temperature setting limited by upper and lower bounds during operation
- ◇ : Heating mode temperature setting limited by upper and lower bounds during operation

| Model | iQ-500LC iQ-700LC | iQ-500S / iQ-500STH iQ-700S / iQ-700STH | iQ-500S+ iQ-700S+ | iQ-500SN iQ-700SN |
|---------------------------|-----------------------------|--|-------------------------|----------------------------|
| | Central control (1:32) | Sub-control (1:1) | Large sub-control (1:1) | Central sub-control (1:32) |
| Basic functions | Mode (Cool/Heat/Fan) | ● | ● | ● |
| | Fan (Auto/Low/Mid/High) | ● | ● | ● |
| | Fan position | ● | N | N |
| | Timer | ● | ● | ● |
| | Fan position | ● | N | N |
| | Group sync | ● | N | N |
| | Sleep | N | ● | ● |
| | Error | ● | ● | ● |
| | Lock | ● | ● | ● |
| | Cool max | ● | ● | ● |
| | Cool min | ● | ● | ● |
| | Heat max | ● | ● | ● |
| | Heat min | ● | ● | ● |
| | Valve (3-way/Comp) Delay | ▲ | ▲ | ▲ |
| | Temp adjust | △ | △ | △ |
| | Backlight | ■ | ■ | ■ |
| | Key sound | N | N / ● | N |
| Advanced Functions | Power-on mode | □ | □ | □ |
| | Coil setting | ★ | ★ | ★ |
| | Intermittent fan | ◎ | ◎ | ◎ |
| | Overload delay | ● | N | N |
| | Room card | N | (Optional Accessories) | (Optional Accessories) |
| | Room card airflow | N | ○ | ○ |
| | Room card cooling temp | N | ◆ | ◆ |
| | Room card heating temp | N | ◇ | ◇ |
| | Knob control | N | N | (Optional Accessories) |
| | IR remote | N | N | (Optional Accessories) |
| Max comm distance | 1000m | 1000m | 1000m | |



iQ HVAC Product Showcase



iQ-500STH / iQ-700STH
Touchscreen Type



iQ-500S / iQ-700S
Button Type

iQ Temperature Controller



iQ-500 LC \ iQ-500SN
iQ-700 LC \ iQ-700SN



iQ-500S+ / iQ-700S+



iQ-500 LC-N \ iQ-500SN-N
iQ-700 LC-N \ iQ-700SN-N



iQ-500P
Control Box



iQ-700P FCU
Inverter Drive Control Box



DC Brushless Motor –
Three-stage input with
six-step fine-tuning



FCU (Fan Coil Unit) Motor Blower



iQ-500GW
iQ-700GW
Signal Converter

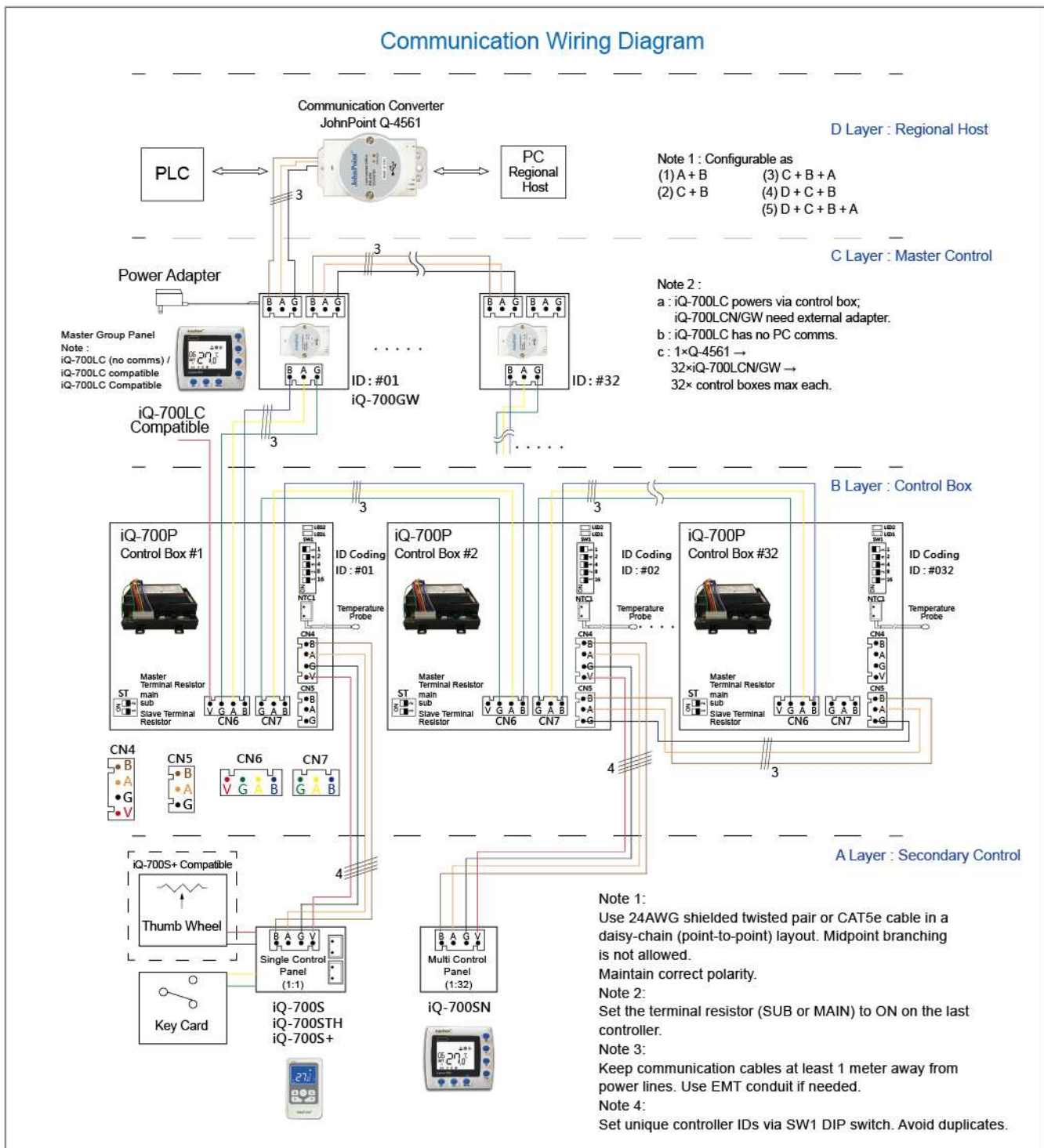


Q-4561
RS-485
Signal Converter

iQ HVAC Central Monitoring, Centralized Control, and Group Control System

- ◆ The iQ-500 Series is suitable for AC motor fans
- ◆ The iQ-700 Series is suitable for DC motor fans

Four-layer Dual-control Architecture – Better meets market demands – More flexible design

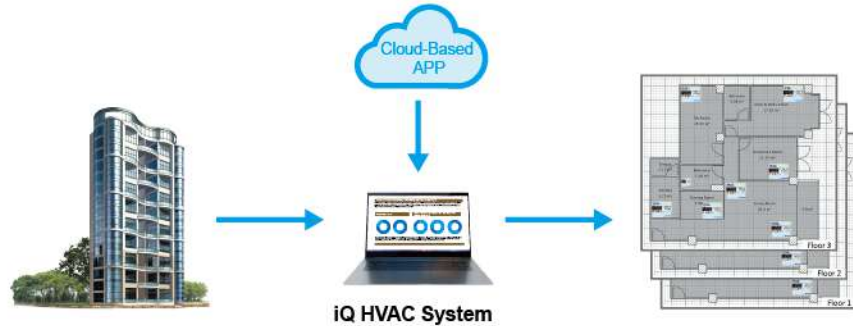


HVAC technicians welcome for design consultation and tech support.



iQ HVAC Control System Software

➔ A smart control system that provides better energy efficiency and optimized air conditioning management.



◆ Basic Fan Control Functions / Monitoring

- A. Two Temperature Readings : Actual temperature and set temperature (automatically updates based on changes).
- B. Six Fan Speeds Displayed : Levels 1 to 5 and Auto (Fan speed : 1 = slowest, 5 = fastest).
- C. System Operation Display :
 - Light on = operating
 - Light off = not operating
 - Water valve status : Light on = open, Light off = closed
- D. Mode Display : Cool, Heat, or Fan (only one shown at a time).
- E. Unit Location Identification : Room alias can be set; includes correction value to adjust for discrepancies between actual room temperature and displayed temperature.

◆ Elegant Configuration Features

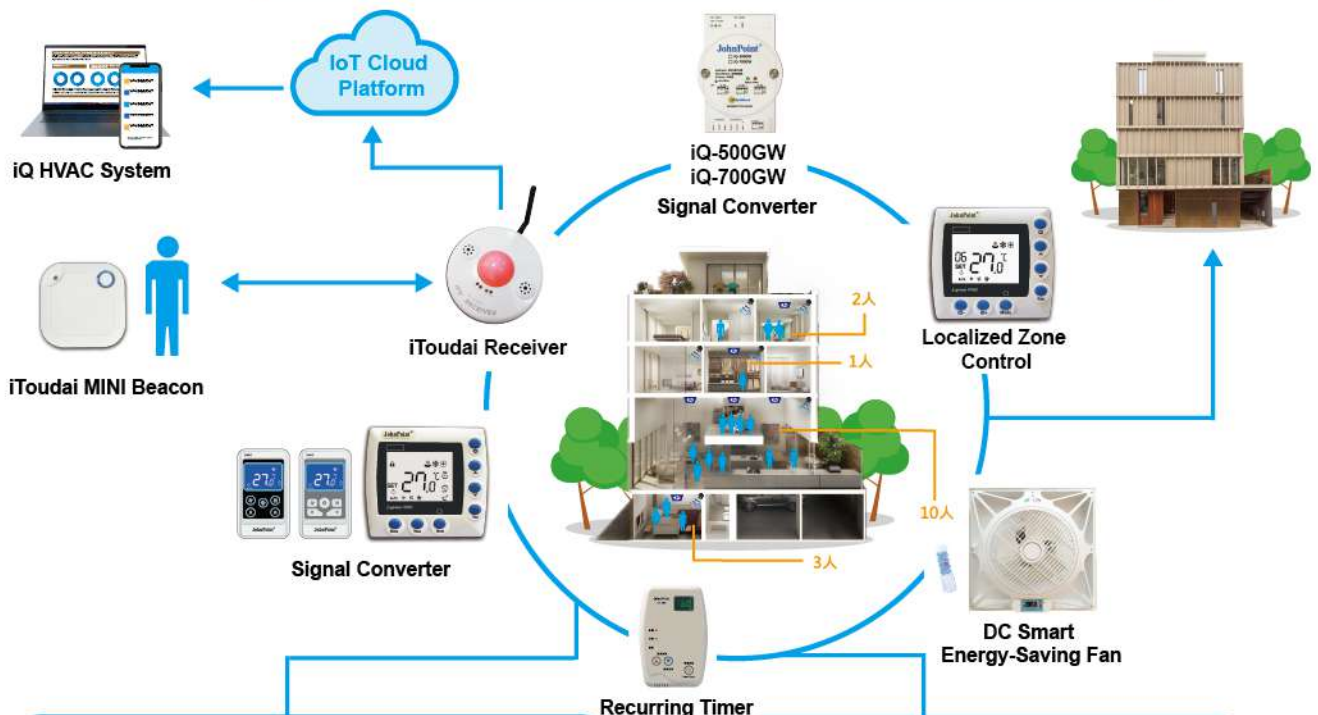
- A. Detailed Configuration Layout by Department/Area :
 - Hierarchical Access Control : At this stage, users are divided into administrators and regular users.
 - Administrators can create/edit users and assign permissions. Regular users can only view hosts within their granted permissions.
- B. Administrators can query changes and schedule actions : (Preset On/Off, Daily Scheduling, individual or Global Scheduling)
- C. Internal modifications can be made via the Internet using a web browser.

◆ Customized Services

◆ Cutting-Edge Features

- A. Professional Interface : Displays device routing diagrams, motor speed, and water flow. Includes various alert and reporting systems : scheduled status reports and anomaly detection via mobile or computer in the third stage.
- B. Support for Additional Power Output Systems : Compatible with water heaters, lighting (automatically turns off when unoccupied), and alarm systems.
- C. Browser & Mobile Internet Access : Enables full control of building settings via the internet.
- D. Power Usage-Based Billing : Calculates fair cost allocation for each room based on electricity consumption.

IoT-Based Energy-Saving HVAC Technology



Smart Energy-Saving Air Conditioning System
Smart HVAC System Monthly/Daily Schedule

• Set any day of the month with 4 modes : Summer Mode (Jun-Aug, AC↑)/Winter Mode (Dec-Feb, Heat↑)/Energy-Saving Mode/Comfort Mode

Office Schedule Example

| Start | Lunch | Eco | Overtime |
|-------|-------|-----------|-----------|
| 8:00 | 12:00 | 13:00 | 17:00 |
| On | Off | Cool 27°C | Cool 29°C |

• Smart Features

- Split costs by power usage (%) per room
- Error codes for fault detection

iToudai Beacon + iToudai Receiver + Smart Energy-Saving HVAC System → Building Temperature Monitoring

Building HVAC Monitoring

- Occupancy-Based Temperature Control : AC on the 1st floor turns on when entering; shifts to 2nd floor, 1st-floor AC turns off automatically.
- iToudai Mini Beacon for Presence Detection : Detects number of people per room; AC auto-adjusts temperature and intensity accordingly.
- Smart Automation for Energy Efficiency : Automates smart devices for easier, more efficient energy management.

