



# Technical Sales Guide

## U-MATCH SERIES AIR CONDITIONERS

(GC202309-I)

Capacity: 5.3kW~16.0kW

Rate Frequency: 50/60Hz

Operation Range: -15°C ~52°C



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# 1 PRODUCT LIST

## 1.1 Outdoor Unit Lineup

Model	Power Supply	Product Code	Appearance
	V/Ph/Hz		
GUD50W1/NhC-S	220-240V ~50/60Hz	CF090W2910	
GUD71W1/NhC-S		CF090W2820	
GUD100W1/NhC-S		CF090W2810	
GUD125W1/NhC-S		CF090W2770	
GUD140W1/NhC-S		CF090W2790	
GUD160W1/NhC-S		CF090W2780	

Note:

- If one outdoor unit is to be connected with multiple indoor units, the indoor units must have the same cooling capacity and be of the same type.



## 1.2 Indoor Unit Lineup

- Gree U-MATCH adopts self-adaptation technology to be matched with different types of indoor units (duct type, cassette type) according to the room decoration design and user demands, saving the cost of inventory and being easier for after-sales maintenance.
- It is widely applicable for apartments, villas, hotels, office buildings and small and medium sized supermarkets.
- Cooling capacity range:5.3kW~16.0kW; applicable area:23~140m<sup>2</sup>.

	Model	Rated Cooling/ Heating Capacity (kW)	Product Code	Appearance	Features
Cassette Type	GUD50T1/C-S	5.30/5.80	ET010N2820		
	GUD71T1/C-S	7.10/8.00	ET010N2770		<ul style="list-style-type: none"> <li>With 8-way air discharge panels for 360°air supply;</li> <li>7 fan speeds can be set to meet different air flow requirements;</li> <li>Panels with smart sensors are optional;</li> <li>Plasmacluster ion sterilization module is included, for a healthy and comfortable environment;</li> </ul>
	GUD100T1/C-S	10.00/12.00	ET010N2760		<ul style="list-style-type: none"> <li>It is equipped with an 8-way air discharge panel and a panel lifting function module; lifting panel is optional;</li> <li>Equipped with MODBUS interface, which can be directly connected to the BMS; BACnet gateway is optional;</li> </ul>
	GUD125T1/C-S	12.50/14.00	ET010N2750		
	GUD160T1/C-S	14.00/15.40	ET010N2740		

# U-MATCH SERIES AIR CONDITIONERS

	Model	Rated Cooling/ Heating Capacity (kW)	Product Code	Appearance	Features
Duct Type	GUD50PHS1/C-S	5.30/5.80	CF022N5160		<ul style="list-style-type: none"> <li>Up to 9 static pressure stages with a maximum of 200Pa can be set, to suit different static pressure requirements;</li> <li>The delivery lift can reach 1000mm;</li> <li>5.3/7.1/10.0kW models have two air return modes to choose from: bottom air return and rear air return;</li> <li>Plasmacluster ion sterilization module is included, for a healthy and comfortable environment;</li> <li>The fan section and evaporator section of 12.5/14.0/16.0kW models can be disassembled, which is convenient for installation, cleaning and maintenance.</li> <li>Equipped with MODBUS interface, which can be directly connected to the BMS; BACnet gateway is optional;</li> </ul>
	GUD71PHS1/C-S	7.10/8.00	CF022N4920		
	GUD100PHS1/C-S	10.00/12.00	CF022N4930		
	GUD125PHS1/C-S	12.50/14.00	CF022N4880		
	GUD140PHS1/C-S	14.00/16.00	CF022N4890		
	GUD160PHS1/C-S	16.00/18.00	CF022N4870		

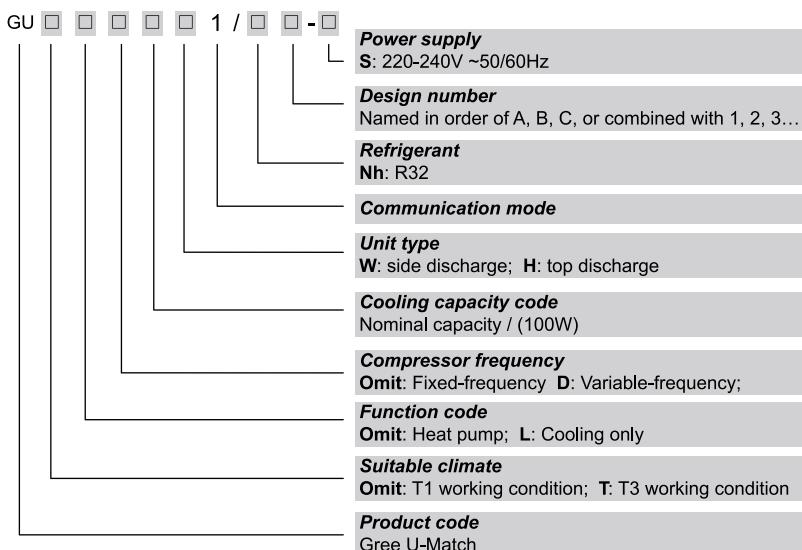
Notes:

- The outdoor unit is compatible with two types of indoor units: cassette type and duct type.
- 1 Ton =12000Btu/h = 3.517kW

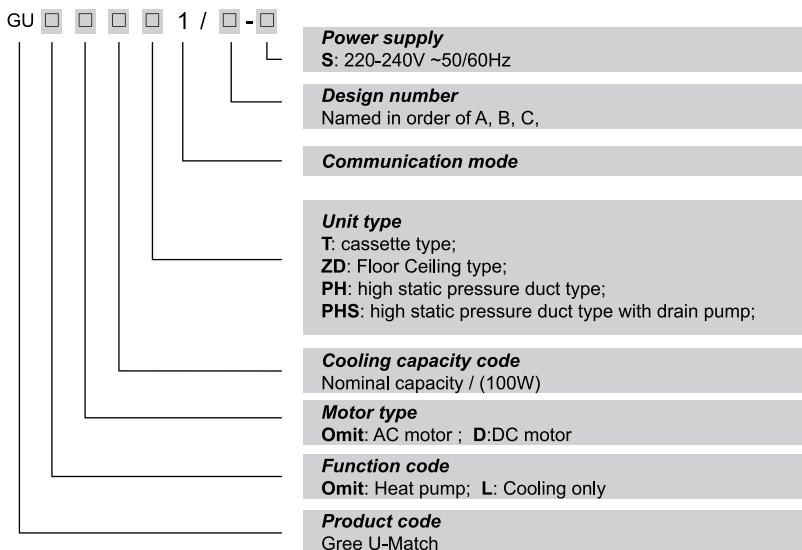
## 2 NOMENCLATURE



### 2.1 Nomenclature of Outdoor Unit



### 2.2 Nomenclature of Indoor Unit



## 3 PRODUCT FEATURES



### 3.1 Energy-Saving

#### 3.1.1 High Efficiency Compressor

##### High Efficiency Motor

Deep "V" structure and high magnetic density of the rare earth motor enable high efficiency compressor output under various load conditions.



##### Durable Slide Vane

Diamond-like carbon coating for slide vane provides excellent durability, for reliable performance in extreme conditions.



##### High-strength Crankshaft

QT700 high-strength crankshaft together with robust surface coating for strong durability of the crankshaft system at full load.



##### Low Oil Discharge Rate

The technology of active gas-oil separation is applied to the compressor for lower oil discharge rate, so as to ensure sufficient lubricating oil inside the compressor, for higher heat exchange efficiency and higher reliability.



##### Low Resistance Discharge Valve

The discharge valve is specially designed to have low flow resistance, which can improve the compressor's wide-frequency operating efficiency.



##### High-efficiency Cylinder

Flat cylinder structure combined with alloy rollers made from cryogenic processes for low leakage and small abrasion inside the cylinder, thus higher compression efficiency.



#### 3.1.2 High-Efficiency DC Motor

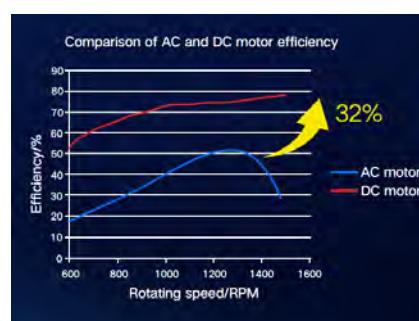
Thanks to the high-efficiency DC inverter design and high-power density structure, the external motor has less magnetic flux leakage and less loss. Motor efficiency is 32% higher than that of conventional AC motors.



(outdoor)



(indoor)



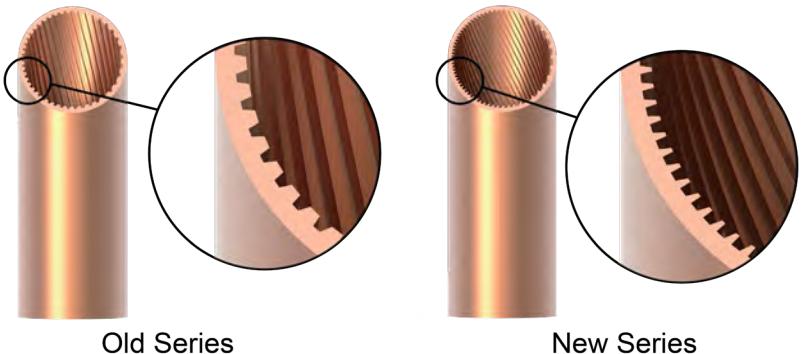
### 3.1.3 Enhanced Heat Exchange Design

- The newly designed internally grooved copper pipe can effectively improve heat exchange performance.

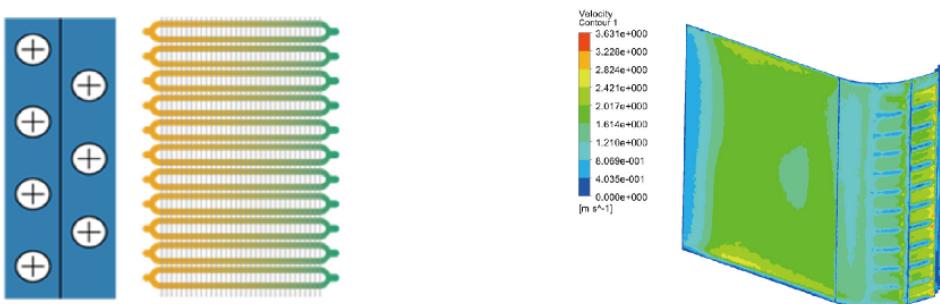
**Smaller addendum angle** helps to increase the internal heat transfer area;

**Larger helix angle** helps to improve turbulence intensity and enhance convective heat transfer;

**More teeth**, larger internal heat transfer area, higher heat exchange efficiency

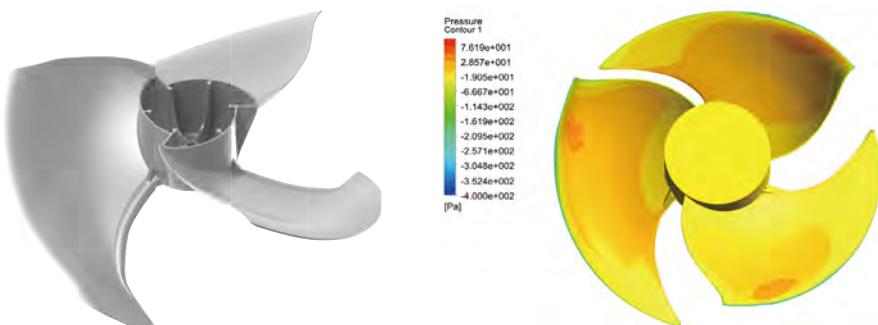


- The low resistance distribution type sub-cooling flow path, new type fins and optimized wind field design also contribute to the increase of heat exchange efficiency.



### 3.1.4 Wind Field Optimization

- Low wind resistance grille:** 2% increase in air volume by optimizing the "raindrop" grille and rotating divergent low wind resistance structure.
- Low wind resistance motor support:** the U-shaped motor support results in 55% decrease in windward area and 1.5% increase in air volume.
- Efficient bionic fan blades:** bionic fan blades with long chord length and a big rooting-in angle are used to improve the aerodynamic performance of the fan, leading to 10% increase in air volume.



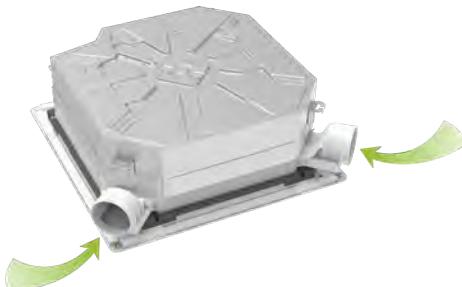


## 3.2 Health Protection

### 3.2.1 Fresh Air Control

Duct units of the entire series are equipped with fresh air inlets. They can introduce 8%~12% fresh outside air into the room to ensure indoor air quality.

For cassette units, we offer optional fresh air accessories which can effectively bring in 5%~10% fresh outside air.



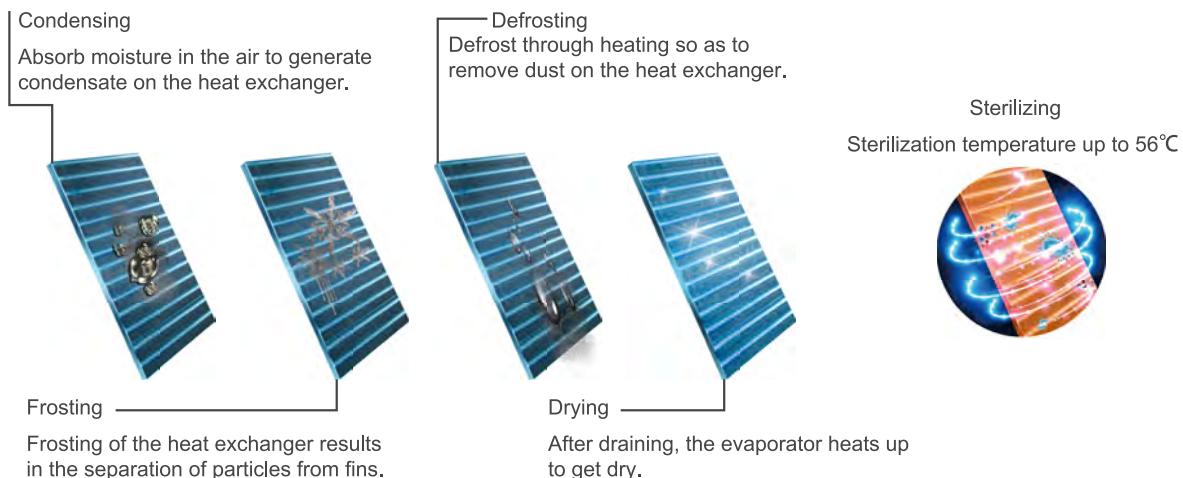
### 3.2.2 Plasmacluster Ion Sterilization

Through high-voltage discharge of the plasmacluster ion module, the air is ionized and generates a large number of ions, which then combine with bacteria and viruses to make them inactivated.



### 3.2.3 56°C Self-cleaning System

Gree high-temperature self-cleaning system with 5 stages of deep cleaning can effectively clean away dust and dirt on the evaporator and then automatically enter the stage of high-temperature sterilization, to make the conditioned air cleaner and healthier.

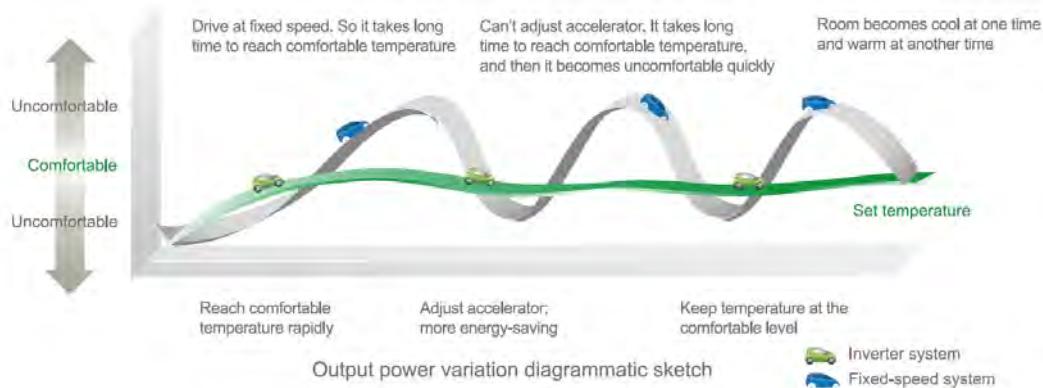




### 3.3 Enhanced Comfort

#### 3.3.1 Stable Temperature Control

U-Match VI provide stable temperature control and more comfortable user experience by adopting DC inverter compressors with variable capacity output, DC motors with stepless speed regulation, electronic expansion valves with accurate flow control ranging from 0 to 480P ,and ambient temperature sensing technology with a precision of  $\pm 0.5^{\circ}\text{C}$  .



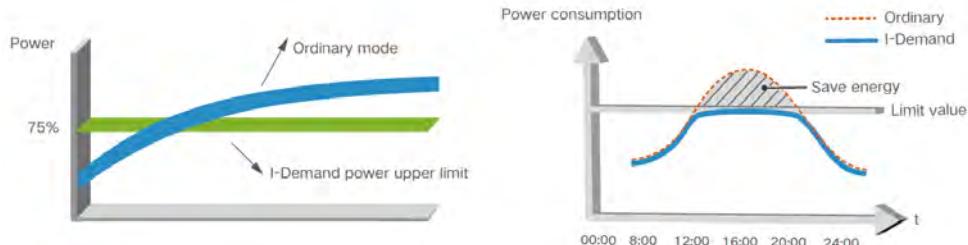
#### 3.3.2 Fast Cooling & Heating

By detecting the set temperature, indoor and outdoor ambient temperatures, it will automatically enable fast cooling or heating, which is 20% faster than standard cooling or heating.



#### 3.3.3 I-demand

This function enables the air conditioner to operate at less than 75% rated power. For some places, the government may have restrictions in power use during peak hours. This can save energy while relieving power consumption stress caused by full load operation.



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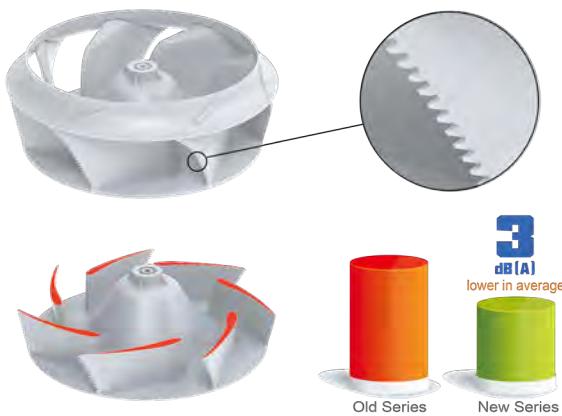
### 3.3.4 Quiet Design

#### 3.3.4.1 Bionic Fan Blade Design for Lower Noise

Noise is down by 3dB(A) through the optimization of the fan blade profile.

Based on a full analysis of the low resistance and silent characteristics of birds flying at high speed, the fan blades are designed with the shape of eagle wings to improve the air flow on the surface of the blade rotating at high speed, and to suppress the trailing edge noise intensity of the blade for lower noise;

The tail of the blade imitates the serrated shape of eagle wings, with excellent aerodynamic performance and low noise after repeated optimization through software simulation.



#### 3.3.4.2 Compressor Quiet Design

## ① New Flange Support Structure

– New support structure for flange component, with high stiffness, low vibration and improved sound quality.



#### ④ L-shaped Feet

L-shaped compressor feet are adopted to lower the center of gravity and reduce vibration



## ② Dual-layer Sound Absorption Design

Wide-spectrum sound absorption structure, leading to significant reduction in exhaust noise.



## ⑤ Reservoir

Thicker casing is designed to improve the compressor's stiffness and reduce noise radiation



### ③ Newly Designed Support

High-strength support is used to avoid sympathetic vibration, enabling lower operating sound.





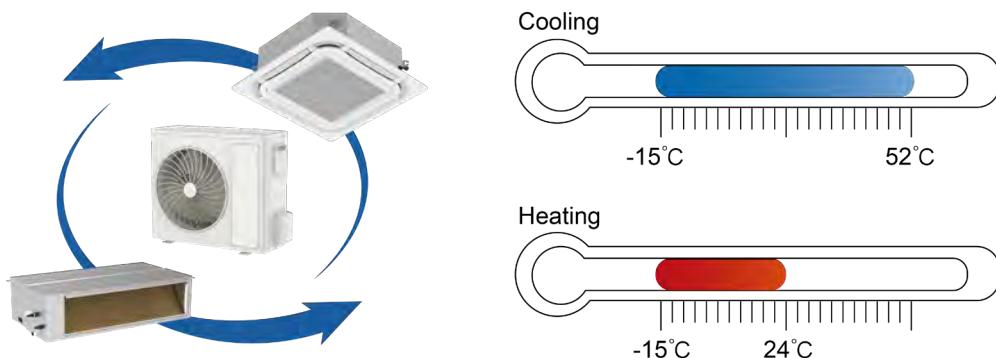
### 3.4 Reliability

#### 3.4.1 Wide Operation Range

The cooling system equipped with all DC inverter technology adopts stepless speed regulation for its compressor and fan motor and accurate flow control for the electronic expansion valve, which ensure reliable operation in a wide operation range, making the units well-suited to a wider range of applications.

Ambient temperature range for cooling: -15°C ~52°C

Ambient temperature range for heating: -15°C ~24°C



#### 3.4.2 Efficient Heat Dissipation

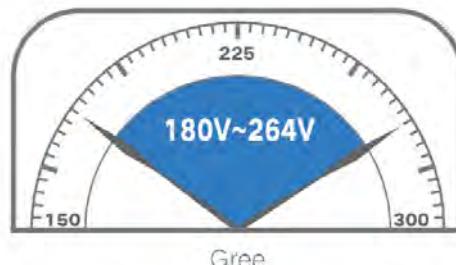
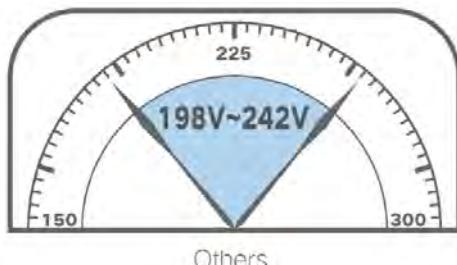
The electric box adopt refrigerant cooling to guarantee high efficiency in heat dissipation. The temperature of the controller power module will not affected by the ambient temperature, ensuring reliable operation and longer life.



Note: Models of 10,12.5,14 and 16kW dissipate heat through refrigerant.

#### 3.4.3 Wide Voltage Range

Through the optimization of drive and electronic control parameters, U-Match can operate in a wide voltage range and run normally even if the voltage is down to 180V. They can be used in islands or places with unstable power supply.



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## 3.4.4 PCB 3-layer Anticorrosion Coating

PCB boards of outdoor units all have three layers of anticorrosion coating, which can prevent moisture, insects and dust.



Before coating



After coating with three anticorrosion layers

## 3.4.5 Wired Controller Moisture-proof

The wired controller adopts double moisture-proof sealing designs, which can effectively protect the PCB from dampness.

Responsive and water-proof touch buttons, with long service life.



## 3.4.6 Different Anticorrosion Fins to Choose

We offer three kinds of anticorrosion fins (blue, golden and black) for outdoor condensers to meet the requirements for corrosion prevention in different places.

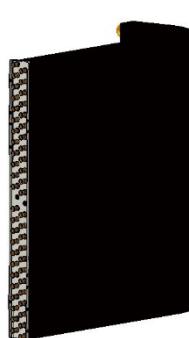
Type of aluminum fins	Feature	Salt spray test time
Blue	Hydrophilic coating	500h
Golden	Hydrophilic coating, high corrosion resistance	1500h
Black	Hydrophilic coating, resistant to acid and corrosion	2000h



Blue fins (optional)



Golden fins (standard)



Black fins (optional)

### 3.4.7 Multiple Safety Protection Measures

ODU



High/low pressure protection



High discharge temperature protection



Refrigerant lacking protection



4-way valve protection

IDU



Fan protection



Water full protection



Anti-freezing protection



Overload protection

Controller



Over-current protection



Phase error protection



IPM Over-temperature protection

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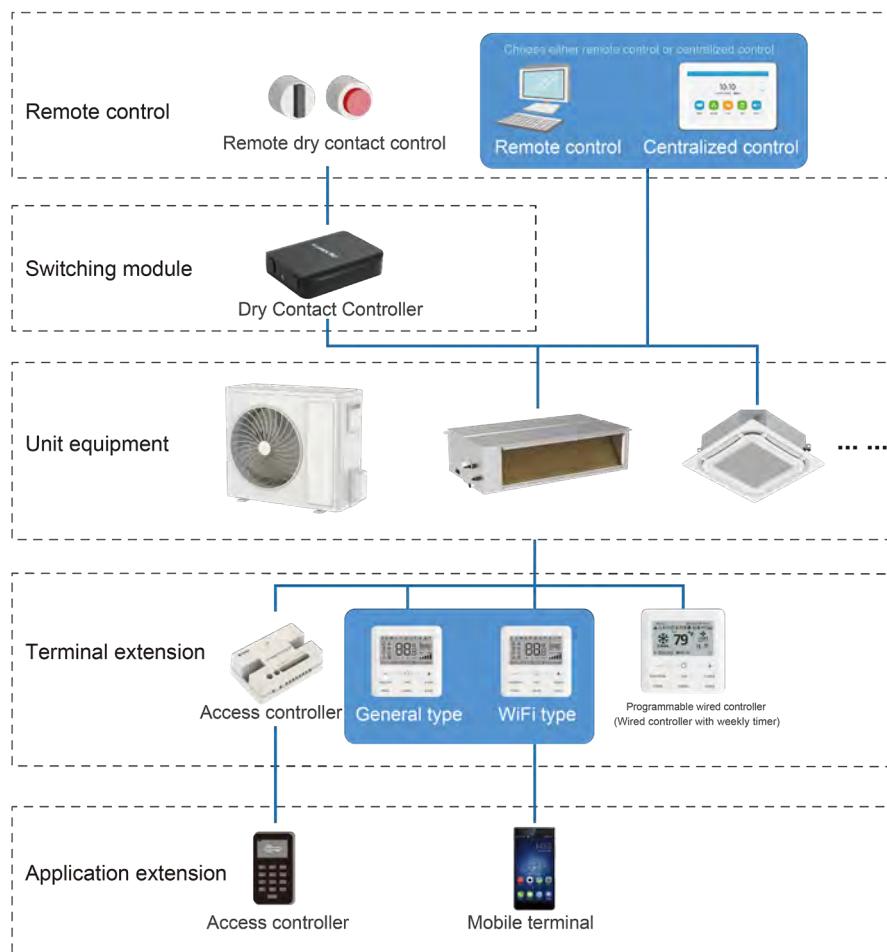
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## 3.5 Intelligent Control

### 3.5.1 Multiple Control Functions

A variety of control modules to be selected, providing multiple intelligent control functions for users.



