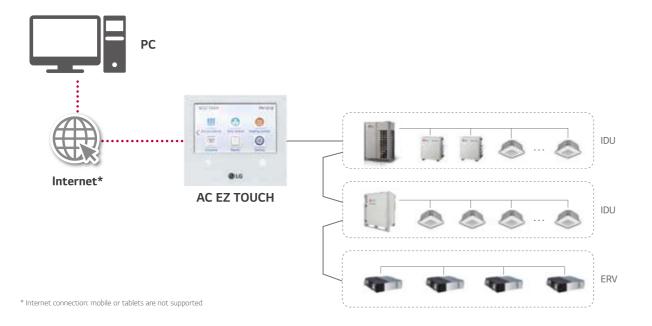


# **Feature Functions**

Controller Na	me		AC Ez	AC Ez Touch	AC Smart 5 6)	ACP 5 <sup>6)</sup>	ACP LonWorks	AC Manager 5 7
Model Name				# 0 0 # 0 0	0 4 t	- 100	-	
			PQCSZ250S0	PACEZA000	PACS5A000	PACP5A000	PLNWKB000	PACM5A000
	DO		-	-	2	4	2	-
Product	DI	DI		1	2	10	2	-
		IDUs	32	64	128	256	64	8,192
		ERV	32	64	128	256	64	8,192
	Max. Connectable	A / C + ERV	32	64	128	256	64	8,192
	No.	AHU	-	-	16	16	16 <sup>5)</sup>	16 x 32
		Chiller	-	-	5 Optional 4)	10 Optional 4)	-	10 x 32
		Commercial Air Purifier 1)	-	-	64	128	-	128 x 32
	Air Conditione		O 3)	0	0	0	0	0
	Ventilation (EF	RV / ERV DX)	O <sup>4)</sup>	0	0	0	0	0
	Heating		-	0	0	0	0	0
Compatibility	AHU		-	-	0	0	0	0
	Chiller		-	-	O 5)	O 5)	-	0
	Commercial Air Purifier 1)		-	-	O 5)	O 5)	-	0
	ACS IO		-	-	O 5)	O 5)	O <sup>5)</sup>	0
	Add Drawing		-	-	O 5)	O 5)	O 5)	0
	Group Management		-	0	O 5)	O 5)	O 5)	0
	Auto Changer Over		-	0	O <sup>5)</sup>	O <sup>5)</sup>	O <sup>5)</sup>	0
	Set Back		-	0	O <sup>5)</sup>	O 5)	O 5)	0
Additional Function	Dual Setpoint		-	0	0	0	O <sup>5)</sup>	0
	Change Alarm		-	Filter	Filter	Filter	Filter	Filter
	Indoor Unit Lock		O 8)	0	0	0	O <sup>5)</sup>	-
	Cycle Monitoring		-	-	0	0	O 5)	0
	Air Purify		-	O <sup>5)</sup>	O 5)	O 5)	-	0
Schedule			0	0	O 5)	O 5)	O 5)	0
		Energy & Priority Control	-	0	0	0	O 5)	0
Auto Control	Peak Control	Outdoor Unit Capacity Control	-	-	O <sup>5)</sup>	O 5)	O <sup>5)</sup>	0
	Time limit con	trol	-	-	O 5)	O 5)	O 5)	0
	Interlocking		-	-	O 5)	O 5)	O 5)	0
Energy Navigat	tion		-	-	O 5)	O 5)	-	0
	Power		-	0	0	0	O 5)	0
Energy Report	Gas		-	-	0	0	O <sup>5)</sup>	0
Report	Run time		-	-	O <sup>5)</sup>	O <sup>5)</sup>	O <sup>5)</sup>	0
	Save to PC / U	JSB (Excel)	-	-	PC / USB 5)	PC	PC	PC
Trend Reportin	g		-	-	-	-	-	0
History	Report (Control / Error)		-	Error	O <sup>5)</sup>	O <sup>5)</sup>	O <sup>5)</sup>	0
	Send Email		-	-	O <sup>5)</sup>	O <sup>5)</sup>	O <sup>5)</sup>	0
	Save to PC / USB (Excel)		-	-	PC / USB <sup>2)</sup>	PC <sup>2)</sup>	O 5)	PC <sup>2)</sup>
	Summer Time		-	0	O <sup>5)</sup>	O <sup>5)</sup>	O 5)	0
etc	Outdoor Unit Oil-Return Operation		-	-	O <sup>5)</sup>	O 5)	O 5)	-
etc	User Authority		-	Password	O <sup>5)</sup>	O <sup>5)</sup>	O 5)	0
	PC Access		-	0	O 5)	O 5)	O 5)	0

