**GET TO KNOW MORE
ON OUR SOLUTIONS**
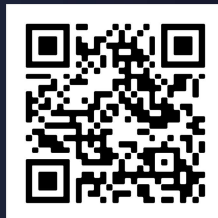
**JOIN OUR GROWING
COMMUNITY**

Viber Community

Panasonic®

Panasonic

b2b solutions

CONTROL
Solutions

SAFETY
Solutions

SAVINGS
Solutions

SECURITY
Solutions

COMFORT
Solutions

TOTAL INTEGRATED SOLUTIONS

FOR EVERY BUSINESS NEEDS

Create Today, Enrich Tomorrow with Panasonic

Experience better living at home, at work, or whatever life takes you. Panasonic's total solutions are designed to improve all aspects of your life combining different products to provide the best fit for your Control, Safety, Savings, Security, and Comfort needs.

CONTROL Solutions
Eases accessibility with standard and smart control devices.

SAFETY Solutions
Products and Systems that provides safety for your home and family.

SAVINGS Solutions
Reduction on energy consumption through efficient products and systems.

SECURITY Solutions
Monitor and secure your properties from any unwanted incidents.

COMFORT Solutions
Achieve better lifestyle upgrades with products that improves your well being.

OVERVIEW

Widely known as the electronics giant in the consumer electronics industry, Panasonic has come a long way to brand itself as one of the market leaders and has since evolved from attachment plugs to integrated solutions. Today, the major contributor to the company's total business is the B2B sector, while its B2C plays a smaller yet important role.

Japan has been at the forefront of the "Smart & Sustainable" house trend and Panasonic is one of the companies which has been active in this field. The recent economic growth spurt in Asia has led to the rise in demand for higher quality living, and this has challenged Panasonic to pioneer energy-efficient products and smart automated systems for the region.

The changing landscape of homes in Asia, coupled with a growing interest in sustainable living and concern for the environment by consumers in the region, has inspired the company to develop technologies that cater to these needs.

This publication is a convenient reference of our technologies, and includes everything from systems for the household, state-of-the-art smart houses to the Internet-of-Things. Panasonic has it all.

As a company that works to understand and adopt the culture of each country, we will continue to innovate, to create the future with our consumers in the areas of Residential and Non-Residential.

PANASONIC CASE STUDIES

Application of Total Panasonic Solutions to Different Project Types

CONTROL SOLUTIONS

SAFETY SOLUTIONS

INDEX

INDEX

Application of
Panasonic Solutions

TO DIFFERENT PROJECT TYPES

RESIDENTIAL SOLUTIONS

b2b solutions

Exterior

Solar Panel
550W Mono Perc
144 Half Cell
Solar Module

S-Series Cameras (i-Pro)

Outdoor Smart LED Fixtures

H3 Autodoor System

Interior

EL Guard Outlet (GFCI)

Room Monitor Unit

LED Rimless Downlights

Electric Bidet
DL-EH10PH-W

Smoke Alarm with Sounder

Slim Art Series Switches

Smart Home (Thea IQ)

Ceiling Fan

Super Quiet Series Exhaust Fan

Miniature Circuit Breaker

Air-E
FV-15CSD115

Split Type (Inverter)

b2b solutions

Suite Room

LED TV

Z1 Type: Slim Low Static Ducted Twenty Series (VRF System) ECONAVI

VRF Control

Outlets | Indicators

Steam Iron

LED Downlights

Multi Point Heater

Hair Dryer

Smoke Alarm with Sounder

Electric Bidet

1 Door Refrigerator

Slim Art Series

Smart Home (Thea IQ)

Miniature Circuit Breaker

Beam Type Detectors

Projectors

VRF - FSV Systems

VRF Control

Security Management

Local Combination Set

Glareless Downlights

S-Series Cameras (i-Pro)

Air-E
FV-15CSD115

Floor Outlet (Shallow)

Conference/ Ballroom

COMMERCIAL SOLUTIONS

b2b solutions

Market

Energy Recovery Ventilator

Glass Door Freezer

Showcases

Pro-ID Series (Reflector Type)

