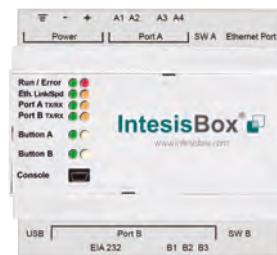# BMS interface with P-Link

BMS interface with Panasonic communication bus helps you to get significant savings.

1 Direct connection to P-Communication bus
· No need for additional gateway (CZ-CFUNC2)
· Significant 50% cost saving for BMS interface*
· Avoid mistakes and reduce configuration time.

* In the case of PAW-AC2-BAC-16P by Panasonic calculation.

2 Upgraded specifications and easy configuration
· Base PCB board with MCU, Ethernet, RS485, RS232 & USB
· Configuration by IP or USB
· New single configuration tool for all models (IntesisBox MAPS)
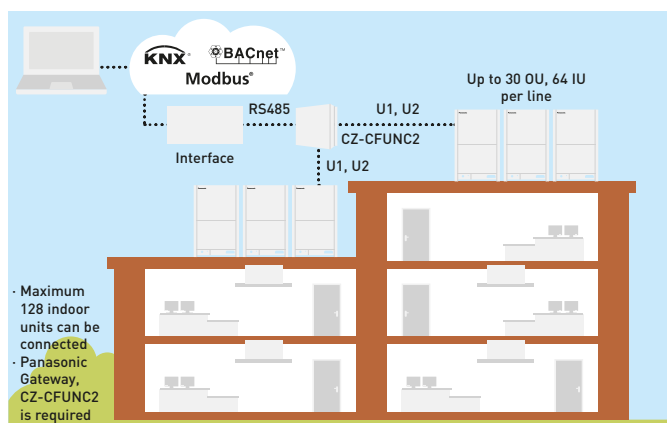· Modular expansion PCBs (KNX, RS485, DALI, MBUS, LON, ANYBUS)

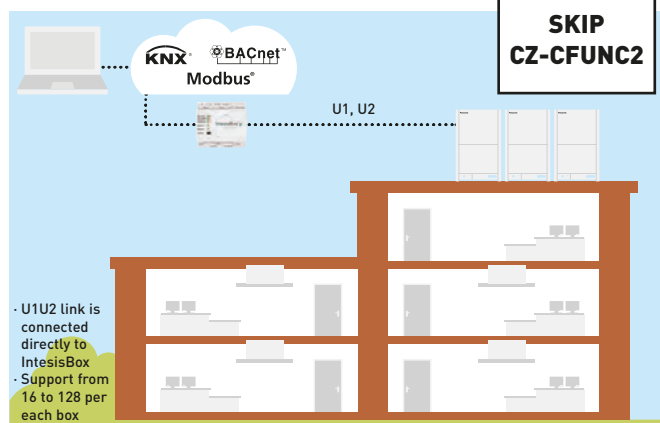**3 BTL certified for BACnet**
· BACnet: Version 14 and BTL certified

Direct connection to P-Communication bus

The interface can provide faster, cheaper, easier solution in your projects!

Conventional interface.

Up to 30 OU, 64 IU per line

RS485   U1, U2
CZ-CFUNC2
U1, U2

Interface

· Maximum 128 indoor units can be connected
· Panasonic Gateway, CZ-CFUNC2 is required

Interface with P-communication bus.

SKIP CZ-CFUNC2

U1, U2

· U1U2 link is connected directly to IntesisBox
· Support from 16 to 128 per each box

Upgraded specifications and easy configuration

· Base PCB board with MCU, Ethernet, RS485, RS232 and USB
· Modular expansion PCBs (KNX, RS485, DALI, MBUS, LON, ANYBUS)
· Frontal PCB with all LEDs, buttons and USB console Port
· New single configuration tool for all models (IntesisBox MAPS)

· Improved version of the current communication Stacks, BTL and KNX Certifications will be possible
· Recoverey of current configuration project working in V6
· Local logging of interface data via USB without the need for a PC
· Configuration by IP or USB (old generation RS232)
· CB Certification for EU, US, CA and AU. Also UL marked product

PAW-AC2-BAC-16P	BACnet Interface for 16 indoors	
PAW-AC2-BAC-64P	BACnet Interface for 64 indoors	
PAW-AC2-BAC-128P	BACnet Interface for 128 indoors	

PAW-AC2-MBS-16P	16 indoor units
PAW-AC2-MBS-64P	64 indoor units
PAW-AC2-MBS-128P	128 indoor units

PAW-AC2-KNX-16P	KNX Interface for 16 indoors
PAW-AC2-KNX-64P	KNX Interface for 64 indoors

Control and Connectivity

A wide variety of control options to meet the requirements of different applications.

Centralized Control Systems

BMS System. PC Base.

CZ-CSWKC2
P-AIMS. Basic Software
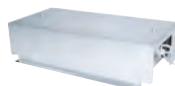Up to 1024 groups. Controls 1024 units.

Connection with 3rd Party Controller.

CZ-CAPDC2
Seri-Para I/O unit for outdoor unit. Up to 4 outdoor units.