 ※ ○: Applied, -: Not Applied
 1) The Commercial Air purifier must additionally install PI485 (PHNFP14A0).
 2) Save to PC / USB function will be available from 2021.
 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) Hard Lock CONTROL SOLUTIONS 260 I 261

# **AC EZ Touch**



#### 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	0		
Slave Mode (Interlocking with higher level controller)	0		
Schedule	Weekly / Monthly / Yearly / Exception day		
Remote Access	By client S/W (Neither Android nor IOS are supported)		
Emergency Stop & Alarm Display	0		
Power Consumption Monitoring (with PDI)	0		
Auto Changeover / Setback	0		
Temperature Limit	0		
Operation History	Error record		
ODU Low Noise 1)	0		
Daylight Saving Time	0		
External IO Port	DI 1		
IPv6 Support	0		
Air Purify Control	0		
Air Quality Level	0		

<sup>※ ○ :</sup> Applied, - : Not Applied1) It is only available in some products.

## PC Access

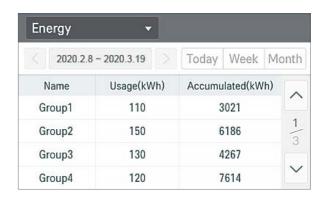
Users can control each space efficiently through PC access.



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

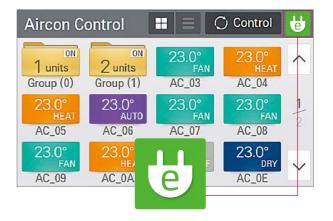
#### **Energy Statistics (with PDI)**

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

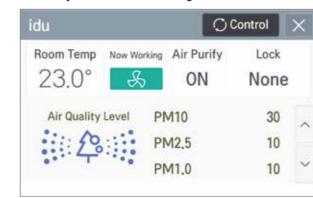


## **Energy Mode**

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

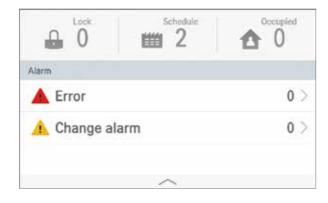




# **AC EZ Touch**

#### **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.

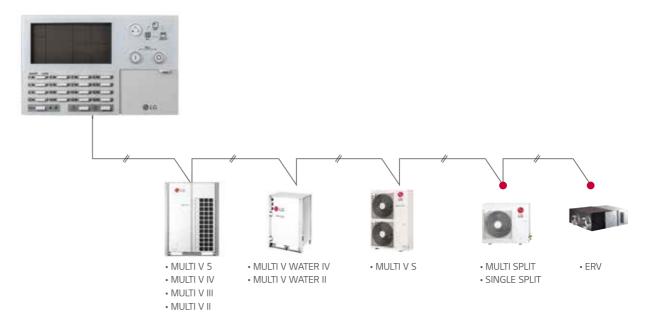
Sch	edule_l	Month	•			$\oplus$	Add
Sun	Mon	Tue	Wed	Thu	Fri	Sat	
28	29	1	2	3	4	5	^
6	7	8	9	10	11	12	
13	14	15	16	17	18	19	2020
20	21	22	23	24	25	26	03
27	28	29	30	31	1	2	9. 9.
3	4	5	6	7	8	9	~

## **Group / Individual Control**

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



# **AC EZ**



Appropriate PI485 should be used according to PDB.