Note:

Please consult our salespersons before placing an order.

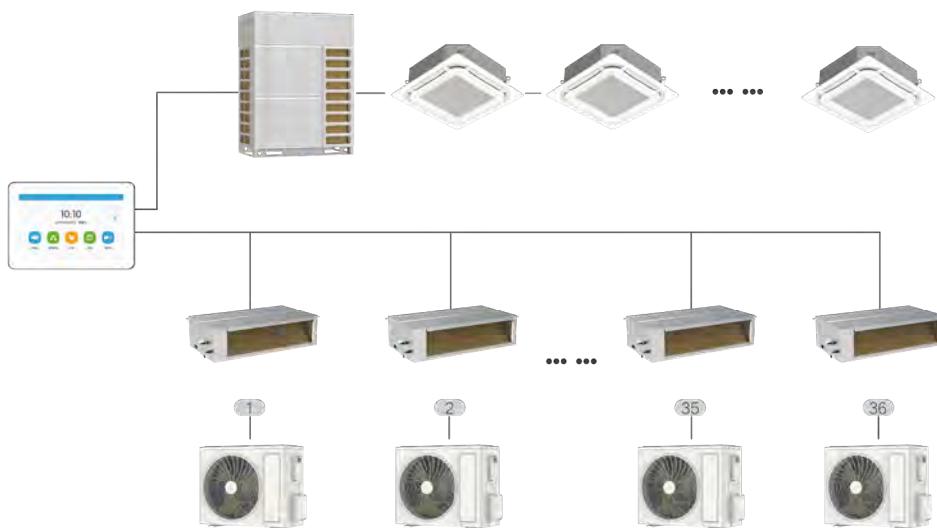
### 3.5.2 WiFi Intelligent Control

Air conditioners in the whole house can be centrally controlled by the mobile app, which is more convenient to use.

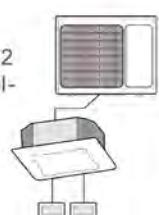
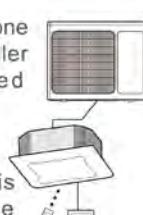
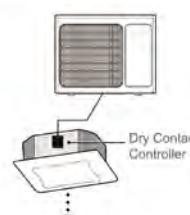
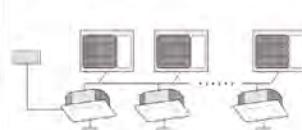
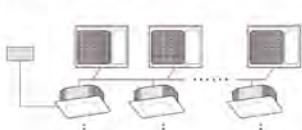


### 3.5.3 Centralized Control

Our centralized controller (model CE52 - 24/F(C)) can control up to 36 indoor units. It can be connected with Gree GMV units to improve the control intelligence, which is very suitable for commercial and industrial places



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Control form		Wired remote controller	Wireless remote controller
Controlled by a single controller	Basic system	<p>Non-polarized 2-core (max. length of the wiring is 30m).</p> 	<p>The receiver is installed in the indoor unit.</p> 
Controlled by dual controllers	Dual wired controllers or one wired controller and one remote controller	<p>Connect to 2 wired controllers</p> 	<p>Controlled by one remote controller and one wired controller.</p> <p>The receiver is installed in the indoor unit</p> 
Dry contact control	Input signal to control the unit in virtue of the dry contact in dry contact controller.	<p>Linkage control</p> 	
Central far-end control	<p>The farthest communication distance is 800m; 255 sets of units can be controlled at most; The controllable unit quantity of our central controller is 36 sets.</p>	<p>Central controller (optional components)</p> 	<p>Central controller (optional components)</p> 

NOTE: Wired controller with WiFi function only supports one (or more) indoor unit(s) controlled by one wired controller.

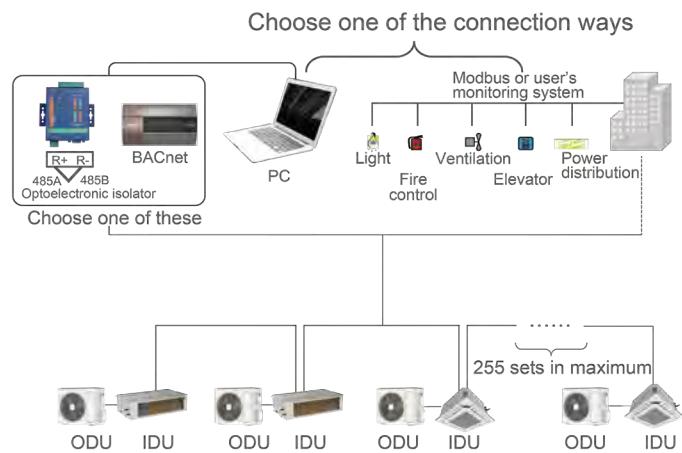
### 3.5.5 Access Control LE60-24/H1

Connectable to the access control system: Pull the key card to power off the indoor unit and insert the key card to resume operation.



### 3.5.6 Remote Control

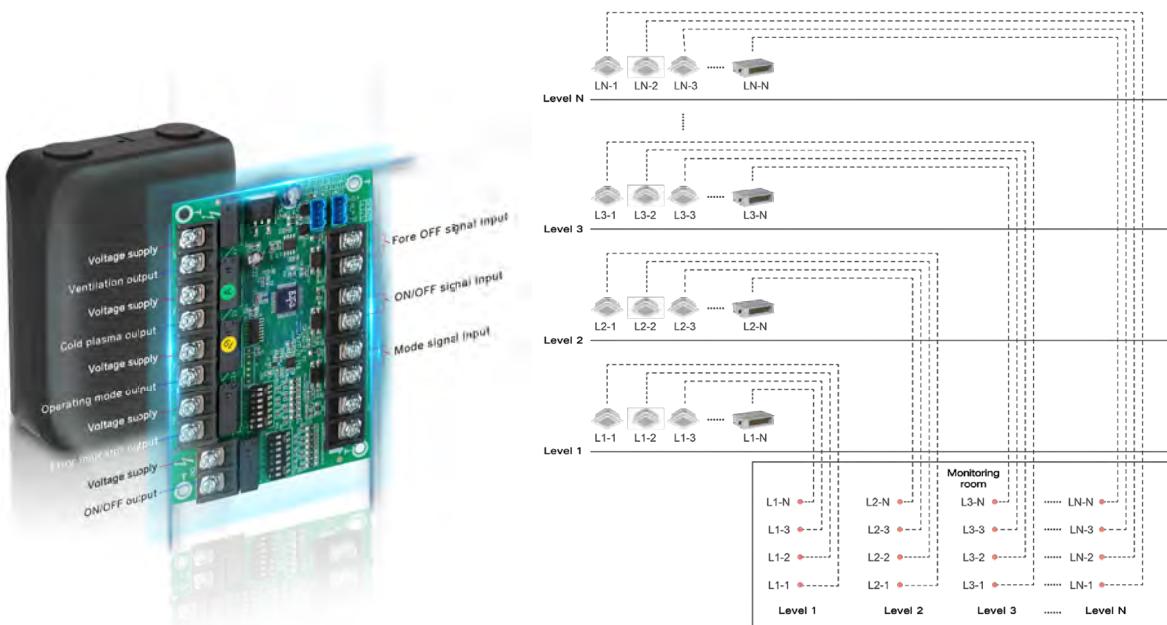
Up to 255 units can be controlled remotely for the convenience of commercial and industrial use. At present, there are 2 gateways for selection: Modbus gateway or BACnet gateway.



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### 3.5.7 Dry Contact Controller (optional)

Gree dry contact gateway (optional) provides signal output contacts for fire alarm, remote ON/OFF switch, operating status, running mode, error indicating, etc.



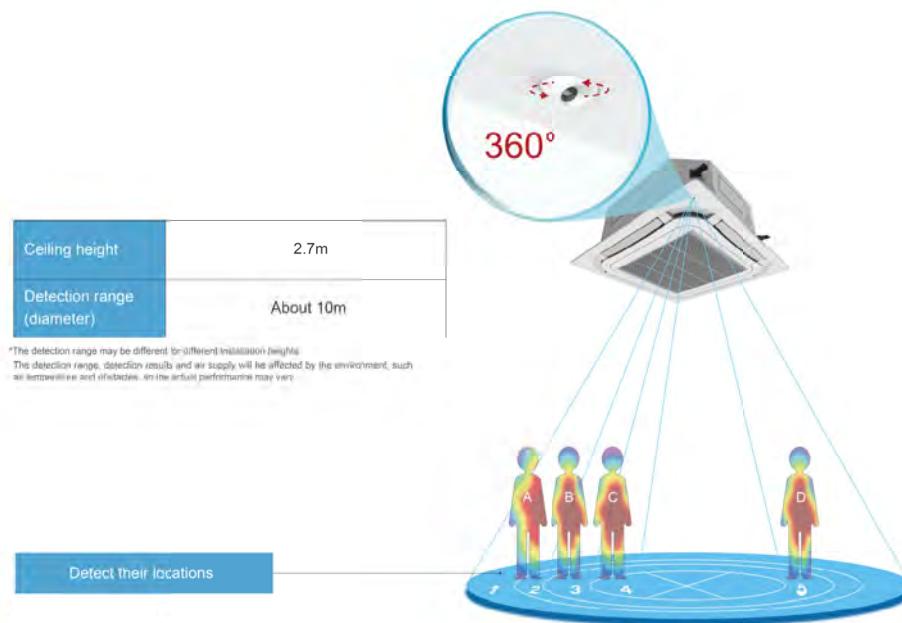
Application scenario: aircraft boarding bridge, public places, linking with units via ON/OFF signal control.



## 3.6 IDU (Indoor Unit)

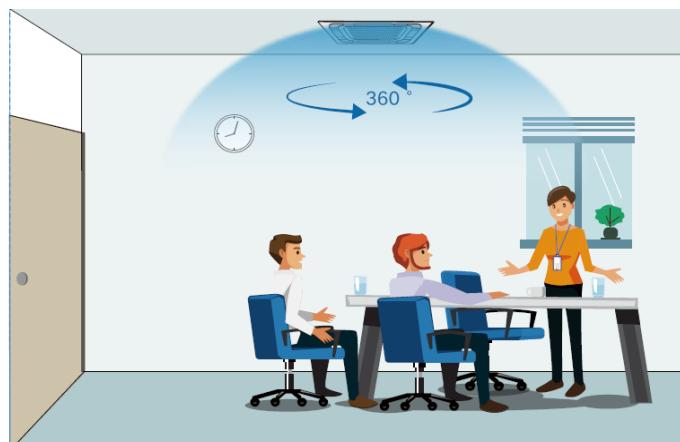
### 3.6.1 360°Temperature Field Detection Sensor (optional)

We use the industry-leading infrared thermal sensors for our units. With a temperature precision of  $\pm 0.5^{\circ}\text{C}$ , the 32x24 pixel sensor can rotate automatically to detect people's locations in the room.



- Balanced Air Supply in 360°

For cassette units, the panels can discharge air in 360°, with wider air supply range and even temperature distribution.



- Top-down Cooling and Bottom-up Heating

In cooling, the cool air will blow horizontally instead of directly blowing to people; while in heating, the warm air will blow vertically and then fall onto the ground.

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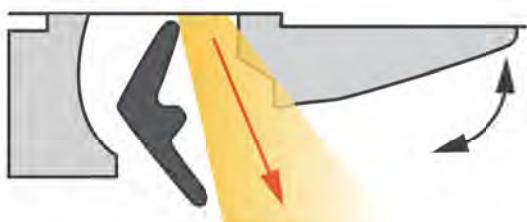
Cooling



Heating



Horizontal air supply in cooling



Vertical air supply in heating

Note: The lifting panel is optional

- Fresh Air Intake Kit

5%-10% fresh outdoor air can be effectively introduced.

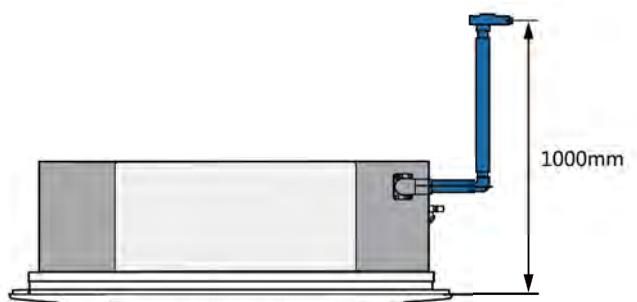
Light and durable, it is simple and convenient to install.

Designed with double air inlets, it uses pressure difference principle to bring in fresh outdoor air without requiring a motor, for the improvement of indoor air quality.



- DC Drain Pump with High Lift

12V DC drain pump with 1000mm lift is standard for cassette units. It is energy-efficient and safe due to the DC design and weak current control.



Standard drain pump with the lift up to 1000mm

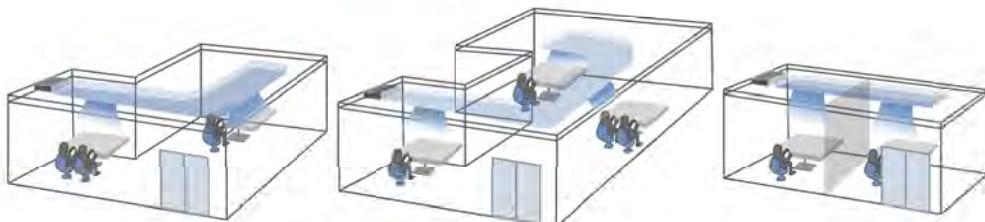
### 3.6.2 Duct type

- Adjustable External Static Pressure

Up to 9 static pressure stages with a maximum of 200Pa can be set. Static pressure can be adjusted according to the actual condition of the room and the air duct length, to suit different air volume requirements.



0Pa ~ 200Pa



There are two air return modes to choose from for flexible installation: rear air return and bottom air return



Bottom air return



Rear air return

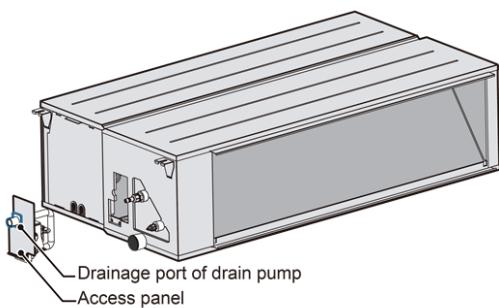
It can be connected to the fresh air duct to introduce fresh air from outside to ensure fresh indoor air.



Note: applicable to duct units of 5.3/7.1/10.0kW only.

- Drain Pump

The drain pump has a lift of 1000mm. User can adjust the installation height flexibly to meet the engineering requirements.



# U-MATCH SERIES AIR CONDITIONERS

## 4 PRODUCT PARAMETERS



### 4.1 Cassette Type Data

Model	Indoor Unit		GUD50T1/C-S	GUD71T1/C-S	GUD100T1/C-S
	Outdoor Unit		GUD50W1/NhC-S	GUD71W1/NhC-S	GUD100W1/NhC-S
Rated Capacity	Cooling	kW	5.30	7.10	10.00
	Heating	kW	5.80	8.00	12.00
Input Power	Cooling	kW	1.25	1.97	2.90
	Heating	kW	1.25	2.00	3.45
EER/ COP		W/W	4.24/4.64	3.60/4.00	3.45/3.48
Indoor Unit			GUD50T1/C-S	GUD71T1/C-S	GUD100T1/C-S
Power Supply			220-240V ~50/60Hz		
Heat Exchanger		—	Inner Groove Copper Tube-Aluminum Fin		
Fan Motor	Type	—	Centrifugal Fan		
	Air Volume (SH/H/M/L)	m³/h	1300/1100/900/800	1400/1300/1100/900	1900/1700/1500/1300
Filter		—	PP-MD10		
Sound Pressure Level (SH/H/M/L)		dB(A)	45/43/37/35	47/45/41/37	51/48/45/41
Connection Pipe	Liquid Pipe	in.	Φ3/8		
	Gas Pipe	in.	Φ5/8		
	Water Pipe	mm	Φ25×1.50		
Dimensions (WxDxH)	Outline	mm	840×840×200	840×840×200	840×840×240
	Package	mm	943×923×245	943×923×245	933×903×272
Weight	Net/Gross	kg	21.0/27.0	21.0/27.0	23.0/29.0
Panel Dimensions (WxDxH)	Outline	mm	950×950×52		
(WxDxH)	Packaged	mm	1033×1020×110		
Panel Weight	Net/Gross	kg	6.0/9.5		
Outdoor Unit			GUD50W1/NhC-S	GUD71W1/NhC-S	GUD100W1/NhC-S
Heat Exchanger			Inner Groove Copper Tube-Aluminum Fin		
Power Supply			220-240V ~50/60Hz		
Compressor	Model		FTz-SM151AXBD	FTz-SM151AXBD	QXFS-D280zX070B
	Type		Rotary	Rotary	Rotary
Fan Motor	Type	—	Axial fan	Axial fan	Axial fan
	Air Volume	m³/h	3600	3600	4900
Sound Pressure Level		dB(A)	57	57	58
Refrigerant	Type	—	R32		
	Weight	kg	1.40	1.40	2.20
	Throttling Method		Electronic expansion valve		
Refrigerant Pipe	Standard Length	m	5	5	5
	Max. Length	m	30	30	75
	Max. Height	m	20	20	30
Dimensions (WxDxH)	Outline	mm	889×340×660	889×340×660	940×370×820
	Package	mm	1032×456×730	1032×456×730	1098×503×970
Weight	Net/Gross	kg	42.0/46.0	42.0/46.0	67.0/79.0

Model	Indoor Unit		GUD125T1/C-S	GUD160T1/C-S
	Outdoor Unit		GUD125W1/NhC-S	GUD160W1/NhC-S
Rated Capacity	Cooling	kW	12.5	14.0
	Heating	kW	14.0	15.4
Input Power	Cooling	kW	3.85	4.18
	Heating	kW	4.20	4.66
EER/ COP		W/W	3.25/3.33	3.35/3.30
Indoor Unit			GUD125T1/C-S	GUD160T1/C-S
Power Supply			220-240V ~50/60Hz	
Heat Exchanger		—	Inner Groove Copper Tube-Aluminum Fin	
Fan Motor	Type	—	Centrifugal Fan	
	Air Volume (SH/H/M/L)	m³/h	2300/2100/1900/1600	2300/2100/1900/1600
Filter		—	PP-MD10	
Sound Pressure Level (SH/H/M/L)		dB(A)	52/51/49/45	52/51/49/45
Connection Pipe	Liquid Pipe	in.	Φ3/8	
	Gas Pipe	in.	Φ5/8	
	Water Pipe	mm	Φ25×1.50	
Dimensions (WxDxH)	Outline	mm	840x840x290	840x840x290
	Package	mm	933x903x335	933x903x335
Weight	Net/Gross	kg	25.0/32.0	25.0/32.0
Panel Dimensions (WxDxH)	Outline	mm	950x950x52	
(WxDxH)	Packaged	mm	1033x1020x110	
Panel Weight	Net/Gross	kg	6.0/9.5	
Outdoor Unit			GUD125W1/NhC-S	GUD160W1/NhC-S
Heat Exchanger			Inner Groove Copper Tube-Aluminum Fin	
Power Supply			220-240V ~50/60Hz	
Compressor	Model		QXFS-D280zX070B	QXFS-F428zX450I
	Type		Rotary	Rotary
Fan Motor	Type	—	Axial fan	Axial fan
	Air Volume	m³/h	5200	7000
Sound Pressure Level		dB(A)	59	60
Refrigerant	Type		R32	
	Weight	kg	2.4	3.3
	Throttling Method		Electronic expansion valve	
Refrigerant Pipe	Standard Length	m	5	7.5
	Max. Length	m	75	75
	Max. Height	m	30	30
Dimensions (WxDxH)	Outline	mm	940x370x820	900x340x1260
	Package	mm	1098x503x970	1033x443x1405
Weight	Net/Gross	kg	67.0/79.0	97.0/106.0

**Notes:**

1. The above data are based on the following conditions.

—	Cooling	Heating
Indoor	DB:27°C / WB:19°C	DB:20°C / WB:15°C
Outdoor	DB:35°C / WB:24°C	DB:7°C / WB:6°C

2. Airflow volume was measured under applicable standard external static pressure

3. The sound pressure level is tested in the anechoic room. It would be somewhat different in the actual operation due to environmental change. Indoor and outdoor sound levels are determined in an anechoic chamber and may differ once the unit is installed due to ambient conditions.

# U-MATCH SERIES AIR CONDITIONERS



## 4.2 Duct Type Data

Model	Indoor Unit		GUD50PHS1/C-S	GUD71PHS1/C-S	GUD100PHS1/C-S
	Outdoor Unit		GUD50W1/NhC-S	GUD71W1/NhC-S	GUD100W1/NhC-S
Rated Capacity	Cooling	kW	5.30	7.10	10.00
	Heating	kW	5.80	8.00	12.00
Input Power	Cooling	kW	1.25	1.97	2.70
	Heating	kW	1.25	2.00	3.00
EER/ COP		W/W	4.24/4.64	3.60/4.00	3.70/4.00
Indoor Unit			GUD50PHS1/C-S	GUD71PHS1/C-S	GUD100PHS1/C-S
Power Supply			220-240V ~50/60Hz		
Heat Exchanger		—	Inner Groove Copper Tube-Aluminum Fin		
Fan Motor	Type	—	Centrifugal Fan		
	Air Volume (SH/H/M/L)	m³/h	1200/1100/900/700	1500/1300/1100/900	2100/1900/1700/1400
External Static Pressure		Pa	25	25	37
External Static Pressure Range		Pa	0-160	0-160	0-160
Filter		—	Optional		
Sound Pressure Level (SH/H/M/L)		dB(A)	42/41/38/35	45/43/41/38	43/42/41/40
Connection Pipe	Liquid Pipe	in.	Φ3/8		
	Gas Pipe	in.	Φ5/8		
	Water Pipe	mm	Φ26		
Dimensions (WxDxH)	Outline	mm	900×655×260	900×655×260	1340×655×260
	Package	mm	1117×776×320	1117×776×320	1565×776×315
Weight	Net/Gross	kg	30.0/35.0	21.0/27.0	43.0/49.0
Outdoor Unit			GUD50W1/NhC-S	GUD71W1/NhC-S	GUD100W1/NhC-S
Heat Exchanger			Inner Groove Copper Tube-Aluminum Fin		
Power Supply			220-240V ~50/60Hz		
Compressor	Model		FTz-SM151AXBD	FTz-SM151AXBD	QXFS-D280zX070B
	Type		Rotary	Rotary	Rotary
Fan Motor	Type	—	Axial fan	Axial fan	Axial fan
	Air Volume	m³/h	3600	3600	4900
Sound Pressure Level		dB(A)	57	57	58
Refrigerant	Type		R32		
	Weight	kg	1.40	1.40	2.20
	Throttling Method		Electronic expansion valve		
Refrigerant Pipe	Standard Length	m	5	5	5
	Max. Length	m	30	30	75
	Max. Height	m	20	20	30
Dimensions (WxDxH)	Outline	mm	889×340×660	889×340×660	940×370×820
	Package	mm	1032×456×730	1032×456×730	1098×503×970
Weight	Net/Gross	kg	42.0/46.0	42.0/46.0	67.0/79.0

Model	Indoor Unit		GUD125PHS1/C-S	GUD140PHS1/C-S	GUD160PHS1/C-S
	Outdoor Unit		GUD125W1/NhC-S	GUD140W1/NhC-S	GUD160W1/NhC-S
Rated Capacity	Cooling	kW	12.50	14.00	16.00
	Heating	kW	14.00	16.00	18.00
Input Power	Cooling	kW	3.68	3.92	4.80
	Heating	kW	3.68	4.20	4.65
EER/ COP		W/W	3.40/3.80	3.57/3.81	3.33/3.87
Indoor Unit			GUD125PHS1/C-S	GUD140PHS1/C-S	GUD160PHS1/C-S
Power Supply			220-240V ~50/60Hz		
Heat Exchanger		—	Inner Groove Copper Tube-Aluminum Fin		
Fan Motor	Type	—	Centrifugal Fan		
	Air Volume (SH/H/M/L)	m³/h	2800/2500/2200/1800	3200/2800/2400/2000	3500/3100/2700/2300
External Static Pressure		Pa	50	50	50
External Static Pressure Range		Pa	0-200	0-200	0-200
Filter		—	Optional		
Sound Pressure Level (SH/H/M/L)		dB(A)	43/42/40/39	47/45/43/41	52/50/48/46
Connection Pipe	Liquid Pipe	in.	Φ3/8		
	Gas Pipe	in.	Φ5/8		
	Water Pipe	mm	Φ26		
Dimensions (WxDxH)	Outline	mm	1350×720×360	1350×720×360	1350×720×360
	Package	mm	1568×864×448	1568×864×448	1568×864×448
Weight	fan section / evaporator section	kg	33.0/24.0	33.0/27.0	33.0/27.0
	Net/Gross	kg	57.0/67.0	60.0/70.0	60.0/70.0
Outdoor Unit			GUD125W1/NhC-S	GUD140W1/NhC-S	GUD160W1/NhC-S
Heat Exchanger			Inner Groove Copper Tube-Aluminum Fin		
Power Supply			220-240V ~50/60Hz		
Compressor	Model		QXFS-D280zX070B	QXFS-F428zX450I	QXFS-F428zX450I
	Type		Rotary	Rotary	Rotary
Fan Motor	Type	—	Axial fan	Axial fan	Axial fan
	Air Volume	m³/h	5200	7000	7000
Sound Pressure Level		dB(A)	59	59	60
Refrigerant	Type		R32		
	Weight	kg	2.40	2.80	3.30
	Throttling Method		Electronic expansion valve		
Refrigerant Pipe	Standard Length	m	5	7.5	7.5
	Max. Length	m	75	75	75
	Max. Height	m	30	30	30
Dimensions (WxDxH)	Outline	mm	940×370×820	900×340×1260	900×340×1260
	Package	mm	1098×503×970	1033×443×1405	1033×443×1405
Weight	Net/Gross	kg	67.0/79.0	90.0/99.0	97.0/106.0

**Notes:**

1. The above data are based on the following conditions.

—	Cooling	Heating
Indoor	DB:27°C / WB:19°C	DB:20°C / WB:15°C
Outdoor	DB:35°C / WB:24°C	DB:7°C / WB:6°C

2. Airflow volume was measured under applicable standard external static pressure

3. The sound pressure level is tested in the anechoic room. It would be somewhat different in the actual operation due to environmental change. Indoor and outdoor sound levels are determined in an anechoic chamber and may differ once the unit is installed due to ambient conditions.

