

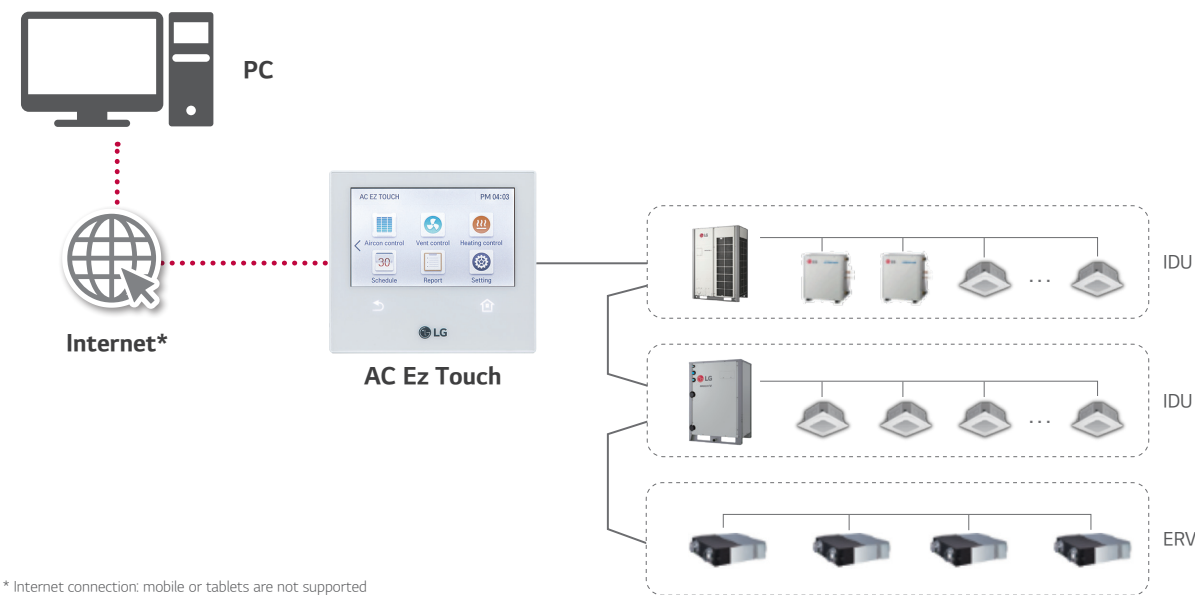


Feature Functions

Controller Name			AC Ez	AC Ez Touch	AC Smart 5 ⁶⁾	ACP 5 ⁶⁾		AC Manager 5 ⁷⁾	Cloud Gateway
Model Name									
			PQCSZ250S0	PACEZA000	PACS5A000	PACP5A000	Using Lonworks	PACM5A000	PWFMDB200
Product	DO		-	-	2	4	2	-	-
	DI		-	1	2	10	2	-	-
	Max. Connectable No.	IDUs	32	64	128	256	64	8,192	16
		ERV	32	64	128	256	64	8,192	16
		A / C + ERV	32	64	128	256	64	8,192	16
		AHU	-	-	16	16	16 ⁵⁾	16 x 32	-
		Chiller	-	-	5	10	-	10 x 32	-
	Commercial Air Purifier ¹⁾	-	-	64	128	-	128 x 32	-	
Compatibility	Air Conditioner		○ ³⁾	○	○	○	○	○	○
	Ventilation (ERV / ERV DX)		○ ⁴⁾	○	○	○	○	○	○
	Heating		-	○	○	○	○	○	○ ⁸⁾
	AHU		-	-	○	○	○	○	-
	Chiller		-	-	○ ⁵⁾	○ ⁵⁾	-	○	-
	Commercial Air Purifier ¹⁾		-	-	○ ⁵⁾	○ ⁵⁾	-	○	-
	ACS IO		-	-	○	○	○ ⁵⁾	○	-
Additional Function	Add Drawing		-	-	○ ⁵⁾	○ ⁵⁾	○ ⁵⁾	○	-
	Group Management		-	○	○ ⁵⁾	○ ⁵⁾	○ ⁵⁾	○	-
	Auto Changer Over		-	○	○ ⁵⁾	○ ⁵⁾	○ ⁵⁾	○	-
	Set Back		-	○	○ ⁵⁾	○ ⁵⁾	○ ⁵⁾	○	-
	Dual Setpoint		-	○	○	○	○ ⁵⁾	○	-
	Change Alarm		-	Filter	Filter	Filter	Filter	Filter	-
	Indoor Unit Lock		○ ²⁾	○	○	○	○ ⁵⁾	-	-
	Cycle Monitoring		-	-	○	○	○ ⁵⁾	○	○
	Air Purify		-	○ ⁵⁾	○ ⁵⁾	○ ⁵⁾	-	○	-
Schedule			○	○	○ ⁵⁾	○ ⁵⁾	○ ⁵⁾	○	○ ⁹⁾
Auto Control	Peak Control	Energy & Priority Control	-	○	○	○	○ ⁵⁾	○	-
		Outdoor Unit Capacity Control	-	-	○ ⁵⁾	○ ⁵⁾	○ ⁵⁾	○	-
	Time limit control		-	-	○ ⁵⁾	○ ⁵⁾	○ ⁵⁾	○	-
	Interlocking		-	-	○ ⁵⁾	○ ⁵⁾	○ ⁵⁾	○	-
Energy Navigation			-	-	○ ⁵⁾	○ ⁵⁾	-	○	-
Energy Report	Power		-	○	○	○	○ ⁵⁾	○	○ ⁸⁾
	Gas		-	-	○	○	○ ⁵⁾	○	-
	Run time		-	-	○ ⁵⁾	○ ⁵⁾	○ ⁵⁾	○	-
	Save to PC / USB (Excel)		-	-	PC / USB ⁵⁾	PC	PC	PC	-
Trend Reporting			-	-	○ ⁵⁾	○ ⁵⁾	-	○	-
History	Report (Control / Error)		-	Error	○ ⁵⁾	○ ⁵⁾	○ ⁵⁾	○	○
	Send Email		-	-	○ ⁵⁾	○ ⁵⁾	○ ⁵⁾	○	-
	Save to PC / USB (Excel)		-	-	PC / USB	PC	○ ⁵⁾	PC	-
etc	Summer Time		-	○	○ ⁵⁾	○ ⁵⁾	○ ⁵⁾	○	-
	Outdoor Unit Oil-Return Operation		-	-	○ ⁵⁾	○ ⁵⁾	○ ⁵⁾	-	-
	User Authority		-	Password	○ ⁵⁾	○ ⁵⁾	○ ⁵⁾	○	-
	PC Access		-	○	○ ⁵⁾	○ ⁵⁾	○ ⁵⁾	○	-

※ ○ : Applied, - : Not Applied
1) The Commercial Air purifier must additionally install PI485 (PHNFP14A0).
2) Hard Lock
3) Except for some feature (Individual lock, Limit temp., etc.)
4) Except for some feature (User mode, additional function, etc.)
5) This function is not applied for BMS points.
6) Without additional device, ACP 5 and AC Smart 5 provide BACnet IP and Modbus TCP interface for BMS.
7) ACP 5 or AC Smart 5 is required.
8) Only for Therna V
9) It will be released until 1Q in 2023.