People Detection & Zone Setup

1st Generation iQ-700 Brushless DC Motor

- Motor Power Auto-Identification Switching
- Ultra-Quiet Operation – Use with Confidence



FEATURES

- 1 Sinewave FOC Sensorless Control**
Flawless operation across all speed ranges
- 2 Separate Motor/Driver Installation**
Easy maintenance and serviceability
- 3 Driver Active PFC Efficiency & Noise Correction**
(0.99PF@full load), enhanced eco-friendliness
- 4 Motor Power Auto-Identification Switchin**
Plug-and-play for maximum flexibility
- 5 Open Communication Protocol**
Standalone/networked control architecture, scalable for any building size
- 6 IoT Support for iOS/Android**
Bluetooth-enabled control

iQ -700 BLDC VAV FCU



Comparison chart (Field test at a renowned Taipei hotel – Apr. 2009)

| Blower | VAV Motor AUTO Minimum | VAV Motor LOW | VAV Motor MID | VAV Motor HIGH | Traditional Motor LOW (Minimum Noise) | Traditional Motor LOW | Traditional Motor MID | Traditional Motor HIGH |
|-----------------------|------------------------|---------------|---------------|----------------|---------------------------------------|-----------------------|-----------------------|------------------------|
| Noise Level (db) | 33 | 36 | 39 | 43 WIN | 46 | 46 | 48 | 50 |
| Power Consumption (W) | 14 | 24 | 31 | 41 | 63 | 63 | 70 | 75 |

Ultra Energy-Efficient! 40% Power Savings vs. AC Motors



Power Saving Comparison DC(EC) Motor vs. Standard AC Induction Motor

| Blower Electric Motor | Model 300 | Model 400 | Model 600 | Model 800 | Model 1000 | Model 1200 | Model 1400 |
|--|-----------|-----------|-----------|-----------|------------|------------|------------|
| Permanent Magnet Motor | 34W | 48W | 60W | 81W | 100W | 120W | 142W |
| AC Motor | 55W | 80W | 104W | 136W | 188W | 205W | 235W |
| Energy Saving Rate | 38% | 40% | 42% | 41% | 47% | 41% | 41% |
| Electricity Cost Calculation (per kWh) | 4.5 | 4.5 | 4.5 | 4.5 | 4.5 | 4.5 | 4.5 |
| Annual Power Savings (24/7 Operation) | 828 | 1,261 | 1,734 | 2,168 | 3,469 | 3,350 | 3,666 |
| Total Savings Over Motor Lifespan (Average 10 Years) | 8,280 | 12,610 | 17,340 | 21,680 | 34,690 | 33,500 | 36,660 |

Notes :

1. This report is based on operation at 5mm external static pressure and high speed. Lower speed operation will yield even greater energy savings.
2. These calculations do not include the cooling efficiency benefits from motor heat dissipation into conditioned air.
3. Five-stage fan speed control with additional speed gradations enables more flexible temperature sensing, resulting in greater energy efficiency and quieter, more comfortable operation.
4. This report does not include energy savings from other main unit operations.

BLDC Motor Specifications for FCU

- Speed Range : 380-1150 RPM
- Upper Limit VR Adjustment : 850-1150 RPM
- Lower Limit VR Adjustment : 380-750 RPM
(Depending on fan wheel load)

JohnPoint FCU DC Brushless Motor Fan / Key Benefits

1. **Lightweight** – Compact, brushless design (2.86kg), 20% lighter.
2. **High Efficiency** – NdFeB magnets, optimized control system.
3. **Low Vibration** – No internal PCB, precision-engineered (V3-grade).
4. **Energy Saving** – Wide high-efficiency range, lower power use.
5. **Long Lifespan** – Stable control, fast heat dissipation.
6. **Easy Installation** – All-in-one design, compatible with AC methods.
7. **Quiet Operation** – No relay noise, smooth control.
8. **Safety Features** – Overheat protection, surge resistance.
9. **Low Maintenance** – Reduced wiring risks, durable construction.

Five-stage temperature sensing design

- ◆ Unlike traditional AC three-stage control, the innovative five-stage temperature sensing design offers more flexibility and perfectly comfortable control.

| Rated Speed | 300/400 FCU motor (single shaft) | | | 600/800 FCU motor (twin shaft) | | |
|-------------------|----------------------------------|-------------|-----------------------|--------------------------------|-------------|-----------------------|
| | Current (A) | Speed (RPM) | Power consumption (W) | Current (A) | Speed (RPM) | Power consumption (W) |
| Speed 1 (Lowest) | 0.02 | 414 | 6.2 | 0.04 | 414 | 12.4 |
| Speed 2 | 0.05 | 601 | 15.5 | 0.08 | 601 | 24.8 |
| Speed 3 | 0.07 | 790 | 21.7 | 0.15 | 792 | 46.5 |
| Speed 4 | 0.12 | 978 | 37.2 | 0.29 | 975 | 89.9 |
| Speed 5 (Highest) | 0.15 | 1059 | 46.5 | 0.36 | 1056 | 109.8 |

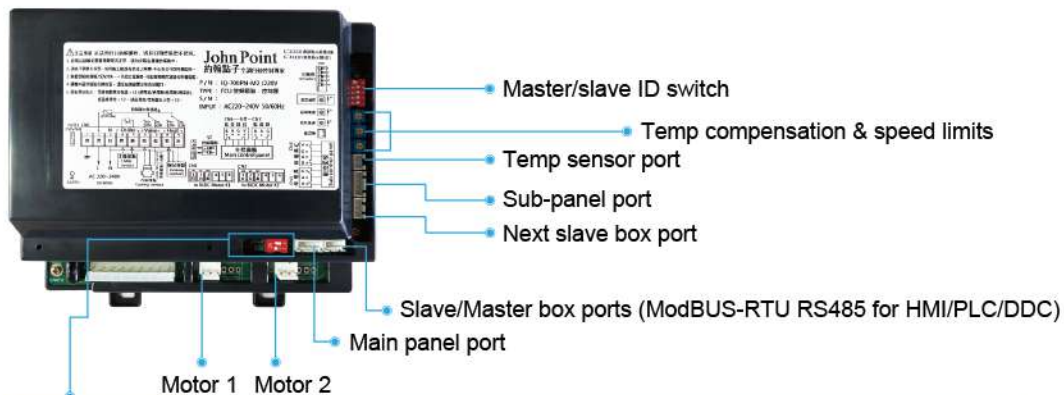


JohnPoint BLDC Motor AC Control Box// Installation Advantages

- ◆ All-in-one control drive box integrating power supply, control, drive, and communication. Basic 1-year warranty.
- ✓ Combines motor drive (dual/single), power, temp control & comms - simpler wiring
- ✓ Vibration-isolated control circuit (motor has no internal electronics)
- ✓ Low-maintenance, robust motor with soft start/stop and cool operation
- ✓ Quiet run, built-in power protection. Surge-resistant standby, low service needs
- ✓ Adjustable speed/airflow to match room requirements
- ✓ Aluminum heatsink for better cooling and durability



Aluminum heatsink



| Terminal resistor DIP switch | Notes |
|------------------------------|---|
| | <ul style="list-style-type: none"> • "ST Terminal Resistor" DIP Switch 1 (Slave unit) : Set Switch 1 to ON only on the LAST slave unit in the chain. ※ Note : For single-unit installations, Switch 1 must also be ON. • "ST Terminal Resistor" DIP Switch 2 (Master unit) : Set Switch 2 to ON only on the LAST master unit in the chain. Not required for slave-only systems. |

SW1 DIP switch ID setting

■ : Set to ON

| | | | | | | | |
|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|
| ID : #01 | ID : #02 | ID : #03 | ID : #04 | ID : #05 | ID : #06 | ID : #07 | ID : #08 |
| ID : #09 | ID : #10 | ID : #11 | ID : #12 | ID : #13 | ID : #14 | ID : #15 | ID : #16 |
| ID : #17 | ID : #18 | ID : #19 | ID : #20 | ID : #21 | ID : #22 | ID : #23 | ID : #24 |
| ID : #25 | ID : #26 | ID : #27 | ID : #28 | ID : #29 | ID : #30 | ID : #31 | ID : #32 |



iCN-653(TH) Brushless Motor Standalone Temperature Controller

Incoming Call Memory Type | Incoming Call Power-On Type | Incoming Call Power-Off Type

- Energy-saving temperature upper and lower limit lock :
Air Conditioning : Lower temperature limit locked at 35°C
Heating : 15°C Upper temperature limit locked
(Estimated energy savings of up to 10% for the system)
- Power management options :
Can be flexibly applied to various power-on startup systems.
- Three-core wiring from panel to control box.

Flagship Model / Feature Specific Options

- Keycard Function (Customizable indoor temperature power-saving mode)
- Four-pipe, electric heating system distribution meets the diverse needs of hotels, hospitals, dormitories.

Function Key Explanation

- Temperature Display Range : 0.0°C~50.0°C, displayed in increments of 0.5°C
- Temperature Setting Range : 15°C~35°C, minimum increment of 0.5°C
- Default mode : Air conditioning mode, automatic fan speed, set temperature 26°C
- Applicable to : Central chilled water systems, direct expansion systems
- Return air outlet temperature sensing

| | | |
|-------------------------|--|---|
| Power Key | | Press once to control power on/off. |
| Mode Key | | <ul style="list-style-type: none"> • In the power-on state, press once to select the operating mode : Air conditioning, fan, heating. • In the power-off state, hold for 3 seconds to enter the function options. |
| Fan Speed Key | | <ul style="list-style-type: none"> • In the power-on state, press once to select the fan speed state : Auto, high, medium-high, medium, medium-low, low. • In fan mode, auto fan speed is not available. • In the power-on state, in air conditioning mode, press and hold for 5 seconds to activate the sleep function. |
| Temperature Setting Key | | In the power-on state, press once to adjust the set temperature by +/-0.5°C, hold down to accelerate adjustment. |

- When setting the temperature, the word "SET" will appear to the left of the set value. Temperature settings are as follows :
 - For cooling : The lowest setting can be adjusted to the lower limit lock of the cooling minimum set temperature, and the highest setting can be adjusted to the upper limit lock of the cooling maximum set temperature.
 - For heating : The lowest setting can be adjusted to the lower limit lock of the heating minimum set temperature, and the highest setting can be adjusted to the upper limit lock of the heating maximum set temperature.
- After setting is completed, if no action is taken within 5 seconds, the settings will be saved and the display will return to room temperature.
- In fan mode, temperature cannot be set.
- Pressing both the temperature setting keys (▲ and ▼) simultaneously allows setting the timer function from 0 to 24 hours.
- Within the function options, you can select/adjust various options or settings.
- While the unit is powered off, simultaneously holding down both the temperature setting keys (▲ and ▼) for 5 seconds allows setting/unsetting the button lock state. In the locked state, only power on/off and setting of the timer function from 0 to 24 hours are allowed.

| Parameter Table and Factory Values | Parameter | Code | Factory Value | Parameter Setting Range |
|------------------------------------|---|------|----------------------|---|
| | 1. Cooling maximum set temperature upper limit lock | cH | 35.0 °C | Cooling minimum set temperature lower limit lock ~ 35.0 °C |
| | 2. Cooling minimum set temperature lower limit lock | cL | 15.0 °C | 15.0 °C ~ Cooling maximum set temperature upper limit lock |
| | 3. Heating maximum set temperature upper limit lock | hH | 35.0 °C | Heating minimum set temperature lower limit lock ~ 35 °C |
| | 4. Heating minimum set temperature lower limit lock | hL | 15.0 °C | 15 °C ~ Heating maximum set temperature upper limit lock |
| | 5. Valve (three-way valve/compressor) delay protection time | Pd | 0 (no delay) | 0 (no delay), 1 (1 minute), 2 (3 minutes) |
| | 6. Temperature compensation setting | tc | 0.0 °C | -5.0~5.0°C |
| | 7. Panel backlight | bL | 30 (seconds) | 30 (seconds), -- (always on) |
| | 8. Panel button sound | bu | on with button sound | on (with button sound) oF (without button sound) Note : This item is invalid for iCN-853. |

NEW



Scan QR Code for Manual

Function option description

- When the controller is in the shutdown state, hold down the mode key (M) for 3 seconds to enter the basic function options.
- After entering the basic function options, the LCD displays cH. Press the (▲ or ▼) key to cycle through the main options: cH, cL, hH, hL, Pd, tc, bL, and bu.
- After the main option is displayed on the LCD, press the mode key (M) to enter each sub-option.
- After entering each sub-option, the LCD displays the current parameter value. Press the (▲ or ▼) key to change the parameter, then press the mode key (M) to confirm the change and return to the main option.
- During the sub-option stage of this operation, if the mode key (M) is held down for more than 3 seconds or if there is no action from any key for more than 20 seconds, the changed settings will be stored in the EEPROM (permanent memory), and the adjustment function will be exited, displaying the room temperature on the LCD.