CZ-CAPC3
ON/OFF control for external devices such as ERV. Controls 1 unit.

CZ-CAPBC2
Mini Seri-Para I/O Unit 0 - 10V. Controls 1 indoor unit or a group of 8 indoor units.

CZ-CFUNC2
Communication Adaptor. Up to 128 groups. Controls 128 units.

AC Smart Cloud.

CZ-CFUSCC1
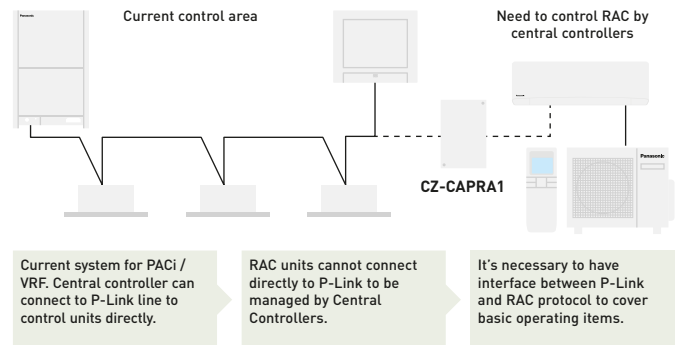Cloud internet control. Up to 128 groups. Controls 128 units.

Domestic integration to P-Link - CZ-CAPRA1

Can connect RAC range to P-Link. Full control is now possible.

Integrates any unit in big system control.
· TKEA / PKEA server room integration
· Small offices with domestic indoors
· Tender for refurbishment (old system Domestic and VRF in one installation)

Centralized Control Systems: 64 indoor units	Intelligent Controller / Web Server: 256 indoor units	P-AIMS: 1024 indoor units

Current control area — Need to control RAC by central controllers

CZ-CAPRA1

Current system for PACi / VRF. Central controller can connect to P-Link line to control units directly.

RAC units cannot connect directly to P-Link to be managed by Central Controllers.

It's necessary to have interface between P-Link and RAC protocol to cover basic operating items.

Basic operation items: ON/OFF, Mode select, Temperature setting, Fan speed, Flap setting, Remote control prohibit.
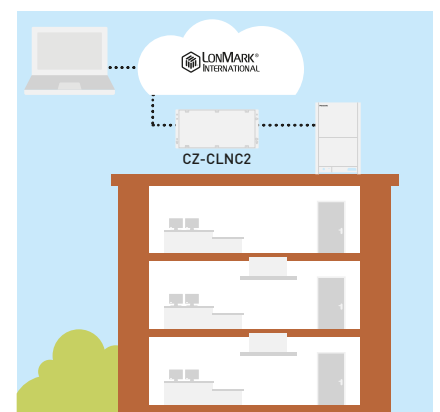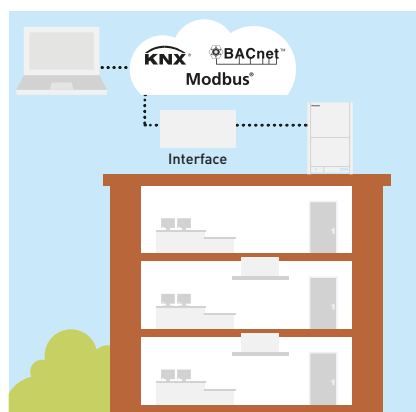**External input:** ON/OFF control signal, Abnormal stop signal.
External output for Relay [1]: Operation status (ON/OFF), Alarm status output.

1) Because current CN-CNT connector can not provide the power for external output relay, additional Input power for external relay is necessary.

Easy connection to KNX, Modbus, LonWorks and BACnet

Great flexibility for integration into your KNX / Modbus / LonWorks / BACnet projects allows fully bi-directional monitoring and control of all the functioning parameters.

For more information, contact Panasonic.

KNX · BACnet
Modbus®
Interface

LonMARK INTERNATIONAL
CZ-CLNC2

VRF SMART CONNECTIVITY+

The future of Control.

VRF Smart Connectivity+ offers efficient energy management and a new air conditioning control solution with high IAQ (Indoor Air Quality).

Energy Management System for Rooms	Each room is monitored by high-precision sensors, making it possible to make every room's temperature comfortable without wasting energy.
Management System for the Entire Building	A Building Energy Management System (BEMS) can also be connected for Plug & Play centralised control of the building's entire energy consumption.

Connect to the future. VRF Smart Connectivity

Through thorough energy management, Panasonic's VRF Smart Connectivity is a completely new, state-of-the-art solution providing energy saving and comfort as well as simple installation, operation and running.

Panasonic, passionately pursuing the ultimate in energy saving through the application of cutting-edge technology, and Schneider Electric, an advanced global energy management specialist offering innovative control systems. This collaboration has set the new standard for creating the next generation of contemporary buildings.

Smart connectivity devices

SED-WDC-G-5045
Door/window sensor.

SED-MTH-G-5045
Wall/ceiling motion/temperature/humidity sensor.

SED-CO2-G-5045
CO_2 temperature/humidity sensor.