AC Ez Touch



* Internet connection: mobile or tablets are not supported
 * Appropriate PI485 should be used according to PDB.

PACEZA000

Smart management with 5 inch touch screen for small site.



MODEL NAME	PACEZA000
Size (W x H x D, mm)	137 x 121 x 25
Interfaceable Products	MULTI V / ERV / ERV DX / Hydro Kit / THERMA V
Maximum number of units	64
Individual / Group Control	On & Off / Mode / Temperature / Fan speed
Individual Controller Lock	Temperature / Mode / Fan speed / All
Error Check	○
Slave Mode (Interlocking with higher level controller)	○
Schedule	Weekly / Monthly / Yearly / Exception day
Remote Access	By client S/W (Neither Android nor IOS are supported)
Emergency Stop & Alarm Display	○
Power Consumption Monitoring (with PDI)	○
Auto Changeover / Setback	○
Temperature Limit	○
Operation History	Error record
ODU Low Noise ¹⁾	○
Daylight Saving Time	○
External IO Port	DI 1
IPv6 Support	○
Air Purify Control	○
Air Quality Level	○

※ ○ : Applied, - : Not Applied
 1) It is only available in some products.

PC Access

Users can control each space efficiently through PC access.



* IPv6 supported
 - Open port 80 & 9300
 - Fix public IP is mandatory. Router configuration of NAT is required.

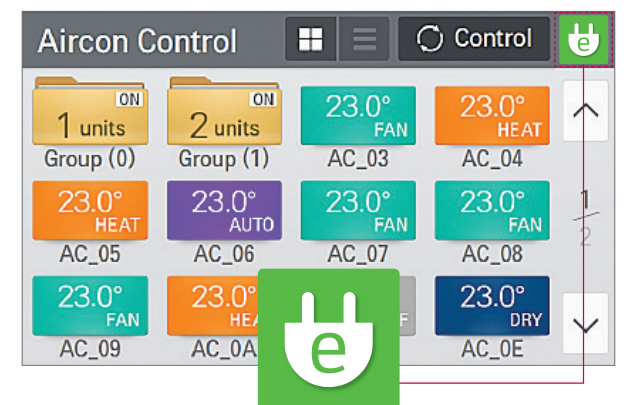
Energy Statistics (with PDI)

Statistics of operational status (Time, Power consumption) are provided to help make intelligent system operation decisions.

Energy			
<	2020.2.8 ~ 2020.3.19	>	Today Week Month
Name	Usage(kWh)	Accumulated(kWh)	
Group1	110	3021	1/3
Group2	150	6186	
Group3	130	4267	
Group4	120	7614	

Energy Mode

When using energy mode function, operation Modes from cooling to fan or heating to off mode by force.
 (It is available only for operating indoor unit)



Air Purify Control & Monitoring

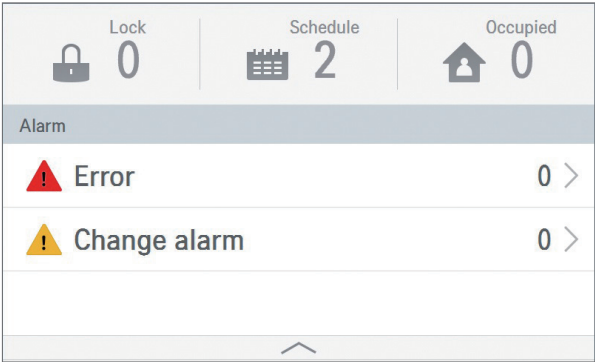
AC_UNIT_00				
Room temp	Now working	UVnano	Lock	
23.0°		ON	Clear	
Air Purification	Overall Air Quality	PM10	30	↑
ON		PM2.5	10	
		PM1.0	10	↓

Aircon control(1unit)				
Set temp	Air Clean	Clear	UVnano	
--	ON		ON	
23.0°	Swing	Set temp range	2set point	
	OFF	16.0°~30.0°	OFF	
Cancel	Apply			

AC Ez Touch

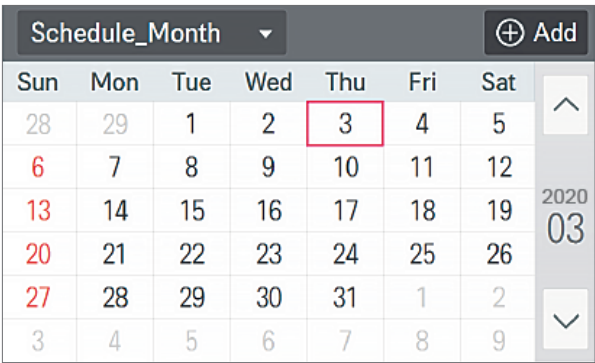
Alarm Indicator

It shows errors and alarm information. Users can respond immediately according to alarm indicator therefore HVAC system is monitored consistently.



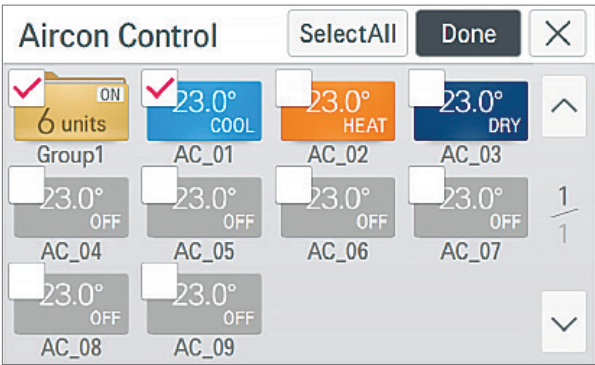
Schedule

Schedule control allows user to set the events in advance to maximize system performance. Also, by blocking unnecessary operation, it prevents a waste of energy.