Control Box

Perfect all-in-one control driver, integrating power supply, control, drive, and communication into one unit.

- Model :
iCN-M1 (Single motor output)
iCN-M11 (Dual motor output)
- Size :
168 x 143 x 65mm
- Input Voltage :
AC 220V · 50/60Hz (Single-phase)
- Output Contacts :
Host chain contacts : 1A/250VAC
- There is built-in active PFC function (Optional)



DC Motor

DC Variable Frequency Technology, operates ultra-quietly, incorporating DC variable frequency sensorless drive technology.



Single-Axis Motor/60W



Double-Axis Motor/120W



iCN-753 Brushless Motor Standalone Temperature Controller

Incoming Call Memory Type Incoming Call Power-On Type Incoming Call Power-Off Type

Incoming Call Power-Off Type : Suitable for both residential and commercial use

Incoming Call Power-On Type : Specifically designed for automotive hotels (capable of pre-activating cooling or heating functions)



Scan QR Code for Manual

Flagship Edition/Customized Function Selection

- 1 Four-Pipe Output Control
- 2 Room Card Functionality
- 3 IR Infrared Remote Control, External VR Rotary Knob Temperature Control



iCN-753



iCN-853

Product Features

1. Equipped with cooling, heating, and fan functions to meet all air conditioning needs.
2. Dual relay outputs can separately control electric heaters and ice water valves.
3. Easy and convenient installation: only three signal wires required for panel wiring.
4. Temperature adjustment range from 15°C to 35°C.
5. Scheduled Power On/Off: 0 hours to 24 hours
6. Sleep function: the set temperature will automatically increase by 1°C every hour until it reaches 2°C.
7. Safety design: built-in 8-ampere fuse to protect the blower motor and circuits.
8. Temperature sensing method: temperature sensing at the air outlet with a 1.5-meter high-precision temperature sensing wire.
9. Can control ON/OFF two-way valves or three-way valves.
10. Elegant appearance, energy-saving, power-saving, large LCD backlit panel for convenient nighttime operation.
11. Equipped with a compressor 3-minute protection function.
12. Features power-off memory (fan speed, function mode, set temperature, power status).

Function Description

| | |
|--|---|
| | Power |
| | Comfort / Key Lock. |
| | Press to switch between 3 system modes : Cool, Heat, Ventilation. |
| | Power On/Off timer. |
| | Fan speed switch key. Press the Fan key to switch between fan speeds, with options including strong, medium-strong, medium, medium-weak, weak, and automatic. |
| | Temperature Adjustment. Press once to display the setpoint temperature. Then, press second time to adjust the temperature. |

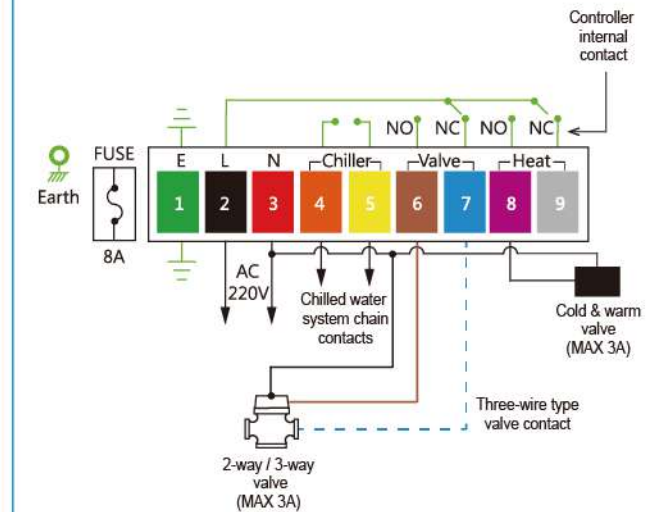
Control Box

Perfect all-in-one control driver, integrating power supply, control, drive, and communication into one unit.



- Model : iCN-M1 (Single motor output) iCN-M11 (Dual motor output)
- Size : 168 x 143 x 65mm
- Input Voltage : AC 220V · 50/60Hz (Single-phase)
- Output Contacts : Host chain contacts : 1A/250VAC
- There is built-in active PFC function (Optional)

System Wiring Diagram



* "Four Pipe", "1 to 1 Heat / Cool Expansion System", "1 to 1 Cool Expansion System" please refer to instructions.

DC Motor

DC Variable Frequency Technology, operates ultra-quietly, incorporating DC variable frequency sensorless drive technology.



Single-Axis Motor/60W



Double-Axis Motor/120W



iCN-753N Brushless Motor 32-Unit Standalone Temperature

Incoming Call Memory Type | Incoming Call Power-On Type | Incoming Call Power-Off Type

Flagship Edition

Four-Pipe Output Control
Room Card Functionality

NEW

1. One panel can support the linkage control of 32 fan drivers (control boxes), with individual operation or group synchronous control functions.
2. Equipped with key lock function to prevent improper operation.
3. Features automatic sequential delay restoration after power failure (delayed startup to prevent overload).
When in the power-on state before power outage, it will automatically delay startup in accordance with the address coding sequence upon power restoration.
4. Easy and convenient installation : Panel wiring requires only three signal wires.
5. Safety design : Built-in 8-ampere fuse to protect fan motors and circuits.
6. Temperature sensing method : Temperature sensing at the return air outlet, with attached 1.5-meter high-precision temperature sensing wire.
7. Power-off memory function (air volume, function mode, set temperature, power on/off status).



iCN-753N



iCN-853N



Scan QR Code for Manual

Function Description

| | | |
|----------------------------|--------------------------|---|
| Power | | Power on / off motors in order or by group. |
| Mode | Mode | 1. When power is on, press to switch between 3 system modes→ Cool, Heat, Ventilation. 2. When power is off, press & hold for 3 seconds to enter settings menu. |
| Fan | Fan | 5 modes→ Automatic, Low speed, Medium speed, High speed. |
| Fan location selector | ID-ID+ | 1. You can select fan's ID (01~32). 2. After fan's ID is selected, fan's ID icon will flash while establish connction. |
| Simultaneous Group Control | Press & hold both ID-ID+ | 1. Press & hold both ID- and ID+ for 4 seconds to switch to Simultaneous Group Control. 2. Cancel Simultaneous Group Control→ press ID- or ID+ to switch back to Single Control. The LCD will display previous Single Control fan's ID. |
| Temperature Adjustment | | When power is on, press to adjust temperature +/- 0.5 ° C. Press & hold to speed up adjustment. When power is off, press & hold (▲ and ▼) adjustment keys for 5 seconds, you can set/release key's lock. When keys are locked, only power switch, 0~24 hours program schedule setting and fan selector are functional. |

※ Advanced Timer Switch (On / Off) : Press both▲▼, can set up timer for individual fan.

Control Box

Perfect all-in-one control driver, integrating power supply, control, drive, and communication into one unit.



- Model :
iCN-M1 (Single motor output)
iCN-M2 (Dual motor output)
- Size :
168 x 143 x 65mm
- Input Voltage :
AC 220V · 50/60Hz (Single-phase)
- Output Contacts :
Host chain contacts : 1A/250VAC
- There is built-in active PFC function (Optional)

DC Motor

DC Variable Frequency Technology, operates ultra-quietly, incorporating DC variable frequency sensorless drive technology.

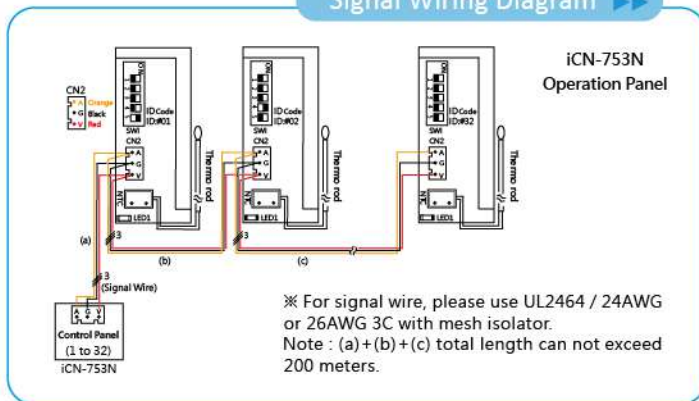


Single-Axis Motor/60W

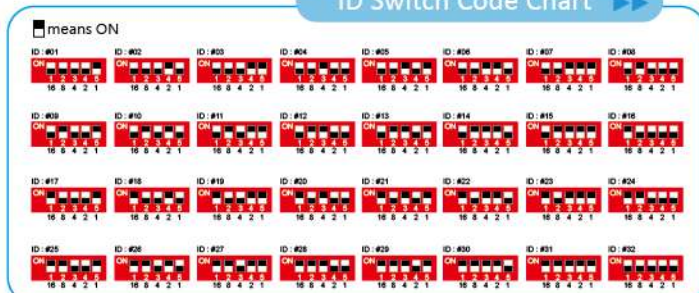


Double-Axis Motor/120W

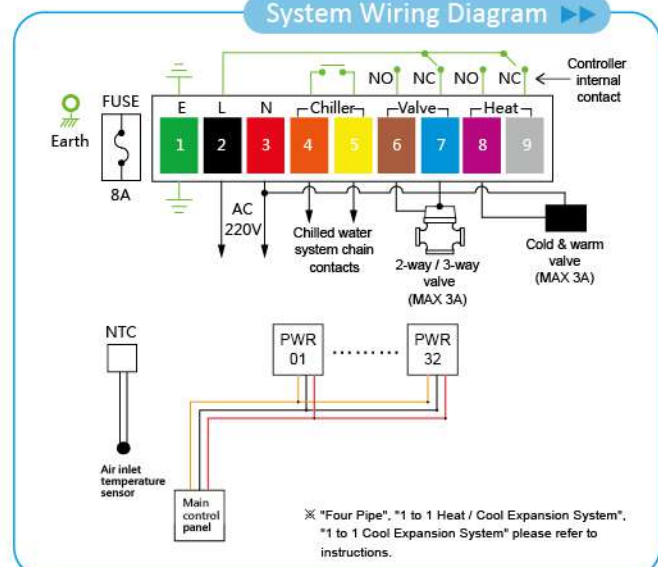
Signal Wiring Diagram



ID Switch Code Chart



System Wiring Diagram





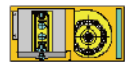
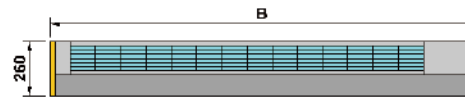
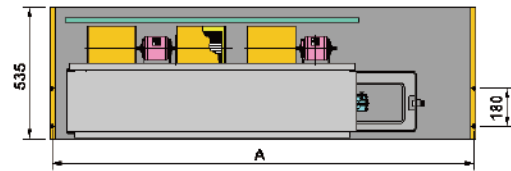
DC inverter blower BLDC VAV FCU

Ceiling mounted DC FCU Inverter System Unit (Deluxe Model)

Elegant looking deluxe ceiling mounted air conditioner brings with it 300CFM~1400 CFM of air power, is suitable for any rooms in the house. This ceiling mounted air conditioner is elegantly styled to complement your room environment. This model creates a quiet and comfortable living space for you and your family.

Highlights

- Air conditioner is installed beneath the ceiling. It complements your living environment with a beautiful casing. Reduces obstruction and is visually pleasing.
- The ventilation air vents can be moved according to your desires. Exact direction of air flow can be adjusted with ease.