## 5 OPERATION RANGE

—	Cooling	Heating
Outdoor temperature DB(°C)	-15~52	-15~24
Indoor temperature DB/WB(°C)(Maximum)	32/23	27/-

## 6 CAPACITY CORRECTION

### 6.1 Table of Performance Correction

#### 6.1.1 Cassette Type

GUD50T1/C-S

Cooling

Fan speed	Indoor air temperature °C	Outdoor dry bulb temperature °C															
		25			30			35			40			46			
		DB	WB	kW	kW	kW	kW	DB	WB	kW	DB	WB	kW	DB	WB	kW	
Turbo	20	14	4.94	4.72	0.97	4.91	4.69	1.09	4.71	4.50	1.15	4.53	4.32	1.20	4.15	3.97	1.30
	23	16	5.24	5.03	1.01	5.21	5.01	1.14	5.00	4.80	1.21	4.80	4.61	1.26	4.40	4.23	1.37
	26	18	5.45	5.25	1.04	5.42	5.22	1.18	5.20	5.01	1.24	4.99	4.81	1.30	4.58	4.42	1.41
	27	19	5.55	5.37	1.05	5.52	5.34	1.18	5.30	5.12	1.25	5.09	4.92	1.30	4.67	4.51	1.41
	30	22	5.89	5.71	1.08	5.86	5.68	1.22	5.62	5.45	1.29	5.39	5.23	1.34	4.95	4.80	1.45
	32	24	6.15	5.99	1.11	6.12	5.96	1.25	5.87	5.72	1.32	5.64	5.49	1.38	5.17	5.04	1.50
H	20	14	4.74	4.41	0.93	4.72	4.39	1.05	4.52	4.21	1.11	4.34	4.04	1.16	4.00	3.72	1.26
	23	16	5.03	4.72	0.98	5.00	4.69	1.10	4.80	4.50	1.17	4.60	4.32	1.21	4.24	3.98	1.32
	26	18	5.23	4.94	1.01	5.20	4.91	1.14	4.99	4.71	1.20	4.79	4.52	1.25	4.41	4.17	1.36
	27	19	5.33	5.05	1.01	5.30	5.02	1.14	5.09	4.82	1.21	4.88	4.62	1.26	4.50	4.26	1.36
	30	22	5.65	5.38	1.04	5.62	5.35	1.18	5.39	5.14	1.24	5.18	4.93	1.29	4.77	4.54	1.40
	32	24	5.91	5.66	1.07	5.87	5.63	1.21	5.64	5.40	1.28	5.41	5.19	1.33	4.99	4.78	1.44
M	20	14	4.50	4.08	0.89	4.48	4.06	1.00	4.30	3.89	1.06	4.13	3.74	1.11	3.80	3.44	1.20
	23	16	4.77	4.38	0.93	4.75	4.36	1.05	4.56	4.18	1.11	4.37	4.01	1.16	4.03	3.70	1.26
	26	18	4.97	4.59	0.96	4.94	4.57	1.08	4.74	4.38	1.15	4.55	4.21	1.19	4.19	3.88	1.29
	27	19	5.07	4.70	0.97	5.04	4.67	1.09	4.83	4.48	1.15	4.64	4.31	1.20	4.28	3.97	1.30
	30	22	5.37	5.02	0.99	5.34	5.00	1.12	5.12	4.79	1.19	4.92	4.60	1.23	4.53	4.24	1.34
	32	24	5.61	5.30	1.02	5.58	5.27	1.15	5.35	5.06	1.22	5.14	4.85	1.27	4.74	4.47	1.38
L	20	14	4.14	3.65	0.87	4.12	3.63	0.98	3.95	3.48	1.03	3.80	3.34	1.08	3.50	3.08	1.17
	23	16	4.39	3.94	0.91	4.37	3.91	1.03	4.19	3.76	1.08	4.02	3.61	1.13	3.71	3.32	1.23
	26	18	4.57	4.14	0.94	4.54	4.12	1.06	4.36	3.95	1.12	4.19	3.79	1.16	3.86	3.49	1.26
	27	19	4.66	4.24	0.94	4.64	4.21	1.06	4.45	4.04	1.12	4.27	3.88	1.17	3.94	3.58	1.27
	30	22	4.94	4.54	0.97	4.91	4.51	1.09	4.71	4.33	1.16	4.53	4.16	1.20	4.17	3.83	1.31
	32	24	5.16	4.80	1.00	5.13	4.77	1.13	4.93	4.58	1.19	4.73	4.40	1.24	4.36	4.05	1.34

**Heating**

Fan speed	Outdoor air temperature °C		Indoor dry bulb temperature °C									
			16		18		20		22		24	
	DB	WB	kW	kW	kW	kW	kW	kW	kW	kW	kW	kW
Turbo	-10	-11	4.20	1.10	3.98	1.13	3.80	1.17	3.65	1.21	3.50	1.25
	-5	-5.6	4.42	1.07	4.19	1.10	4.00	1.14	3.84	1.18	3.69	1.22
	0	-0.7	4.80	1.09	4.55	1.12	4.35	1.16	4.17	1.20	4.01	1.24
	7	6	6.41	1.17	6.07	1.21	5.80	1.25	5.56	1.29	5.35	1.34
H	10	8	6.73	1.21	6.38	1.24	6.09	1.29	5.84	1.33	5.61	1.38
	-10	-11	4.09	1.10	3.87	1.13	3.70	1.17	3.55	1.21	3.41	1.25
	-5	-5.6	4.30	1.07	4.08	1.10	3.89	1.13	3.73	1.17	3.59	1.21
	0	-0.7	4.68	1.08	4.43	1.11	4.23	1.15	4.06	1.19	3.90	1.23
	7	6	6.23	1.17	5.91	1.20	5.64	1.24	5.41	1.29	5.20	1.33
M	10	8	6.55	1.20	6.20	1.24	5.93	1.28	5.68	1.32	5.46	1.37
	-10	-11	3.96	1.11	3.75	1.15	3.58	1.19	3.43	1.23	3.30	1.27
	-5	-5.6	4.16	1.08	3.95	1.11	3.77	1.15	3.61	1.19	3.47	1.23
	0	-0.7	4.53	1.10	4.29	1.13	4.10	1.17	3.93	1.21	3.78	1.25
	7	6	6.03	1.19	5.72	1.22	5.46	1.26	5.24	1.30	5.04	1.35
L	10	8	6.34	1.22	6.01	1.26	5.74	1.30	5.50	1.34	5.29	1.39
	-10	-11	3.76	1.15	3.56	1.18	3.40	1.22	3.26	1.26	3.14	1.31
	-5	-5.6	3.96	1.12	3.75	1.15	3.58	1.19	3.43	1.23	3.30	1.27
	0	-0.7	4.30	1.13	4.08	1.16	3.89	1.21	3.73	1.25	3.59	1.29
	7	6	5.73	1.22	5.43	1.26	5.19	1.30	4.98	1.35	4.78	1.39
	10	8	6.02	1.26	5.71	1.30	5.45	1.34	5.22	1.39	5.02	1.43

**GUD71T1/C-S**
**Cooling**

Fan speed	Indoor air temperature °C	Outdoor dry bulb temperature °C															
		25			30			35			40			46			
	DB	WB	kW	kW	kW	TC	SHC	PI									
Turbo	20	14	6.62	5.25	1.52	6.58	5.22	1.72	6.31	5.01	1.82	6.06	4.81	1.89	5.56	4.41	2.05
	24	17	7.01	5.74	1.60	6.98	5.71	1.80	6.69	5.48	1.90	6.43	5.26	1.98	5.90	4.83	2.15
	26	18	7.29	6.10	1.64	7.26	6.06	1.86	6.96	5.82	1.96	6.68	5.59	2.04	6.13	5.13	2.22
	27	19	7.44	6.27	1.65	7.40	6.23	1.86	7.10	5.98	1.97	6.82	5.74	2.05	6.25	5.27	2.23
	30	22	7.89	6.77	1.70	7.84	6.74	1.92	7.53	6.46	2.03	7.23	6.20	2.11	6.63	5.69	2.29
	32	24	8.24	7.24	1.75	8.20	7.20	1.98	7.86	6.91	2.09	7.55	6.63	2.17	6.93	6.08	2.36
H	20	14	6.35	4.90	1.47	6.32	4.87	1.66	6.06	4.67	1.75	5.82	4.49	1.82	5.36	4.13	1.98
	23	16	6.73	5.38	1.54	6.70	5.36	1.74	6.43	5.14	1.84	6.17	4.93	1.91	5.69	4.55	2.08
	26	18	7.00	5.73	1.59	6.97	5.70	1.79	6.68	5.47	1.89	6.42	5.25	1.97	5.91	4.84	2.14
	27	19	7.14	5.90	1.59	7.10	5.86	1.80	6.82	5.63	1.90	6.54	5.40	1.98	6.03	4.98	2.15
	30	22	7.57	6.39	1.64	7.53	6.35	1.85	7.22	6.09	1.96	6.94	5.85	2.04	6.39	5.39	2.21
	32	24	7.91	6.85	1.69	7.87	6.81	1.91	7.55	6.53	2.01	7.25	6.27	2.10	6.68	5.78	2.28
M	20	14	6.03	4.52	1.40	6.00	4.50	1.58	5.76	4.31	1.67	5.53	4.14	1.74	5.10	3.82	1.89
	23	16	6.40	4.99	1.47	6.36	4.97	1.66	6.10	4.77	1.75	5.86	4.58	1.83	5.40	4.22	1.98
	26	18	6.65	5.33	1.51	6.62	5.30	1.71	6.35	5.09	1.81	6.09	4.88	1.88	5.62	4.50	2.04
	27	19	6.79	5.49	1.52	6.75	5.46	1.72	6.48	5.24	1.81	6.22	5.03	1.89	5.73	4.63	2.05
	30	22	7.19	5.96	1.57	7.15	5.93	1.77	6.86	5.69	1.87	6.59	5.46	1.95	6.07	5.03	2.11
	32	24	7.52	6.41	1.61	7.48	6.37	1.82	7.17	6.11	1.92	6.89	5.87	2.00	6.35	5.41	2.17
L	20	14	5.55	4.04	1.37	5.52	4.02	1.54	5.30	3.86	1.63	5.09	3.70	1.70	4.69	3.41	1.84
	23	16	5.88	4.49	1.43	5.85	4.46	1.62	5.62	4.28	1.71	5.39	4.11	1.78	4.97	3.79	1.93
	26	18	6.12	4.80	1.48	6.09	4.77	1.67	5.84	4.58	1.76	5.61	4.40	1.83	5.17	4.05	1.99
	27	19	6.24	4.95	1.48	6.21	4.92	1.67	5.96	4.72	1.77	5.72	4.53	1.84	5.27	4.18	2.00
	30	22	6.62	5.39	1.53	6.58	5.36	1.72	6.31	5.14	1.82	6.06	4.94	1.90	5.59	4.55	2.06
	32	24	6.91	5.81	1.57	6.88	5.78	1.77	6.60	5.54	1.87	6.34	5.32	1.95	5.84	4.91	2.12

# U-MATCH SERIES AIR CONDITIONERS

## Heating

Fan speed	Outdoor air temperature °C		Indoor dry bulb temperature °C									
			16		18		20		22		24	
	DB	WB	kW	kW	kW	kW	kW	kW	kW	kW	kW	kW
Turbo	-10	-11	5.79	1.77	5.49	1.82	5.24	1.88	5.03	1.94	4.83	2.01
	-5	-5.6	6.10	1.71	5.78	1.76	5.52	1.82	5.29	1.89	5.09	1.95
	0	-0.7	6.63	1.74	6.28	1.79	6.00	1.85	5.75	1.91	5.53	1.98
	7	6	8.84	1.88	8.38	1.93	8.00	2.00	7.67	2.07	7.38	2.14
	10	8	9.28	1.94	8.80	1.99	8.40	2.06	8.05	2.13	7.74	2.20
H	-10	-11	5.64	1.76	5.34	1.81	5.10	1.87	4.89	1.93	4.70	2.00
	-5	-5.6	5.93	1.71	5.62	1.75	5.37	1.82	5.15	1.88	4.95	1.94
	0	-0.7	6.45	1.73	6.11	1.78	5.84	1.84	5.60	1.90	5.38	1.97
	7	6	8.60	1.87	8.15	1.92	7.78	1.99	7.46	2.06	7.18	2.13
	10	8	9.03	1.93	8.56	1.98	8.17	2.05	7.84	2.12	7.53	2.19
M	-10	-11	5.46	1.78	5.17	1.83	4.94	1.90	4.74	1.96	4.55	2.03
	-5	-5.6	5.74	1.73	5.44	1.78	5.20	1.84	4.98	1.90	4.79	1.97
	0	-0.7	6.24	1.76	5.92	1.81	5.65	1.87	5.42	1.93	5.21	2.00
	7	6	8.32	1.90	7.89	1.95	7.53	2.02	7.22	2.09	6.95	2.16
	10	8	8.74	1.96	8.28	2.01	7.91	2.08	7.59	2.15	7.29	2.22
L	-10	-11	5.18	1.84	4.91	1.89	4.69	1.96	4.50	2.02	4.33	2.09
	-5	-5.6	5.46	1.79	5.17	1.84	4.94	1.90	4.74	1.96	4.55	2.03
	0	-0.7	5.93	1.81	5.62	1.86	5.37	1.93	5.15	1.99	4.95	2.06
	7	6	7.91	1.96	7.50	2.01	7.16	2.08	6.86	2.15	6.60	2.23
	10	8	8.30	2.02	7.87	2.07	7.52	2.15	7.21	2.22	6.93	2.29

## GUD100T1/C-S

### Cooling

Fan speed	Indoor air temperature °C		Outdoor dry bulb temperature °C														
			25			30			35			40			46		
	DB	WB	kW	kW	kW	TC	kW	kW	TC	SHC	PI	TC	kW	kW	TC	SHC	PI
Turbo	20	14	9.32	7.12	2.24	9.27	7.08	2.53	8.89	6.79	2.67	8.54	6.52	2.78	7.83	5.98	3.02
	24	17	9.88	7.84	2.35	9.83	7.80	2.65	9.43	7.48	2.80	9.05	7.18	2.92	8.30	6.59	3.17
	26	18	10.27	8.35	2.42	10.22	8.31	2.73	9.80	7.97	2.89	9.41	7.65	3.01	8.64	7.02	3.26
	27	19	10.48	8.59	2.43	10.42	8.55	2.74	10.00	8.20	2.90	9.60	7.87	3.02	8.81	7.22	3.28
	30	22	11.11	9.32	2.50	11.05	9.27	2.83	10.60	8.89	2.99	10.18	8.53	3.11	9.34	7.83	3.37
	32	24	11.61	10.00	2.58	11.55	9.94	2.91	11.08	9.54	3.07	10.63	9.16	3.20	9.76	8.40	3.47
H	20	14	8.95	6.64	2.16	8.90	6.60	2.44	8.54	6.34	2.58	8.20	6.08	2.69	7.55	5.61	2.91
	23	16	9.48	7.35	2.27	9.43	7.31	2.56	9.05	7.01	2.70	8.69	6.73	2.82	8.01	6.20	3.06
	26	18	9.86	7.85	2.33	9.81	7.81	2.64	9.41	7.49	2.78	9.04	7.19	2.90	8.33	6.63	3.15
	27	19	10.06	8.08	2.35	10.01	8.04	2.65	9.60	7.71	2.80	9.22	7.41	2.91	8.50	6.83	3.16
	30	22	10.66	8.79	2.41	10.61	8.74	2.73	10.18	8.38	2.88	9.77	8.05	3.00	9.00	7.42	3.25
	32	24	11.14	9.45	2.49	11.08	9.40	2.81	10.63	9.02	2.96	10.21	8.66	3.09	9.41	7.98	3.35
M	20	14	8.50	6.13	2.06	8.45	6.10	2.33	8.11	5.85	2.46	7.79	5.61	2.56	7.18	5.17	2.78
	23	16	9.01	6.81	2.16	8.96	6.78	2.44	8.60	6.50	2.58	8.25	6.24	2.69	7.61	5.75	2.92
	26	18	9.37	7.30	2.23	9.32	7.26	2.52	8.94	6.96	2.66	8.58	6.69	2.77	7.91	6.16	3.00
	27	19	9.56	7.53	2.24	9.51	7.49	2.53	9.12	7.18	2.67	8.76	6.90	2.78	8.07	6.36	3.02
	30	22	10.13	8.20	2.31	10.08	8.16	2.60	9.67	7.83	2.75	9.28	7.51	2.86	8.55	6.93	3.11
	32	24	10.59	8.85	2.37	10.53	8.80	2.68	10.10	8.45	2.83	9.70	8.11	2.95	8.94	7.47	3.20
L	20	14	7.82	5.48	2.01	7.78	5.45	2.27	7.46	5.23	2.40	7.16	5.02	2.50	6.60	4.62	2.71
	23	16	8.29	6.12	2.11	8.24	6.09	2.38	7.91	5.84	2.52	7.59	5.61	2.62	7.00	5.17	2.84
	26	18	8.62	6.57	2.17	8.57	6.54	2.45	8.23	6.27	2.59	7.90	6.02	2.70	7.28	5.55	2.93
	27	19	8.79	6.79	2.18	8.75	6.75	2.46	8.39	6.48	2.60	8.06	6.22	2.71	7.42	5.73	2.94
	30	22	9.32	7.41	2.25	9.27	7.37	2.54	8.89	7.07	2.68	8.54	6.79	2.79	7.87	6.26	3.03
	32	24	9.74	8.02	2.31	9.69	7.98	2.61	9.29	7.66	2.76	8.92	7.35	2.87	8.22	6.78	3.12

**Heating**

Fan speed	Outdoor air temperature °C		Indoor dry bulb temperature °C									
			16		18		20		22		24	
	TC	PI	TC	PI	TC	PI	TC	PI	TC	PI	TC	PI
	DB	WB	kW	kW	kW	kW	kW	kW	kW	kW	kW	kW
Turbo	-10	-11	8.69	3.05	8.24	3.13	7.87	3.24	7.54	3.35	7.25	3.46
	-5	-5.6	9.15	2.96	8.67	3.04	8.28	3.15	7.94	3.25	7.63	3.36
	0	-0.7	9.94	3.00	9.42	3.09	9.00	3.19	8.63	3.30	8.30	3.41
	7	6	13.25	3.24	12.57	3.33	12.00	3.45	11.51	3.57	11.06	3.69
H	10	8	13.92	3.34	13.19	3.43	12.60	3.55	12.08	3.67	11.62	3.80
	-10	-11	8.45	3.03	8.01	3.12	7.65	3.23	7.34	3.33	7.06	3.45
	-5	-5.6	8.90	2.94	8.44	3.03	8.06	3.13	7.72	3.24	7.43	3.34
	0	-0.7	9.67	2.99	9.17	3.07	8.76	3.18	8.40	3.29	8.07	3.40
	7	6	12.90	3.23	12.23	3.32	11.68	3.43	11.19	3.55	10.76	3.67
M	10	8	13.54	3.32	12.84	3.42	12.26	3.54	11.75	3.65	11.30	3.78
	-10	-11	8.18	3.08	7.76	3.16	7.41	3.27	7.10	3.38	6.83	3.50
	-5	-5.6	8.61	2.99	8.17	3.07	7.80	3.18	7.48	3.29	7.19	3.40
	0	-0.7	9.36	3.03	8.88	3.12	8.48	3.23	8.13	3.33	7.81	3.45
	7	6	12.48	3.27	11.83	3.37	11.30	3.48	10.84	3.60	10.42	3.72
L	10	8	13.11	3.37	12.43	3.47	11.87	3.59	11.38	3.71	10.94	3.83
	-10	-11	7.77	3.17	7.37	3.26	7.04	3.38	6.75	3.49	6.49	3.61
	-5	-5.6	8.18	3.08	7.76	3.17	7.41	3.28	7.10	3.39	6.83	3.50
	0	-0.7	8.89	3.13	8.43	3.22	8.05	3.33	7.72	3.44	7.42	3.55
	7	6	11.86	3.38	11.24	3.47	10.74	3.59	10.29	3.71	9.90	3.84
	10	8	12.45	3.48	11.81	3.58	11.27	3.70	10.81	3.83	10.39	3.95

**GUD125T1/C-S**
**Cooling**

Fan speed	Indoor air temperature °C	Outdoor dry bulb temperature °C															
		25			30			35			40			46			
	TC	SHC	PI	TC	SHC	PI	TC	SHC	PI	TC	SHC	PI	TC	SHC	PI		
	DB	WB	kW	kW	kW	kW											
Turbo	20	14	11.65	8.54	2.97	11.59	8.50	3.36	11.12	8.15	3.55	10.67	7.83	3.70	9.79	7.18	4.01
	24	17	12.35	9.47	3.12	12.28	9.42	3.52	11.78	9.04	3.72	11.31	8.68	3.88	10.38	7.96	4.21
	26	18	12.84	10.13	3.21	12.77	10.07	3.63	12.25	9.66	3.83	11.77	9.28	3.99	10.79	8.51	4.33
	27	19	13.10	10.44	3.23	13.03	10.38	3.64	12.50	9.96	3.85	12.00	9.56	4.01	11.01	8.77	4.35
	30	22	13.88	11.36	3.32	13.81	11.30	3.75	13.25	10.84	3.96	12.72	10.40	4.13	11.67	9.55	4.48
	32	24	14.51	12.23	3.42	14.43	12.17	3.86	13.85	11.67	4.08	13.29	11.21	4.25	12.20	10.28	4.61
H	20	14	11.18	7.97	2.87	11.12	7.92	3.24	10.67	7.60	3.42	10.25	7.30	3.57	9.44	6.73	3.87
	23	16	11.85	8.87	3.01	11.79	8.83	3.40	11.31	8.47	3.59	10.86	8.13	3.74	10.01	7.49	4.06
	26	18	12.33	9.52	3.10	12.26	9.47	3.50	11.76	9.08	3.70	11.29	8.72	3.85	10.41	8.04	4.18
	27	19	12.58	9.82	3.11	12.51	9.77	3.52	12.00	9.37	3.71	11.52	9.00	3.87	10.62	8.29	4.20
	30	22	13.33	10.71	3.21	13.26	10.65	3.62	12.72	10.22	3.82	12.21	9.81	3.98	11.26	9.05	4.32
	32	24	13.93	11.57	3.30	13.86	11.51	3.73	13.29	11.04	3.94	12.76	10.60	4.10	11.76	9.77	4.45
M	20	14	10.62	7.35	2.74	10.57	7.31	3.09	10.14	7.01	3.27	9.73	6.73	3.40	8.97	6.21	3.69
	23	16	11.26	8.23	2.87	11.20	8.19	3.24	10.75	7.85	3.43	10.32	7.54	3.57	9.51	6.95	3.87
	26	18	11.71	8.85	2.96	11.65	8.80	3.34	11.18	8.45	3.53	10.73	8.11	3.68	9.89	7.47	3.99
	27	19	11.95	9.14	2.97	11.88	9.09	3.36	11.40	8.72	3.55	10.94	8.38	3.69	10.09	7.72	4.01
	30	22	12.66	10.00	3.06	12.60	9.95	3.46	12.08	9.54	3.65	11.60	9.16	3.80	10.69	8.44	4.13
	32	24	13.23	10.84	3.15	13.16	10.78	3.56	12.63	10.34	3.76	12.12	9.93	3.91	11.17	9.15	4.25
L	20	14	9.77	6.57	2.67	9.72	6.53	3.02	9.33	6.26	3.19	8.95	6.01	3.32	8.25	5.54	3.60
	23	16	10.36	7.39	2.80	10.31	7.35	3.16	9.89	7.05	3.34	9.49	6.77	3.48	8.75	6.24	3.78
	26	18	10.78	7.97	2.88	10.72	7.93	3.26	10.28	7.61	3.44	9.87	7.30	3.58	9.10	6.73	3.89
	27	19	10.99	8.24	2.90	10.93	8.20	3.27	10.49	7.87	3.46	10.07	7.55	3.60	9.28	6.96	3.91
	30	22	11.65	9.04	2.98	11.59	8.99	3.37	11.12	8.63	3.56	10.67	8.28	3.71	9.84	7.63	4.02
	32	24	12.17	9.82	3.07	12.11	9.77	3.47	11.62	9.38	3.66	11.15	9.00	3.82	10.28	8.30	4.14

# U-MATCH SERIES AIR CONDITIONERS

## Heating

Fan speed	Outdoor air temperature °C		Indoor dry bulb temperature °C									
			16		18		20		22		24	
	DB	WB	kW	kW	kW	kW	kW	kW	kW	kW	kW	kW
Turbo	-10	-11	10.14	3.71	9.61	3.81	9.18	3.95	8.80	4.08	8.46	4.22
	-5	-5.6	10.67	3.60	10.12	3.70	9.66	3.83	9.26	3.96	8.91	4.09
	0	-0.7	11.60	3.66	10.99	3.76	10.50	3.89	10.07	4.02	9.68	4.15
	7	6	15.46	3.95	14.66	4.06	14.00	4.20	13.42	4.34	12.91	4.49
H	10	8	16.24	4.07	15.39	4.18	14.70	4.33	14.09	4.47	13.55	4.62
	-10	-11	9.86	3.69	9.35	3.79	8.93	3.93	8.56	4.06	8.23	4.19
	-5	-5.6	10.38	3.58	9.84	3.68	9.40	3.81	9.01	3.94	8.67	4.07
	0	-0.7	11.28	3.64	10.70	3.74	10.22	3.87	9.80	4.00	9.42	4.13
	7	6	15.05	3.93	14.26	4.04	13.62	4.18	13.06	4.32	12.56	4.46
M	10	8	15.80	4.05	14.98	4.16	14.30	4.30	13.71	4.45	13.19	4.60
	-10	-11	9.55	3.75	9.05	3.85	8.64	3.99	8.29	4.12	7.97	4.26
	-5	-5.6	10.05	3.64	9.53	3.74	9.10	3.87	8.72	4.00	8.39	4.13
	0	-0.7	10.92	3.69	10.36	3.79	9.89	3.93	9.48	4.06	9.12	4.20
	7	6	14.56	3.99	13.81	4.10	13.19	4.24	12.64	4.38	12.16	4.53
L	10	8	15.29	4.11	14.50	4.22	13.85	4.37	13.27	4.52	12.76	4.67
	-10	-11	9.07	3.86	8.60	3.97	8.21	4.11	7.87	4.25	7.57	4.39
	-5	-5.6	9.55	3.75	9.05	3.86	8.64	3.99	8.29	4.12	7.97	4.26
	0	-0.7	10.38	3.81	9.84	3.91	9.40	4.05	9.01	4.19	8.66	4.33
	7	6	13.84	4.11	13.12	4.23	12.53	4.38	12.01	4.52	11.55	4.67
	10	8	14.53	4.24	13.77	4.35	13.15	4.51	12.61	4.66	12.13	4.81