## PQCSZ250S0

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



## Features & Benefits

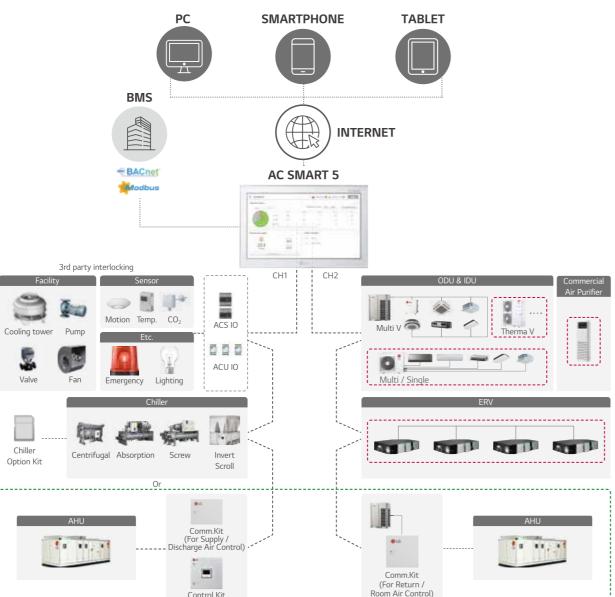
- 32 indoor units control
- Weekly Schedule
- Individual / Group Control

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	0
Slave Mode (Interlocking with higher level controller)	0
Schedule	Weekly

※ ○ : Applied, - : Not Applied

CONTROL SOLUTIONS





- 22 According to CH1 setting, normal ODU can be connected to CH1.
- (Flexible wiring design with 2 ports)

  Appropriate PI485 should be used according to PDB (Product Data Book).

  For details, refer to the product PDB or manual.

# **AC Smart 5**

## PACS5A000

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









Map view (Visual navigation) **CENTRALIZED CONTROL** 





(A)	Air Purify
-----	------------

亭	Multi level
	grouping

MODEL NAME	PACS5A000		
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 $^{1)}$ / 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 2)	Comfort Cooling / ODU Low Noise / ODU Defrost Mode / Comfort Level display / CO2 Level display (for ERV / ERV DX) / Night Time Free Cooling (for ERV / ERV DX)		
Error Check	0		
Slave Mode (Interlocking with higher level controller)	0		
Schedule	Weekly / Monthly / Yearly / Exception day		
Web Access	0		
Emergency Stop & Alarm Display	0		
Power Consumption Monitoring (with PDI)	0		
Auto Changeover / Setback	0		
Temperature Limit	0		
Operation Time Limit	0		
Visual Navigation	0		
Operation Trend	0		
Air Purify Control	0		
Air Quality Level	0		
Interlock Control	0		
Virtual Group Control	0		
ODU Capacity Control	0		
Energy Navigation (with PDI)	0		
Daylight Saving Time	0		
External IO Port	DI 2 / DO 2		
BMS Integration <sup>3)</sup>	BACnet IP / Modbus TCP		
IPv6 Support	0		

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<sup>O: Applied, -: Not Applied
Chiller Option htt (PCHLLN000) is required.
It is only available in some products.
For the detail point list, please refer to the installation manual.</sup> 

## AC Smart 5

## **Air Purify Total Solution**

#### Air Purify Control

CENTRALIZED

CONTROL

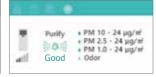




- Easy setting of Air Purify function (Set / Clear)

Air Quality Level Monitoring





\* The Commercial Air purifier must additionally install PI485(PHNFP14A0).

System Air Conditioner Commercial Air Purifier

#### **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.



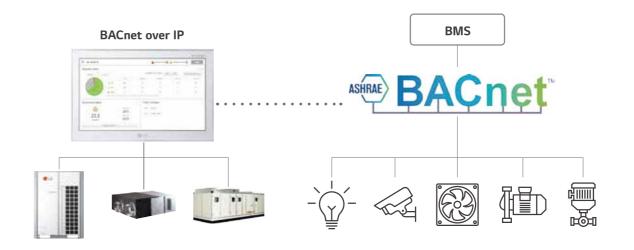
## **Energy Management**

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



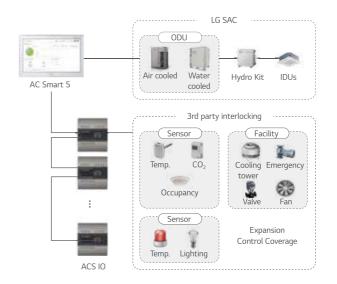
## **Building Management System (BMS) Integration**