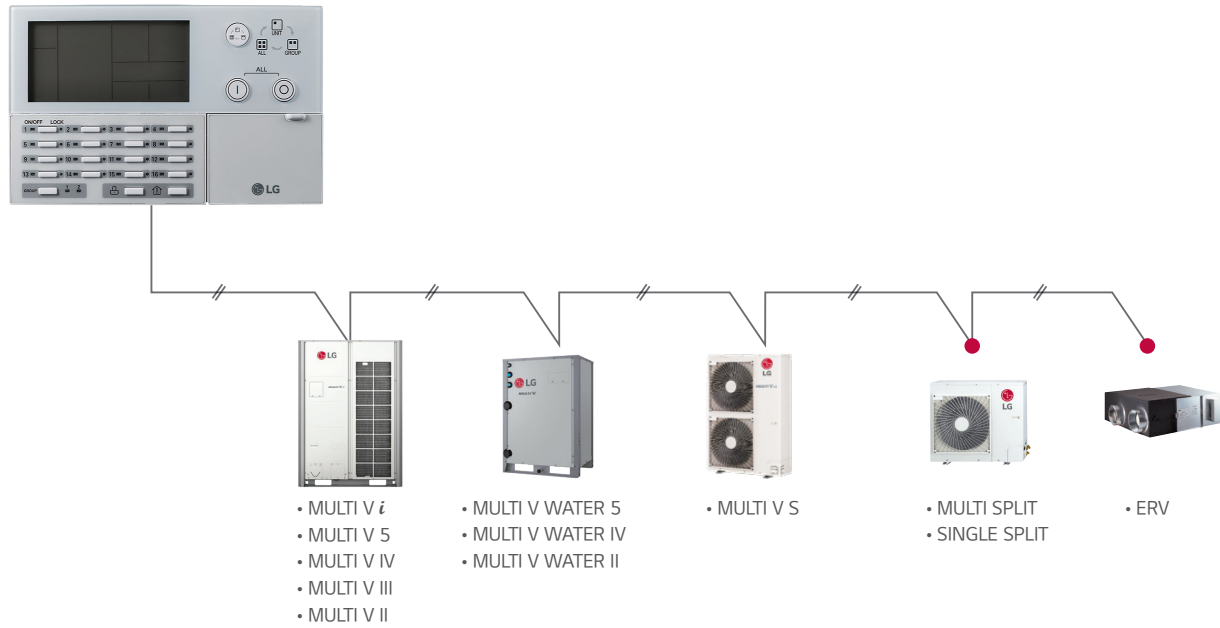


Group / Individual Control

User can control each indoor unit individually or by group by simply clicking each unit on control screen.



AC Ez



PQCSZ250S0

Easy to manage up to 32 indoor units, including ERV with simple interface.



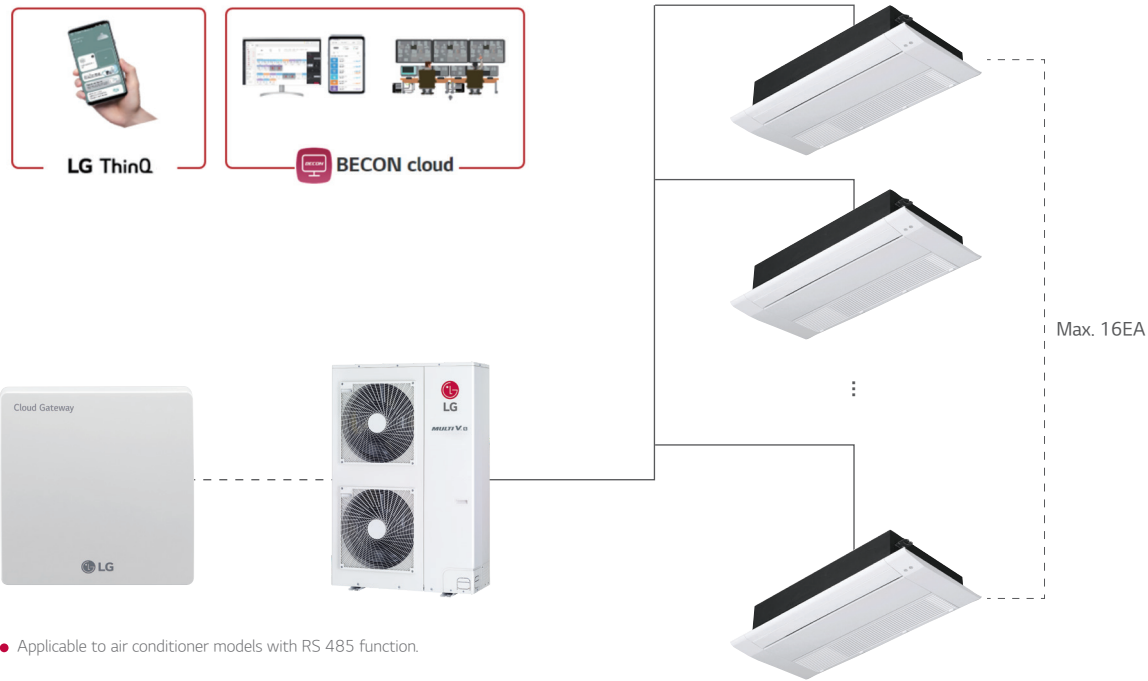
Features & Benefits

- 32 indoor units control
- Weekly Schedule
- Individual / Group Control

MODEL NAME	PQCSZ250S0
Size (W x H x D, mm)	190 x 120 x 20
Interfaceable Products	MULTI V / ERV / ERV DX
Display	LED / LCD Display
Power	DC12V, 1A
Maximum number of units	32
Individual / Group Control	On & Off / Mode / Temperature / Fan speed
Individual Controller Lock	All
Error Check	○
Slave Mode (Interlocking with higher level controller)	○
Schedule	Weekly

※ ○ : Applied, - : Not Applied

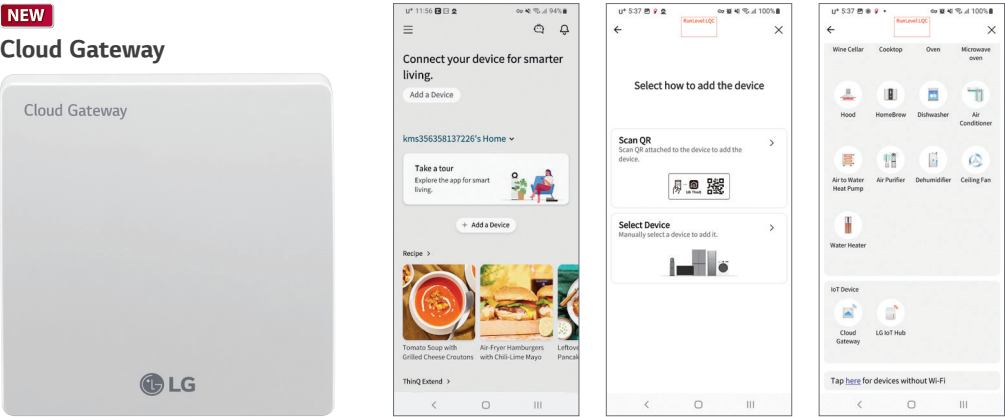
Cloud Gateway



● Applicable to air conditioner models with RS 485 function.