Beam Type Detectors

360-Degree Camera

Interactive Kiosk

Floor Outlet (Shallow)

H3 Autodoor System

VRF - FSV Systems

VRF Control

Pro-ID Series

Parking

PIR Sensor

Cabinet Fan

Multi Detector with CO

S-Series Cameras (i-Pro)

Security Management

Beam Type Detectors

S-Series Cameras (i-Pro)

Storage

Diners

360-Degree Camera

Hand Dryer

Electric Bidet

Microwave & Rice Cooker

Energy Recovery Ventilator

Inverter Commercial Freezer

Super Quiet Series Exhaust Fan

WP EL Guard Outlet (GFCI)

Floor Standing

Multi Detector with CO

Glareless Downlights

H3 Autodoor System

Quick Service Restaurants

Floor Standing

Outdoor Smart LED Fixtures

Microwave & Rice Cooker

Super Quiet Series Exhaust Fan

Energy Recovery Ventilator

Inverter Commercial Freezer

S-Series Cameras (i-Pro)

Solar Panel
550W Mono Perc
144 Half Cell
Solar Module

Air Curtain

Self-Order Kiosk

Smart Food Locker

Factory

Floor Outlet (Shallow)

Beam Type Detectors

Solar Panel
550W Mono Perc
144 Half Cell
Solar Module

Local Combination Set

Security Management

Time Switch

Cabinet Fan

S-Series Cameras (i-Pro)

Pro-ID Series

VRF - FSV Systems

VRF Control

BMS Hardware
Intesis

BMS

| ENERGY | CONTROL | VENTILATION | SECURITY |

ENERGY

Solar Panel
550W Mono Perc
144 Half Cell
Solar Module

CONTROL

Time Switch

VRF Control

BMS Hardware
Intesis

VENTILATION

Cabinet Fan

SECURITY

Security Management

Beam Type Detectors

S-Series Cameras (i-Pro)

Control
Solutions

Eases accessibility with standard
and smart control devices.

Our extensive range of control systems are the answer
to every project and application. From standalone units
to centralized control systems, Panasonic continues
to lead the way in control and connectivity.

Applications

RESIDENTIAL

RESTAURANTS

SCHOOLS

OFFICES

HOSPITALS

STORES

FACTORIES

Key Factors

✓ Applicable to new and
renovation projects.

✓ Cost efficient and
low maintenance.

✓ Easy to operate and
user-friendly interfaces.
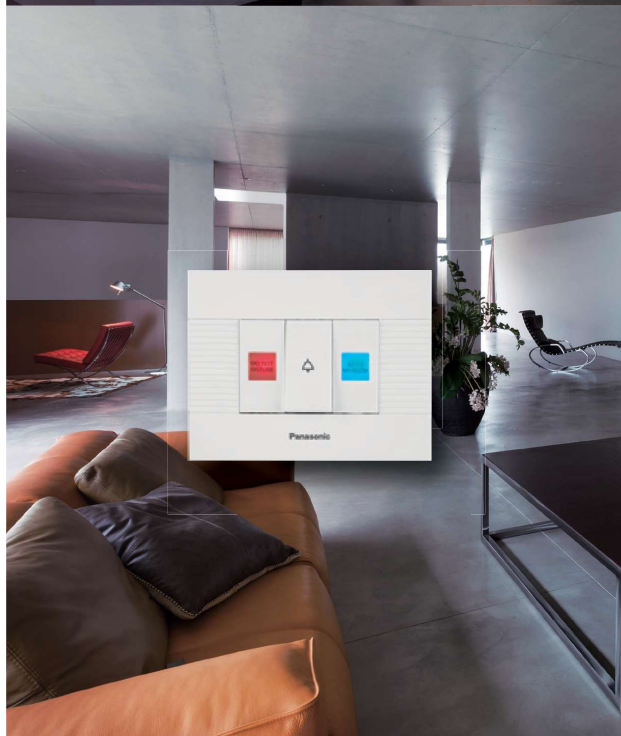
SlimArt SWITCHES & PLATES

New Slim Designs to Harmonize with Any Living Space

SLIM WITH SNOW WHITE COLOR
Provides a softly lit LED indicator for easy visibility in the dark.