FEATURES

1. Piping method is adjunct to air outlet. Piping to the left is the left piping; piping to the right is the right piping.
2. Stainless drain pan with special anti-eroding aluminum plate. We can accept customer customization.

| Model | Size | 300 | 400 | 600 | 800 | 1000 | 1200 | 1400 |
|-------|------|------|------|------|------|------|------|------|
| A | | 993 | 1183 | 1383 | 1613 | 1833 | 2043 | 2233 |
| B | | 1014 | 1204 | 1404 | 1634 | 1854 | 2064 | 2254 |

Note : We have other external and internal DC FCU models. Please inform us of your needs and we can customize it for you.

| Specification | | Model | JP03BCC | JP04BCC | JP06BCC | JP08BCC | JP10BCC | JP12BCC | JP14BCC | |
|--|---------------------------------|---|------------------------------------|-----------|-----------|-----------|-----------|-----------|------------|-----------|
| Capability | Maximum Capacity (Kcal/h) | | 1270~2550 | 1660~3550 | 2600~5100 | 2760~6300 | 3850~7750 | 4100~9200 | 5050~10800 | |
| | Rated air flow (CFM) | | 110~440 | 140~520 | 210~850 | 210~940 | 380~1300 | 380~1640 | 480~1750 | |
| Coil | Type | | § 3/8" Copper Tube / Aluminium Fin | | | | | | | |
| | Surface Area (FT ²) | | 0.93 | 1.34 | 1.78 | 2.28 | 2.76 | 3.22 | 3.64 | |
| | Water Level (GPM) | | 2.2 | 3.2 | 4.5 | 5.6 | 7.0 | 7.9 | 9.5 | |
| | Water Pressure Test (FT) | | 2.2 | 4.2 | 9.5 | 17.5 | 4.4 | 6.2 | 12.1 | |
| | Working pressure (PSI) | | 250 | | | | | | | |
| Fan | Type | | Centrifugal Fan-Double Vent | | | | | | | |
| | Average Air Flow (CFM) | | 300 | 400 | 600 | 800 | 1000 | 1200 | 1400 | |
| | External static pressure (CFM) | 0Pa | | 440 | 520 | 850 | 940 | 1300 | 1640 | 1750 |
| | | 10Pa | | 425 | 500 | 820 | 905 | 1265 | 1590 | 1700 |
| | | 20Pa | | 410 | 480 | 795 | 870 | 1230 | 1540 | 1645 |
| | | 30Pa | | 390 | 460 | 770 | 840 | 1190 | 1490 | 1590 |
| | | 40Pa | | 370 | 440 | 735 | 805 | 1145 | 1430 | 1530 |
| | | 50Pa | | 355 | 425 | 700 | 770 | 1100 | 1365 | 1465 |
| 60Pa | | 340 | 410 | 660 | 740 | 1050 | 1300 | 1400 | | |
| Fan No | | 1 | | 2 | | 3 | 4 | | | |
| Motor | Type | | DC Inverter Brushless Motor | | | | | | | |
| | Power Supply | | AC220V / AC110V | | | | | | | |
| | Rated | Electric current (A) | | 0.06~0.47 | 0.06~0.62 | 0.07~0.83 | 0.07~0.91 | 0.10~1.26 | 0.10~1.43 | 0.12~1.55 |
| | | Power (W) | | 13~103 | 14~136 | 16~183 | 16~201 | 21~278 | 21~314 | 24~342 |
| | Motor No. | | 1 | 1 | 1 | 1 | 2 | 2 | 2 | |
| Control Method | | DC Inverter Controller & Digital Communication control signs. | | | | | | | | |
| Piping | Coil Connection (IN) | | 3/4" B | | | | | | | |
| | Drain Pipe (IN) | | 3/4" B | | | | | | | |
| * Please indicate model upon placing order | | | | | | | | | | |
| <p>JP04BCC</p> <p> L:Low staticpressure. H:High staticpressure. C:Low /Highstaticpressure. A:Ceiling Mounted(concealed). B:Ceiling Mounted(concealed +reverse airflow). C:Ceiling Deluxe Mode. A:InputPowerAC-110V. B:InputPowerAC-220V/60Hz. Wind capacitycod:04:400CFM.06:600CFM.... </p> | | | | | | | | | | |

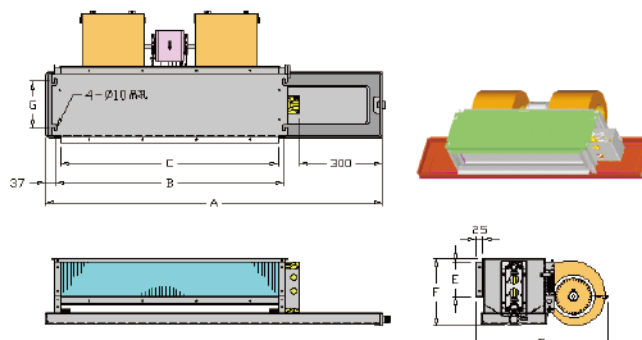
DC inverter blower BLDC VAV FCU

Ceiling mounted DC FCU Inverter System Unit (Concealed Model)

This ceiling mounted air conditioner is concealed within the ceiling boards and is unnoticeable. With the wind capacity of 300 CFM~1400 CFM. This machine will be suitable for almost any room.

Highlights

- Air conditioner is installed in the ceiling. Reduces obstruction and is aesthetically pleasing.
- Can be used with high and low Static pressure types, allows direct out flow or out flow air pipes.
- The height of the air conditioner is only 25cm, which allows easy installation and repairing in almost any circumstances.



1. Air outlets/ inlets can also be supplemented, and are easy to install.
2. Piping method is adjunct to air outlet. Piping to the left is the left piping, piping to the right is the right piping.
3. Stainless drain pan with special anti-eroding aluminum plate, We can accept customer customization.
4. Negative Ion Generator Installation, photo-catalytic and active carbon filter. We accept customization.

FEATURES

| Model \ Size | 300 | 400 | 600 | 800 | 1000 | 1200 | 1400 |
|--------------|-----|------|------|------|------|------|------|
| A | 850 | 1040 | 1240 | 1470 | 1690 | 1900 | 2090 |
| B | 460 | 650 | 850 | 1080 | 1300 | 1510 | 1700 |
| C | 422 | 612 | 812 | 1042 | 1262 | 1472 | 1662 |

Note : We have other external and internal DC FCU models. Please inform us of your needs and we can customize it for you.

| Specification | Model | | JP03BCC | JP04BCC | JP06BCC | JP08BCC | JP10BCC | JP12BCC | JP14BCC | |
|--|---|------------------------------------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|------------|
| | Capability | Maximum Capacity (Kcal/h) | | 1270~2550 | 1660~3550 | 2600~5100 | 2760~6300 | 3850~7750 | 4100~9200 | 5050~10800 |
| | Rated air flow (CFM) | | 110~440 | 140~520 | 210~850 | 210~940 | 380~1300 | 380~1640 | 480~1750 | |
| Coil | Type | ø 3/8" Copper Tube / Aluminium Fin | | | | | | | | |
| | Surface Area (FT ²) | | 0.93 | 1.34 | 1.78 | 2.28 | 2.76 | 3.22 | 3.64 | |
| | Water Level (GPM) | | 2.2 | 3.2 | 4.5 | 5.6 | 7.0 | 7.9 | 9.5 | |
| | Water Pressure Test (FT) | | 2.2 | 4.2 | 9.5 | 17.5 | 4.4 | 6.2 | 12.1 | |
| | Working pressure (PSI) | | 250 | | | | | | | |
| Fan | Type | Centrifugal Fan-Double Vent | | | | | | | | |
| | Average Air Flow (CFM) | | 300 | 400 | 600 | 800 | 1000 | 1200 | 1400 | |
| | External static pressure (CFM) | 0Pa | | 440 | 520 | 850 | 940 | 1300 | 1640 | 1750 |
| | | 10Pa | | 425 | 500 | 820 | 905 | 1265 | 1590 | 1700 |
| | | 20Pa | | 410 | 480 | 795 | 870 | 1230 | 1540 | 1645 |
| | | 30Pa | | 390 | 460 | 770 | 840 | 1190 | 1490 | 1590 |
| | | 40Pa | | 370 | 440 | 735 | 805 | 1145 | 1430 | 1530 |
| | | 50Pa | | 355 | 425 | 700 | 770 | 1100 | 1365 | 1465 |
| 60Pa | | 340 | 410 | 660 | 740 | 1050 | 1300 | 1400 | | |
| Fan No | | 1 | | 2 | | 3 | 4 | | | |
| Motor | Type | DC Inverter Brushless Motor | | | | | | | | |
| | Power Supply | AC220V / AC110V | | | | | | | | |
| | Rated | Electric current (A) | 0.06~0.47 | 0.06~0.62 | 0.07~0.83 | 0.07~0.91 | 0.10~1.26 | 0.10~1.43 | 0.12~1.55 | |
| | | Power (W) | 13~103 | 14~136 | 16~183 | 16~201 | 21~278 | 21~314 | 24~342 | |
| Motor No. | | 1 | 1 | 1 | 1 | 2 | 2 | 2 | | |
| Control Method | DC Inverter Controller & Digital Communication control signs. | | | | | | | | | |
| Piping | Coil Connection (IN) | 3/4" B | | | | | | | | |
| | Drain Pipe (IN) | 3/4" B | | | | | | | | |
| * Please indicate model upon placing order | | | | | | | | | | |
| <p>JP04BCC ————— L:Low staticpressure. H:High staticpressure. C:Low /Highstaticpressure.</p> <p>————— A:Ceiling Mounted(concealed). B:Ceiling Mounted(concealed +reverse airflow). C:Ceiling Deluxe Mode.</p> <p>————— A:InputPowerAC-110V. B:InputPowerAC-220V/60Hz.</p> <p>————— Wind capacitycod:04:400CFM.06:600CFM....</p> | | | | | | | | | | |



DC Energy-Saving Air Outlet Circulation Fan DDC(Direct Digital Control)



BN-23WA-S(Standard Model)

DC Energy-Saving Circulation Fan / AC Outlet Type



FAN-DC-2-001
FAN-DC-2-002

[Back View]
Duct Diameter Options : 8" · 10" · 12"



CASE-5-FAN-009
CASE-5-FAN-010
CASE-5-FAN-011

Compatible with air conditioning ducts / Eco-friendly and energy-efficient



Scan QR Code
for Manual

100% Made in Taiwan – R&D, production, and patented design



- 1 Solves high-ceiling air outlet challenges.
- 2 Synchronized activation with AC unit.

酷涼小幫手
Cooling Helper

- Duct diameter options : 8", 10", 12"
- Housing material : Anti-static ABS + UV-resistant.
- Circulating fan drives airflow for even distribution, with energy-saving fans at outlets.
- Notes :
 1. Before installation : Cooling takes tens of minutes after setting the temperature.
 2. After installation : Fan-assisted circulation cuts cooling time by half, extends AC restart intervals, and ensures even temperature distribution.
- Features :
 1. Compatible with ceiling grids, featuring a recessed design for easy installation, space efficiency, and cost-effectiveness.
 2. Suitable for both cooling and heating cycles, effectively reducing AC workload.
 3. Unique high-efficiency PFC design for energy savings.

- AC unit ON → Fan operates simultaneously + SW forced activation
- Direct fan activation (even when AC is OFF)



| Power Consumption Comparison Table | |
|---|--|
| DC Fan Motor | Conventional AC Fan Motor |
| Min. Speed 4.7W : 8hr continuous use = NT\$0.084 | 45W Consumption : 200hr continuous use = NT\$37.84 |
| Max. Speed 28W : 8hr continuous use = NT\$0.94 | |
|  Daily cost under \$1 | |
| Note : Calculated at NT\$4.2 per kWh | |

| Product Specifications | |
|------------------------|-----------------------------------|
| Model | BN-23WA-S |
| Voltage Power | 100~245 VAC/5~28w |
| Materials & Dimensions | ABS / 600 x 600 x 245mm 14"/4.5KG |

Digitally Controlled Energy-Saving Air Outlet Circulation Fan DDC(Direct Digital Control)



BN-33WA (Flagship Model)

DC Energy-Saving Air Outlet Circulation Fan

Compatible with air conditioning ducts - Eco-friendly & energy-efficient

100% Design & Made in Taiwan



FAN-DC-1-001
FAN-DC-1-003

酷涼小幫手
Cooling Helper

- Duct diameter options : 8", 10", 12"
- Housing material : Anti-static ABS with UV-resistant coating
- Circulation fan drives AC airflow for even distribution, with energy-saving fan at outlet.
- Features :
 - (1) Without installation : Takes tens of minutes to reach set temperature after AC activation.
 - (2) With installation : Fan-assisted circulation cuts cooling time by half, extends AC restart intervals, and ensures even temperature distribution throughout space.
- Advantages :
 - (1) Recessed design for easy ceiling grid installation - Space-efficient and cost-effective.
 - (2) Suitable for both cooling/heating cycles - Reduces AC workload.
 - (3) High-efficiency PFC design for energy savings.



1 Network control + temperature sensing/display - Ideal for smart building AC systems



2 Solves high-ceiling air outlet challenges.

3 Synchronized activation with AC unit.



Scan QR Code for Manual

- AC on → Fan auto operation + SW forced activation
- Manual fan override when AC is off

| Power Consumption Comparison Table | | |
|--|-----------------------------|--|
| DC Fan Motor | | Conventional AC Fan Motor |
| Min. Speed 4.7W : 8hr continuous use = NT\$0.084 | <p>Daily cost under \$1</p> | 45W Consumption : 200hr continuous use = NT\$37.84 |
| Max. Speed 28W : 8hr continuous use = NT\$0.94 | | |
| Note : Calculated at NT\$4.2 per kWh | | |

| Product Specifications | |
|------------------------|-----------------------------------|
| Model | BN-23WA-S (Flagship Model) |
| Voltage Power | 100~245 VAC/5~28w |
| Materials & Dimensions | ABS / 600 x 600 x 245mm 14"/4.5KG |



iQ-500 Series AC Standalone Thermostat (with Network/Linked Control)



Incoming Call Memory Type Incoming Call Power-On Type Incoming Call Power-Off Type

Supports daisy-chaining up to 32 control units as a group, featuring network control for individual or synchronized operation—the optimal solution for upgrading traditional systems to smart networked control.