PWFMDB200

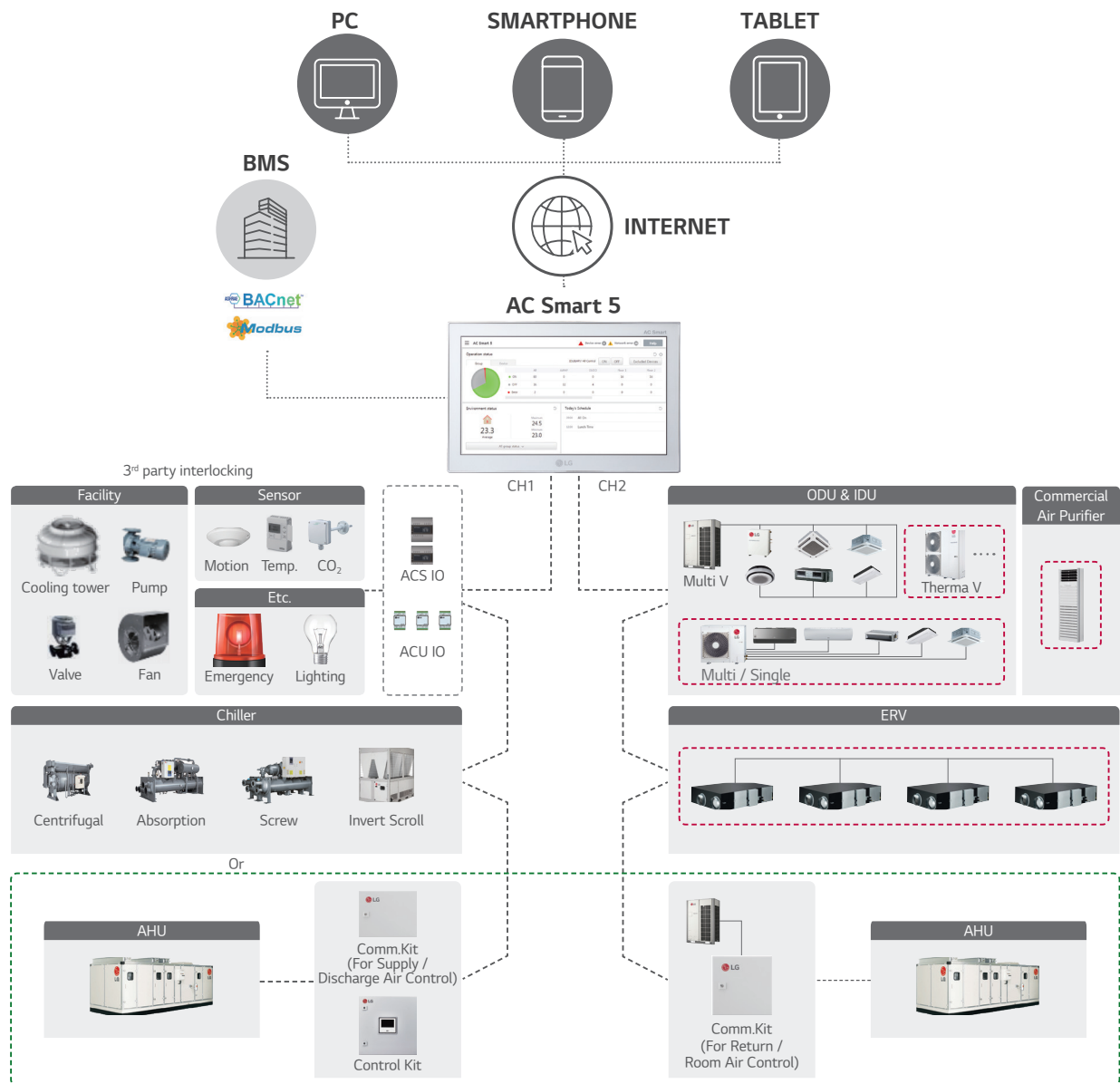
Cloud Gateway can remotely control up to 16 indoor units through LG ThinQ or BECON Could.



MODEL NAME	PWFMDB200
Size (W x H x D, mm)	120 x 120 x 29
Interfaceable Products	System Air Conditioner
Maximum Number of Units	16
Communication Frequency	2.4 GHz
Wireless Standards	IEEE 802.11b/g/n
Mobile Application	LG ThinQ (Android 8.0 ↑, iOS 13.0 ↑)

Function		ThinQ	BECON Cloud ¹⁾
Max. number of unit		16	
Remote Control	Operation Start / Stop	○	○
	Operation Mode	○	○
	Target Temperature	○	○
	Fan speed	○	○
	Swing	○	○
	Air Purify	○	○
Interlocking Product	MULTI V	○ ²⁾	○
	GHP	○	○
	MULTI	○	○
	Single	○	○
	ERV	X	○
	Heating	X	○ ³⁾
Etc	Schedule	○	△ ⁴⁾
	Electricity Monitoring	X	○ ³⁾
	History	X	○
Maintenance	Smart Diagnosis	○	X
	Cycle Monitoring	X	○

1) Depending on the region, BECON Cloud may not be available. Please contact to BECON Cloud administrator for checking availability. (BECONcloud-biz@lge.com)
2) Hydrokits are excluded
3) Only for Therma V
4) It will be released until 1Q in 2023.

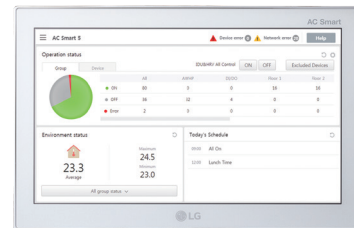


- 1) According to CH1 setting, normal ODU can be connected to CH1.
(Flexible wiring design with 2 ports)
2) Appropriate P1485 should be used according to PDB (Product Data Book).
3) For details, refer to the product PDB or manual.

AC Smart 5

PACSS5A000

10-inch touch screen with HTML5 GUI (Graphic User Interface) for easy control.