## GUD160T1/C-S

### Cooling

Fan speed	Indoor air temperature °C	Outdoor dry bulb temperature °C															
		25			30			35			40			46			
		TC	SHC	PI	TC	SHC	PI	TC	SHC	PI	TC	SHC	PI	TC	SHC	PI	
Turbo	DB	WB	kW	kW	kW	kW	kW	kW	kW	kW	kW	kW	kW				
	20	14	13.05	8.68	3.23	12.98	8.63	3.65	12.45	8.28	3.85	11.95	7.95	4.01	10.97	7.30	4.35
	24	17	13.83	9.79	3.39	13.76	9.73	3.82	13.20	9.34	4.04	12.67	8.96	4.21	11.63	8.23	4.57
	26	18	14.38	10.57	3.49	14.31	10.51	3.94	13.73	10.08	4.16	13.18	9.68	4.33	12.09	8.88	4.70
	27	19	14.67	10.93	3.50	14.59	10.87	3.96	14.00	10.43	4.18	13.44	10.01	4.35	12.33	9.19	4.72
	30	22	15.55	12.00	3.61	15.47	11.93	4.07	14.84	11.45	4.30	14.25	10.99	4.48	13.07	10.08	4.86
H	32	24	16.25	13.05	3.71	16.16	12.98	4.19	15.51	12.46	4.43	14.89	11.96	4.61	13.66	10.97	5.01
	20	14	12.53	8.09	3.12	12.46	8.04	3.52	11.95	7.72	3.72	11.48	7.41	3.87	10.58	6.83	4.20
	23	16	13.28	9.17	3.27	13.21	9.12	3.69	12.67	8.75	3.90	12.16	8.40	4.06	11.21	7.74	4.41
	26	18	13.81	9.93	3.36	13.73	9.88	3.80	13.18	9.48	4.01	12.65	9.10	4.18	11.66	8.39	4.53
	27	19	14.08	10.28	3.38	14.01	10.23	3.82	13.44	9.81	4.03	12.90	9.42	4.20	11.89	8.68	4.56
	30	22	14.93	11.32	3.48	14.85	11.26	3.93	14.25	10.80	4.15	13.68	10.37	4.32	12.61	9.56	4.69
M	32	24	15.60	12.35	3.58	15.52	12.29	4.05	14.89	11.79	4.27	14.29	11.32	4.45	13.17	10.43	4.83
	20	14	11.90	7.45	2.97	11.84	7.41	3.36	11.35	7.11	3.55	10.90	6.83	3.70	10.05	6.29	4.01
	23	16	12.61	8.50	3.12	12.55	8.45	3.52	12.04	8.11	3.72	11.56	7.78	3.88	10.65	7.18	4.21
	26	18	13.12	9.23	3.21	13.05	9.19	3.63	12.52	8.81	3.83	12.02	8.46	3.99	11.08	7.80	4.33
	27	19	13.38	9.57	3.23	13.31	9.52	3.64	12.77	9.14	3.85	12.26	8.77	4.01	11.30	8.08	4.35
	30	22	14.18	10.57	3.32	14.11	10.51	3.75	13.53	10.08	3.96	12.99	9.68	4.13	11.98	8.92	4.48
L	32	24	14.82	11.57	3.42	14.74	11.50	3.86	14.14	11.04	4.08	13.58	10.60	4.25	12.52	9.77	4.61
	20	14	10.95	6.65	2.90	10.89	6.62	3.27	10.45	6.35	3.46	10.03	6.09	3.60	9.24	5.62	3.91
	23	16	11.60	7.63	3.04	11.54	7.59	3.43	11.07	7.28	3.63	10.63	6.99	3.78	9.80	6.44	4.10
	26	18	12.07	8.32	3.13	12.00	8.27	3.54	11.52	7.94	3.73	11.06	7.62	3.89	10.19	7.02	4.22
	27	19	12.31	8.63	3.15	12.24	8.59	3.55	11.75	8.24	3.75	11.28	7.91	3.91	10.39	7.29	4.24
	30	22	13.05	9.55	3.24	12.98	9.50	3.66	12.45	9.12	3.86	11.95	8.75	4.02	11.02	8.07	4.37
	32	24	13.64	10.49	3.33	13.56	10.43	3.76	13.01	10.01	3.98	12.49	9.61	4.14	11.51	8.86	4.49

## Heating

Fan speed	Outdoor air temperature °C		Indoor dry bulb temperature °C									
			16		18		20		22		24	
	TC	PI	TC	PI	TC	PI	TC	PI	TC	PI	TC	PI
	DB	WB	kW	kW	kW	kW	kW	kW	kW	kW	kW	kW
Turbo	-10	-11	11.15	4.12	10.57	4.23	10.09	4.38	9.68	4.53	9.31	4.68
	-5	-5.6	11.74	4.00	11.13	4.11	10.63	4.25	10.19	4.39	9.80	4.54
	0	-0.7	12.76	4.06	12.09	4.17	11.55	4.31	11.07	4.46	10.65	4.61
	7	6	17.01	4.38	16.13	4.50	15.40	4.66	14.77	4.82	14.20	4.98
	10	8	17.86	4.51	16.93	4.64	16.17	4.80	15.50	4.96	14.91	5.13
H	-10	-11	10.85	4.09	10.28	4.21	9.82	4.36	9.42	4.50	9.06	4.65
	-5	-5.6	11.42	3.98	10.83	4.09	10.34	4.23	9.91	4.37	9.53	4.52
	0	-0.7	12.41	4.04	11.77	4.15	11.24	4.29	10.77	4.44	10.36	4.59
	7	6	16.55	4.36	15.69	4.48	14.98	4.64	14.37	4.79	13.81	4.95
	10	8	17.38	4.49	16.47	4.61	15.73	4.78	15.08	4.94	14.50	5.10
M	-10	-11	10.50	4.16	9.96	4.27	9.51	4.42	9.12	4.57	8.77	4.72
	-5	-5.6	11.05	4.04	10.48	4.15	10.01	4.29	9.60	4.44	9.23	4.59
	0	-0.7	12.02	4.10	11.39	4.21	10.88	4.36	10.43	4.50	10.03	4.65
	7	6	16.02	4.42	15.19	4.55	14.50	4.71	13.91	4.86	13.37	5.03
	10	8	16.82	4.56	15.95	4.68	15.23	4.85	14.60	5.01	14.04	5.18
L	-10	-11	9.98	4.29	9.46	4.41	9.03	4.56	8.66	4.71	8.33	4.87
	-5	-5.6	10.50	4.16	9.96	4.28	9.51	4.43	9.12	4.58	8.77	4.73
	0	-0.7	11.42	4.22	10.82	4.34	10.33	4.49	9.91	4.65	9.53	4.80
	7	6	15.22	4.56	14.43	4.69	13.78	4.85	13.21	5.02	12.70	5.18
	10	8	15.98	4.70	15.15	4.83	14.47	5.00	13.87	5.17	13.34	5.34

### Symbols:

DB: Dry bulb temperature

WB: Wet bulb temperature

TC: Total cooling/heating capacity

SHC: Sensible heat capacity

PI: Power input (compressor + indoor fan motor + outdoor fan motor)

- The above data are based on the following conditions.

—	Power Supply			Equivalent Piping Length		
Indoor	230V ~50Hz			Standard Piping Length		

- Capacities are net, including a deduction for cooling (an addition for heating) for indoor fan motor heat.

### 6.1.2 Duct Type

#### GUD50PHS1/C-S

##### Cooling

Fan speed	Indoor air temperature °C		Outdoor dry bulb temperature °C														
			25			30			35			40					
	TC	SHC	PI	TC	SHC	PI	TC	SHC	PI	TC	SHC	PI	TC	SHC	PI		
	DB	WB	kW	kW	kW	kW	kW	kW	kW	kW	kW	kW	kW	kW	kW		
Turbo	20	14	4.94	4.83	0.97	4.91	4.80	1.09	4.71	4.61	1.15	4.53	4.42	1.20	4.15	4.06	1.30
	24	17	5.24	5.13	1.01	5.21	5.11	1.14	5.00	4.90	1.21	4.80	4.70	1.26	4.40	4.32	1.37
	26	18	5.45	5.35	1.04	5.42	5.32	1.18	5.20	5.10	1.24	4.99	4.90	1.30	4.58	4.50	1.41
	27	19	5.55	5.46	1.05	5.52	5.43	1.18	5.30	5.21	1.25	5.09	5.00	1.30	4.67	4.59	1.41
	30	22	5.89	5.80	1.08	5.86	5.77	1.22	5.62	5.53	1.29	5.39	5.31	1.34	4.95	4.87	1.45
	32	24	6.15	6.07	1.11	6.12	6.04	1.25	5.87	5.79	1.32	5.64	5.56	1.38	5.17	5.10	1.50

# U-MATCH SERIES AIR CONDITIONERS

Fan speed		Indoor air temperature °C		Outdoor dry bulb temperature °C													
				25			30			35			40				
		DB	WB	kW	kW	kW	kW	kW	kW	kW	kW	kW	kW	kW	kW		
H	20	14	4.74	4.51	0.93	4.72	4.49	1.05	4.52	4.31	1.11	4.34	4.14	1.16	4.00	3.81	1.26
	23	16	5.03	4.81	0.98	5.00	4.79	1.10	4.80	4.59	1.17	4.60	4.41	1.21	4.24	4.07	1.32
	26	18	5.23	5.03	1.01	5.20	5.00	1.14	4.99	4.80	1.20	4.79	4.61	1.25	4.41	4.25	1.36
	27	19	5.33	5.14	1.01	5.30	5.11	1.14	5.09	4.90	1.21	4.88	4.71	1.26	4.50	4.34	1.36
	30	22	5.65	5.47	1.04	5.62	5.44	1.18	5.39	5.22	1.24	5.18	5.01	1.29	4.77	4.62	1.40
	32	24	5.91	5.74	1.07	5.87	5.71	1.21	5.64	5.48	1.28	5.41	5.26	1.33	4.99	4.85	1.44
M	20	14	4.50	4.17	0.89	4.48	4.15	1.00	4.30	3.98	1.06	4.13	3.82	1.11	3.80	3.52	1.20
	23	16	4.77	4.47	0.93	4.75	4.45	1.05	4.56	4.26	1.11	4.37	4.09	1.16	4.03	3.77	1.26
	26	18	4.97	4.68	0.96	4.94	4.65	1.08	4.74	4.46	1.15	4.55	4.28	1.19	4.19	3.95	1.29
	27	19	5.07	4.78	0.97	5.04	4.76	1.09	4.83	4.56	1.15	4.64	4.38	1.20	4.28	4.04	1.30
	30	22	5.37	5.10	0.99	5.34	5.07	1.12	5.12	4.87	1.19	4.92	4.67	1.23	4.53	4.31	1.34
	32	24	5.61	5.37	1.02	5.58	5.34	1.15	5.35	5.12	1.22	5.14	4.92	1.27	4.74	4.53	1.38
L	20	14	4.14	3.74	0.87	4.12	3.72	0.98	3.95	3.57	1.03	3.80	3.42	1.08	3.50	3.16	1.17
	23	16	4.39	4.02	0.91	4.37	3.99	1.03	4.19	3.83	1.08	4.02	3.68	1.13	3.71	3.39	1.23
	26	18	4.57	4.21	0.94	4.54	4.19	1.06	4.36	4.02	1.12	4.19	3.86	1.16	3.86	3.56	1.26
	27	19	4.66	4.31	0.94	4.64	4.29	1.06	4.45	4.11	1.12	4.27	3.95	1.17	3.94	3.64	1.27
	30	22	4.94	4.61	0.97	4.91	4.58	1.09	4.71	4.40	1.16	4.53	4.22	1.20	4.17	3.89	1.31
	32	24	5.16	4.86	1.00	5.13	4.84	1.13	4.93	4.64	1.19	4.73	4.46	1.24	4.36	4.11	1.34

Heating		Outdoor air temperature °C		Indoor dry bulb temperature °C													
				16			18			20			22			24	
Fan speed	DB	WB	kW	kW	kW	kW	kW	kW	kW	kW	kW	kW	kW	kW	kW	kW	
Turbo	-10	-11	4.20	1.10	3.98	1.13	3.80	1.17	3.65	1.21	3.50	1.25					
	-5	-5.6	4.42	1.07	4.19	1.10	4.00	1.14	3.84	1.18	3.69	1.22					
	0	-0.7	4.80	1.09	4.55	1.12	4.35	1.16	4.17	1.20	4.01	1.24					
	7	6	6.41	1.17	6.07	1.21	5.80	1.25	5.56	1.29	5.35	1.34					
	10	8	6.73	1.21	6.38	1.24	6.09	1.29	5.84	1.33	5.61	1.38					
H	-10	-11	4.09	1.10	3.87	1.13	3.70	1.17	3.55	1.21	3.41	1.25					
	-5	-5.6	4.30	1.07	4.08	1.10	3.89	1.13	3.73	1.17	3.59	1.21					
	0	-0.7	4.68	1.08	4.43	1.11	4.23	1.15	4.06	1.19	3.90	1.23					
	7	6	6.23	1.17	5.91	1.20	5.64	1.24	5.41	1.29	5.20	1.33					
	10	8	6.55	1.20	6.20	1.24	5.93	1.28	5.68	1.32	5.46	1.37					
M	-10	-11	3.96	1.11	3.75	1.15	3.58	1.19	3.43	1.23	3.30	1.27					
	-5	-5.6	4.16	1.08	3.95	1.11	3.77	1.15	3.61	1.19	3.47	1.23					
	0	-0.7	4.53	1.10	4.29	1.13	4.10	1.17	3.93	1.21	3.78	1.25					
	7	6	6.03	1.19	5.72	1.22	5.46	1.26	5.24	1.30	5.04	1.35					
	10	8	6.34	1.22	6.01	1.26	5.74	1.30	5.50	1.34	5.29	1.39					
L	-10	-11	3.76	1.15	3.56	1.18	3.40	1.22	3.26	1.26	3.14	1.31					
	-5	-5.6	3.96	1.12	3.75	1.15	3.58	1.19	3.43	1.23	3.30	1.27					
	0	-0.7	4.30	1.13	4.08	1.16	3.89	1.21	3.73	1.25	3.59	1.29					
	7	6	5.73	1.22	5.43	1.26	5.19	1.30	4.98	1.35	4.78	1.39					
	10	8	6.02	1.26	5.71	1.30	5.45	1.34	5.22	1.39	5.02	1.43					

**GUD71PHS1/C-S**  
 Cooling

Fan speed	Indoor air temperature °C		Outdoor dry bulb temperature °C														
			25			30			35			40			46		
	DB	WB	TC	SHC	PI	TC	SHC	PI	TC	SHC	PI	TC	SHC	PI	TC	SHC	PI
Turbo	20	14	6.62	5.00	1.52	6.58	4.98	1.72	6.31	4.77	1.82	6.06	4.58	1.89	5.56	4.20	2.05
	24	17	7.01	5.52	1.60	6.98	5.49	1.80	6.69	5.27	1.90	6.43	5.06	1.98	5.90	4.64	2.15
	26	18	7.29	5.88	1.64	7.26	5.85	1.86	6.96	5.61	1.96	6.68	5.39	2.04	6.13	4.95	2.22
	27	19	7.44	6.06	1.65	7.40	6.02	1.86	7.10	5.78	1.97	6.82	5.55	2.05	6.25	5.09	2.23
	30	22	7.89	6.57	1.70	7.84	6.54	1.92	7.53	6.27	2.03	7.23	6.02	2.11	6.63	5.52	2.29
	32	24	8.24	7.06	1.75	8.20	7.02	1.98	7.86	6.74	2.09	7.55	6.47	2.17	6.93	5.93	2.36
H	20	14	6.35	4.67	1.47	6.32	4.64	1.66	6.06	4.45	1.75	5.82	4.27	1.82	5.36	3.94	1.98
	23	16	6.73	5.17	1.54	6.70	5.14	1.74	6.43	4.94	1.84	6.17	4.74	1.91	5.69	4.37	2.08
	26	18	7.00	5.53	1.59	6.97	5.50	1.79	6.68	5.28	1.89	6.42	5.07	1.97	5.91	4.67	2.14
	27	19	7.14	5.70	1.59	7.10	5.67	1.80	6.82	5.44	1.90	6.54	5.22	1.98	6.03	4.81	2.15
	30	22	7.57	6.20	1.64	7.53	6.17	1.85	7.22	5.92	1.96	6.94	5.68	2.04	6.39	5.23	2.21
	32	24	7.91	6.68	1.69	7.87	6.64	1.91	7.55	6.37	2.01	7.25	6.12	2.10	6.68	5.64	2.28
M	20	14	6.03	4.31	1.40	6.00	4.28	1.58	5.76	4.11	1.67	5.53	3.94	1.74	5.10	3.64	1.89
	23	16	6.40	4.80	1.47	6.36	4.77	1.66	6.10	4.58	1.75	5.86	4.39	1.83	5.40	4.05	1.98
	26	18	6.65	5.14	1.51	6.62	5.12	1.71	6.35	4.91	1.81	6.09	4.71	1.88	5.62	4.34	2.04
	27	19	6.79	5.31	1.52	6.75	5.28	1.72	6.48	5.06	1.81	6.22	4.86	1.89	5.73	4.48	2.05
	30	22	7.19	5.79	1.57	7.15	5.76	1.77	6.86	5.52	1.87	6.59	5.30	1.95	6.07	4.89	2.11
	32	24	7.52	6.25	1.61	7.48	6.22	1.82	7.17	5.96	1.92	6.89	5.73	2.00	6.35	5.28	2.17
L	20	14	5.55	3.85	1.37	5.52	3.83	1.54	5.30	3.67	1.63	5.09	3.52	1.70	4.69	3.25	1.84
	23	16	5.88	4.31	1.43	5.85	4.28	1.62	5.62	4.11	1.71	5.39	3.95	1.78	4.97	3.64	1.93
	26	18	6.12	4.63	1.48	6.09	4.61	1.67	5.84	4.42	1.76	5.61	4.24	1.83	5.17	3.91	1.99
	27	19	6.24	4.78	1.48	6.21	4.76	1.67	5.96	4.56	1.77	5.72	4.38	1.84	5.27	4.04	2.00
	30	22	6.62	5.23	1.53	6.58	5.20	1.72	6.31	4.99	1.82	6.06	4.79	1.90	5.59	4.42	2.06
	32	24	6.91	5.67	1.57	6.88	5.64	1.77	6.60	5.41	1.87	6.34	5.19	1.95	5.84	4.79	2.12

## Heating

Fan speed	Outdoor air temperature °C		Indoor dry bulb temperature °C									
			16		18		20		22		24	
	DB	WB	TC	PI	TC	PI	TC	PI	TC	PI	TC	PI
Turbo	-10	-11	5.79	1.77	5.49	1.82	5.24	1.88	5.03	1.94	4.83	2.01
	-5	-5.6	6.10	1.71	5.78	1.76	5.52	1.82	5.29	1.89	5.09	1.95
	0	-0.7	6.63	1.74	6.28	1.79	6.00	1.85	5.75	1.91	5.53	1.98
	7	6	8.84	1.88	8.38	1.93	8.00	2.00	7.67	2.07	7.38	2.14
	10	8	9.28	1.94	8.80	1.99	8.40	2.06	8.05	2.13	7.74	2.20
	-10	-11	5.64	1.76	5.34	1.81	5.10	1.87	4.89	1.93	4.70	2.00
H	-5	-5.6	5.93	1.71	5.62	1.75	5.37	1.82	5.15	1.88	4.95	1.94
	0	-0.7	6.45	1.73	6.11	1.78	5.84	1.84	5.60	1.90	5.38	1.97
	7	6	8.60	1.87	8.15	1.92	7.78	1.99	7.46	2.06	7.18	2.13
	10	8	9.03	1.93	8.56	1.98	8.17	2.05	7.84	2.12	7.53	2.19
	-10	-11	5.46	1.78	5.17	1.83	4.94	1.90	4.74	1.96	4.55	2.03
M	-5	-5.6	5.74	1.73	5.44	1.78	5.20	1.84	4.98	1.90	4.79	1.97
	0	-0.7	6.24	1.76	5.92	1.81	5.65	1.87	5.42	1.93	5.21	2.00
	7	6	8.32	1.90	7.89	1.95	7.53	2.02	7.22	2.09	6.95	2.16
	10	8	8.74	1.96	8.28	2.01	7.91	2.08	7.59	2.15	7.29	2.22
	-10	-11	5.18	1.84	4.91	1.89	4.69	1.96	4.50	2.02	4.33	2.09
L	-5	-5.6	5.46	1.79	5.17	1.84	4.94	1.90	4.74	1.96	4.55	2.03
	0	-0.7	5.93	1.81	5.62	1.86	5.37	1.93	5.15	1.99	4.95	2.06
	7	6	7.91	1.96	7.50	2.01	7.16	2.08	6.86	2.15	6.60	2.23
	10	8	8.30	2.02	7.87	2.07	7.52	2.15	7.21	2.22	6.93	2.29

# U-MATCH SERIES AIR CONDITIONERS

Technical Sales Guide

## GUD100PHS1/C-S

### Cooling

Fan speed	Indoor air temperature °C		Outdoor dry bulb temperature °C														
			25			30			35			40			46		
	DB	WB	TC	SHC	PI	TC	SHC	PI	TC	SHC	PI	TC	SHC	PI	TC	SHC	PI
Turbo	20	14	9.32	7.39	2.09	9.27	7.35	2.35	8.89	7.05	2.49	8.54	6.77	2.59	7.83	6.21	2.81
	24	17	9.88	8.09	2.19	9.83	8.05	2.47	9.43	7.72	2.61	9.05	7.41	2.72	8.30	6.80	2.95
	26	18	10.27	8.58	2.25	10.22	8.54	2.54	9.80	8.19	2.69	9.41	7.87	2.80	8.64	7.22	3.04
	27	19	10.48	8.82	2.26	10.42	8.78	2.56	10.00	8.42	2.70	9.60	8.08	2.81	8.81	7.42	3.05
	30	22	11.11	9.54	2.33	11.05	9.48	2.63	10.60	9.10	2.78	10.18	8.74	2.90	9.34	8.02	3.14
	32	24	11.61	10.19	2.40	11.55	10.14	2.71	11.08	9.73	2.86	10.63	9.34	2.98	9.76	8.57	3.23
H	20	14	8.95	6.89	2.01	8.90	6.86	2.27	8.54	6.58	2.40	8.20	6.31	2.50	7.55	5.82	2.71
	23	16	9.48	7.58	2.11	9.43	7.54	2.38	9.05	7.24	2.52	8.69	6.95	2.62	8.01	6.40	2.85
	26	18	9.86	8.07	2.17	9.81	8.03	2.45	9.41	7.70	2.59	9.04	7.39	2.70	8.33	6.81	2.93
	27	19	10.06	8.30	2.18	10.01	8.26	2.47	9.60	7.92	2.60	9.22	7.61	2.71	8.50	7.01	2.94
	30	22	10.66	8.99	2.25	10.61	8.95	2.54	10.18	8.58	2.68	9.77	8.24	2.79	9.00	7.59	3.03
	32	24	11.14	9.64	2.31	11.08	9.59	2.61	10.63	9.20	2.76	10.21	8.83	2.88	9.41	8.14	3.12
M	20	14	8.50	6.36	1.92	8.45	6.33	2.17	8.11	6.07	2.29	7.79	5.83	2.39	7.18	5.37	2.59
	23	16	9.01	7.03	2.02	8.96	6.99	2.28	8.60	6.71	2.40	8.25	6.44	2.50	7.61	5.94	2.72
	26	18	9.37	7.50	2.07	9.32	7.46	2.34	8.94	7.16	2.47	8.58	6.88	2.58	7.91	6.34	2.80
	27	19	9.56	7.73	2.09	9.51	7.69	2.35	9.12	7.37	2.49	8.76	7.08	2.59	8.07	6.53	2.81
	30	22	10.13	8.39	2.15	10.08	8.35	2.42	9.67	8.01	2.56	9.28	7.69	2.67	8.55	7.09	2.89
	32	24	10.59	9.02	2.21	10.53	8.98	2.49	10.10	8.61	2.64	9.70	8.27	2.75	8.94	7.62	2.98
L	20	14	7.82	5.69	1.87	7.78	5.66	2.11	7.46	5.43	2.23	7.16	5.21	2.33	6.60	4.80	2.52
	23	16	8.29	6.32	1.96	8.24	6.28	2.22	7.91	6.03	2.34	7.59	5.79	2.44	7.00	5.33	2.65
	26	18	8.62	6.76	2.02	8.57	6.72	2.28	8.23	6.45	2.41	7.90	6.19	2.51	7.28	5.71	2.73
	27	19	8.79	6.97	2.03	8.75	6.93	2.29	8.39	6.65	2.42	8.06	6.38	2.53	7.42	5.88	2.74
	30	22	9.32	7.59	2.09	9.27	7.55	2.36	8.89	7.24	2.50	8.54	6.95	2.60	7.87	6.41	2.82
	32	24	9.74	8.18	2.15	9.69	8.14	2.43	9.29	7.81	2.57	8.92	7.49	2.68	8.22	6.91	2.90

### Heating

Fan speed	Outdoor air temperature °C		Indoor dry bulb temperature °C											
			16		18		20		22		24			
	DB	WB	TC	PI	TC	PI	TC	PI	TC	PI	TC	PI	TC	PI
Turbo	-10	-11	8.69	2.65	8.24	2.72	7.87	2.82	7.54	2.91	7.25	3.01		
	-5	-5.6	9.15	2.57	8.67	2.64	8.28	2.74	7.94	2.83	7.63	2.92		
	0	-0.7	9.94	2.61	9.42	2.68	9.00	2.78	8.63	2.87	8.30	2.97		
	7	6	13.25	2.82	12.57	2.90	12.00	3.00	11.51	3.10	11.06	3.20		
	10	8	13.92	2.90	13.19	2.99	12.60	3.09	12.08	3.19	11.62	3.30		
	-10	-11	8.45	2.64	8.01	2.71	7.65	2.80	7.34	2.90	7.06	3.00		
H	-5	-5.6	8.90	2.56	8.44	2.63	8.06	2.72	7.72	2.81	7.43	2.91		
	0	-0.7	9.67	2.60	9.17	2.67	8.76	2.76	8.40	2.86	8.07	2.95		
	7	6	12.90	2.81	12.23	2.88	11.68	2.99	11.19	3.09	10.76	3.19		
	10	8	13.54	2.89	12.84	2.97	12.26	3.07	11.75	3.18	11.30	3.28		
	-10	-11	8.18	2.68	7.76	2.75	7.41	2.85	7.10	2.94	6.83	3.04		
M	-5	-5.6	8.61	2.60	8.17	2.67	7.80	2.76	7.48	2.86	7.19	2.95		
	0	-0.7	9.36	2.64	8.88	2.71	8.48	2.81	8.13	2.90	7.81	3.00		
	7	6	12.48	2.85	11.83	2.93	11.30	3.03	10.84	3.13	10.42	3.24		
	10	8	13.11	2.93	12.43	3.02	11.87	3.12	11.38	3.23	10.94	3.33		
	-10	-11	7.77	2.76	7.37	2.84	7.04	2.94	6.75	3.03	6.49	3.14		
L	-5	-5.6	8.18	2.68	7.76	2.75	7.41	2.85	7.10	2.95	6.83	3.04		
	0	-0.7	8.89	2.72	8.43	2.80	8.05	2.89	7.72	2.99	7.42	3.09		
	7	6	11.86	2.94	11.24	3.02	10.74	3.13	10.29	3.23	9.90	3.34		
	10	8	12.45	3.03	11.81	3.11	11.27	3.22	10.81	3.33	10.39	3.44		