SED-WLS-G-5045
Water leakage sensor.

ZigBee communication card VCM

* With optional VCM communication card.

Schneider Electric brand - SE8000

Features

· Up to 5-year battery life batteries included
· Battery life of CO_2 sensor up to 10-year.
· Battery level is a data point
· Sensor points visible when SE8000 is integrated via BACnet MS/TP

· Sensor status and battery level visible when SE8150 is integrated via ZigBee® Pro
· Integration to BMS only recommended when each MPM is connected to Ethernet and set as a ZigBee® Coordinator node

Panasonic AC Smart Cloud

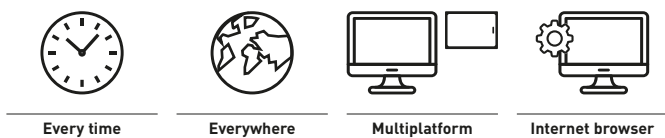## With Panasonic AC Smart Cloud, have your business under control, and start saving!

Flexible solution and scalable solution

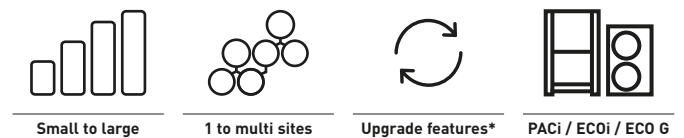**Energy saving, zero downtime and site(s) management.** Centralize control of your business premises, from wherever you are, 24/7/365. It doesn't matter how many sites you have, or where they are! The AC Smart Cloud system from Panasonic allows you to have complete control of all your installations, from your tablet or from your computer. In a simple click, all your units from several locations, receive status updates in real-time of all your installations, preventing breakdowns and optimizing costs.

With Panasonic AC Smart Cloud, have your business under control, and start saving!

Flexible solution for your business

Every time	Everywhere	Multiplatform	Internet browser

Scalable solution for your business

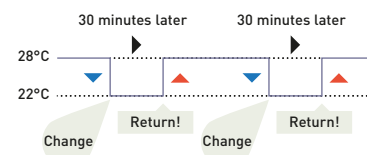| Small to large	1 to multi sites	Upgrade features*	PACi / ECOi / ECO G

* Customized to meet user demand / Continuous upgrades: new functions and product introductions / IT smart management.

Panasonic AC Smart Cloud offers continuous improvement always thinking about users
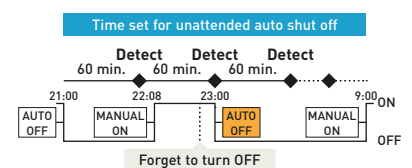
E-CUT function

E-CUT functions are newly available in Panasonic AC Smart Cloud.
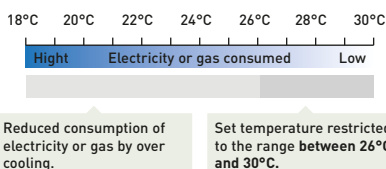5 energy saving settings reduces automatically its energy consumption.

1. Set temperature auto return.
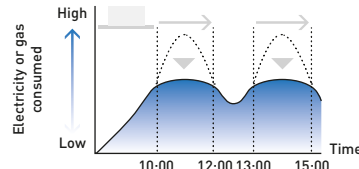When you want to return to the set temperature after a certain time even if the temperature is changed.

30 minutes later   30 minutes later

28°C
22°C

Change   Return!   Change   Return!

2. Unattendted auto shut off.
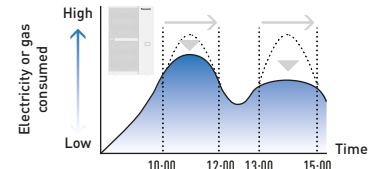When you want to operate outside of a schedule but to monitor and stop automatically.

Time set for unattended auto shut off

Detect   Detect   Detect
60 min.   60 min.   60 min.

21:00   22:08   23:00   9:00 ON

AUTO OFF   MANUAL ON   AUTO OFF   MANUAL ON   OFF

Forget to turn OFF

3. Set temperature range limit.
When you want to limit the temperatures that can be set.

18°C   20°C   22°C   24°C   26°C   28°C   30°C

Hight   Electricity or gas consumed   Low

Reduced consumption of electricity or gas by over cooling.

Set temperature restricted to the range **between 26°C and 30°C.**

4. Energy saving timer / Efficient operation setting.
Specify time slots when you want operation capacity reduced.

Electricity or gas consumed — High / Low

10:00   12:00 13:00   15:00   Time

5. Demand / peak shaving settings/ Peak cut settings.
Specify time slots when you want operation capacity of the outdoor units reduced.

Electricity or gas consumed — High / Low

10:00   12:00   13:00   15:00   Time

One of our uniqueness is "Stable and secured communication package"

· Connectivity is included in the service. Customers do not have to take time to find and prepare suitable connectivity
· With an all inclusive service offering, the customer has peace of mind and a one stop shop for all AC Smart Cloud issues they may face including connectivity
This reduces installation time, requiring no integration with existing IT network infrastructure.

3G router   **SIM card**