SOFT-TOUCH OPERATION & WIDE SWITCH
Advanced switch mechanism offers smoother ON/OFF switching.

ACHIEVING SAFETY THROUGH RELIABILITY
Made of a material that resists color fading even when constantly bathed in room light or sunlight.

REFINA FULL-COLOR WIDE SERIES

Wide color range suits modern interiors

FULL-COLOR WIDE SERIES REFINA A-TYPE

Various Combination : 7 Plate Colors ✕ 7 Switch Colors

White	Metallic White	Metallic Gray	Metallic Black	Metallic Gold	Metallic Brown	Metallic Dark Brown
W	MW	MH	MB	MY	MF	MA

The last 2 characters in ☐☐ of Refina product numbers show the item color.

V–HOTEL SERIES

Perfect fit for modern interiors.

SLEEK & SLIM PLATES MATCHING MODERN INTERIORS
6mm-thin plate matches with modern interior styles,
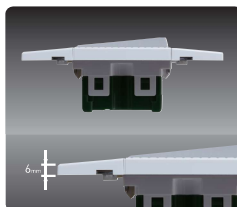
LIGHT TOUCH FEEL DESIGN LED INDICATOR
Advanced switch mechanism enables soft touch operation with less noise and trouble. Electricity can be confirmed in one look with LED indicator

NAMING OPTION CUSTOMIZED HOTEL NAME
For a special project, we can offer special print on the product like project name, any original character, etc.

AUTOMATIC
TIME SWITCH

Available in a wide variety of models to suit
a multitude of environmental and weather conditions.

What's an Automatic Time Switch?

An automatic time switch automatically controls the use of electricity according to time.
It's a device that lowers both electrical and labour costs.

Automatically Turns the Power On and Off

The Time Switch combines a clock with a switch to automatically
turn power on or off at present times. It is generally built into
a lightboard or distribution panel, and controls electricity on
a 24-hour. It makes it possible to replace conventional manual
control with automated, reliable ON/OFF time management.

Eliminating Electrical Waste
is Also Ecological

Because the power is relable turned on and off according to
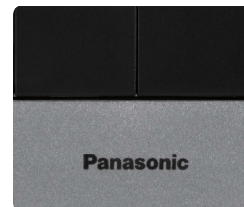a preset time schedule, the amount that was wasted by extented
use is saved, and electric bills are effectively lowered.

Cutting Labor Costs Is Also Efficient

Since the job of turning the power on and off is done automatically
instead of manually, you can assign your valuable human resources
to more important jobs. Human error is also eliminated, so power
management is more reliable.

Simply Set the Time for ON/OFF Control

Time management consists of simply setting the times to
turn the power on and off. A wide range of uses are possible
across various operations, such as lighting, air conditioning,
water supply, and livestock feeding.

Example: Managing electricity in the office

From 1:00 PM - 6:00 PM
Lighting and air conditioning
are turned on precisely when
lunchtime ends. Then the
power is automatically turned
off when the workday finishes.
Again, no power is wasted.
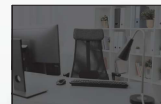
From 12:00 PM - 1:00 PM
Lunchtime. Lighting and
air conditioning are turned
off while people leave the
office for lunch. No power
is wasted.
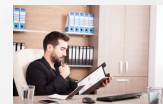
From 8:30 AM - 12:00 AM
Turn the power on at the
start of the workday.
Lighting and air conditioning
are turned on to provide a
smooth start to office work.

New innovation with
New energy-saving lighting control

PASSIVE INFRARED SENSOR

Best for Energy saving and Touchless demand.
Sensing human motion and automatically turn On/Off the lights.