GUD125PHS1/C-S  
Cooling

Fan speed	Indoor air temperature °C		Outdoor dry bulb temperature °C														
			25			30			35			40			46		
	TC	SHC	PI	TC	SHC	PI	TC	SHC	PI	TC	SHC	PI	TC	SHC	PI	TC	SHC
	DB	WB	kW	kW	kW	kW	kW	kW	kW	kW	kW	kW	kW	kW	kW	TC	SHC
Turbo	20	14	11.65	9.67	2.84	11.59	9.62	3.21	11.12	9.22	3.39	10.67	8.86	3.53	9.79	8.13	3.83
	24	17	12.35	10.51	2.98	12.28	10.46	3.37	11.78	10.03	3.56	11.31	9.63	3.71	10.38	8.84	4.02
	26	18	12.84	11.11	3.07	12.77	11.05	3.47	12.25	10.60	3.66	11.77	10.18	3.81	10.79	9.34	4.14
	27	19	13.10	11.40	3.09	13.03	11.34	3.48	12.50	10.88	3.68	12.00	10.45	3.83	11.01	9.58	4.16
	30	22	13.88	12.27	3.18	13.81	12.21	3.59	13.25	11.71	3.79	12.72	11.24	3.95	11.67	10.32	4.28
	32	24	14.51	13.06	3.27	14.43	12.99	3.69	13.85	12.46	3.90	13.29	11.96	4.06	12.20	10.98	4.41
H	20	14	11.18	9.02	2.74	11.12	8.98	3.10	10.67	8.61	3.27	10.25	8.27	3.41	9.44	7.62	3.70
	23	16	11.85	9.86	2.88	11.79	9.80	3.25	11.31	9.40	3.43	10.86	9.03	3.57	10.01	8.32	3.88
	26	18	12.33	10.44	2.96	12.26	10.39	3.34	11.76	9.97	3.53	11.29	9.57	3.68	10.41	8.82	3.99
	27	19	12.58	10.73	2.98	12.51	10.67	3.36	12.00	10.24	3.55	11.52	9.83	3.70	10.62	9.06	4.01
	30	22	13.33	11.57	3.06	13.26	11.51	3.46	12.72	11.04	3.65	12.21	10.60	3.81	11.26	9.77	4.13
	32	24	13.93	12.35	3.15	13.86	12.28	3.56	13.29	11.78	3.76	12.76	11.31	3.92	11.76	10.43	4.25
M	20	14	10.62	8.34	2.62	10.57	8.29	2.96	10.14	7.95	3.12	9.73	7.64	3.25	8.97	7.04	3.53
	23	16	11.26	9.14	2.75	11.20	9.09	3.10	10.75	8.72	3.28	10.32	8.38	3.41	9.51	7.72	3.70
	26	18	11.71	9.71	2.83	11.65	9.66	3.19	11.18	9.27	3.37	10.73	8.90	3.51	9.89	8.20	3.81
	27	19	11.95	9.99	2.84	11.88	9.93	3.21	11.40	9.53	3.39	10.94	9.15	3.53	10.09	8.43	3.83
	30	22	12.66	10.80	2.93	12.60	10.74	3.30	12.08	10.31	3.49	11.60	9.90	3.63	10.69	9.12	3.94
	32	24	13.23	11.56	3.01	13.16	11.50	3.40	12.63	11.03	3.59	12.12	10.59	3.74	11.17	9.76	4.06
L	20	14	9.77	7.45	2.55	9.72	7.41	2.88	9.33	7.11	3.04	8.95	6.83	3.17	8.25	6.29	3.44
	23	16	10.36	8.21	2.68	10.31	8.17	3.02	9.89	7.84	3.19	9.49	7.52	3.33	8.75	6.93	3.61
	26	18	10.78	8.75	2.76	10.72	8.70	3.11	10.28	8.35	3.29	9.87	8.01	3.42	9.10	7.39	3.72
	27	19	10.99	9.00	2.77	10.93	8.96	3.13	10.49	8.59	3.30	10.07	8.25	3.44	9.28	7.60	3.73
	30	22	11.65	9.76	2.85	11.59	9.71	3.22	11.12	9.32	3.40	10.67	8.94	3.54	9.84	8.24	3.84
	32	24	12.17	10.48	2.94	12.11	10.42	3.31	11.62	10.00	3.50	11.15	9.60	3.65	10.28	8.85	3.96

## Heating

Fan speed	Outdoor air temperature °C		Indoor dry bulb temperature °C									
			16		18		20		22		24	
	DB	WB	kW	kW	kW	kW	kW	kW	kW	kW	kW	kW
Turbo	-10	-11	10.14	3.25	9.61	3.34	9.18	3.46	8.80	3.57	8.46	3.69
	-5	-5.6	10.67	3.16	10.12	3.24	9.66	3.36	9.26	3.47	8.91	3.59
	0	-0.7	11.60	3.20	10.99	3.29	10.50	3.41	10.07	3.52	9.68	3.64
	7	6	15.46	3.46	14.66	3.56	14.00	3.68	13.42	3.80	12.91	3.93
	10	8	16.24	3.56	15.39	3.66	14.70	3.79	14.09	3.92	13.55	4.05
H	-10	-11	9.86	3.23	9.35	3.32	8.93	3.44	8.56	3.56	8.23	3.67
	-5	-5.6	10.38	3.14	9.84	3.23	9.40	3.34	9.01	3.45	8.67	3.57
	0	-0.7	11.28	3.19	10.70	3.28	10.22	3.39	9.80	3.50	9.42	3.62
	7	6	15.05	3.44	14.26	3.54	13.62	3.66	13.06	3.78	12.56	3.91
	10	8	15.80	3.54	14.98	3.64	14.30	3.77	13.71	3.90	13.19	4.03
M	-10	-11	9.55	3.28	9.05	3.37	8.64	3.49	8.29	3.61	7.97	3.73
	-5	-5.6	10.05	3.19	9.53	3.28	9.10	3.39	8.72	3.50	8.39	3.62
	0	-0.7	10.92	3.23	10.36	3.33	9.89	3.44	9.48	3.56	9.12	3.68
	7	6	14.56	3.49	13.81	3.59	13.19	3.72	12.64	3.84	12.16	3.97
	10	8	15.29	3.60	14.50	3.70	13.85	3.83	13.27	3.96	12.76	4.09
L	-10	-11	9.07	3.39	8.60	3.48	8.21	3.60	7.87	3.72	7.57	3.85
	-5	-5.6	9.55	3.29	9.05	3.38	8.64	3.50	8.29	3.61	7.97	3.74
	0	-0.7	10.38	3.34	9.84	3.43	9.40	3.55	9.01	3.67	8.66	3.79
	7	6	13.84	3.60	13.12	3.70	12.53	3.83	12.01	3.96	11.55	4.09
	10	8	14.53	3.71	13.77	3.81	13.15	3.95	12.61	4.08	12.13	4.22

# U-MATCH SERIES AIR CONDITIONERS

GUD140PHS1/C-S

Cooling

Fan speed	Indoor air temperature °C		Outdoor dry bulb temperature °C															
			25			30			35			40			46			
	TC	SHC	PI	TC	SHC	PI	TC	SHC	PI	TC	SHC	PI	TC	SHC	PI			
Turbo	DB	WB	kW	kW	kW	kW	DB	WB	kW									
	20	14	13.05	9.57	3.03	12.98	9.52	3.42	12.45	9.13	3.61	11.95	8.77	3.76	10.97	8.05	4.08	
	24	17	13.83	10.61	3.18	13.76	10.56	3.59	13.20	10.13	3.79	12.67	9.72	3.95	11.63	8.92	4.28	
	26	18	14.38	11.35	3.27	14.31	11.29	3.69	13.73	10.83	3.90	13.18	10.40	4.06	12.09	9.54	4.41	
	27	19	14.67	11.69	3.29	14.59	11.63	3.71	14.00	11.16	3.92	13.44	10.71	4.08	12.33	9.83	4.43	
	30	22	15.55	12.72	3.38	15.47	12.66	3.82	14.84	12.14	4.04	14.25	11.66	4.20	13.07	10.70	4.56	
H	32	24	16.25	13.71	3.48	16.16	13.63	3.93	15.51	13.08	4.15	14.89	12.56	4.33	13.66	11.52	4.69	
	20	14	12.53	8.93	2.92	12.46	8.88	3.30	11.95	8.52	3.48	11.48	8.18	3.63	10.58	7.54	3.94	
	23	16	13.28	9.94	3.06	13.21	9.89	3.46	12.67	9.49	3.66	12.16	9.11	3.81	11.21	8.40	4.13	
	26	18	13.81	10.66	3.15	13.73	10.61	3.56	13.18	10.18	3.76	12.65	9.77	3.92	11.66	9.01	4.25	
	27	19	14.08	11.00	3.17	14.01	10.94	3.58	13.44	10.50	3.78	12.90	10.08	3.94	11.89	9.29	4.27	
	30	22	14.93	12.00	3.26	14.85	11.94	3.69	14.25	11.45	3.89	13.68	11.00	4.06	12.61	10.13	4.40	
M	32	24	15.60	12.97	3.36	15.52	12.90	3.79	14.89	12.37	4.01	14.29	11.88	4.17	13.17	10.95	4.53	
	20	14	11.90	8.24	2.79	11.84	8.19	3.15	11.35	7.86	3.33	10.90	7.55	3.47	10.05	6.96	3.76	
	23	16	12.61	9.22	2.93	12.55	9.17	3.30	12.04	8.80	3.49	11.56	8.45	3.64	10.65	7.79	3.94	
	26	18	13.12	9.92	3.01	13.05	9.87	3.40	12.52	9.46	3.59	12.02	9.09	3.74	11.08	8.38	4.06	
	27	19	13.38	10.24	3.03	13.31	10.19	3.42	12.77	9.77	3.61	12.26	9.38	3.76	11.30	8.65	4.08	
	30	22	14.18	11.20	3.12	14.11	11.14	3.52	13.53	10.69	3.72	12.99	10.26	3.87	11.98	9.46	4.20	
L	32	24	14.82	12.14	3.21	14.74	12.07	3.62	14.14	11.58	3.83	13.58	11.12	3.99	12.52	10.25	4.32	
	20	14	10.95	7.36	2.72	10.89	7.32	3.07	10.45	7.02	3.24	10.03	6.74	3.38	9.24	6.21	3.67	
	23	16	11.60	8.28	2.85	11.54	8.24	3.22	11.07	7.90	3.40	10.63	7.59	3.54	9.80	6.99	3.85	
	26	18	12.07	8.93	2.94	12.00	8.89	3.32	11.52	8.52	3.50	11.06	8.18	3.65	10.19	7.54	3.96	
	27	19	12.31	9.24	2.95	12.24	9.19	3.33	11.75	8.81	3.52	11.28	8.46	3.67	10.39	7.80	3.98	
	30	22	13.05	10.13	3.04	12.98	10.07	3.43	12.45	9.66	3.62	11.95	9.28	3.77	11.02	8.55	4.09	
	32	24	13.64	11.01	3.13	13.56	10.95	3.53	13.01	10.50	3.73	12.49	10.08	3.89	11.51	9.29	4.22	

Heating

Fan speed	Outdoor air temperature °C		Indoor dry bulb temperature °C									
			16		18		20		22		24	
	TC	PI	TC	PI	TC	PI	TC	PI	TC	PI	TC	PI
Turbo	-10	-11	11.58	3.71	10.98	3.81	10.49	3.95	10.06	4.08	9.67	4.22
	-5	-5.6	12.19	3.60	11.56	3.70	11.04	3.83	10.58	3.96	10.18	4.09
	0	-0.7	13.25	3.66	12.57	3.76	12.00	3.89	11.51	4.02	11.06	4.15
	7	6	17.67	3.95	16.75	4.06	16.00	4.20	15.34	4.34	14.75	4.49
	10	8	18.56	4.07	17.59	4.18	16.80	4.33	16.11	4.47	15.49	4.62
	-10	-11	11.27	3.69	10.69	3.79	10.20	3.93	9.78	4.06	9.41	4.19
H	-5	-5.6	11.87	3.58	11.25	3.68	10.74	3.81	10.30	3.94	9.90	4.07
	0	-0.7	12.90	3.64	12.23	3.74	11.68	3.87	11.19	4.00	10.76	4.13
	7	6	17.20	3.93	16.30	4.04	15.57	4.18	14.93	4.32	14.35	4.46
	10	8	18.06	4.05	17.12	4.16	16.35	4.30	15.67	4.45	15.07	4.60
	-10	-11	10.91	3.75	10.34	3.85	9.88	3.99	9.47	4.12	9.11	4.26
M	-5	-5.6	11.49	3.64	10.89	3.74	10.40	3.87	9.97	4.00	9.59	4.13
	0	-0.7	12.48	3.69	11.83	3.79	11.30	3.93	10.84	4.06	10.42	4.20
	7	6	16.65	3.99	15.78	4.10	15.07	4.24	14.45	4.38	13.89	4.53
	10	8	17.48	4.11	16.57	4.22	15.82	4.37	15.17	4.52	14.59	4.67
	-10	-11	10.37	3.86	9.83	3.97	9.38	4.11	9.00	4.25	8.65	4.39
L	-5	-5.6	10.91	3.75	10.34	3.86	9.88	3.99	9.47	4.12	9.11	4.26
	0	-0.7	11.86	3.81	11.24	3.91	10.74	4.05	10.29	4.19	9.90	4.33
	7	6	15.81	4.11	14.99	4.23	14.32	4.38	13.73	4.52	13.20	4.67
	10	8	16.60	4.24	15.74	4.35	15.03	4.51	14.41	4.66	13.86	4.81

**GUD160PHS1/C-S**
**Cooling**

Fan speed	Indoor air temperature °C		Outdoor dry bulb temperature °C														
			25			30			35			40			46		
	DB	WB	TC	SHC	PI	TC	SHC	PI	TC	SHC	PI	TC	SHC	PI	TC	SHC	PI
Turbo	20	14	14.91	12.15	3.71	14.83	12.09	4.19	14.23	11.60	4.42	13.66	11.14	4.61	12.53	10.22	5.00
	24	17	15.81	13.25	3.89	15.72	13.18	4.39	15.08	12.65	4.64	14.48	12.14	4.83	13.29	11.14	5.24
	26	18	16.44	14.03	4.00	16.35	13.96	4.52	15.69	13.39	4.78	15.06	12.85	4.97	13.82	11.79	5.40
	27	19	16.77	14.41	4.02	16.68	14.33	4.54	16.00	13.75	4.80	15.36	13.20	5.00	14.09	12.11	5.42
	30	22	17.77	15.53	4.14	17.68	15.45	4.68	16.96	14.82	4.94	16.28	14.23	5.15	14.94	13.05	5.58
	32	24	18.57	16.55	4.26	18.47	16.47	4.81	17.72	15.80	5.09	17.02	15.17	5.30	15.61	13.92	5.75
H	20	14	14.31	11.35	3.58	14.24	11.29	4.04	13.66	10.83	4.27	13.11	10.39	4.44	12.09	9.58	4.82
	23	16	15.17	12.42	3.75	15.09	12.36	4.24	14.48	11.86	4.48	13.90	11.38	4.66	12.81	10.49	5.06
	26	18	15.78	13.19	3.86	15.70	13.12	4.36	15.06	12.58	4.61	14.46	12.08	4.80	13.33	11.14	5.21
	27	19	16.10	13.55	3.88	16.01	13.48	4.38	15.36	12.93	4.63	14.75	12.42	4.82	13.59	11.45	5.23
	30	22	17.06	14.65	4.00	16.97	14.57	4.51	16.28	13.98	4.77	15.63	13.42	4.97	14.41	12.37	5.39
	32	24	17.83	15.66	4.11	17.74	15.57	4.65	17.01	14.94	4.91	16.33	14.34	5.11	15.06	13.22	5.55
M	20	14	13.60	10.48	3.42	13.53	10.42	3.86	12.98	10.00	4.07	12.46	9.60	4.24	11.48	8.85	4.60
	23	16	14.41	11.52	3.58	14.34	11.46	4.05	13.76	11.00	4.27	13.21	10.56	4.45	12.17	9.73	4.83
	26	18	14.99	12.26	3.69	14.91	12.20	4.16	14.31	11.70	4.40	13.73	11.24	4.58	12.66	10.36	4.97
	27	19	15.29	12.62	3.71	15.21	12.55	4.19	14.59	12.04	4.42	14.01	11.56	4.61	12.91	10.66	5.00
	30	22	16.21	13.67	3.82	16.12	13.60	4.31	15.47	13.04	4.55	14.85	12.52	4.74	13.69	11.54	5.14
	32	24	16.94	14.65	3.93	16.85	14.58	4.43	16.16	13.98	4.69	15.52	13.42	4.88	14.30	12.37	5.29
L	20	14	12.51	9.37	3.33	12.44	9.32	3.76	11.94	8.94	3.97	11.46	8.58	4.14	10.56	7.91	4.49
	23	16	13.26	10.35	3.49	13.19	10.30	3.94	12.66	9.88	4.17	12.15	9.48	4.34	11.20	8.74	4.71
	26	18	13.79	11.05	3.60	13.72	10.99	4.06	13.16	10.54	4.29	12.64	10.12	4.47	11.65	9.33	4.85
	27	19	14.07	11.38	3.61	13.99	11.32	4.08	13.42	10.86	4.31	12.89	10.42	4.49	11.88	9.61	4.87
	30	22	14.91	12.36	3.72	14.83	12.29	4.20	14.23	11.79	4.44	13.66	11.32	4.62	12.59	10.43	5.01
	32	24	15.58	13.28	3.83	15.50	13.21	4.32	14.87	12.67	4.57	14.28	12.17	4.76	13.16	11.22	5.16

**Heating**

Fan speed	Outdoor air temperature °C		Indoor dry bulb temperature °C											
			16		18		20		22		24			
	TC	PI	TC	PI	TC	PI	TC	PI	TC	PI	TC	PI	TC	PI
Turbo	-10	-11	13.03	4.11	12.35	4.22	11.80	4.37	11.31	4.52	10.88	4.67		
	-5	-5.6	13.72	3.99	13.01	4.10	12.42	4.24	11.91	4.38	11.45	4.53		
	0	-0.7	14.91	4.05	14.14	4.16	13.50	4.31	12.94	4.45	12.45	4.60		
	7	6	19.88	4.37	18.85	4.49	18.00	4.65	17.26	4.81	16.59	4.97		
	10	8	20.88	4.50	19.79	4.63	18.90	4.79	18.12	4.95	17.42	5.12		
H	-10	-11	12.68	4.09	12.02	4.20	11.48	4.35	11.01	4.49	10.58	4.64		
	-5	-5.6	13.35	3.97	12.65	4.08	12.08	4.22	11.59	4.36	11.14	4.51		
	0	-0.7	14.51	4.03	13.75	4.14	13.14	4.28	12.59	4.43	12.11	4.58		
	7	6	19.35	4.35	18.34	4.47	17.51	4.63	16.79	4.78	16.15	4.94		
	10	8	20.31	4.48	19.26	4.60	18.39	4.77	17.63	4.93	16.95	5.09		
M	-10	-11	12.28	4.15	11.64	4.26	11.11	4.41	10.65	4.56	10.25	4.71		
	-5	-5.6	12.92	4.03	12.25	4.14	11.70	4.28	11.22	4.43	10.78	4.58		
	0	-0.7	14.04	4.09	13.31	4.20	12.72	4.35	12.19	4.49	11.72	4.64		
	7	6	18.73	4.41	17.75	4.54	16.95	4.70	16.25	4.85	15.63	5.02		
	10	8	19.66	4.55	18.64	4.67	17.80	4.84	17.07	5.00	16.41	5.17		
L	-10	-11	11.66	4.28	11.05	4.40	10.56	4.55	10.12	4.70	9.73	4.86		
	-5	-5.6	12.28	4.15	11.64	4.27	11.11	4.42	10.65	4.57	10.25	4.72		
	0	-0.7	13.34	4.22	12.65	4.33	12.08	4.48	11.58	4.64	11.14	4.79		
	7	6	17.79	4.55	16.86	4.68	16.11	4.84	15.44	5.01	14.85	5.17		
	10	8	18.68	4.69	17.71	4.82	16.91	4.99	16.21	5.16	15.59	5.33		

# U-MATCH SERIES AIR CONDITIONERS

Technical Sales Guide

## Symbols:

DB: Dry bulb temperature

WB: Wet bulb temperature

TC: Total cooling/heating capacity

SHC: Sensible heat capacity

PI: Power input (compressor + indoor fan motor + outdoor fan motor)

1. The above data are based on the following conditions.

—	Power Supply	Equivalent Piping Length
Indoor	230V ~50Hz	Standard Piping Length

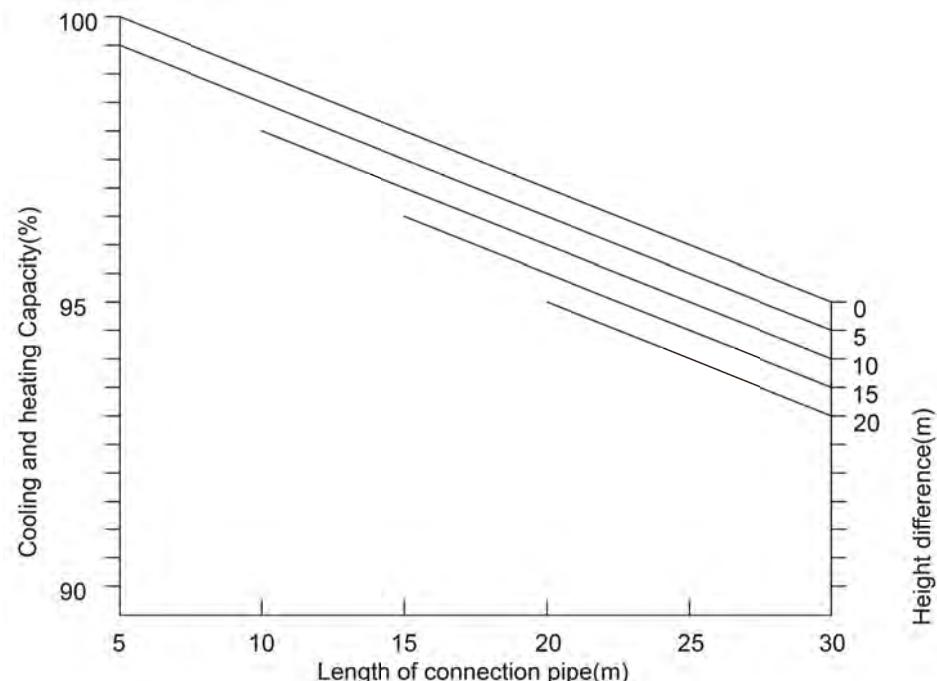
2. Capacities are net, including a deduction for cooling (an addition for heating) for indoor fan motor heat.



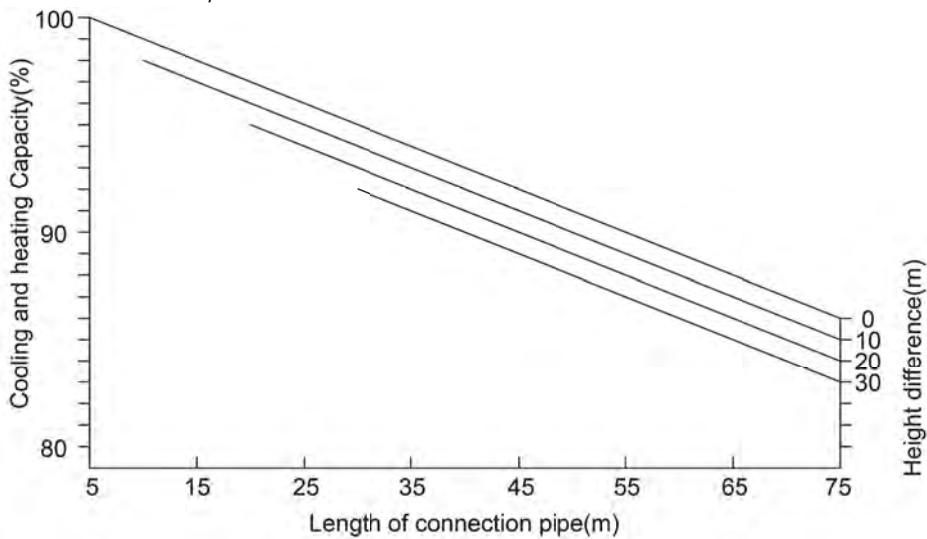
## 6.2 Pipe Length Drop Capacity Correction

GUD50T1/C-S; GUD50PHS1/C-S;

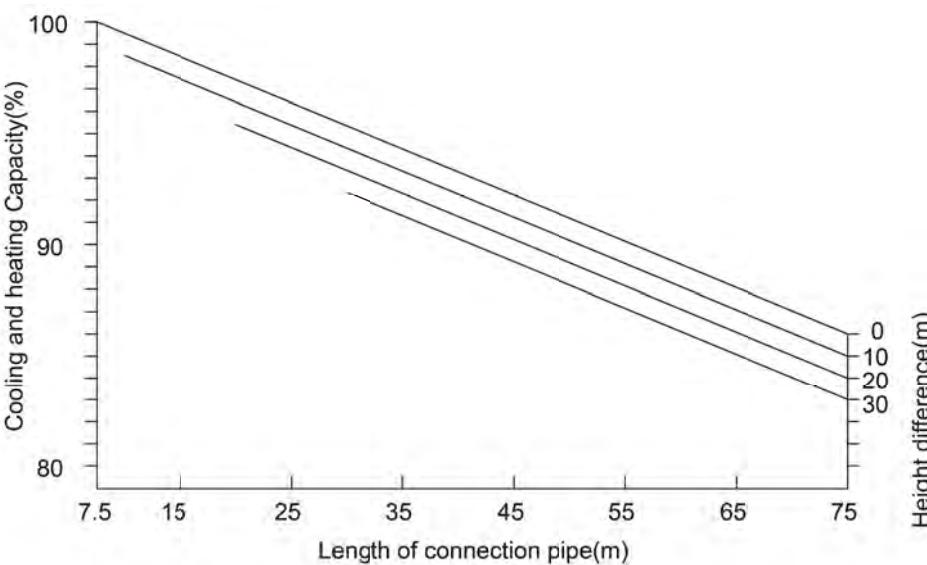
GUD71T1/C-S; GUD71PHS1/C-S;



GUD100T1/C-S; GUD100PHS1/C-S;  
GUD125T1/C-S; GUD125PHS1/C-S;



GUD140PHS1/C-S;  
GUD160T1/C-S; GUD160PHS1/C-S;



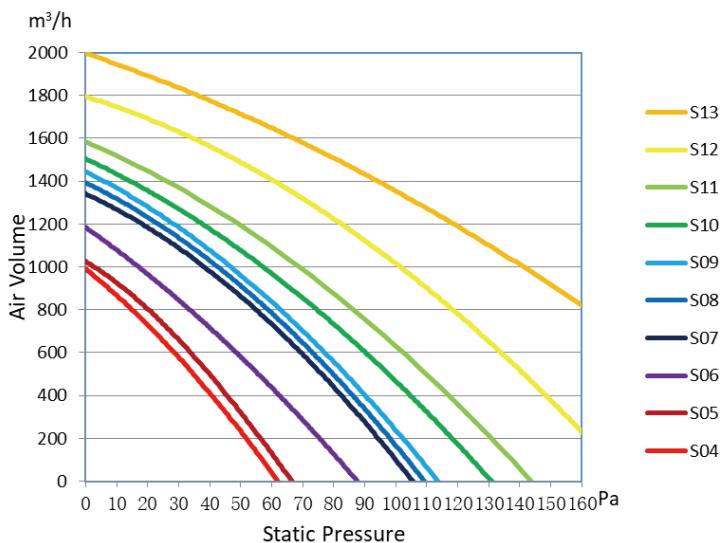
## Notes:

1. Above figures indicate the capacity change rate of a standard indoor unit system under maximum load in standard conditions.
  2. Under partial load, the capacity change rate indicated above will have a very small deviation.
  3. Capacity calculation method for cooling/heating  
Cooling/heating capacity = the corresponding capacity in the table of cooling/heating performance \* Capacity correction factor

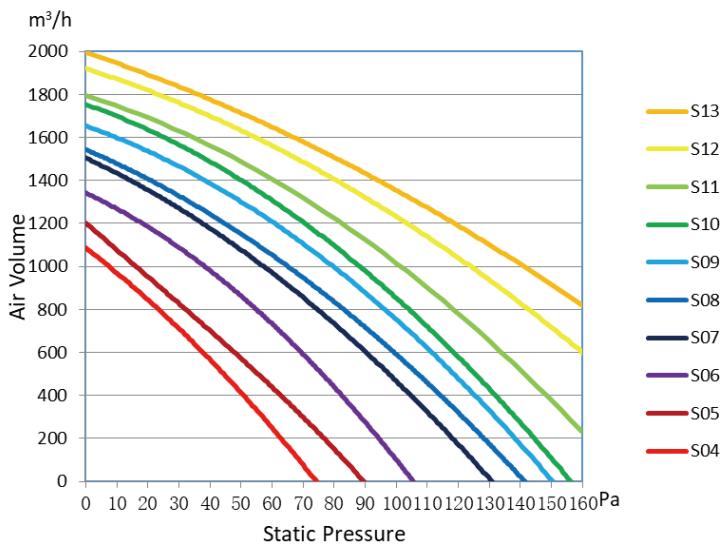
# U-MATCH SERIES AIR CONDITIONERS

## 7 AIR VOLUME STATIC PRESSURE CURVE

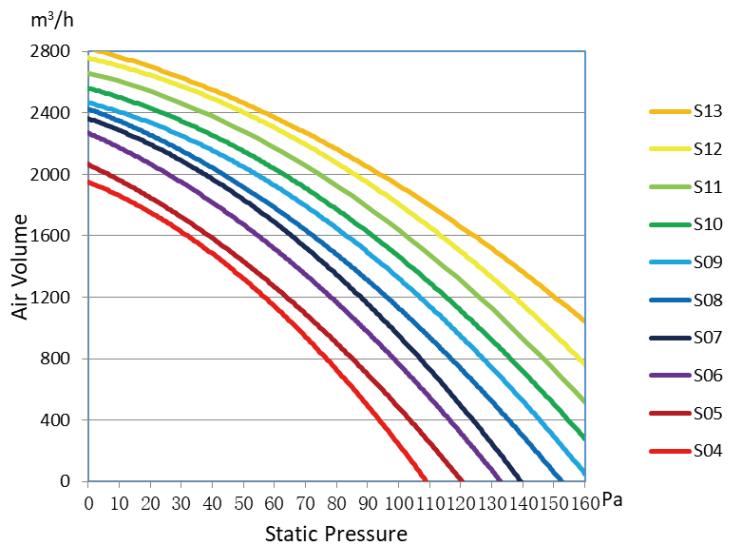
GUD50PHS1/C-S



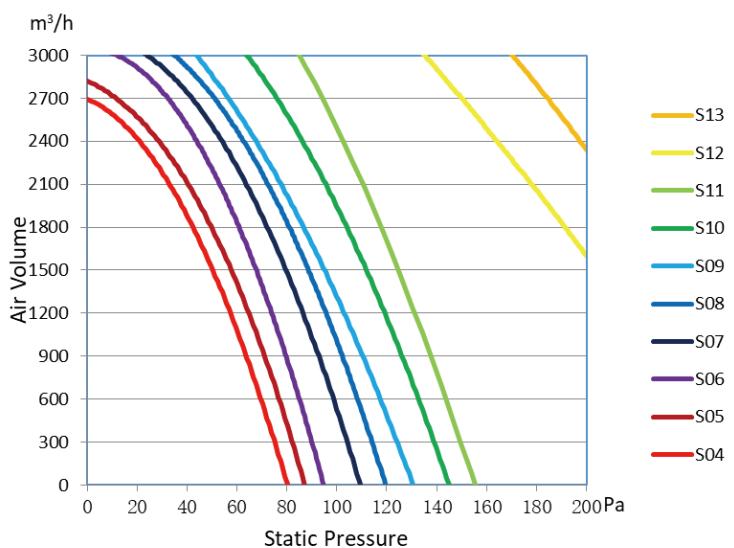
GUD71PHS1/C-S



GUD100PHS1/C-S

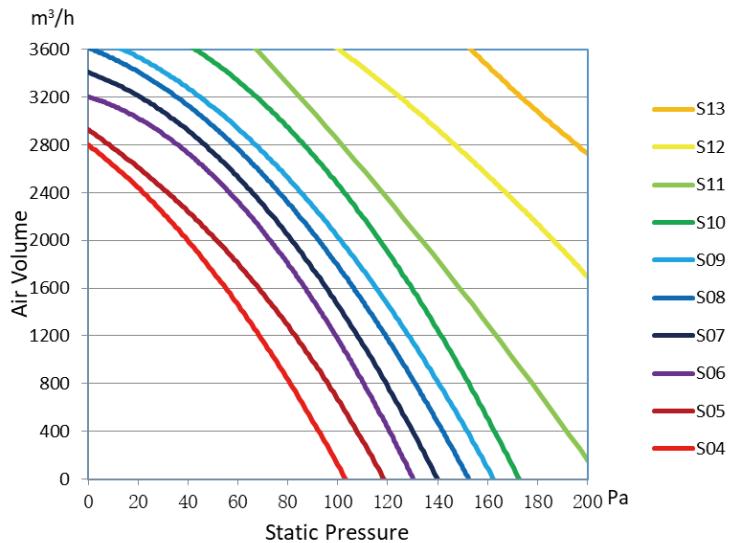


GUD125PHS1/C-S

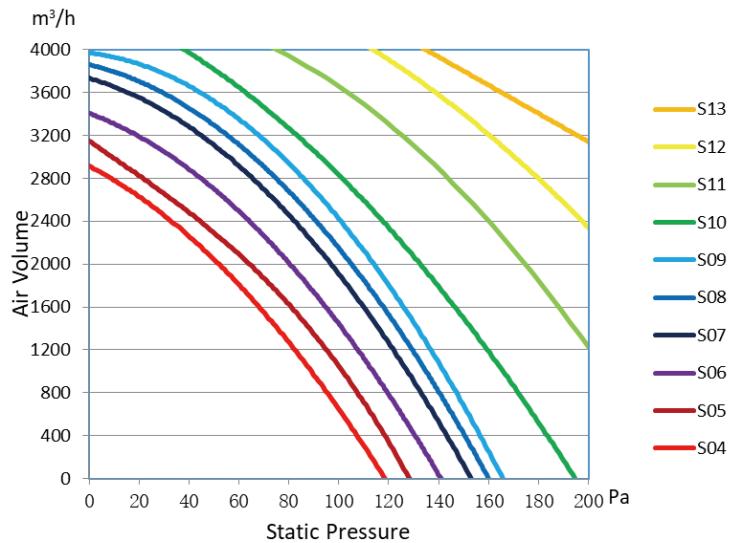


# U-MATCH SERIES AIR CONDITIONERS

GUD140PHS1/C-S



GUD160PHS1/C-S



## Notes:

1. The external static pressure (ESP) can be changed in 9 levels by the remote controller.
  2. The default ESP mode setting is P05 which is the rated ESP.
  3. The remote controller can be used to change turbo, H, M and L.

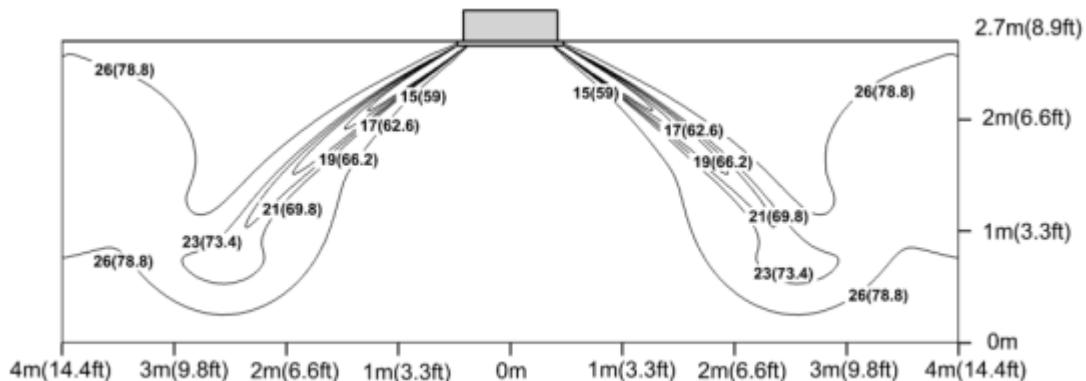
Static pressure selection	Super high speed	High speed	Medium speed	Low speed
P01	S05	S03	S02	S01
P02	S06	S04	S03	S02
P03	S07	S05	S04	S03
P04	S08	S06	S05	S04
P05	S09	S07	S06	S05
P06	S10	S08	S07	S06
P07	S11	S09	S08	S07
P08	S12	S10	S09	S08
P09	S13	S11	S10	S09

## 8 AIRFLOW CHART

GUD50T1/C-S

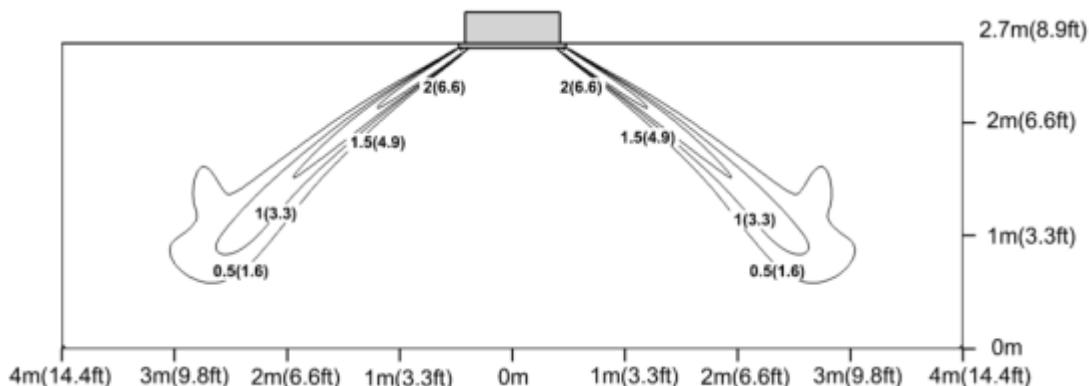
Cooling temperature

Unit: °C ( °F )



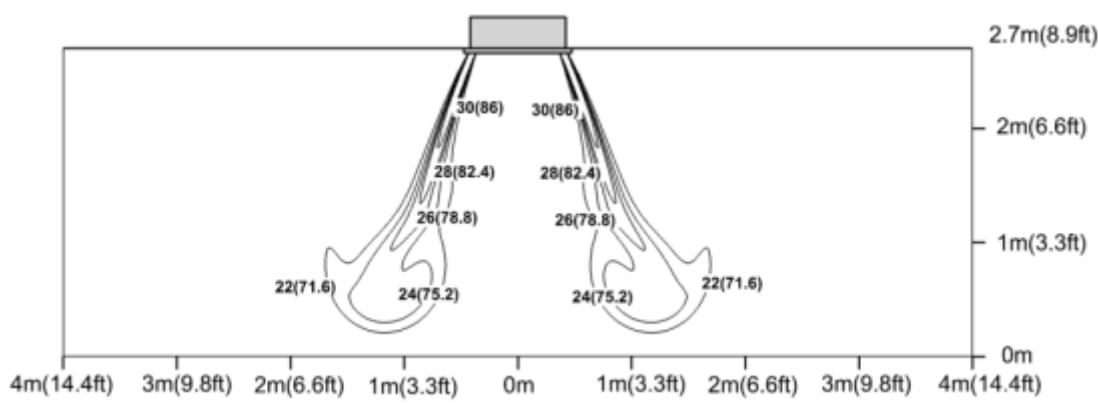
Cooling air velocity

Unit: m/s(ft/s)



Heating temperature

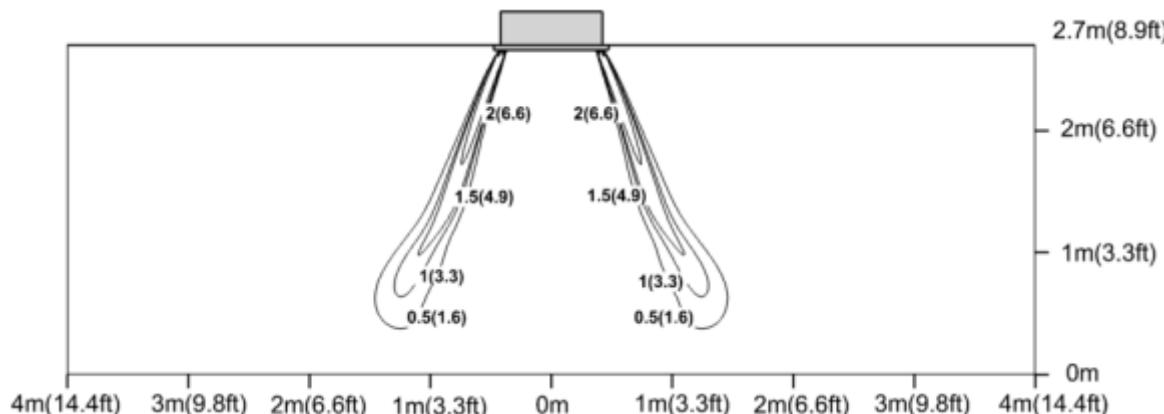
Unit: °C ( °F )



# U-MATCH SERIES AIR CONDITIONERS

Heating air velocity

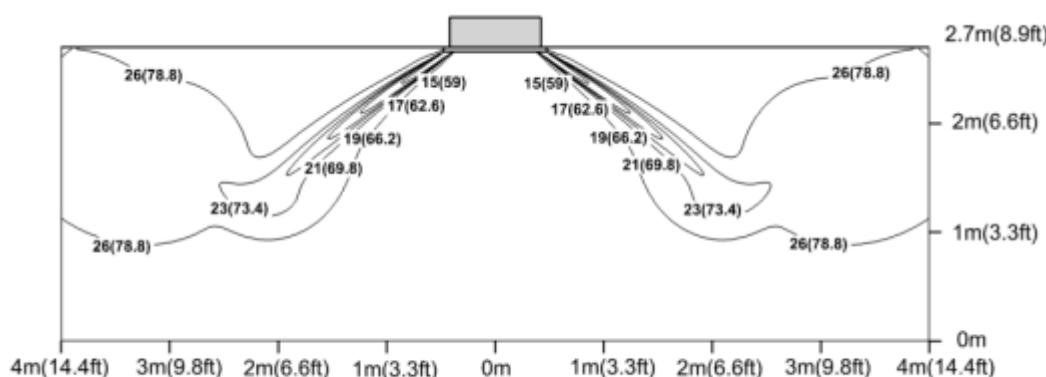
Unit: m/s(ft/s)



GUD71T1/C-S

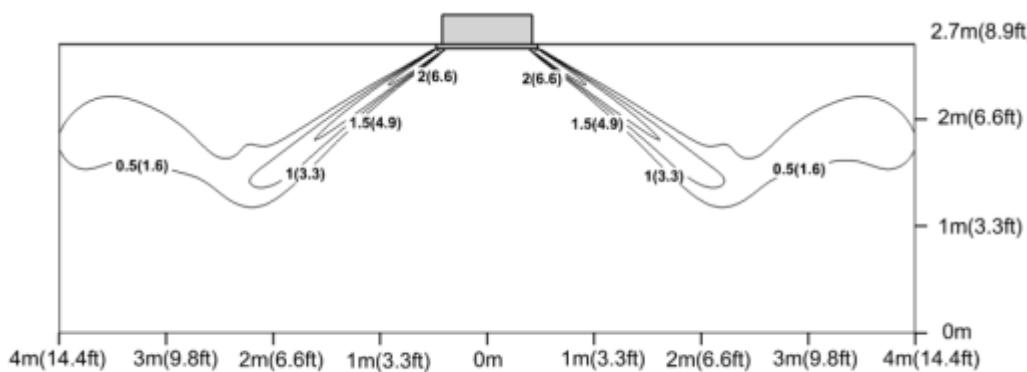
### Cooling temperature

Unit: °C (°F)

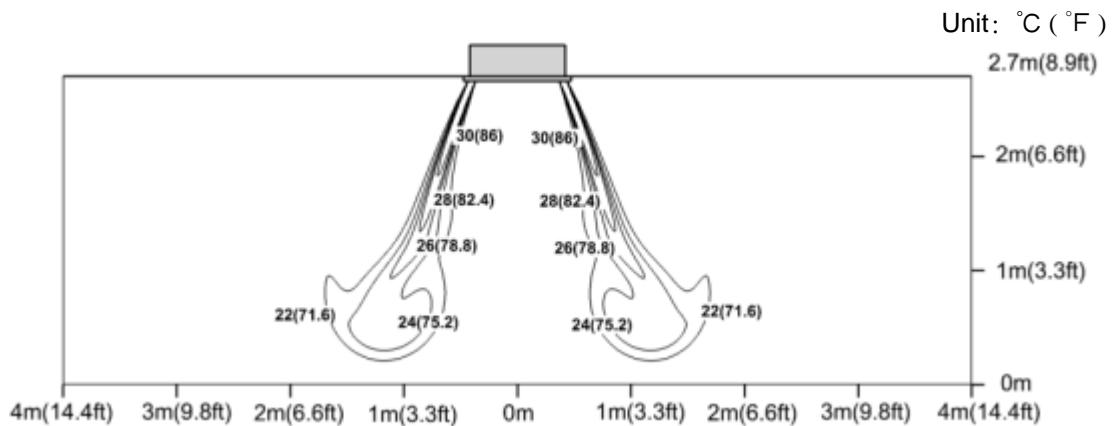


### Cooling air velocity

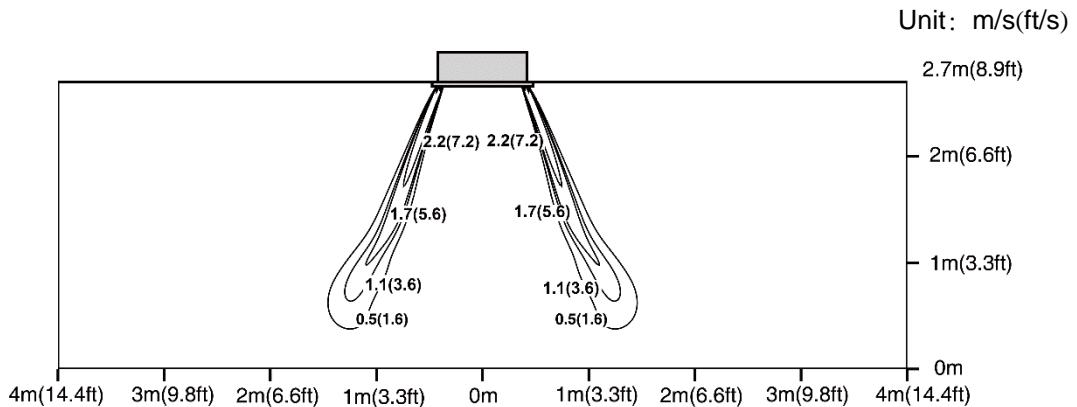
Unit: m/s(ft/s)



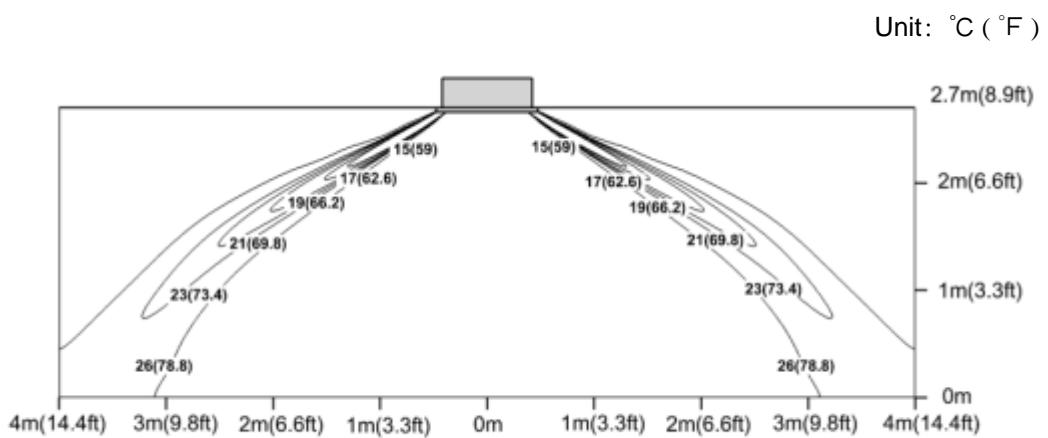
Heating temperature



Heating air velocity



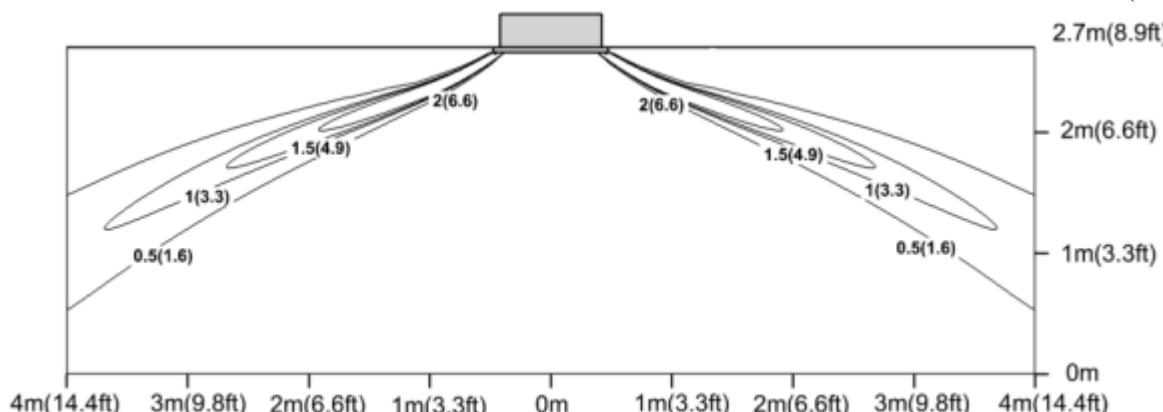
GUD100T1/C-S  
Cooling temperature



# U-MATCH SERIES AIR CONDITIONERS

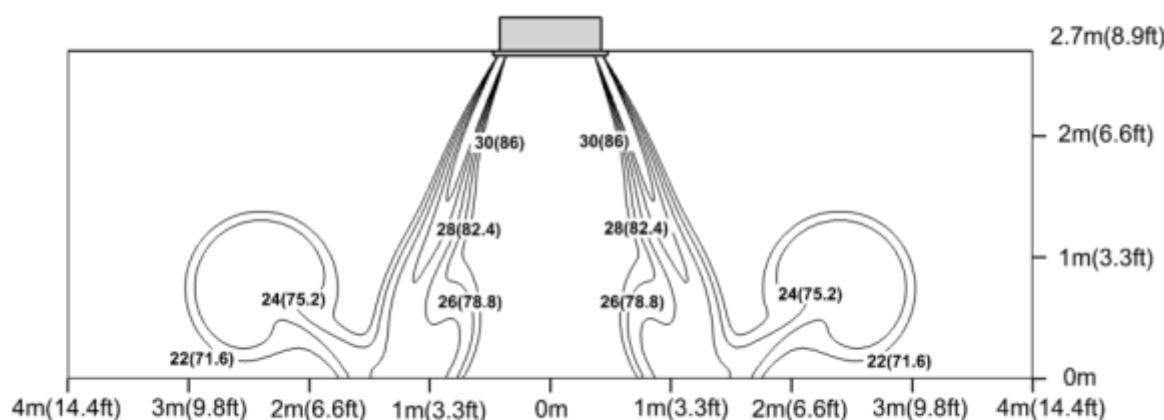
#### Cooling air velocity

Unit: m/s(ft/s)



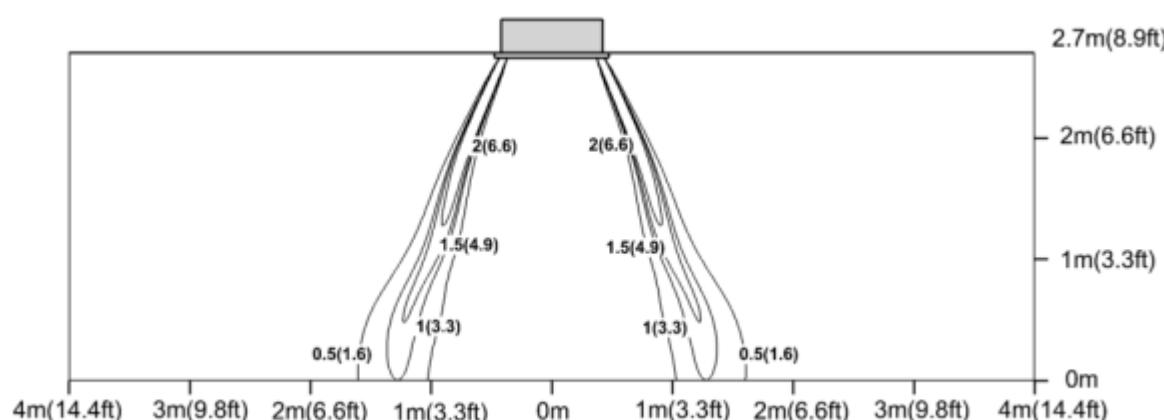
### Heating temperature

Unit: °C ( °F )