- Temperature Display Range : 0.0°C~50.0°C, displayed in increments of 0.5°C
- Temperature Setting Range : 15°C~35°C, minimum increment of 0.5°C
- Default mode : Air conditioning mode, automatic fan speed, set temperature 26°C
- Applicable to : Central chilled water systems, direct expansion systems Return air outlet temperature sensing

- Energy-saving temperature upper and lower limit lock :
Air Conditioning : Lower temperature limit locked at 35°C
Heating : 15°C Upper temperature limit locked.
(Estimated energy savings of up to 10% for the system)
- Power management options :
Can be flexibly applied to various power-on startup systems.
- Four-core wiring from panel to control box.

Flagship Model / Feature Specific Options

- Keycard Function (Customizable indoor temperature power-saving mode)
- Four-pipe, electric heating system distribution meets the diverse needs of hotels, hospitals, dormitories.



Function Key Explanation

| Power Key | | Press once to control power on/off. |
|-------------------------|--|---|
| Mode Key | | <ul style="list-style-type: none"> • In the power-on state, press once to select the operating mode : Air conditioning, fan, heating. • In the power-off state, hold for 3 seconds to enter the function options. |
| Fan Speed Key | | <ul style="list-style-type: none"> • In the power-on state, press once to select the fan speed state : Auto, high, medium-high, medium, medium-low, low. • In fan mode, auto fan speed is not available. • In the power-on state, in air conditioning mode, press and hold for 5 seconds to activate the sleep function. |
| Temperature Setting Key | | In the power-on state, press once to adjust the set temperature by +/-0.5°C. hold down to accelerate adjustment. |

- When setting the temperature, the word "SET" will appear to the left of the set value. Temperature settings are as follows :
 - For cooling : The lowest setting can be adjusted to the lower limit lock of the cooling minimum set temperature, and the highest setting can be adjusted to the upper limit lock of the cooling maximum set temperature.
 - For heating : The lowest setting can be adjusted to the lower limit lock of the heating minimum set temperature, and the highest setting can be adjusted to the upper limit lock of the heating maximum set temperature.
- After setting is completed, if no action is taken within 5 seconds, the settings will be saved and the display will return to room temperature.
- In fan mode, temperature cannot be set.
- Pressing both the temperature setting keys (and) simultaneously allows setting the timer function from 0 to 24 hours.
- Within the function options, you can select/adjust various options or settings.
- While the unit is powered off, simultaneously holding down both the temperature setting keys (and) for 5 seconds allows setting/unsetting the button lock state. In the locked state, only power on/off and setting of the timer function from 0 to 24 hours are allowed.

Control Box



- Input Voltage : AC 100V~240V · 50/60Hz (Single Phase)
- Output Contacts :
Interlock Contact : 1A/250VAC
Valve Contact : 1A/250VAC
Fan Speed Contacts : 3A/250VACx3 (High, Medium, Low Speed)

Function option description

- When the controller is in the shutdown state, hold down the mode key (M) for 3 seconds to enter the basic function options.
- After entering the basic function options, the LCD displays cH. Press the (or) key to cycle through the main options: cH, cL, hH, hL, Pd, tc, bL, and bu.
- After the main option is displayed on the LCD, press the mode key (M) to enter each sub-option.
- After entering each sub-option, the LCD displays the current parameter value. Press the (or) key to change the parameter, then press the mode key (M) to confirm the change and return to the main option.
- During the sub-option stage of this operation, if the mode key (M) is held down for more than 3 seconds or if there is no action from any key for more than 20 seconds, the changed settings will be stored in the EEprom (permanent memory), and the adjustment function will be exited, displaying the room temperature on the LCD.

| Parameter | Code | Factory Value | Parameter Setting Range |
|---|------|----------------------|--|
| 1. Cooling maximum set temperature upper limit lock | cH | 35.0 °C | Cooling minimum set temperature lower limit lock ~ 35.0 °C |
| 2. Cooling minimum set temperature lower limit lock | cL | 15.0 °C | 15.0 °C ~ Cooling maximum set temperature upper limit lock |
| 3. Heating maximum set temperature upper limit lock | hH | 35.0 °C | Heating minimum set temperature lower limit lock ~ 35 °C |
| 4. Heating minimum set temperature lower limit lock | hL | 15.0 °C | 15 °C ~ Heating maximum set temperature upper limit lock |
| 5. Valve (three-way valve/compressor) delay protection time | Pd | 0 (no delay) | 0 (no delay), 1 (1 minute), 2 (3 minutes) |
| 6. Temperature compensation setting | tc | 0.0 °C | -5.0~5.0°C |
| 7. Panel backlight | bL | 30 (seconds) | 30 (seconds), -- (always on) |
| 8. Panel button sound | bu | on with button sound | on (with button sound) off (without button sound) Note : This item is invalid for iCN-500. |

AC Single-Unit iCN-633(TH) Temperature Controller



Incoming Call Memory Type Incoming Call Power-On Type Incoming Call Power-Off Type



Scan QR Code for Manual

- Temperature Display Range : 0.0°C~50.0°C, displayed in increments of 0.5°C
- Temperature Setting Range : 15°C~35°C, minimum increment of 0.5°C
- Default mode : Air conditioning mode, automatic fan speed, set temperature 26°C
- Applicable to : Central chilled water systems, direct expansion systems Return air outlet temperature sensing

- Energy-saving temperature upper and lower limit lock :
Air Conditioning : Lower temperature limit locked at 35°C
Heating : 15°C Upper temperature limit locked
(Estimated energy savings of up to 10% for the system)
- Power management options :
Can be flexibly applied to various power-on startup systems.
- Three-core wiring from panel to control box.

Flagship Model / Feature Specific Options

- Keycard Function (Customizable indoor temperature power-saving mode)
- Four-pipe, electric heating system distribution meets the diverse needs of hotels, hospitals, dormitories.

Function Key Explanation

| Power Key | ⏻ | Press once to control power on/off. |
|-------------------------|-------|--|
| Mode Key | M | <ul style="list-style-type: none"> • In the power-on state, press once to select the operating mode : Air conditioning, fan, heating. • In the power-off state, hold for 3 seconds to enter the function options. |
| Fan Speed Key | 🌀 | <ul style="list-style-type: none"> • In the power-on state, press once to select the fan speed state : Auto, high, medium -high, medium, medium-low, low. • In fan mode, auto fan speed is not available. • In the power-on state, in air conditioning mode, press and hold for 5 seconds to activate the sleep function. |
| Temperature Setting Key | ⬆️ ⬆️ | In the power-on state, press once to adjust the set temperature by +/-0.5°C, hold down to accelerate adjustment. |

- When setting the temperature, the word "SET" will appear to the left of the set value. Temperature settings are as follows :
 - For cooling : The lowest setting can be adjusted to the lower limit lock of the cooling minimum set temperature, and the highest setting can be adjusted to the upper limit lock of the cooling maximum set temperature.
 - For heating : The lowest setting can be adjusted to the lower limit lock of the heating minimum set temperature, and the highest setting can be adjusted to the upper limit lock of the heating maximum set temperature.
- After setting is completed, if no action is taken within 5 seconds, the settings will be saved and the display will return to room temperature.
- In fan mode, temperature cannot be set.
- Pressing both the temperature setting keys (▲ and ▼) simultaneously allows setting the timer function from 0 to 24 hours.
- Within the function options, you can select/adjust various options or settings.
- While the unit is powered off, simultaneously holding down both the temperature setting keys (▲ and ▼) for 5 seconds allows setting/unsetting the button lock state. In the locked state, only power on/off and setting of the timer function from 0 to 24 hours are allowed.

Function option description

- When the controller is in the shutdown state, hold down the mode key (M) for 3 seconds to enter the basic function options.
- After entering the basic function options, the LCD displays cH. Press the (▲ or ▼) key to cycle through the main options: cH, cL, hH, hL, Pd, tc, bL, and bu.
- After the main option is displayed on the LCD, press the mode key (M) to enter each sub-option.
- After entering each sub-option, the LCD displays the current parameter value. Press the (▲ or ▼) key to change the parameter, then press the mode key (M) to confirm the change and return to the main option.
- During the sub-option stage of this operation, if the mode key (M) is held down for more than 3 seconds or if there is no action from any key for more than 20 seconds, the changed settings will be stored in the EEPROM (permanent memory), and the adjustment function will be exited, displaying the room temperature on the LCD.

| | Parameter | Code | Factory Value | Parameter Setting Range |
|------------------------------------|---|------|----------------------|---|
| Parameter Table and Factory Values | 1. Cooling maximum set temperature upper limit lock | cH | 35.0 °C | Cooling minimum set temperature lower limit lock ~ 35.0 °C |
| | 2. Cooling minimum set temperature lower limit lock | cL | 15.0 °C | 15.0 °C ~ Cooling maximum set temperature upper limit lock |
| | 3. Heating maximum set temperature upper limit lock | hH | 35.0 °C | Heating minimum set temperature lower limit lock ~ 35 °C |
| | 4. Heating minimum set temperature lower limit lock | hL | 15.0 °C | 15 °C ~ Heating maximum set temperature upper limit lock |
| | 5. Valve (three-way valve/compressor) delay protection time | Pd | 0 (no delay) | 0 (no delay), 1 (1 minute), 2 (3 minutes) |
| | 6. Temperature compensation setting | tc | 0.0 °C | -5.0~5.0°C |
| | 7. Panel backlight | bL | 30 (seconds) | 30 (seconds), -- (always on) |
| | 8. Panel button sound | bu | on with button sound | on (with button sound) oF (without button sound) Note : This item is invalid for iCN-633. |

Control Box



iCN-360P-3C

- Dimensions : 128x71x28mm
- Input Voltage : AC 100V~240V, 50/60Hz (single phase)
- Output Contacts :
Host Interlock Contacts : 1A/250VAC
Valve Body Contacts : 1A/250VAC
Fan Speed Contacts : 3A/250VACx3 (high, medium, low speeds)



ICN-733 Brushless Motor Standalone Temperature Controller

Incoming Call Memory Type Incoming Call Power-On Type Incoming Call Power-Off Type

Incoming Call Power-Off Type : Suitable for both residential and commercial use

Incoming Call Power-On Type : Specifically designed for automotive hotels (capable of pre-activating cooling or heating functions)



Scan QR Code for Manual

Flagship Edition/Customized Function Selection

- 1 Four-Pipe Output Control
- 2 Room Card Functionality
- 3 IR Infrared Remote Control, External VR Rotary Knob Temperature Control



Product Features

1. Equipped with cooling, heating, and fan functions to meet all air conditioning needs.
2. Dual relay outputs can separately control electric heaters and ice water valves.
3. Easy and convenient installation: only four signal wires required for panel wiring.
4. Temperature adjustment range from 15°C to 35°C.
5. Scheduled Power On/Off : 0 hours to 24 hours
6. Sleep function: the set temperature will automatically increase by 1°C every hour until it reaches 2°C.
7. Safety design : built-in 5-ampere fuse to protect the blower motor and circuits.
8. Temperature sensing method : temperature sensing at the air outlet with a 1.5-meter high-precision temperature sensing wire.
9. Can control ON/OFF two-way valves or three-way valves.
10. Elegant appearance, energy-saving, power-saving, large LCD backlit panel for convenient nighttime operation.
11. Equipped with a compressor 3-minute protection function.
12. Features power-off memory (fan speed, function mode, set temperature, power status).

Control Box

ICN-360P-3C

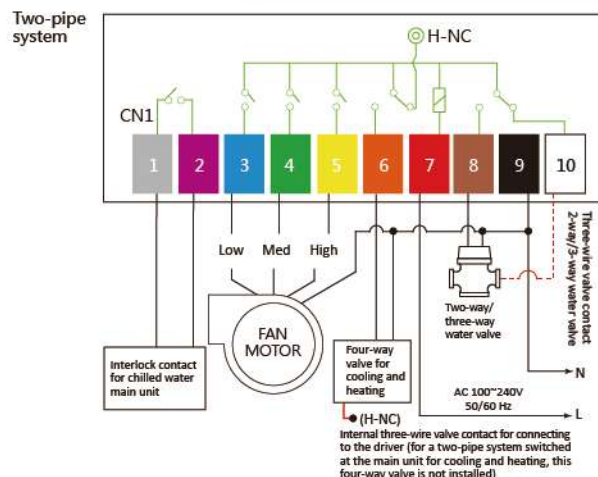
- Dimensions : 128x71x28mm
- Input Voltage : AC 100V~240V, 50/60Hz (single phase)
- Output Contacts :
 - Host Interlock Contacts : 1A/250VAC
 - Valve Body Contacts : 1A/250VAC
 - Fan Speed Contacts : 3A/250VACx3 (high, medium, low speeds)



Function Description

- A. Power : Power control button.
- B. Sleep : Sleep/Lock control button.
- C. Mode : Operation mode selector button, allowing selection among three operation modes : cooling, fan, and heating.
- D. Time : Timer for shutdown/startup, time setting button.
- E. Fan : Fan speed switch button. Pressing the Fan button toggles between different fan speeds, including strong, medium, weak, and automatic.
- F. ▲▼ : Temperature setting button. Press once to display the set temperature; press again to change the temperature setting value.