Demonstration

Passive Infrared Sensor | Ceiling light

Automatically "On"

Automatically "Off"

Detection

Load — On / Off
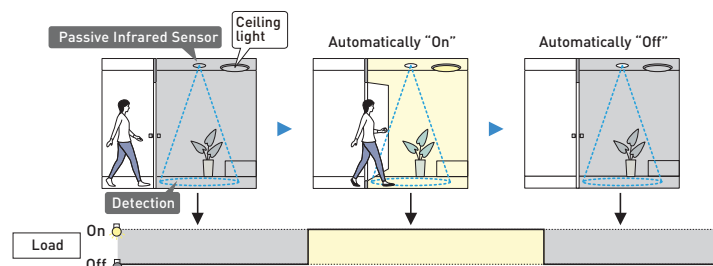
Features

Non Contact
PIR Sensor reduces the risk of contact infection because it automatically turns ON/OFF the light **without touching the switch** at toilet and meeting room etc.

Safety
PIR Sensor automatically turns ON/OFF the light without exploring switch in a dark area.
Rest assured that the elderly and children **will not stumble.**

Energy Saving
PIR Sensor automatically turns ON/OFF the light in case of no people in the warehouse and it leads to power saving.

PaPIRs provides higher "Sensitivity" and "Reliability"!
Reliable detection when small temperature difference between the ambient temperature and the target object.

Powered by PaPIRs

Made in JAPAN

High sensitive quad pyroelectric element

Original designed ASIC

High density detection zone

PaPIRs PIR Sensor

• **2 Times better Sensitivity**
-Slid design elements prevent thermal crosstalk between the single sensing elements.

• **4 Directions detection**
-Improve detection performance with Quad elements.

• **4 Times better signal-to-noise ratio**
-Original designed ASIC decrease the probability of false alarms
-Fine tuned detection setting in ASIC with our knowhow

Conventional PIR
-Dual element

Thermal crosstalk | 2-way direction detection

PaPIRs element
-Quad element with slit design

4-way direction detection

PaPIRs

Conventional PIR sensor

Analog output diagram

False alarm

Recommended Location

Corridor | Restroom | Entrance Hall | Locker
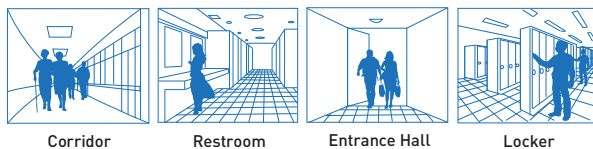
Multiple detection as Saving cost.
Suitable for hallway and parking.

Inter-connectible type

Master | Auxiliary | Auxiliary
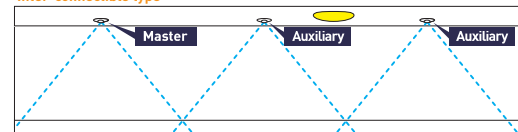
Number of Auxiliary units connected; WTKG2411(3A)► 4 units, WTKF24816-PH(8A)► 6 units

---

Wiring Method

Stand-alone type	Interconnectable type
Ceiling **Wiring connection**	Power supply 220V-240V AC
Wall **Wiring connection**	Master unit can be used individually.

Master (WTKF24816-PH)

N Power supply L supply

Load

Auxiliary (WTKF2911-PH)

DC 12V (2 wire, no polarity)

The length of the wire should not exceed 50m.

1.5mm² - 2.5 mm² Use rigid copper wire only.

Load

PRECAUTIONS
• Wire of auxiliary can connect with only auxiliary terminal of master.
• Do not connect other terminal, because master and auxiliary will be damaged.

Remark: Don't connect high voltage with auxiliary unit (WTKF2911-PH)

Adjustable Lens

Adjusting detection area up to 15°C in any direction. Possible to change required detection area after installation.

Adjusting angle to 15°

Rotating lens to sensing direction (360°)

When it can't be installed in the required position
When a sensor can't be installed in the required position due to Lighting or Fire alarm.

Up to 15°

When changing detection area
When changing sensing position as approaching closer/further to a sensor.

Up to 15°

Thea IQ

Smart Building Functions

Manage your smart building remotely if you wish.