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

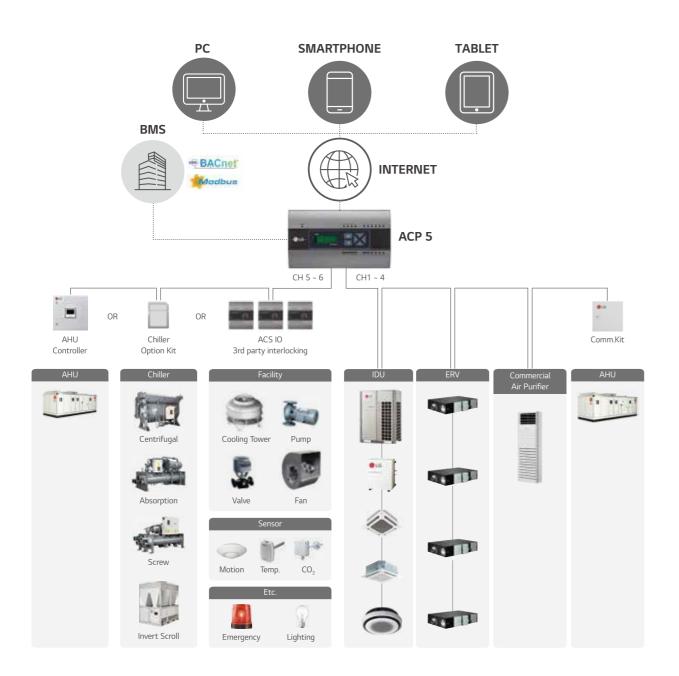


## Interlocking with 3rd Party Equipment

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



# ACP 5



## **Advanced Network Accessibility**

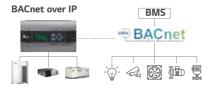


\* Fix Public IP is mandatory.
\* Router's Configuration of NAT is mandatory. Open port 80 & 9300.

## **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 1) / 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 <sup>2)</sup>	Comfort Cooling / ODU Low Noise / ODU Defrost Mode / Comfort Level display / CO <sub>2</sub> Level display (for ERV / ERV DX) / Night Time Free Cooling (for ERV / ERV DX)
Error Check	0
Schedule	Weekly / Monthly / Yearly / Exception day
Web Access	0
Emergency Stop & Alarm Display	0
Power Consumption Monitoring (with PDI)	0
Auto Changeover / Setback	0
Temperature Limit	0
Operation Time Limit	0
Visual Navigation	0
Operation Trend	0
Air Purify Control	0
Air Quality Level	0
Interlock Control	0
Virtual Group Control	0
ODU Capacity Control	0
Energy Navigation (with PDI)	0
Daylight Saving Time	0
External IO Port	DI 10 / DO 4
BMS Integration <sup>3)</sup>	BACnet IP / Modbus TCP
IPv6 Support	0

- \*\* O : Applied, : Not Applied

  1) Chiller Option Kit (PCHLLN000) is required.

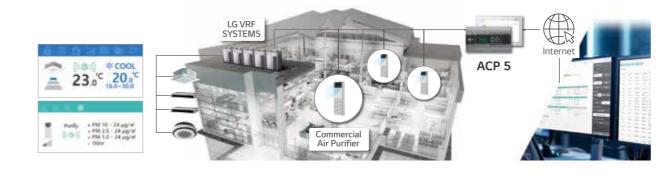
  2) It is only available in some products.

  3) For the detail point list, please refer to the installation manual.