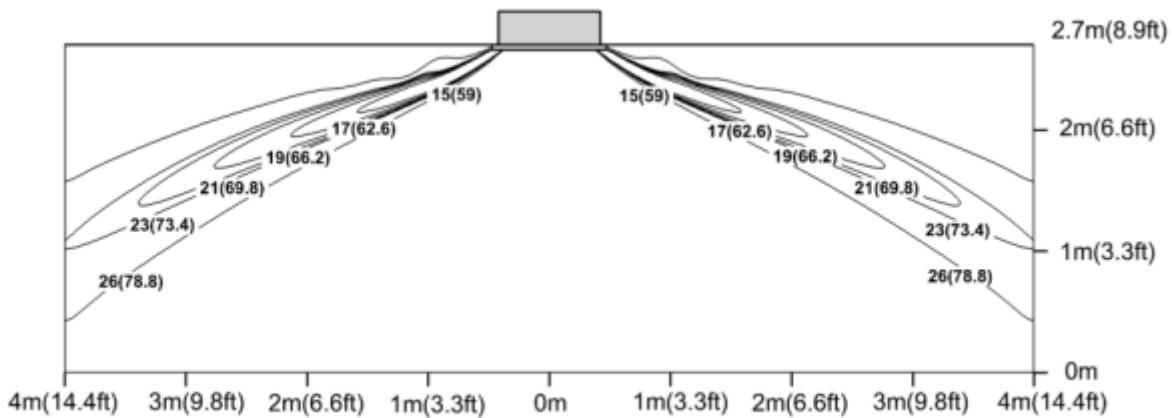
### Heating air velocity

Unit: m/s(ft/s)



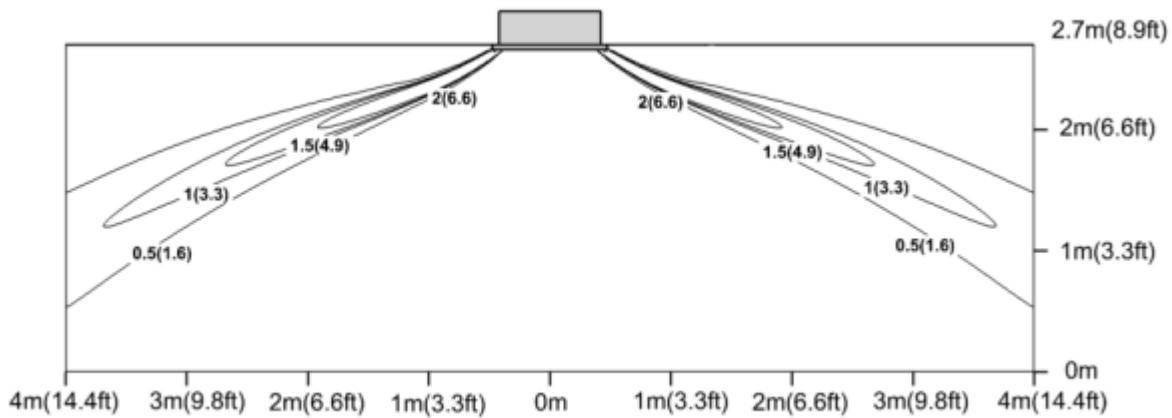
GUD125T1/C-S; GUD160T1/C-S;  
Cooling temperature

Unit: °C ( °F )



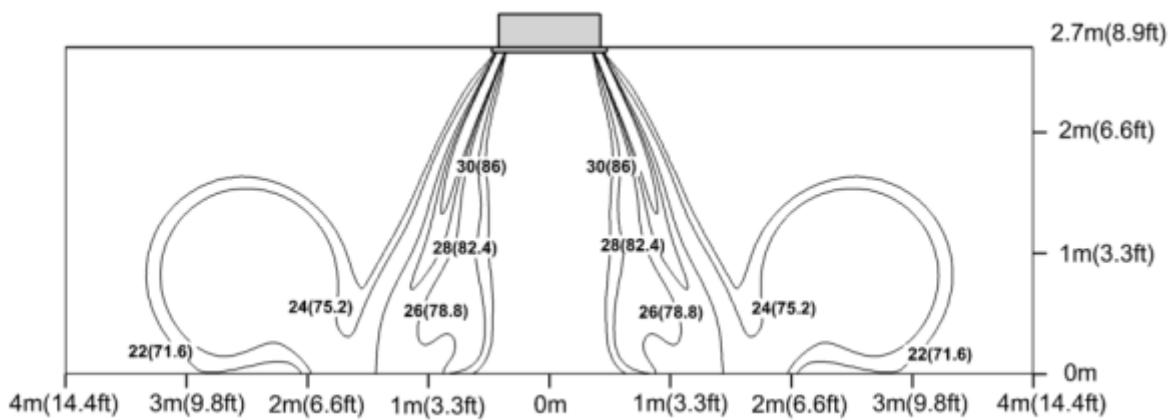
Cooling air velocity

Unit: m/s(ft/s)



Heating temperature

Unit: °C ( °F )

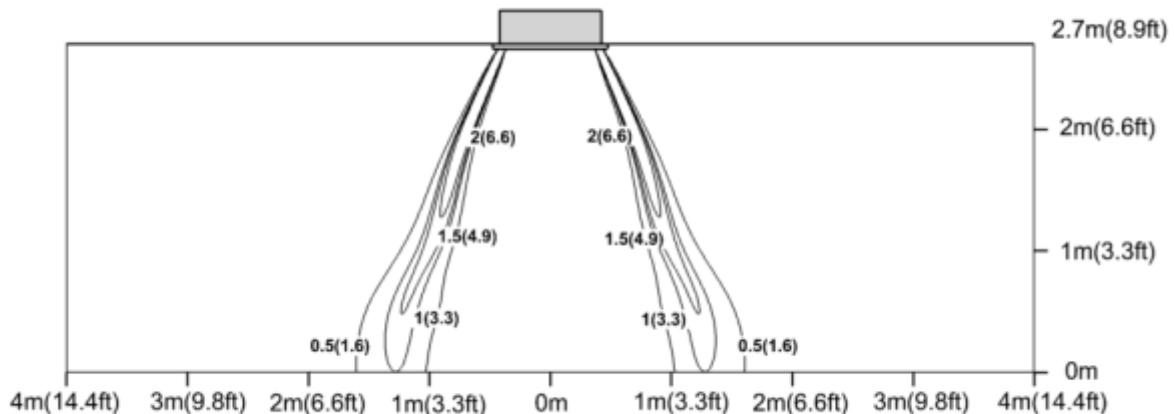


# U-MATCH SERIES AIR CONDITIONERS

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Heating air velocity

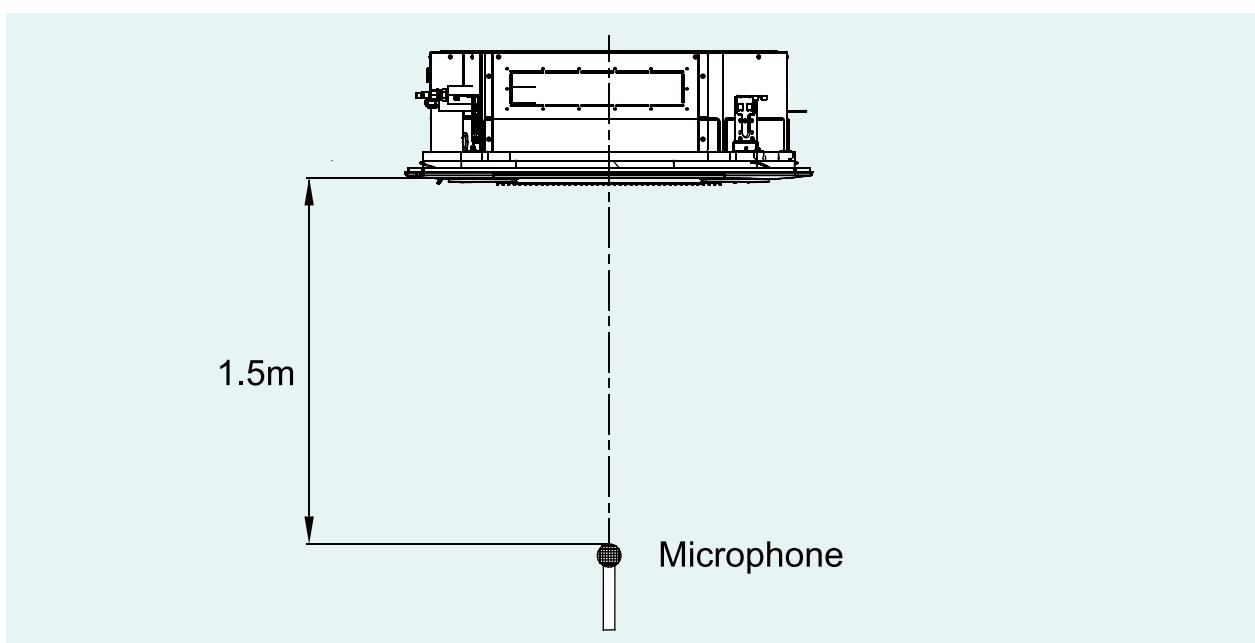
Unit: m/s(ft/s)



## 9 NOISE



### 9.1 Cassette Type



Model	Turbo dB(A)	H dB(A)	M dB(A)	L dB(A)
GUD50T1/C-S	45	43	37	35
GUD71T1/C-S	47	45	41	37

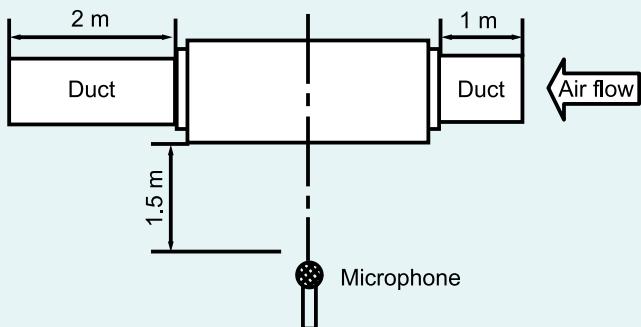
Model	Turbo dB(A)	H dB(A)	M dB(A)	L dB(A)
GUD100T1/C-S	51	48	45	41
GUD125T1/C-S	52	51	49	45
GUD160T1/C-S	52	51	49	45

Notes:

1. Above data was measured under standard conditions. Power specification: 230V ~50Hz.
2. Above data was measured in a semi-anechoic room.
3. Decibels will be varied with the change of external factors, for instance, the room structure. Please refer to the actual measurement.



## 9.2 Duct Type



Model	Turbo dB(A)	H dB(A)	M dB(A)	L dB(A)
GUD50PHS1/C-S	42	41	38	35
GUD71PHS1/C-S	45	43	41	38
GUD100PHS1/C-S	43	42	41	40
GUD125PHS1/C-S	43	42	40	39
GUD140PHS1/C-S	47	45	43	41
GUD160PHS1/C-S	52	50	48	46

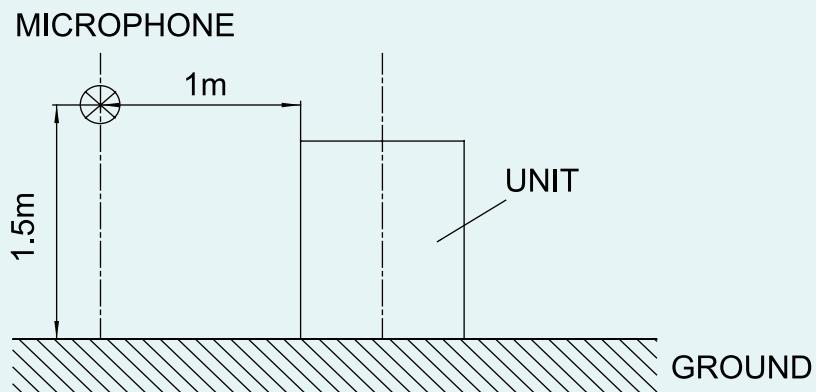
Notes:

1. Above data was measured under standard conditions. Power specification: 230V ~50Hz.
2. Above data was measured in a semi-anechoic room.
3. Decibels will be varied with the change of external factors, for instance, the room structure. Please refer to the actual measurement.

# U-MATCH SERIES AIR CONDITIONERS



## 9.3 Outdoor Unit



Model	Sound pressure level dB(A)	Power supply (V,Ph,Hz)
GUD50W1/NhC-S	57	
GUD71W1/NhC-S	57	
GUD100W1/NhC-S	58	
GUD125W1/NhC-S	59	230V ~50Hz
GUD140W1/NhC-S	59	
GUD160W1/NhC-S	60	

## Notes:

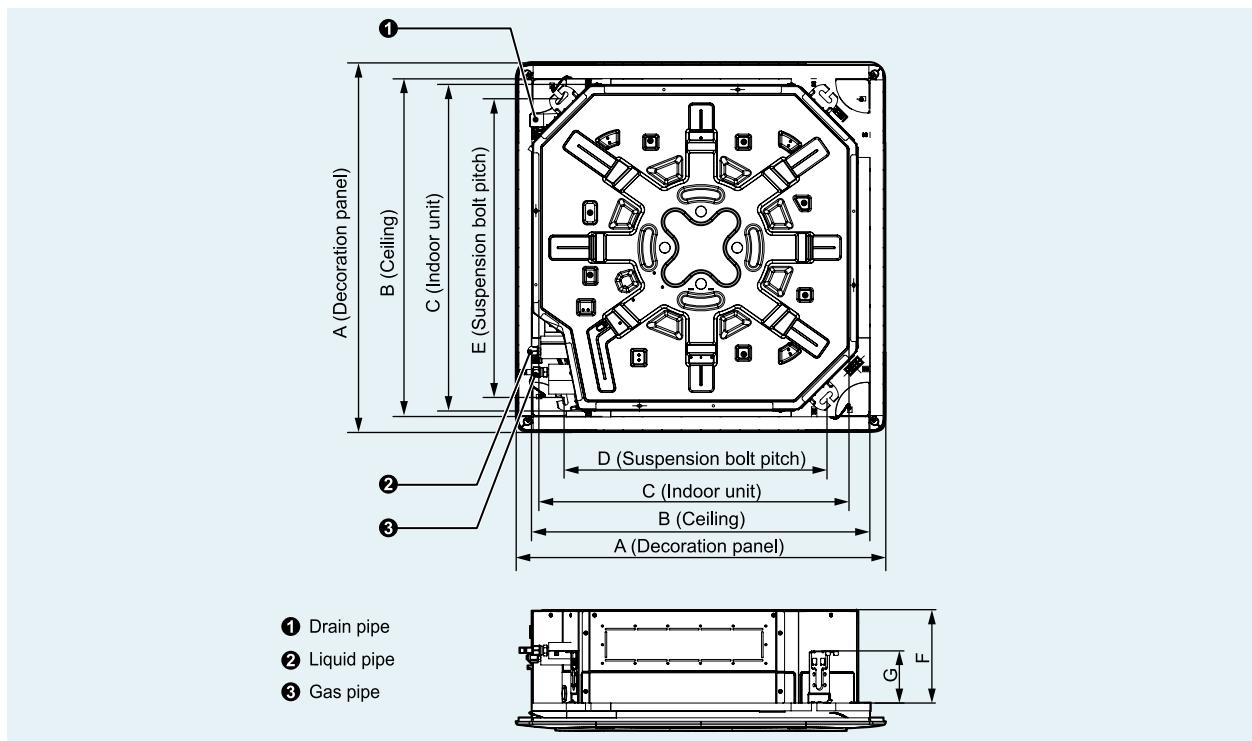
1. Above data was measured under standard conditions.
  2. Above data was measured in a semi-anechoic room.
  3. Decibels will be varied with the change of external factors, for instance, the room structure. Please refer to the actual measurement.

# 10 DIMENSIONS AND INSTALLATION SITE



## 10.1 Cassette Type

GUD50T1/C-S; GUD71T1/C-S; GUD100T1/C-S; GUD125T1/C-S; GUD160T1/C-S;

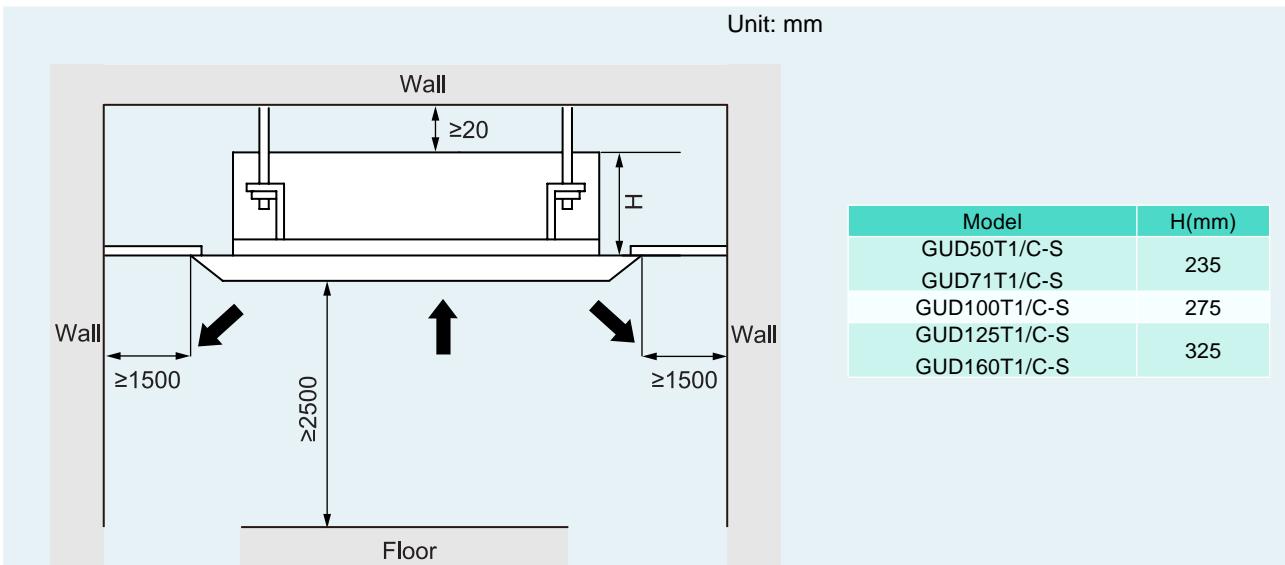


Model	Dimensions	A	B	C	D	E	F	G
GUD50T1/C-S		950	890	840	680	780	200	135
GUD71T1/C-S								
GUD100T1/C-S		950	890	840	680	780	240	135
GUD125T1/C-S								
GUD160T1/C-S		950	890	840	680	780	290	135

# U-MATCH SERIES AIR CONDITIONERS

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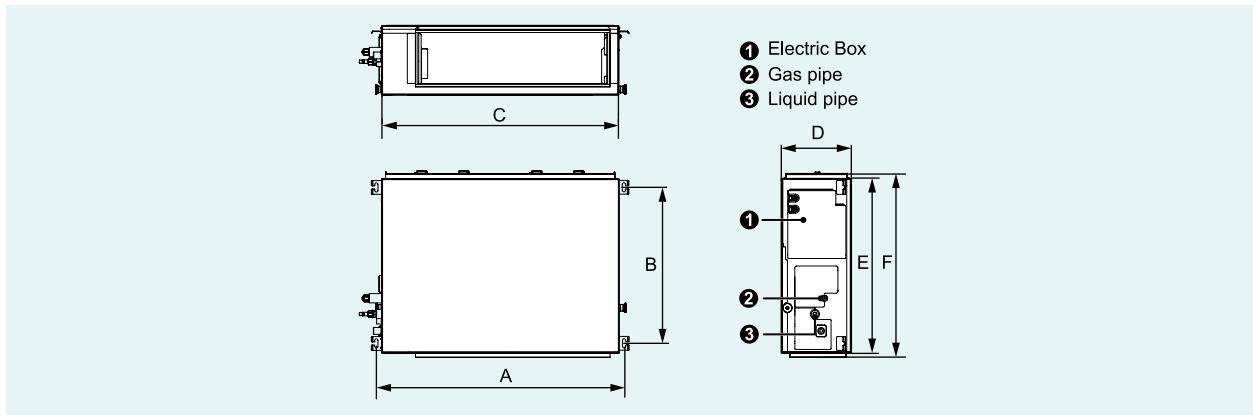
## 10.1.2 Installation Location



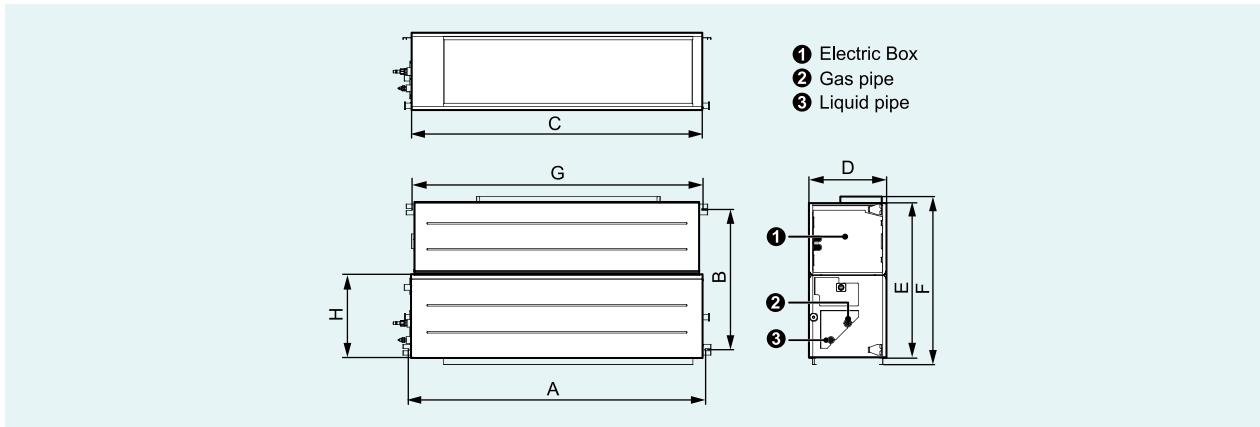
## 10.2 Duct Type

### 10.2.1 Dimensions

GUD50PHS1/C-S; GUD71PHS1/C-S; GUD100PHS1/C-S;



GUD125PHS1/C-S; GUD140PHS1/C-S; GUD160PHS1/C-S;

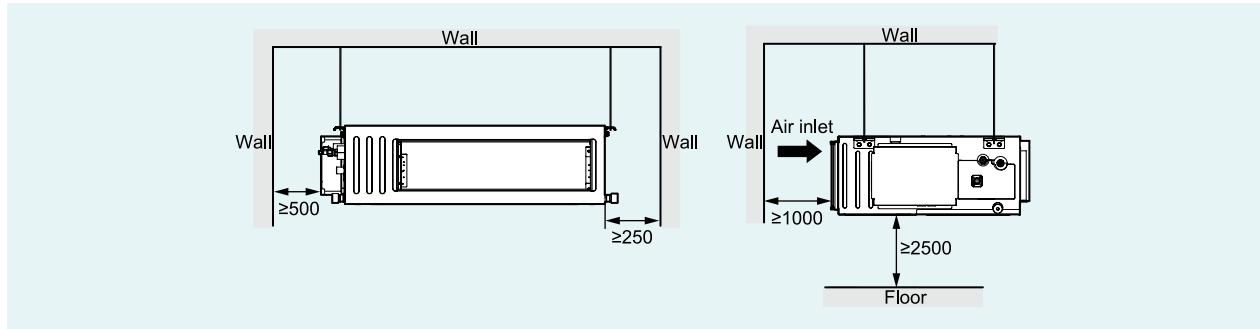


Unit: mm

Model	Dimensions							
	A	B	C	D	E	F	G	H
GUD50PHS1/C-S	942	590	900	260	655	692	—	—
GUD71PHS1/C-S	942	590	900	260	655	692	—	—
GUD100PHS1/C-S	1381	585	1340	260	655	697	—	—
GUD125PHS1/C-S	1378	650	1350	360	720	780	1348	416
GUD140PHS1/C-S	1378	650	1350	360	720	780	1348	416
GUD160PHS1/C-S	1378	650	1350	360	720	780	1348	416

### 10.2.2 Installation Location

Unit: mm



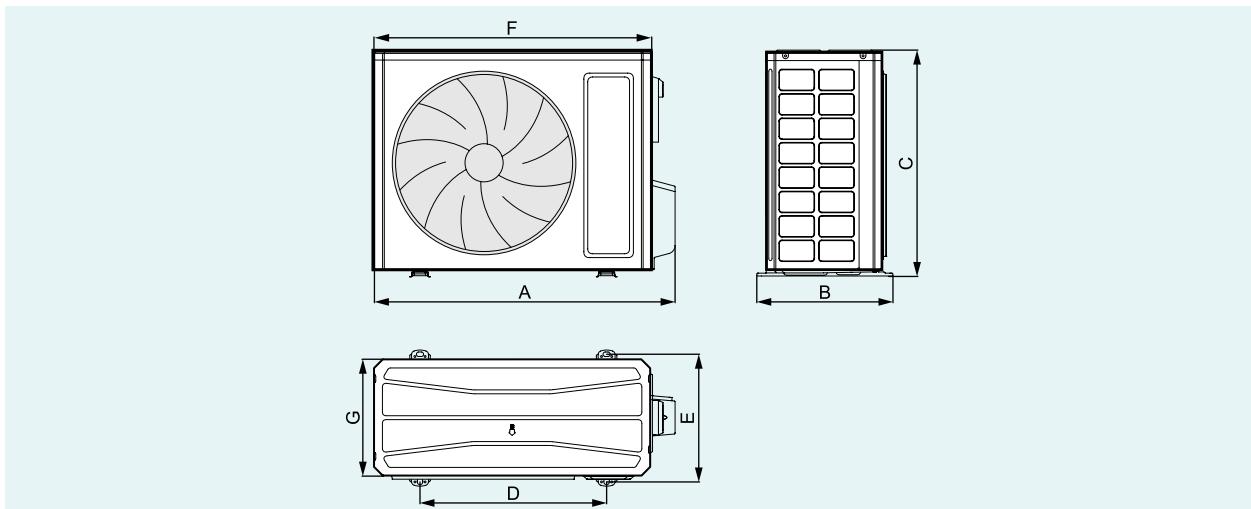
# U-MATCH SERIES AIR CONDITIONERS



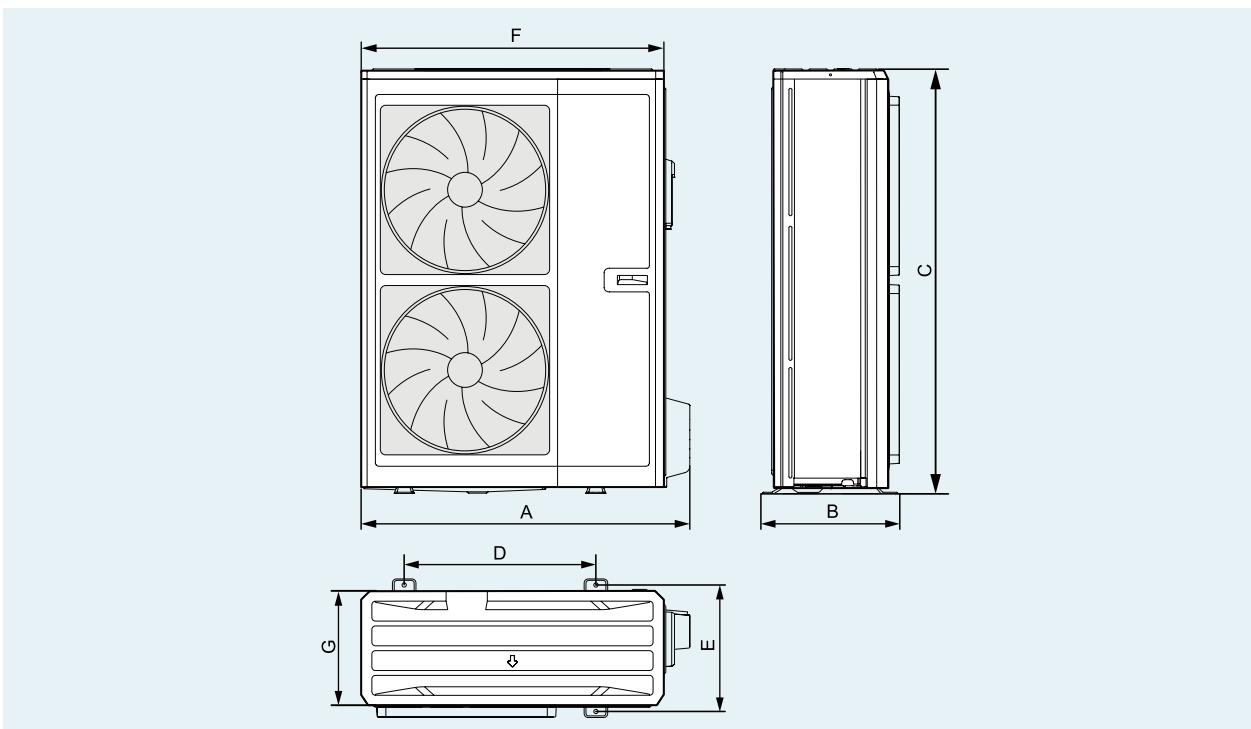
## 10.3 Outdoor Unit

### 10.3.1 Dimensions

GUD50W1/NhC-S; GUD71W1/NhC-S; GUD100W1/NhC-S; GUD125W1/NhC-S;



GUD140W1/NhC-S; GUD160W1/NhC-S;



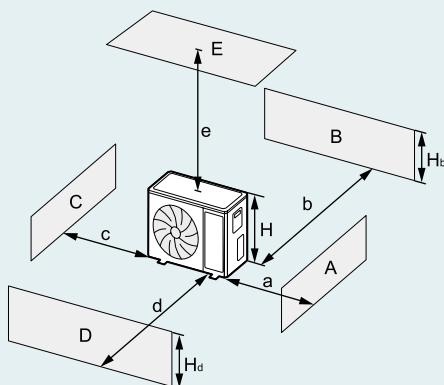
Unit: mm

Model	Dimensions	A	B	C	D	E	F	G
GUD50W1/NhC-S		958	402	660	570	371	889	340

Model \ Dimensions	A	B	C	D	E	F	G
GUD71W1/NhC-S	958	402	660	570	371	889	340
GUD100W1/NhC-S	1020	427	820	635	396	940	370
GUD125W1/NhC-S	1020	427	820	635	396	940	370
GUD140W1/NhC-S	978	412	1260	570	378	900	340
GUD160W1/NhC-S	978	412	1260	570	378	900	340

#### 10.4.2 Installation Location

- 1) When one outdoor unit is to be installed.