Max. 128
IDU control



Schedule



Map view
(Visual navigation)



Energy
monitoring



Air Purify



Multi level
grouping

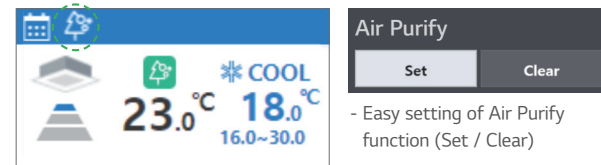
MODEL NAME	PACSS5A000
Size (W x H x D, mm)	253.2 x 167.7 x 28.9
Interfaceable Products	MULTI V / ERV / ERV DX / Hydro kit / THERMA V / AHU Kit / LG Chiller / Commercial Air Purifier
Maximum number of units	128
Individual / Group Control	On & Off / Mode / Temperature / Fan speed
Individual Controller Lock	Temperature / Mode / Fan speed / All
Advanced Function Setting and Display ¹⁾	Comfort Cooling / ODU Low Noise / ODU Defrost Mode / Comfort Level display / CO ₂ Level display (for ERV / ERV DX) / Night Time Free Cooling (for ERV / ERV DX)
Error Check	○
Slave Mode (Interlocking with higher level controller)	○
Schedule	Weekly / Monthly / Yearly / Exception day
Web Access	○
Emergency Stop & Alarm Display	○
Power Consumption Monitoring (with PDI)	○
Auto Changeover / Setback	○
Temperature Limit	○
Operation Time Limit	○
Visual Navigation	○
Operation Trend	○
Air Purify Control	○
Air Quality Level	○
Interlock Control	○
Virtual Group Control	○
ODU Capacity Control	○
Energy Navigation (with PDI)	○
Daylight Saving Time	○
External IO Port	DI 2 / DO 2
BMS Integration ²⁾	BACnet IP / Modbus TCP
IPv6 Support	○

※ ○ : Applied, - : Not Applied
1) It is only available in some products.
2) For the detail point list, please refer to the installation manual.

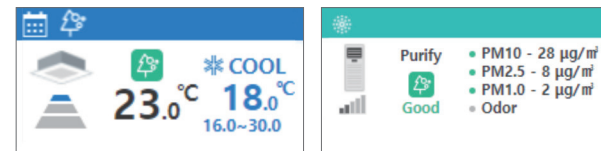
AC Smart 5

Air Purify Total Solution

Air Purify Control

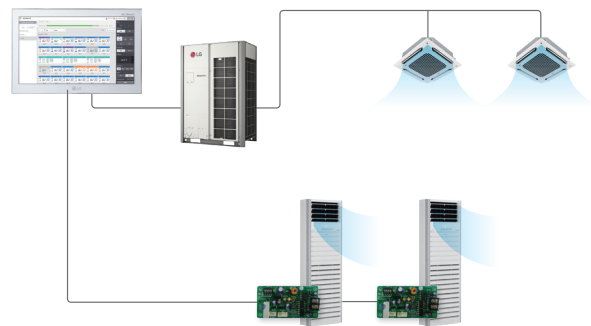


Air Quality Level Monitoring



System Air Conditioner

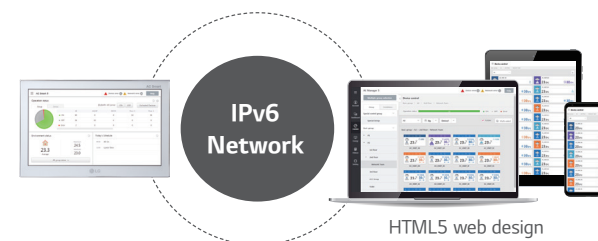
Commercial Air Purifier



* The Commercial Air purifier must additionally install PI485(PHNP14A0).

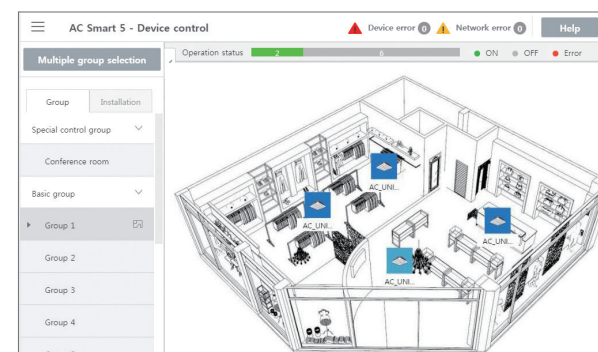
Advanced Network Accessibility

AC Smart 5 reflects the state of the art of network technology trend. IPv6 (Internet Protocol version 6), which is the most recent version of the Internet Protocol provides accessibility to the IPv6 compatible network environment. In addition, HTML5 allows you to easily control LG HVAC system on a variety of platforms (PC, Mobile, Tablet), at any time and from any location, not just on the touch screen.



Visualized Control

Visual navigation enables controlling and monitoring the unit on floor, plan view for the intuitive management.



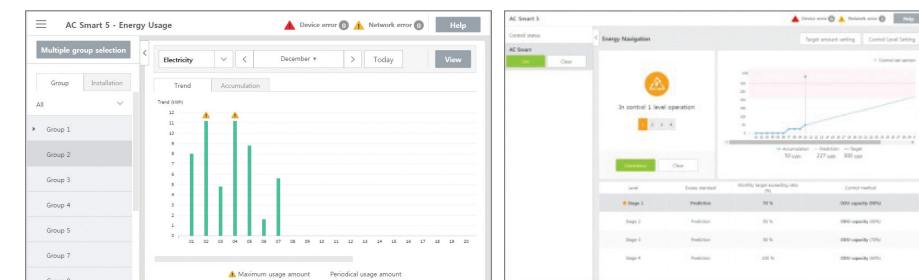
Multi Level Group Composition

User can make frequent and multi level group to control and monitor the device easily.



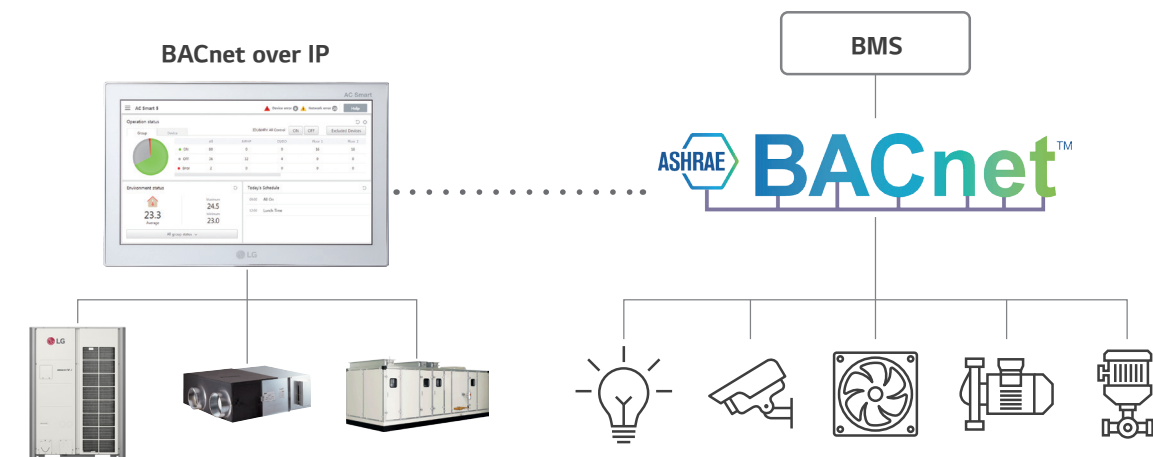
Energy Management

The energy navigation function allows the air conditioner's operational energy usage to be managed monthly, weekly and yearly. By analyzing present energy consumption and comparing with the plan, overuse of system operational costs can be prevented.