System Wiring Diagram



※ Also available : "Four-pipe system," "One-to-one direct expansion cooling and heating," "One-to-one direct expansion cooling", please refer to the instruction manual for details.



iCN-733N 32 units of AC interlinked Temperature Controllers

Incoming Call Memory Type | Incoming Call Power-On Type | Incoming Call Power-Off Type



Flagship Edition/Customized Function Selection

Four-Pipe Output Control
Room Card Functionality



Scan QR Code for Manual

Function Description

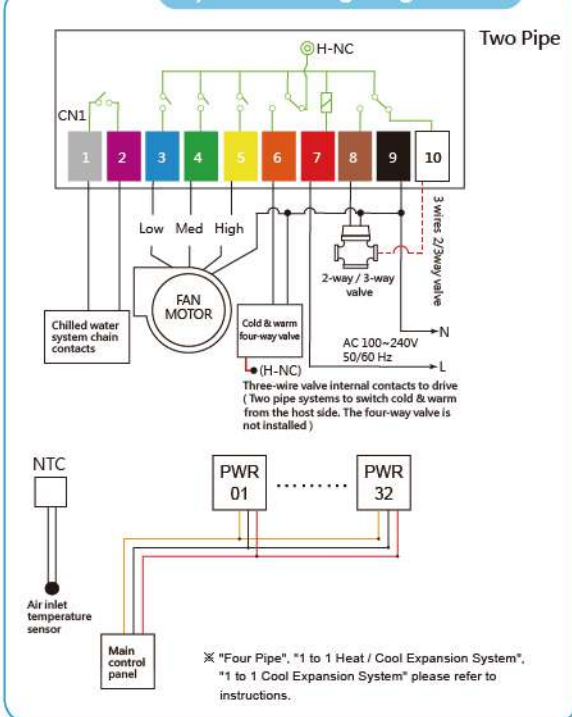
| | | |
|----------------------------|--------------------------|---|
| Power | | Power on / off motors in order or by group. |
| Mode | Mode | 1. When power is on, press to switch between 3 system modes → Cool, Heat, Ventilation. 2. When power is off, press & hold for 3 seconds to enter settings menu. |
| Fan | Fan | 3 modes → Automatic, Low speed, Medium speed, High speed. |
| Fan location selector | ID-ID+ | 1. You can select fan's ID (01~32). 2. After fan's ID is selected, fan's ID icon will flash while establish connction. |
| Simultaneous Group Control | Press & hold both ID-ID+ | 1. Press & hold both ID- and ID+ for 4 seconds to switch to Simultaneous Group Control. 2. Cancel Simultaneous Group Control → press ID- or ID+ to switch back to Single Control. The LCD will display previous Single Control fan's ID. |
| Temperature Adjustment | | When power is on, press to adjust temperature +/- 0.5 ° C. Press & hold to speed up adjustment. When power is off, press & hold (▲ and ▼) adjustment keys for 5 seconds, you can set/release key's lock. When keys are locked, only power switch, 0~24 hours program schedule setting and fan selector are functional. |

Product Features Description

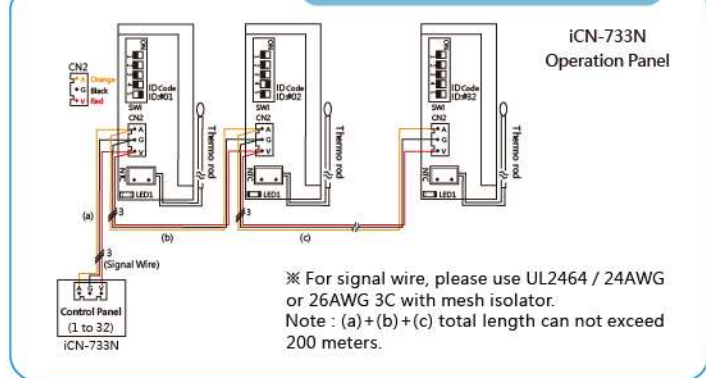
- One panel can support the interlinking control of 32 fan drives (control boxes) with individual operation or group synchronous control function.
- Equipped with key lock function to prevent unauthorized operation.
- Automatic power-off sequential delay recovery function (anti-overload delayed start). When the power is off and the unit was in the on state before the power outage, it will automatically start up in sequence according to the address coding when power is restored.
- Simple and convenient installation: Only three signal wires are required for panel wiring.
- Safety design: Built-in 5-ampere fuse to protect fan motors and circuits.
- Temperature sensing method: Sensing temperature at the air outlet, with a 1.5-meter high-precision temperature sensing wire included.
- Power-off memory (air volume, function mode, set temperature, power on/off status).

※ Advanced Timer Switch (On / Off) : Press both ▲ ▼, can set up timer for individual fan.

System Wiring Diagram



Signal Wiring Diagram



ID Switch Code Chart

☐ means ON

| | | | | | | | |
|---------|---------|---------|---------|---------|---------|---------|---------|
| ID: #01 | ID: #02 | ID: #03 | ID: #04 | ID: #05 | ID: #06 | ID: #07 | ID: #08 |
| ID: #09 | ID: #10 | ID: #11 | ID: #12 | ID: #13 | ID: #14 | ID: #15 | ID: #16 |
| ID: #17 | ID: #18 | ID: #19 | ID: #20 | ID: #21 | ID: #22 | ID: #23 | ID: #24 |
| ID: #25 | ID: #26 | ID: #27 | ID: #28 | ID: #29 | ID: #30 | ID: #31 | ID: #32 |



DC Brushless Motor for Ice Water System Fan Coil Unit (FCU)

Replacing the FCU fan with a DC EC motor **saves over 40% in energy immediately,** visible savings!

EC (Electronically Commutated) is currently the most efficient motor drive technology, also known as "DC Brushless Motor (BLDC)."

Protect the Earth.

 Advocate the use of renewable energy.

Direct replacement of the original AC motor, the best choice for energy-saving upgrades!

1. Three-speed input signal LED indicator for visibility.
2. Static pressure adjustable in six levels.



Scan QR Code for Manual

Can be integrated with our IQ-500 series products for Direct Digital Control (DDC) networking.



Dual-axis DC brushless motor

MODEL : FCU101-12311



Single-axis DC brushless motor

MODEL : FCU101-60311

- Operating environment temperature : -20~60°C
- Storage environment temperature : -25~80°C

Four main features

- ▶ **The simplest way to upgrade.** Compatible with AC motors for direct replacement; most suitable for maintenance and upgrades.
- ▶ **Reuse existing temperature control systems.** Original AC thermostat can be retained; no need to change the existing control system.
- ▶ **Three speeds to meet high and low static pressure needs.** Three-speed airflow (six adjustable speeds to meet high and low static pressure).
- ▶ **Made in Taiwan, a Taiwanese pride!** EC motor saves over 40% in energy and is more efficient in low temperatures.

Control methods ▶▶

- Speed switching : three speed levels for control.
- Signal input pin positions :
 - (1) H_SPEED to COM
 - (2) M_SPEED to COM
 - (3) L_SPEED to COM
- Input signal format : AC90~264V
- Input signal frequency range : 50~63Hz

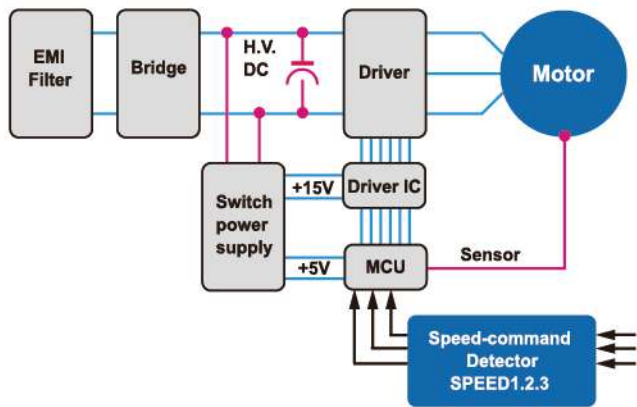
| Three-speed RPM gauge | | | |
|--------------------------------------|---------------------------|-------------------------|-------------------------|
| Speed selection Static pressure mode | H | M | L |
| RPM | 1050 (800~1150) | 800 (600~950) | 420 (300~700) |
| Airflow variation | 30% - 115% | | |

Product specifications ▶▶

- Input characteristics :
 - (1) Dual-axis - BAA02043 :
120W/220V or 110V
 - (2) Single-axis - BAA02045 :
60W / 220V or 110V
- Motor shaft height : 105mm
- The motor is sensorless and has overcurrent protection; it has a Class B insulation rating.
- The motor drive technology uses sinusoidal wave control, with a drive frequency of 20kHz.
- Applicable range : This product includes a driver and a DC brushless motor, suitable for DC motor applications.

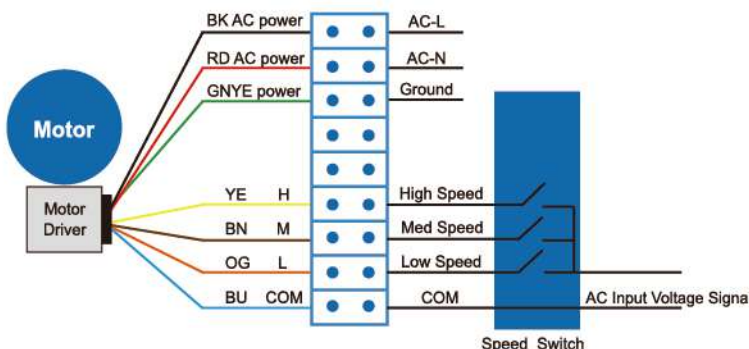
| Item | Minimum | Nominal | Maximum | Unit |
|-----------------------|------------------------------|---------|---------|-------|
| Input voltage | 198 | 220 | 264 | VAC |
| Enter frequency | 50~63 | | | Hz |
| Input Current | Dual-axis<2 Single-axis<1 | | | A |
| input power | Dual-axis<160 Single-axis<90 | | | w |
| scope of treaty | 350~1050 | | | r.p.m |
| Operating temperature | -20~50 | | | °C |
| Dielectric strength | DC500V/100MQ↑ | | | MQ |

System architecture diagram ▶▶



- Fan wheel diameter of the FCU matches the motor shaft height (H) :
 - φ160 mm=H105 mm (Taiwan routine)
 - φ150 mm=H100 mm
 - φ140 mm=H95 mm
 - φ130 mm=H90 mm

Product wiring diagram ▶▶





F-101 DAI-FUJI Japan Wireless Thermostat

- High-tech electronic product by Japan DAI-FUJI
- LCD display with ultra-low power consumption (New)
- Wireless control (No wiring needed - Convenient)
- Temp. range : 15°C–35°C Timer : 1–24 hours
- Modes : Cool-only / Heat-Cool / Chilled Water / DX
(Low current; Optional 25A high current)
- Optional : Auto power-on after outage



Scan QR Code for Manual



Remote holder

CN-4-001

CN-2-001



CN-3-001

Dimensions : 130 × 70 × 50 mm

- * 1-to-many control
- Mobile sensor
(1.5m, can be placed at return air vent)

Remote Control & Holder Dimensions :

Remote : 167 × 50 × 15 mm

Holder : 80 × 56 × 24 mm

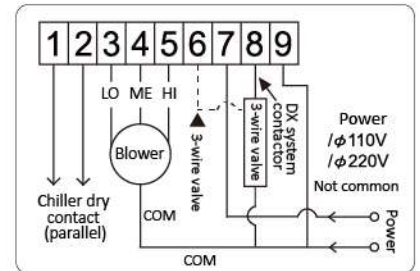
T-386 Modern Style Charming Dual-Blessing (Arc) Design

- Ultra-thin, elegant, streamlined design
- Dual-function : Temperature controller & thermometer
- Temp. range : 16°C–32°C Timer : 1–12 hours
- 3-speed auto fan (requires control box)
- T-386 : 7-core



Scan QR Code for Manual

T-386(S) Control Box Wiring Instructions



CN-1-004



CN-1-001

CN-1-007 (Heating/Cooling)

Dimensions : 120 × 80 × 14 mm



CN-2-001

- * Standard Sensor is mounted on the panel. For special environmental needs, a removable Sensor (additional cost) can be placed at the air return.

T-486 Luxury Model

The Most Stylish and Elegant Thermostat on the Market

Cooling Only / Heat-Cool / Master Control / Direct Expansion (Low Current, Optional 25A High Current)

- Supports multi-zone control (1-to-many)
- Japanese-inspired design, precision-molded construction
- The most elegant thermostat – premium, refined, and sophisticated
- Dual-function : Temperature controller & thermometer
- Temp. range : 16°C–32°C Timer : 12 hours
- 3-speed auto fan (VAV) (requires control box)
- Cooling Only / Heat-Cool / Master Control / Direct Expansion (Low Current, Optional 25A High Current)
- T-486 : 7-core



CN-1-005
CN-1-006 (Heating/Cooling)

Dimensions : 130 × 90 × 20 mm



Scan QR Code for Manual

The graphics, patterns, text, and indicator layout of this thermostat are copyright-protected. Imitation is prohibited.