## Air Purify Control / Monitoring

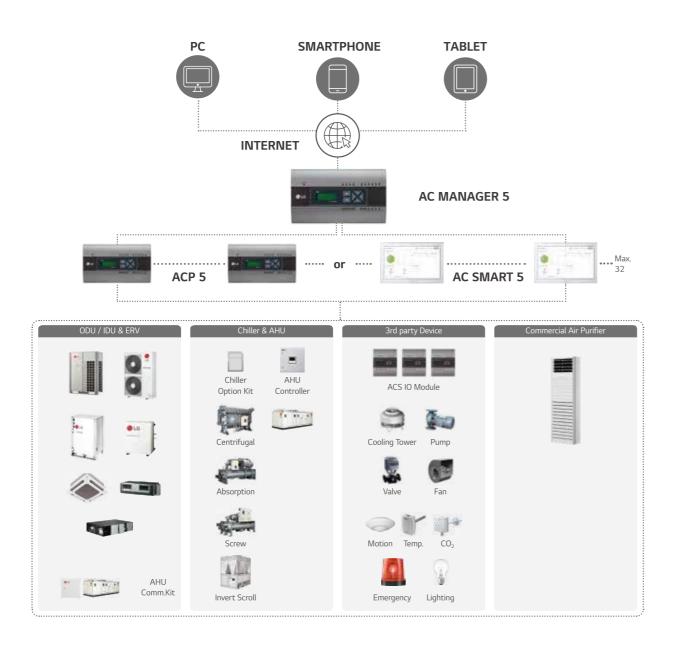
#### Integrated Management

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



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## **AC MANAGER 5**





## PACM5A000

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



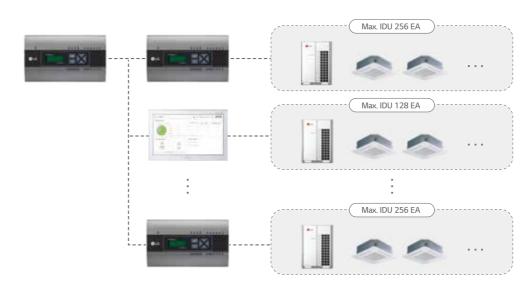


MODEL NAME	PACM5A000		
Size (W x H x D, mm)	270 x 155 x 65		
Interfaceable Products	MULTI V / ERV / ERV DX / Hydro kit / THERMA V / AHU Kit / LG Chiller 1) / Commercial Air Purifier		
Maximum number of units	8,192 (Supports 32 ACP 5 or AC Smart 5)		
Individual / Group Control	On & Off / Mode / Temperature / Fan speed		
Individual Controller Lock	Temperature / Mode / Fan speed / All		
Error Check	0		
Schedule	Weekly / Monthly / Yearly / Exception day		
Web Access	0		
Emergency Alarm Display	0		
Power Consumption Monitoring (with PDI)	0		
Auto Changeover / Setback	0		
Temperature Limit	0		
Operation Time Limit	0		
Visual Navigation	0		
Operation Trend	0		
Air Purify Control	0		
Air Quality Level	0		
Interlock Control	0		
Virtual Group Control	0		
ODU Capacity Control	0		
Energy Navigation (with PDI)	0		

 $\times$  O : Applied, - : Not Applied 1) Chiller Option Kit (PCHLLN000) is required for ACP 5 or AC Smart 5. 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.



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**ENTRALIZED** 

CONTROL

## **AC MANAGER 5**

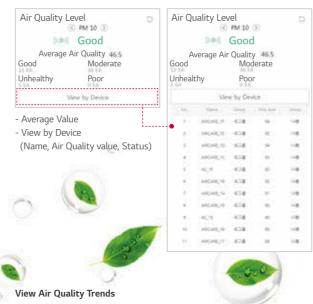
## **Smart Air Purify Solution**

Total management of air purify function creates clean environment everyday.





#### Air Quality Summary Widget







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



- 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.



## **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.



#### 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



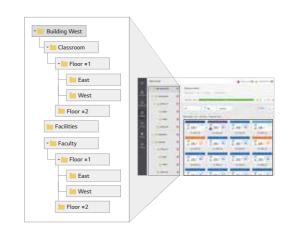
#### **ODU Capacity Control**



Compressor Hz Control

#### Multi Level Group Composition

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



CONTROL SOLUTIONS 274 | 275

reddot award