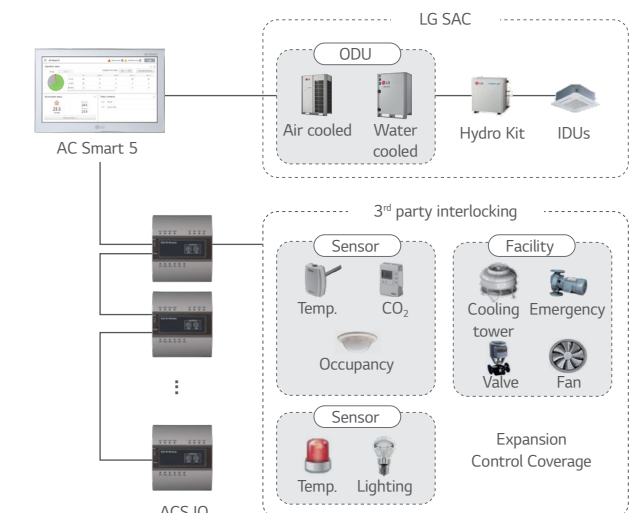
Building Management System (BMS) Integration

Without additional device, AC Smart 5 provides BACnet IP & Modbus TCP interface for BMS integration as well as its own management function.

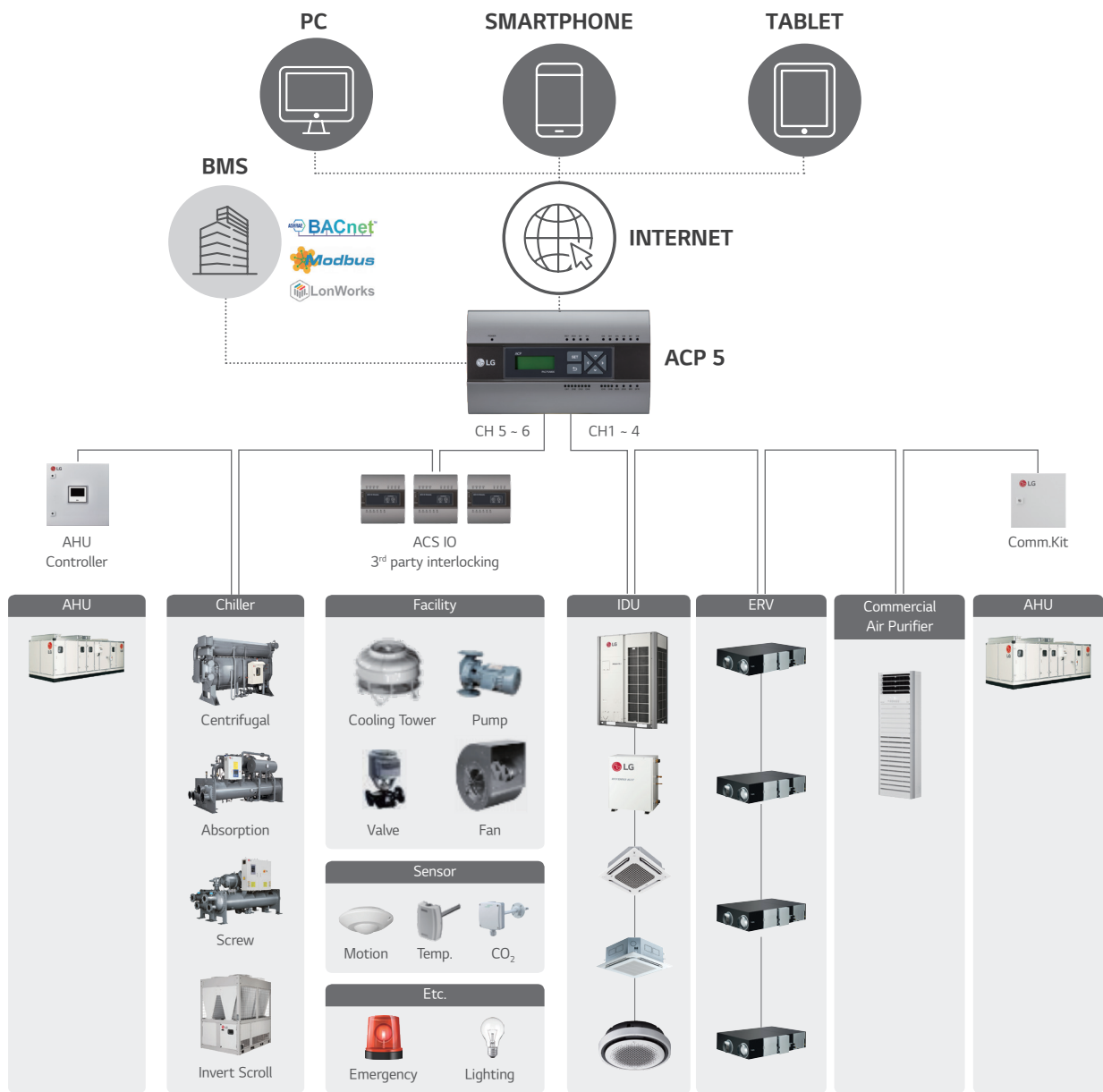


Interlocking with 3rd Party Equipment

AC Smart 5 can make operation scenario with 3rd party equipment by ACS IO Module and ACU IO Module. Control coverage is expanded. (Air conditioner only → Sensors, Fans, Pumps, Switches...)



ACP 5

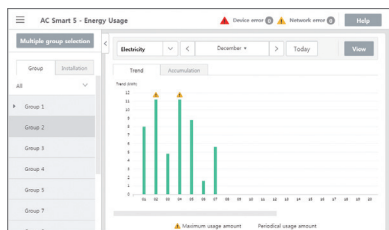


Advanced Network Accessibility

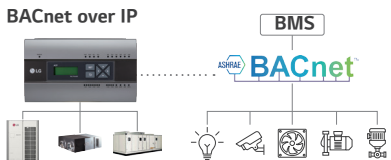


* Fix Public IP is mandatory.
* Router's Configuration of NAT is mandatory. Open port 80 & 9300.

Energy Navigation



BACnet IP & Modbus TCP



PACP5A000

Advanced solution for BMS integration up to 256 units via BACnet and Modbus protocol as well as its own smart management function with web server interface.