T-530 Electronic Thermostat

- Visible operation with three LED indicators
- Exposed Japanese sensor (±0.5°C–1°C accuracy)
- Cooling Only / Heat-Cool / Master Control
- Vertical or horizontal mounting options
- Voltage : 220V (110V available for TCH-1A)

Dimensions : 130 × 90 × 20 mm



Exposed Sensor
TCH-2A-004



Exposed Sensor
TCH-2A-001

T-123 3-Speed Switch

- Suitable for replacements & new installations
- Wholesale discount for material suppliers (100 pcs/box) – Call for pricing!

CN-4-002

Dimensions : 120 × 70 × 5 mm





Water Valve Products

Premium Brass 2-Way & 3-Way Valves

Brass 2-Way & 3-Way Valve Model Numbers :

3/4" 3-Way Motorized Valve

3/4" 2-Way Motorized Valve



Dimensions : 70 × 45 mm

| 2-Way | | 3-Way | |
|-------|-----------------|-------|-----------------|
| 3/4" | 2P-01 (110V) | 3/4" | 3P-01 (110V) |
| | 2P-02 (220V) | | 3P-02 (220V) |
| 1" | 2D-01 (110V) | 1" | 3D-01 (110V) |
| | 2D-02 (220V) | | 3D-02 (220V) |

2-Way Valve :

Suitable for full 2-way valve systems without requiring additional 3-way valves (main unit must be equipped with bypass valve).

- Fluid temperature <94°C (suitable for both cooling/heating systems) Ambient temperature <40°C
- Body pressure resistance : 25 kgf/cm²
- Compatible media : Chilled water, hot water, brine
- Patented super shut-off cold design
- Dual-spring design ensures balanced torque, eliminating water hammer noise and flow sounds

Product Features

1. Dual-spring design, never breaks
2. Low-voltage start capability, featuring ultra-durable U.S.-made long-life motor (MAMS)
3. Fireproof aluminum alloy motor housing (non-plastic construction)
4. Large ball chamber with long stroke prevents water hammer noise
5. Exclusive cold shut-off mechanism

Ideal for major infrastructure projects - office buildings, schools, industrial parks, high-speed rail, metro systems, etc.

Water Valve Products

**Energy-saving 2/3-way
Electric Valve (3-wire type)**

- Power Supply : 220V AC, 50Hz
- Ambient Temperature : 0–65°C max
- Power Consumption : 4VA (when valve changes position)
- Fluid Temperature : 1–95°C
- Time (Standard) : Valve opening – 7s (50Hz)
- Closing Differential Pressure : 400 kPa
- Pressure Rating : Static pressure – 2067 kPa
Surge pressure – 10 MPa



| 2-Way | |
|-------|---------|
| 3/4" | TC2P-01 |
| 1" | TC2P-02 |
| 3-Way | |
| 3/4" | TC3P-01 |
| 1" | TC3P-02 |

- Dual-spring design, fracture-proof.
- Low-voltage start, ultra-durable U.S. motor (MAMS).
- All-metal fireproof housing (aluminum alloy).
- Long stroke design – no water hammer.
- Patented cold shut-off.



Dimensions : 400 × 200 × 250 mm

WT-001
WT-002 (Float Ball)

20L Expansion Tank

- FRP material, long lifespan, non-aging
- Fixed lugs + wall plugs (x2)
- Removable top cover, mountable at system's highest point



BISO-LP2

Load Capacity : 65 kg
Dimensions : 106 × 63 × 65 mm
Diameter : 52 mm



BISO-LP1

Load Capacity : 250 kg
Dimensions : 167 × 105 × 90 mm
Diameter : 92 mm

High-Purity Vibration Absorption Pad

- Steel plates embedded (top & bottom)
– No aging/deformation
- For : Host machines, water towers, pumps, electromechanical equipment
- Note : For vibration damping only (not for equipment fixation)



CT-700 Timer Electric Thermostat

- Application : Electric/solar water heaters, daily preheating devices.
- Power Supply : 110/240VAC 50/60Hz
- Power Consumption : <2VA
- Relay Contact : 25A/240VAC (resistive load)
- Operating Environment : 5–50°C <85% RH (non-condensing).



Dimensions : 194 × 123 × 97 mm



Scan QR Code for Manual

CT-703 Cycle Timer Electric Thermostat

Daily cycle timer electric thermostat with power-off operation.

- Application : Electric/heat pump/solar water heaters.
- Power Supply : 110/240VAC 50/60Hz (built-in charging circuit & lithium battery).
- Power Consumption : <2VA
- Operating Environment : 5–50°C , <85% RH (non-condensing).
- Temperature Probe Range : 2–99°C (measurable/displayable).
- Panel Wiring : 4 signal wires (easy installation, extendable to indoor/outdoor locations).
- Special Features : Three ON/OFF timer settings. Temperature range : 10–85°C. Daily preheating timer. One-time forced timer.



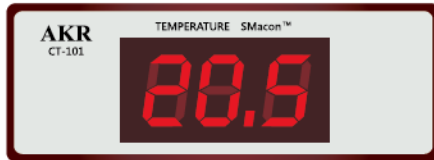
Dimensions : 120 × 80 × 14 mm



Scan QR Code for Manual

| | Parameters | Code | Default | Setting Range |
|----|----------------------------------|---------|-----------|------------------------------|
| 1 | Temperature Setting | SEt | 50°C | 10–85°C |
| 2 | Temperature Differential Setting | td | 2°C | 1–9°C |
| 3 | Current Time | rt | 0.0 hour | 0.0–23.5(h\10m) |
| 4 | 1st ON Time | on1 | 16.0 hour | 0.0–23.5(h\10m) |
| 5 | 1st OFF Time | oF1 | 20.0 hour | 0.0–23.5(h\10m) |
| 6 | 2nd ON Time | on2 | 20.0 hour | 0.0–23.5(h\10m) |
| 7 | 2nd OFF Time | oF2 | 20.0 hour | 0.0–23.5(h\10m) |
| 8 | 3rd ON Time | on3 | 20.0 hour | 0.0–23.5(h\10m) |
| 9 | 3rd OFF Time | oF3 | 20.0 hour | 0.0–23.5(h\10m) |
| 10 | Forced Timer (One-Time) | F | 4.0 hour | 1.0–23.5 (h\10m) |
| 11 | Temperature Correction | tA | 0°C | -10–10°C |
| 12 | Parameter Lock Function | Lon/LoF | LoF | Lon->Locked LoF ->Not Locked |

CT-101 Freezer & Fridge Temperature Display



Dimensions : 94 × 35 × 36 mm
Cutout : 90.5 × 30 mm

- Model : CT-101(H)
- Operating Voltage : 220V AC
- Temperature Range : +7°C ~ 110°C
- Application Places : High-temperature areas

- Model : CT-101(L)
- Operating Voltage : 220V AC
- Temperature Range : -40°C ~ 40°C
- Application Places : Low-temperature areas



Dimensions : 81(97) × 26(34) × 40 mm
Cutout : 82.2 × 26.6 mm



Scan QR Code for Manual

CT-500 Freezer & Fridge Temperature Controller

- Temperature Setting : -40°C ~ +40°C
- Temperature Differential Setting : 1°C ~ 9°C
- Operation Cycle : 1~24 hours
- Defrost Cycle : 0~60 points
- Temperature Calibration : -10°C ~ +10°C

* Built-in "Operation Hour Meter" (999,999h max) with permanent memory function - the most convenient way for maintenance checks and the best proof for warranty claims.



Dimensions : 140(137) × 39(31.5) × 31 mm
Cutout : 137(±0.5) × 32(±0.5) mm



Scan QR Code for Manual

CT-600 Freezer & Fridge Temperature Controller

- Temperature Setting : -40°C ~ +40°C
- Temperature Differential Setting : 1 ~ 9°C
- Operation Cycle : 1~24 hours
- Defrost Cycle : 0~60 points
- Temperature Calibration : -10 ~ 10°C
- Locking Function : On / Off



Dimensions : 140(137) × 39(31.5) × 31 mm
Cutout : 137(±0.5) × 32(±0.5) mm

CT-601 Freezer & Fridge Temperature Controller

- Time can be freely set with permanent memory during power outages.
- Output Power : 2A 250V AC
- Temperature Setting : -40°C ~ +45°C
- Operation Time : 0.1 ~ 99H
- Defrost Time : 0~99M
- Fan Delay Time : 0~99M
- Compressor Protection : 0~9.9M

* Custom controller development and production available to meet specific customer requirements.



Temperature Connect

IoT Mobile Temperature Monitor



Temperature - WiFi Monitor

This product T-α operates independently in the "Temperature Report App" temperature value notification system to monitor whether the "control system" in the equipment is malfunctioning, power failure or abnormal.

WiFi connection, plug-and-play

Features >>

- Fresh Food : large-scale freezer and refrigeration equipment, fish storage, fruit storerooms, supermarkets, convenience stores.
- Medical : Refrigerated storage equipment, blood serum storage equipment.
- Biotechnology : laboratory refrigeration equipment.
- Industrial temperature control equipment.
- Vaccine preservation equipment.



Application >>

- The temperature sensor detects the temperature of the device in real time. Its' data values are reported to users and displayed simultaneously on the mobile phone. Moreover, the data values are kept in order to process further analysis and anomaly detection, thus operators can take countermeasures to avoid losses.
- WiFi connection, plug-and-play, hook-and-loop fastener for quick fix, simple DIY installation, no extra wiring, fast connection set-up, cost-effective products.
- Innovative IoT service solution, mobile APP, best temperature accuracy & precision and record tracking.

(Another custom temperature and humidity sensing function)



Advantage >>



Convenient
Remote monitoring



Management
Reduce manpower



Indeed
Temperature record



Risk
Avoid financial losses



Immediate
Active exception Announce



Simple
Can be installed in old freezer In equipment

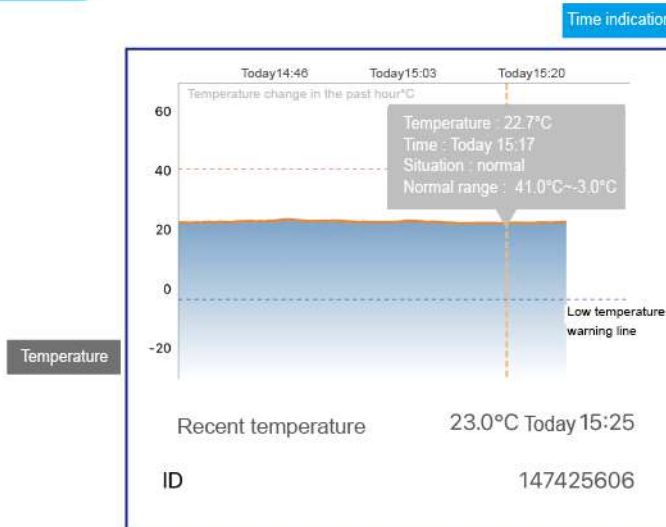
Temperature Connect ▶▶



When either its' temperature value exceeds the limit or Internet connection is disconnected/unstable, mobile App will be notified immediately.



Cloud Server Panel ▶▶



Specification ▶▶

| Model | Temperature monitor WiFi Gateway (T-α) |
|---|--|
| Signal indication | Red LED (POWER LED) : Continuously on after power on (MCU is operating normally). Green LED (WiFi LED) : Continuously on when connected to WiFi AP, otherwise blinks. Blue LED (TCP LED) : Continuously on when connected to the server, otherwise blinks. |
| Working power | micro USB 5V (< 2W) |
| LED indicator | R.G.B x 1 each |
| Receiving distance (conservative value) | 25m |
| Transmission method | WiFi signal transmission |
| External dimensions | H75 / W35 / D11 (mm) |
| Weight | 45g |
| Waterproof | None (Not for outdoor use) |
| Other accessories | 85~220vAC adppter / USB 5v 1A x 1 micro USB cable x 1 |
| Occasion / Purpose | Best for install in freezer, refrigerator or other equipment |
| Fixing method | Hook and loop fastener. |
| Temperature detecting range | -30~70°C (Temp. resolution 0.5 °C / Temp. tolerance ±1°C) NTC temperature sensing wire 6φ x 30mm stainless steel probe, cable length 1.5M (Optional : 3, 5, 10M) |



- A WiFi AP is required on site in order to establish an Internet connection.
- We can customize application designs according to customer needs.

Ⓞ All related software and hardware products of this system are developed, produced, sold and after-sales service by our company. Avoid information security problems and risks.



Cannex Technology

Elf Series Precision Thermostat Controller

CH-601

Simultaneous Control of Heating and Cooling



Precision Thermostat



Applications :

Breeding fishery, hatching incubator, orchid room fermentation tank, constant temperature incubator, Laboratory, aquarium, agricultural greenhouse (heating = hot water valve and cooling = exhaust fan) Biochemical technology, medical experiment, industrial (industrial) constant temperature control, cooling machine, Computer host room, other industrial control applications...etc.