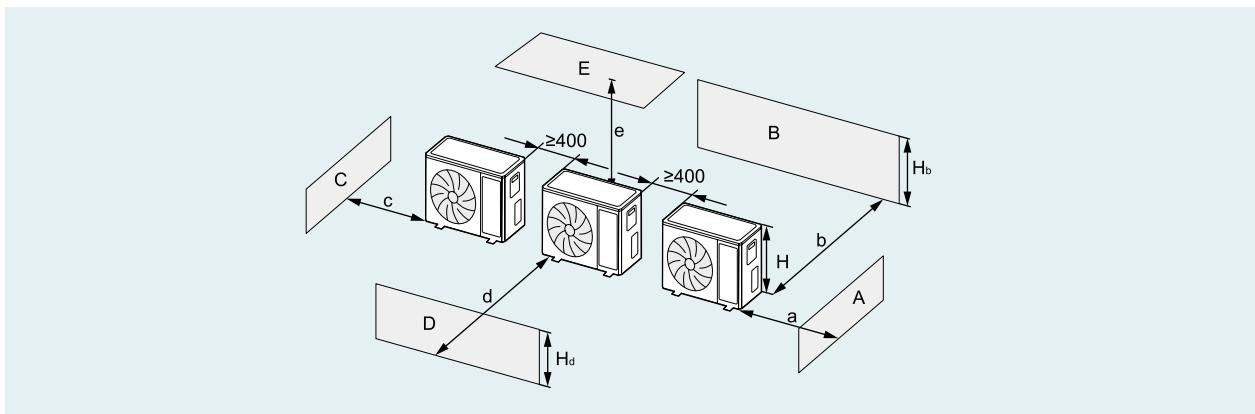
A~E	$H_b$	$H_d$	H	(mm)				
				a	b	c	d	e
B	—	—	—	≥100	—	—	—	—
A,B,C,	—	—	≥300	≥100	≥100	—	—	—
B,E	—	—	—	≥100	—	—	—	≥1000
A,B,C,E	—	—	≥300	≥150	≥150	—	—	≥1000
D	—	—	—	—	—	—	≥1000	—
D,E	—	—	—	—	—	—	≥1000	≥1000
B,D	$H_b < H_d$	$H_d > H$	—	≥100	—	—	≥1000	—
	$H_b > H_d$	$H_d < H$	—	≥100	—	—	≥1000	—
B,D,E	$H_b < H_d$	$H_b \leq 1/2H$	—	≥250	—	—	≥2000	≥1000
		$1/2H < H_b \leq H$	—	≥250	—	—	≥2000	≥1000
	$H_b > H_d$	$H_b > H$	Prohibited					
		$H_d \leq 1/2H$	—	≥100	—	—	≥2000	≥1000
		$1/2H < H_d \leq H$	—	≥200	—	—	≥2000	≥1000
		$H_d > H$	Prohibited					

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- 2) When two or more outdoor units are to be installed side by side.

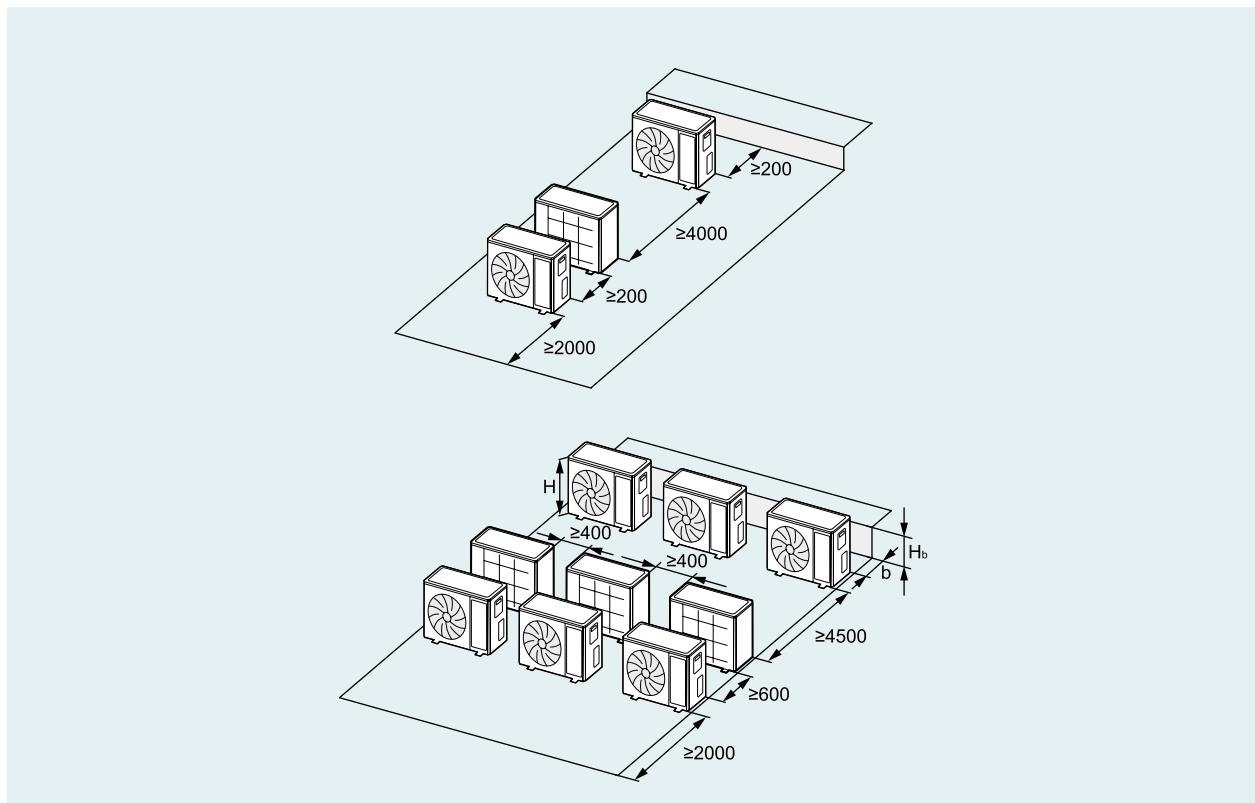
Unit:mm



A~E	$H_b$	$H_d$	$H$	(mm)				
				a	b	c	d	e
A,B,C	—	—	—	≥300	≥300	≥1000	—	—
A,B,C,E	—	—	—	≥300	≥300	≥1000	—	≥1000
D	—	—	—	—	—	—	≥2000	—
D,E	—	—	—	—	—	—	≥2000	≥1000
B,D	$H_b < H_d$	$H_d > H$	—	≥300	—	—	≥2000	—
	$H_b > H_d$	$H_d \leq 1/2H$	—	≥250	—	—	≥2000	—
	$H_b > H_d$	$1/2H < H_d \leq H$	—	≥300	—	—	≥2500	—
	$H_b < H_d$	$H_b \leq 1/2H$	—	≥300	—	—	≥2000	≥1000
B,D,E	$H_b > H$				Prohibited			
	$H_b > H_d$	$H_d \leq 1/2H$	—	≥250	—	—	≥2500	≥1000
	$H_b > H_d$	$1/2H < H_d \leq H$	—	≥300	—	—	≥2500	≥1000
	$H_b > H_d$	$H_d > H$	Prohibited					

3) When outdoor units are installed in rows.

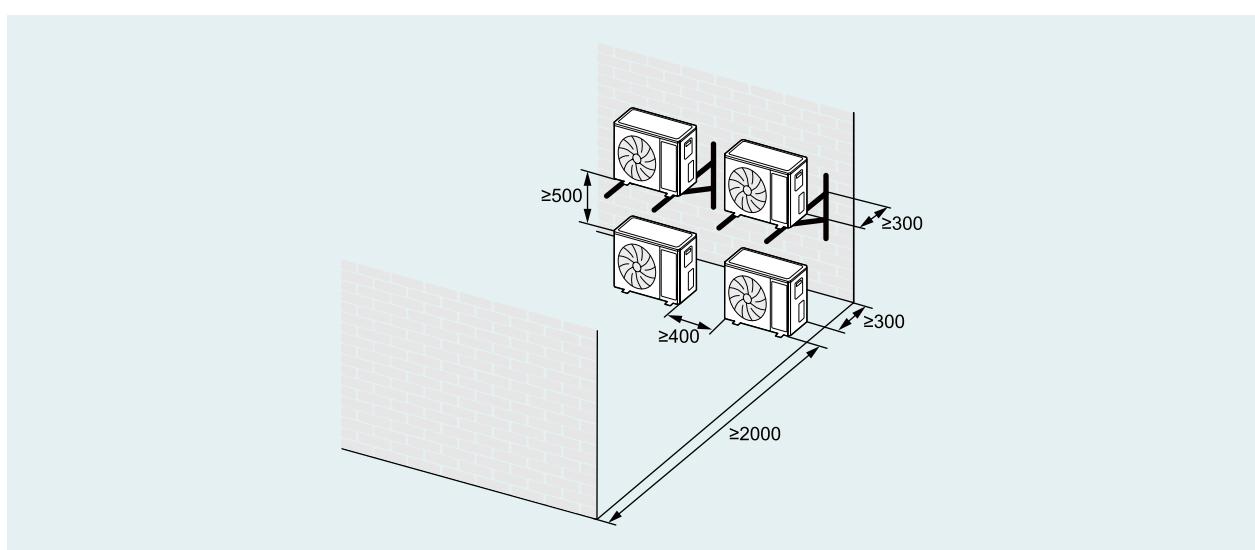
Unit:mm



$H_b$ H	(mm)
$H_b \leq 1/2H$	$b \geq 250$
$1/2H < H_b \leq H$	$b \geq 300$
$H_b > H$	Prohibited

4) When outdoor units are installed one above another.

Unit:mm



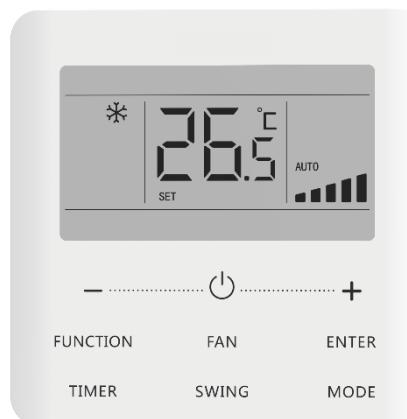
# U-MATCH SERIES AIR CONDITIONERS



## 10.5 Controller



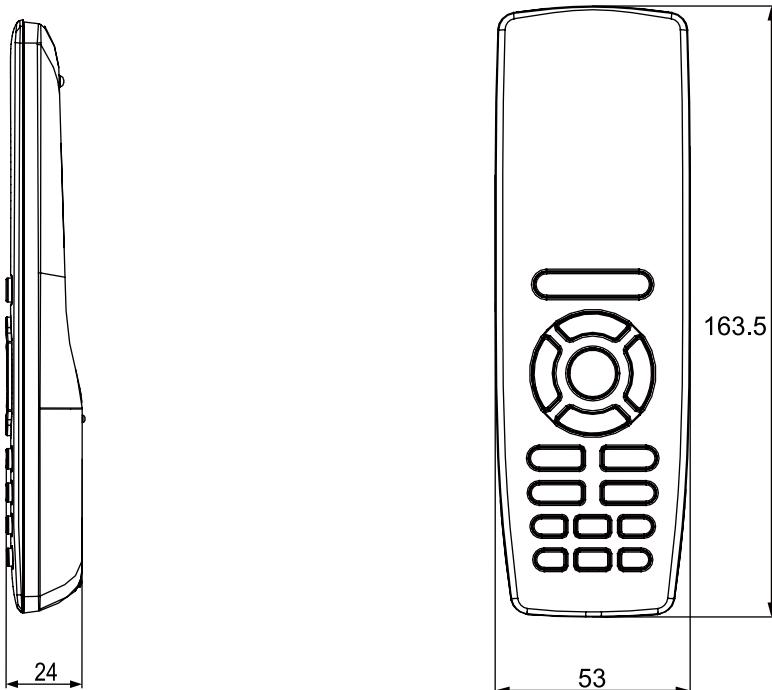
YAP1F7



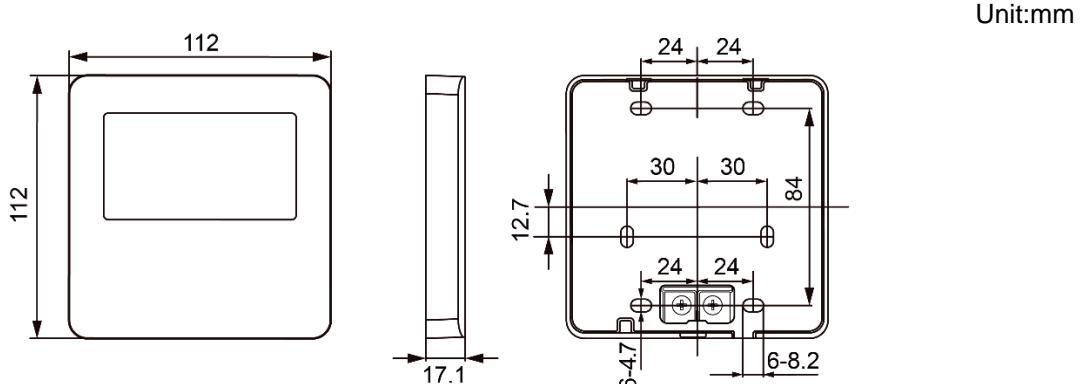
XE7A-24/H

### 10.5.1 Dimensional Drawing of YAP1F7

Unit:mm



### 10.5.2 Dimensional Drawing of XE7A-24/H



## 11 ELECTRICAL INSTALLATION



### 11.1 Electrical Parameters

Model	Power supply	Fuse capacity	Min. sectional area of power cord
	V/Ph/Hz	A	mm <sup>2</sup>
GUD50PHS1/C-S	220-240V ~50/60Hz	3.15	1.0
GUD71PHS1/C-S		3.15	
GUD100PHS1/C-S		3.15	
GUD125PHS1/C-S		10	
GUD140PHS1/C-S		10	
GUD160PHS1/C-S		10	

Model	Power supply	Fuse capacity	Min. sectional area of power cord
	V/Ph/Hz	A	mm <sup>2</sup>
GUD50T1/C-S	220-240V ~50/60Hz	3.15	1.0
GUD71T1/C-S			
GUD100T1/C-S			
GUD125T1/C-S			
GUD160T1/C-S			

Model	Power supply	Circuit breaker capacity	Min. sectional area of power cord
	V/Ph/Hz	A	mm <sup>2</sup>
GUD50W1/NhC-S	220-240V ~50/60Hz	16	1.5
GUD71W1/NhC-S		20	2.5
GUD100W1/NhC-S		32	4.0
GUD125W1/NhC-S		32	4.0
GUD140W1/NhC-S		40	6.0
GUD160W1/NhC-S		40	6.0

Notes:

- ① Fuse is located on the main board.
- ② Install a circuit breaker near the outdoor units with at least 3mm contact gap. The units must be able to

# U-MATCH SERIES AIR CONDITIONERS

Technical Sales Guide

be plugged or unplugged.

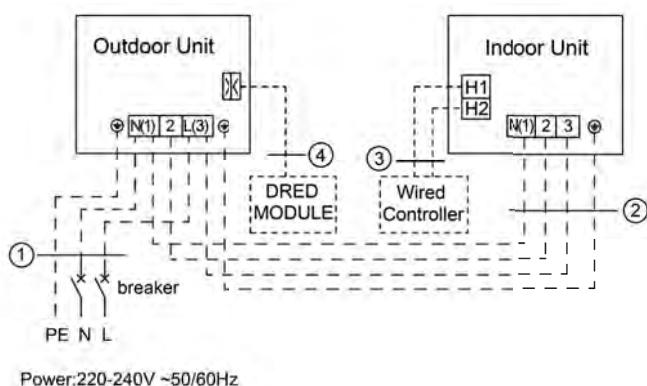
- ③ Circuit breaker and power cord specifications listed in the above table are determined based on the maximum power input of the units.
- ④ Supply cords of parts of appliances for outdoor use shall not be lighter than polychloroprene sheathed flexible cord (code designation 60245 IEC 57).
- ⑤ Specifications of circuit breaker are based on a working condition where the working temperature is 40°C. If working condition changes, please adjust the specifications according to applicable local standards.
- ⑥ Adopt 1.0mm<sup>2</sup> power cords between indoor and outdoor units. The maximum length of 5.3-7.1kW units is 30m and the maximum length of 10.0-16.0KW units is 75m. Please select a proper length according to local conditions. To be in compliance EN 55014, it is necessary to use 8 meters long wire.
- ⑦ Adopt 2pcs of 0.75mm<sup>2</sup> power cords to be the communication cords between wired controller and indoor unit. The maximum length is 30m. Please select a proper length according to local conditions. Communication cords must not be twisted together. To be in compliance EN 55014, it is necessary to use 8 meters long wire.
- ⑧ The wire gauge of communication cord should not be less than 0.75mm<sup>2</sup>. It's recommended to use 0.75mm<sup>2</sup> power cords as the communication cords.
- ⑨ It's required to adopt the shielded wire for the communication cable between the indoor unit and the centralized controller; when connection is finished, the shielding layer should be reliably grounded.



## 11.2 Wiring Diagram

### 11.2.1 Cassette Type

GUD50W1/NhC-S; GUD71W1/NhC-S;



Power:220-240V ~50/60Hz

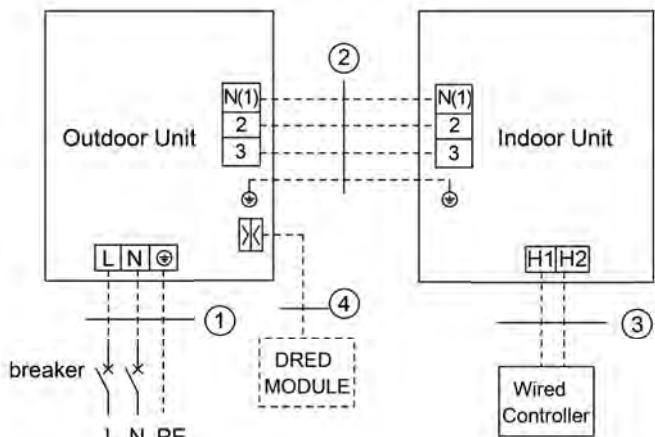
#### GUD50T1/C-S+GUD50W1/NhC-S

- ① Power cords 3x1.5mm<sup>2</sup>
- ② Power cords 4x1.0mm<sup>2</sup>
- ③ Communication cords 2x0.75mm<sup>2</sup>
- ④ Connection wires of DRED module

#### GUD71T1/C-S+GUD71W1/NhC-S

- ① Power cords 3x2.5mm<sup>2</sup>
- ② Power cords 4x1.0mm<sup>2</sup>
- ③ Communication cords 2x0.75mm<sup>2</sup>
- ④ Connection wires of DRED module

GUD100W1/NhC-S; GUD125W1/NhC-S; GUD160W1/NhC-S;



Power:220-240V ~50/60Hz

GUD100T1/C-S+GUD100W1/NhC-S

## GUD125T1/C-S+GUD125W1/NhC-S

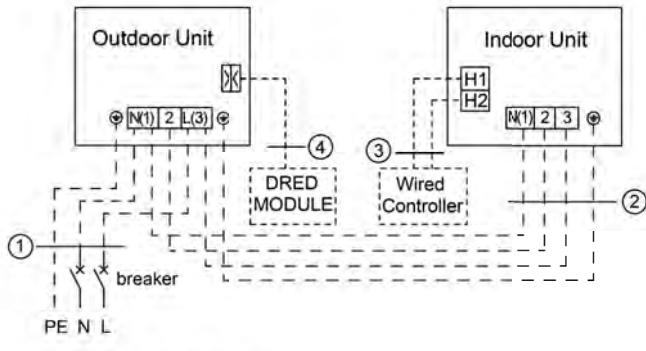
- ① Power cords 3x4.0mm<sup>2</sup>
  - ② Power cords 4x1.0mm<sup>2</sup>
  - ③ Communication cords 2x0.75mm<sup>2</sup>
  - ④ Connection wires of DRED module

## GUD160T1/C-S+GUD160W1/NhC-S

- ① Power cords  $3 \times 6.0\text{mm}^2$
  - ② Power cords  $4 \times 1.0\text{mm}^2$
  - ③ Communication cords  $2 \times 0.75\text{mm}^2$
  - ④ Connection wires of DRED module

## 11.2.2 Duct Type

GUD50W1/NhC-S; GUD71W1/NhC-S;



Power:220-240V ~50/60Hz

# U-MATCH SERIES AIR CONDITIONERS

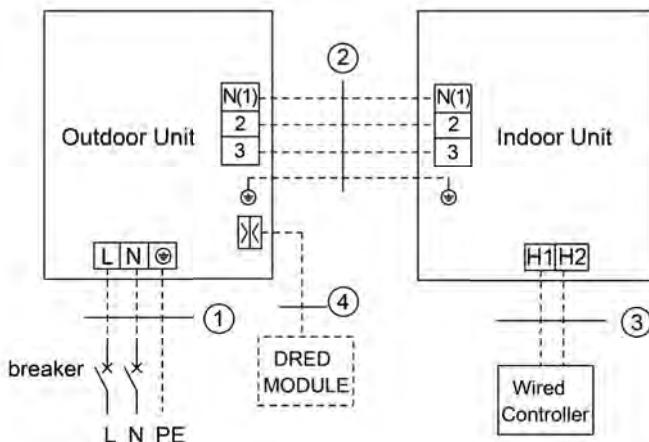
## GUD50PHS1/C-S+GUD50W1/NhC-S

- ① Power cords  $3 \times 1.5\text{mm}^2$
  - ② Power cords  $4 \times 1.0\text{mm}^2$
  - ③ Communication cords  $2 \times 0.75\text{mm}^2$
  - ④ Connection wires of DRED module

## GUD71PHS1/C-S+GUD71W1/NhC-S

- ① Power cords  $3 \times 2.5\text{mm}^2$
  - ② Power cords  $4 \times 1.0\text{mm}^2$
  - ③ Communication cords  $2 \times 0.75\text{mm}^2$
  - ④ Connection wires of DRED module

GUD100W1/NhC-S; GUD125W1/NhC-S; GUD140W1/NhC-S; GUD160W1/NhC-S;



Power:220-240V ~50/60Hz

GUD100PHS1/C-S+GUD100W1/NhC-S

GUD125PHS1/C-S+GUD125W1/NhC-S

- ① Power cords 3x4.0mm<sup>2</sup>
  - ② Power cords 4x1.0mm<sup>2</sup>
  - ③ Communication cords 2x0.75mm<sup>2</sup>
  - ④ Connection wires of DRED module

GUD140PHS1/C-S+GUD140W1/NhC-S

GUD160PHS1/C-S+GUD160W1/NhC-S

- ① Power cords 3x6.0mm<sup>2</sup>
  - ② Power cords 4x1.0mm<sup>2</sup>
  - ③ Communication cords 2x0.75mm<sup>2</sup>
  - ④ Connection wires of DRED module

## 12 LIST OF STANDARD AND OPTIONAL PARTS

—	Cassette type	Duct type
Wired Controller XE7A-24/H Product code: NC20700190	○	●
Wired Controller XE7A-24/HC (WIFI) Product code: NC20700260	○	○
Remote Controller YAP1F7(WiFi) Product code: 305001060060	●	○
YAN1F1 Product code: 30510474	○	○
YAA1FB6(WiFi) Product code: 305001000078	○	○
WiFi Module Product code: (under development)	○	/
Centralized Controller (up to 36 indoor unit) CE52-24/F(C) Product code: MC207052	○	○
Modbus Gateway ME50-00/EG(M) Product code: NC20000010	○	○
Dry Contact Controller ME60-42/H1 Product code: NC25000040	○	○
JS13 Product code: NC25000030	○	○
Gate control LE60-24/H1 Product code: NC20700210	○	○
the Communication Wire of Indoor Unit and Outdoor Unit	○	○
the Communication Wire of Indoor Unit and Wire Controller	○	○

Note: ●means standard, ○means optional.

Gree reserves the right to modify the specifications without prior notice. Please confirm the final specifications with our local distributor.



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