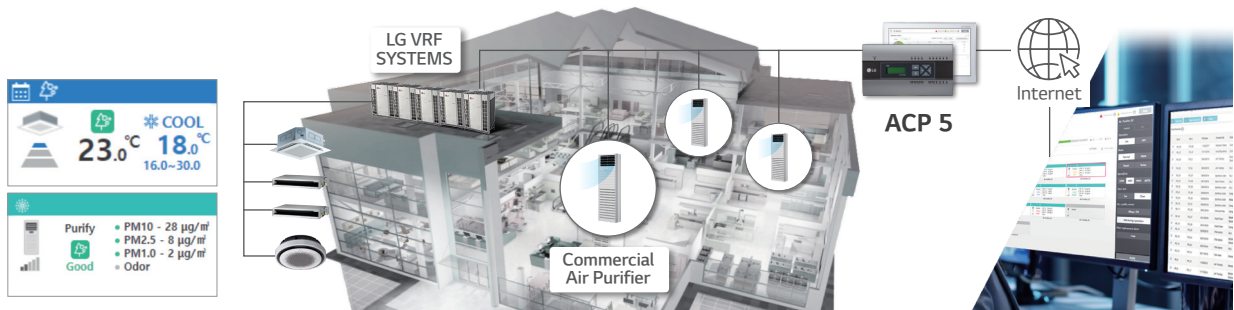
MODEL NAME	PACP5A000
Size (W x H x D, mm)	270 x 155 x 65
Interfaceable Products	MULTI V / ERV / ERV DX / Hydro kit / THERMA V / AHU Kit / LG Chiller / Commercial Air Purifier
Maximum number of units	256
Individual / Group Control	On & Off / Mode / Temperature / Fan speed
Individual Controller Lock	Temperature / Mode / Fan speed / All
Advanced Function Setting and Display ¹⁾	Comfort Cooling / ODU Low Noise / ODU Defrost Mode / Comfort Level display / CO ₂ Level display (for ERV / ERV DX) / Night Time Free Cooling (for ERV / ERV DX)
Error Check	○
Schedule	Weekly / Monthly / Yearly / Exception day
Web Access	○
Emergency Stop & Alarm Display	○
Power Consumption Monitoring (with PDI)	○
Auto Changeover / Setback	○
Temperature Limit	○
Operation Time Limit	○
Visual Navigation	○
Operation Trend	○
Air Purify Control	○
Air Quality Level	○
Interlock Control	○
Virtual Group Control	○
ODU Capacity Control	○
Energy Navigation (with PDI)	○
Daylight Saving Time	○
External IO Port	DI 10 / DO 4
BMS Integration ²⁾	BACnet IP / Modbus TCP
IPv6 Support	○

※ ○ : Applied, - : Not Applied
1) It is only available in some products.
2) For the detail point list, please refer to the installation manual.

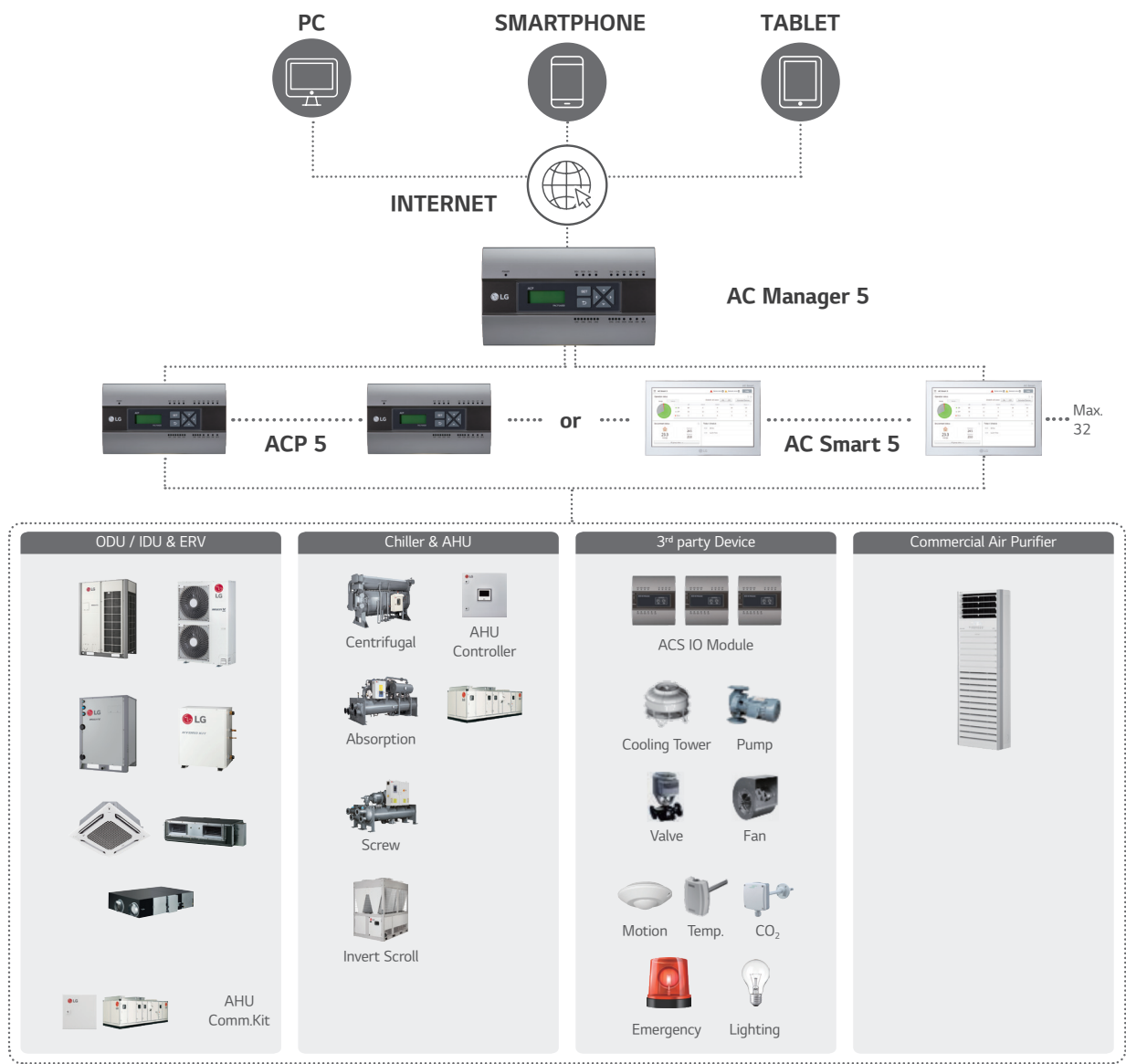
Air Purify Control / Monitoring

Integrated Management

The Commercial Air Purifier can be used with LG central controller to monitor and control.