Specification :

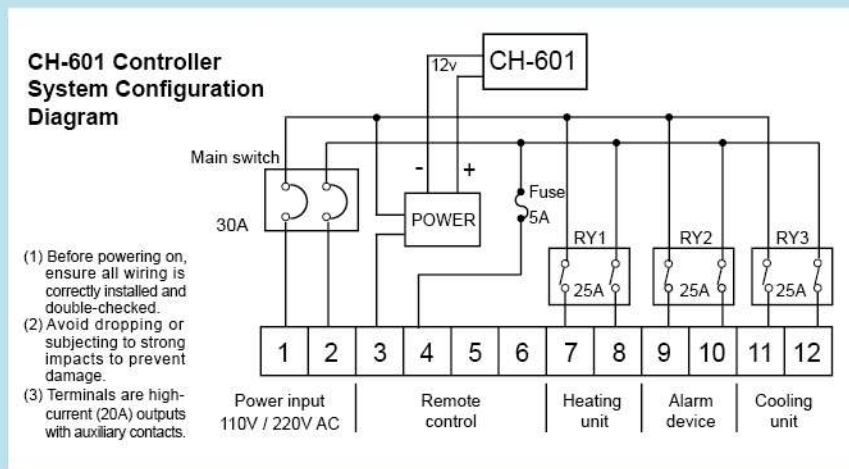
- Input full voltage : 85V~240VAC
- Controller size : 200 x 300 x 170 mm (W x D x H)
- Weight : 3Kg

Product Usage :

- The control box is free of wiring, directly installed and used immediately, the favorite of engineers.
- Temperature controller - hot and cold dual output : Can control light bulbs, ventilation fans, electric heaters, refrigerators, sprayers, electric valves.

| | Parameter | Code name | Factory default | Parameter setting range |
|---|--|-----------|-----------------|-------------------------|
| 1 | Temperature difference setting | SEt | 30°C | 0~80°C |
| 2 | Alarm temperature difference setting | Atd | 2°C | 1~5°C |
| 3 | Cooling temperature difference setting | tC | 0.5°C | 0.5~3°C |
| 4 | Heating temperature difference setting | tH | 0.5°C | 0.5~3°C |
| 5 | Temperature correction | tA | 0°C | -9~9°C |
| 6 | Alarm delay time | Sd | 0Min | 0~30Min |

Wiring diagram :



Function operation instructions :

1. Pecification Setting

CH-601 Thermostat (resolution 0.5 °C) NTC Detectable temperature -9.0~90.0 °C

Parameter Code :

- SEt (temperature setting 0~80 °C)
- Atd (Alarm temperature difference setting 1~5 °C)
- tC (Cooling temperature difference setting 0.5 ~3 °C)
- tH (Heating temperature difference setting 0.5~3 °C)
- tA (temperature correction -9~9 °C)
- Sd (Alarm delay time 0~30 Min)

2. Instructions

- (1) After the installation is complete, plug in the power supply, and the seven-segment display and LED indicators are all on, indicating that the controller is normal.
- (2) Parameter setting :
 Press and hold the up key for three seconds, the display will display the first parameter setting code SEt, press the up or down key to display the set value, At this time, you can press the up or down key again to set the parameters, and the new set value will be permanently memorized.
 Each parameter will automatically switch and appear after three seconds, until it jumps out of the parameter setting.

3. Fault Display

- (1) OP : The temperature sensing rod is broken or lower than -9 °C
- (2) SH : The temperature sensing rod is short-circuited or higher than 90 °C
- (3) EE : Abnormal memory

4. Parameter Description

- (1) Temperature setting : set the desired but constant temperature.
- (2) Alarm temperature difference setting :
 20 minutes + Sd after controller startup or 20 minutes + Sd after parameter reset,
 Actual temperature \geq (set temperature + cooling temperature difference + alarm temperature difference)
 Actual temperature \leq (set temperature - heating temperature difference - alarm temperature difference)
 then the alarm relay is ON.
- (3) Cooling temperature difference setting : when the actual temperature \geq (set temperature + cooling temperature difference), the cooling relay (compressor) is ON. (Note : cooling (compressor) has 3 minutes delay start protection)
- (4) Heating temperature difference setting : when the actual temperature \leq (set temperature - heating temperature difference), the heating relay (electric heater) is ON. (Note : The heater has a 30 second delay to start)
 Example : Temperature setting = 30 Alarm temperature difference setting
 = 2 Cooling and heating temperature difference setting
 = 1.5 °C
 then the constant temperature will be maintained between 30 °C \pm 1.5 °C
 When the actual temperature \geq 33.5 °C or the actual temperature \leq 26.5 °C, the alarm relay is ON.

(※Specifications subject to change without notice.)

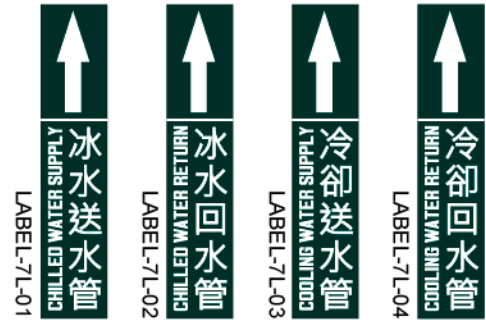


Engineering Labels International Standard Specifications

Printed with Japan's engineering-grade ink (JIS) via fine mesh screen printing. Our exclusive 16-step production process ensures true industrial-grade quality. Features : Fade-proof, waterproof, tear-resistant, corrosion-resistant, dustproof, stain-resistant, and long-lasting. Trusted by Taiwan's top science parks.

Note : Generic stickers fade, age, and peel. Insist on JohnPoint industrial labels for engineering integrity.

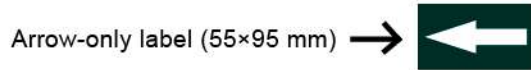
Type L : Large vertical pipe flow label (100×410 mm), self-adhesive with detachable left/right arrows.



Type P : International Standard—Pipe flow label (55×260 mm), self-adhesive with detachable arrows.



Type P : International Standard—Pipe flow label (55×260 mm), self-adhesive with detachable arrows.



Type S : International Standard—Pipe flow label (35×130 mm), self-adhesive with detachable arrows.



Type S : International Standard—Pipe flow label (35×130 mm), self-adhesive with detachable arrows.



Type A : Hanging tag with chain (70×130 mm).



Type D : Custom orders (any design/special icons)—no restrictions, tailored to your needs.



- Taiwan's most professional computerized label design & production.
- Challenging projects? If others can't or won't do it—we can.



DC Inverter Energy-Saving Ceiling Circulation Fan

※ Solar-powered models also available

Cooling Helper

Applicable to solar power
BN-23WA DC24



※ Includes an infrared remote control (with a wall holder)

Only One Earth

The new benchmark for green buildings.



“Cooler” and “Smarter” The more you use, the more you save!

**A big bargain --
high quality with low cost.
100% Made in Taiwan**



Features

Welcome To Visit Us.

- Brushless ECO motor, high energy efficiency with advance eco technology, save your electricity cost up to 40%.
- ECO-efficiency material, which is without spraying paint and plating, is used to ensure the fan is durable and eco-friendly.
- 5 Speed Micro-computer Remote Control makes it easy and convenient to adjust wind speed to your most comfortable level.
- Equipped with the thermometer, timer and BLDC motor. It is ideal for bedrooms.
- Schedule Timer : 4 hours scheduled shutdown.
- Low noise design, keeps your office quiet and tidy.
- 100% Made in Taiwan with High Quality in Design.
- Air Vents model : Suitable for all types of heating and cooling ventilation systems and can greatly increase air conditioning systems' efficiency.
- Suitable for all seasons : In summer, it enhances air-conditioning performance and reducing power consumption ; In winter, it prompts air circulation and quick CO2 dissipation.



Unique Designs

**The higher the price, the better the quality of the goods.
Use money wisely, it's a good bargain!**

- ① Recessed design compatible with drop ceilings for flexible space utilization—economical and practical.
- ② Easy disassembly for hassle-free cleaning, saving valuable time.
- ③ 3 power-on modes : Power-off memory (default), Auto power-on, Last state memory
 ※ **Default factory setting : Power-off mode.**

Power-on memory mode is ideal when connected to the same circuit as lighting. The fan remembers its pre-shutdown state—if it was running before power loss, it will restart automatically when power is restored.



ISO Certification
No : 5758

Multi-Unit Control & Wiring Solutions

Applications : (For 10 pcs multiple connection instructions)

1. Power on type

Select Power on type of the Ceiling Mounted Fan model, the fan will be forced to rotate when the power is on.

You can turn off the fan by using the remote control when needed.

Examples : (#1 to #10 are all Power on type)

* When the power switch S1 ON, the 10 fans all on.

* When the power switch S1 OFF, the 10 fans all stop.

2. Power off type

Select Power off type of the Ceiling Mounted Fan model, the fan will be forced to stay still when the power is on.

You can turn on the fan by using the remote control when needed.

Examples : (#1 to #10 are all Power off type)

* When the power switch S1 ON, the 10 fans all stop.

* When the power switch S1 OFF, the 10 fans all stop.

3. Power memory type

Select Power memory type of fan model, the fan is set to memorize the operation status as it is before power off.

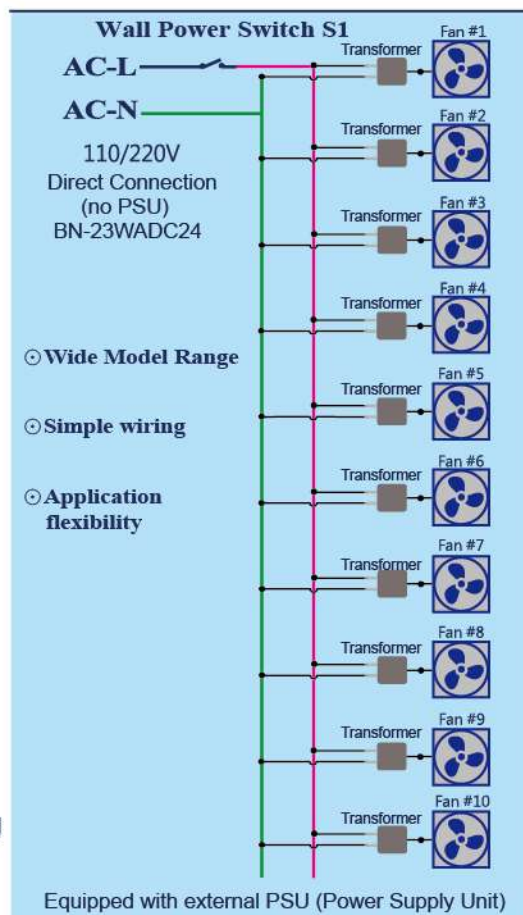
Next time when the fan is powered on,

it will operate according to the previous operation status.

Examples : (#1 to #9 are all Power on type ,
#10 for are Power memory type)

* When the power switch S1 ON, #1 ~ #9 fans all on #10 fan according to the last operation status to start or stop.

* When the power switch S1 OFF, #1 ~ #10 fans all stop.



DC Fan Motor Power Calculation

Minimum speed consumes 4.7 watts : 200 hours of continuous use = About \$ 3.96 NTD

8 hours of continuous use = \$ 0.158 NTD

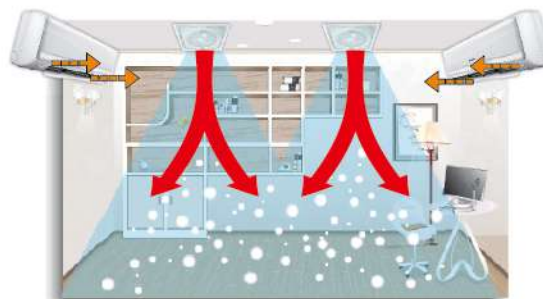
Maximum speed consumes 28 watts : 200 hours of continuous use = About \$ 23.52 NTD

8 hours of continuous use = \$ 0.94 NTD

Traditional motor power consumption of AC fan

Consume 45 watts : 200 hours of continuous use = About \$ 37.84 NTD

Note : ***\$4.2 NTD / per KW hour Calculation***



Auto-shutdown protection when fan blades are obstructed.

Specifications

| Model | BN-23WA-S (Standard) | BN-23WADC24 (Solar-Powered) |
|-------------------------|------------------------------------|-----------------------------|
| Voltage/Power | 100-245VAC / 5-28W | 19-27VDC / 5-28W |
| Material/Specifications | ABS / 600×600×245 (mm) 14" / 4.5kg | |



- ※ Includes infrared remote control (with wall-mount bracket)
- ※ Explosion-proof / Quick-connect design for easy installation

AGENT



Smile MIT Logo
Made in Taiwan Certification



※Specifications are subject to change without notice.

Reliability

Quality



Since 1991

Design / Manufacturing

CANNEX TECHNOLOGY INC.

► Headquarters

No.182, Sec.2, Yuanlu Rd., Sihu Town Changhua County 514, Taiwan

TEL : +886-4-8613883 (Rep)

FAX : +886-4-8828209

E-mail : sales@akr.com.tw

http://www.akr.com.tw

AGENT



Explore More
Product Details



ISO Certification
No : 5758

「HVAC Professionals : Contact Us for System Design
Integration & Technical Specification Support」

Specifications subject to change without notice.

Copyright © 2024.01 Cannex Technology Inc. All rights reserved.