AC Manager 5



PACM5A000

Multiple ACP and AC Smart integration solution to manage multi sites up to 8,192 units as a single system.



MODEL NAME	PACM5A000
Size (W x H x D, mm)	270 x 155 x 65
Interfaceable Products	MULTI V / ERV / ERV DX / Hydro kit / THERMA V / AHU Kit / LG Chiller / Commercial Air Purifier
Maximum number of units	8,192 (Supports 32 ACP 5 or AC Smart 5)
Individual / Group Control	On & Off / Mode / Temperature / Fan speed
Individual Controller Lock	Temperature / Mode / Fan speed / All
Error Check	○
Schedule	Weekly / Monthly / Yearly / Exception day
Web Access	○
Emergency Alarm Display	○
Power Consumption Monitoring (with PDI)	○
Auto Changeover / Setback	○
Temperature Limit	○
Operation Time Limit	○
Visual Navigation	○
Operation Trend	○
Air Purify Control	○
Air Quality Level	○
Interlock Control	○
Virtual Group Control	○
ODU Capacity Control	○
Energy Navigation (with PDI)	○

※ ○ : Applied, - : Not Applied
Note : AC Manager 5 required for ACP 5 or AC Smart 5

Up to 8,192 Connections for Indoor Units

Administrators can easily and conveniently manage a variety of LG HVAC equipment. Also, it is available to manage many buildings or areas at one place via AC Manager 5.

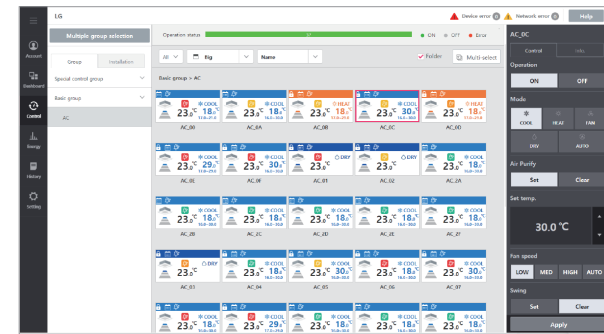


AC Manager 5

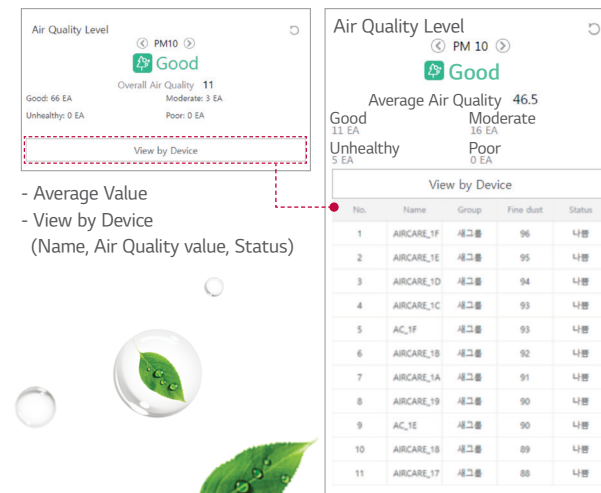
Smart Air Purify Solution

Total management of air purify function creates clean environment everyday.

Air Quality Multi Status view

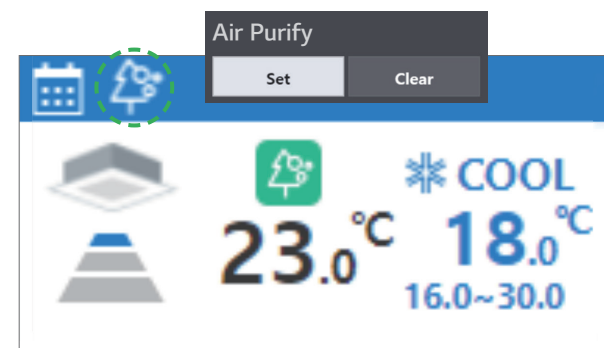


Air Quality Summary Widget



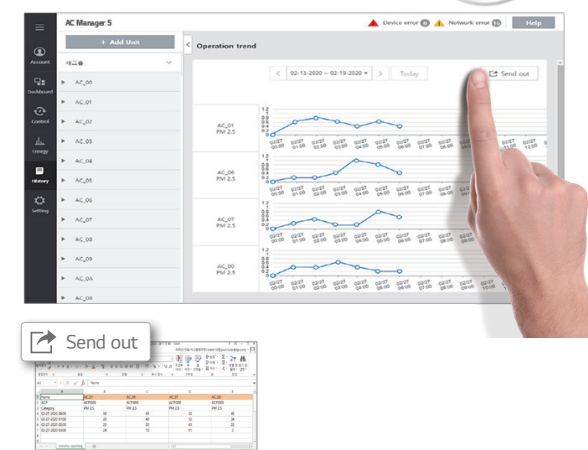
- Average Value
- View by Device (Name, Air Quality value, Status)

Air Purify Control



- Easy setting of Air Purify function (Set / Clear)

View Air Quality Trends



- Daily (per hour), period (30 days) shows trends
- Excel output / easy to manage

Advanced Network Accessibility & User Friendly GUI

As an advanced central controller, AC Manager 5 offers flexible interface for each user by assessing the device screen and automatically customizing the layout to provide the most optimized interface.



reddot award
User Interface Design

Energy Navigation & Energy Usage Graph

Energy navigation is the function to set the target usage amount to limit the monthly power consumption and to control so that the total accumulated power consumption does not exceed the target usage amount. It performs total of 7 control levels with the estimated / actual usage amount exceeding ratio compared to the monthly target usage amount. For the control method, there are indoor unit operation ratio, outdoor unit capacity control, and indoor unit operation control.



Compressor Capacity Control

IDU Operation Ratio Control

IDU Operation Level

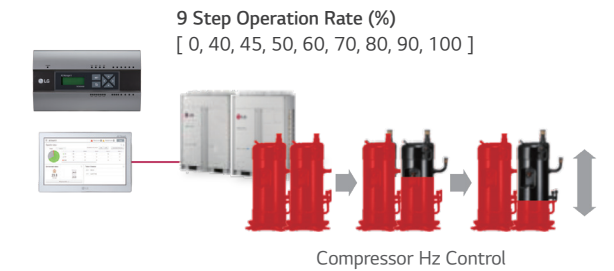
Peak Control

This function can reduce electricity use. There are two kinds of control logic. Energy saving effect by indoor unit operation rate control. Load management effect by outdoor unit capacity control.

Operation ratio (IDUs) Control



ODU Capacity Control



Multi Level Group Composition

User can make frequent and multi level group to control and monitor the device easily.