In home, office spaces, galleries, and general sites, you can centrally manage all of the smart home / smart building / automation functions from a single point. Control points can be located in the screen as a sketch, a picture of the location, or a grid. Therefore, a user-friendly interface provides ease of use for all ages. All of these functions can be utilized even from a distance through your mobile phone.

• Illumination • Dimming • Curtain • Shutter • Thermostat • Alarm • Security

| Illumination | Roller Blind – Curtain | Security Systems | Heating, Ventilation, Air Conditioning Control | Monitoring Systems | Remote Access | Intercom |

Security
• Connection with CCTV
• Connection with sensor

HVAC
• Room temperature control
• Pleasant ventilation
• Sensor & timer control

Lighting Control
• All ON/OFF
• Dimming Control
• Scene Lighting
• Sensor & Timer Control

Connection with mobile
• Smartphone
• Tablet

Internet

Automations / Remote Access
• Logical Functions
• Timed Functions
• System Supervision
• Remote Control

Blind
• Scene Control
• Sensor & Timer Control

KNX

Connect to the Future
VRF Smart Connectivity+
~New SE8000~

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.

Quality Air Control
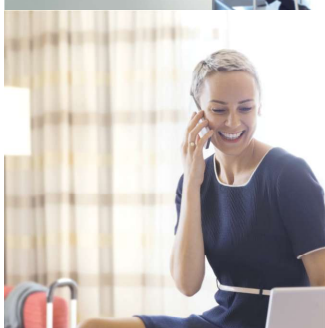
Optimum IAQ is realized using the CO_2 & humidity sensors. The interior remains comfortable, while heating and cooling costs are minimized. The CO_2 sensor controls ventilation systems which contributes to improving the room's air quality.

Room Key Card or Key Cardless Solutions for Hotels

Solutions are provided that meet the needs of various regions and hotel grades. While the previous model's automatic detection function offered optimal air conditioning with or without a hotel room key card, the latest model enables conventional key cards to control air conditioners and other devices coordinately.The increase in the types of devices that can be connected enables customized control of any hotel room.

Other Equipment Control

One room controller manages various devices including lighting and the blinds. A ventilation system and other external connection devices (dry contact input) can be connected so that various control is possible with this controller alone, even without BMS.

SE8000

Lighting

Blind

Ventilation

Color and Design to Match Office Interiors

Color combinations and design can be set to match different facilities.

Customization in Approx. 22 Languages Possible

The display can be customized to match the native languages of guests to enable smooth, stress-free communication for hospitality at its finest.

Easy-to-Understand Error Description

Error description during an emergency is easy to understand, enabling staff to respond quickly.

Programmable Logic

Full customisation of remote control logic possible, and updating to match conditions.

Features

· Up to 5-year battery life batteries included
  (CO_2 sensor is 10 years)
· Battery level is a point
· Sensor points visible when SE8000 is integrated
  via BACnet MS/TP
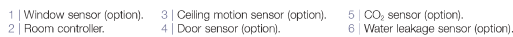· Sensor status and battery level visible when SE8000
  is integrated via ZigBee® Pro

Note: With optional VCM communication card

ZigBee®
Communication Card
VCM

Schneider Electric
brand - SE8000

VRF Smart Connectivity+

PAC or VRF
Binary output ON/OFF
BACnet MS/TP
SE8350
Wired connection
SER8150
Hotel room controller (HRC)
Wired connection
SER8150
ZigBee

EcoStruxure
Ready for BEMS
BACnet
Modbus

Wall/ceiling motion/temperature/humidity sensor
Door/window sensor
CO₂ /temperature/humidity sensor
Water leakage sensor

ENERGY MANAGEMENT SYSTEM FOR ROOMS

By installing a walVceiling motion temperature sensor, window/door sensor, and CO2 sensor in the room, ideal, waste-free air conditioning is achieved.

ZigBee

Built in PIR, humidity

1 | Window sensor (option).
2 | Room controller.
3 | Ceiling motion sensor (option).
4 | Door sensor (option).
5 | CO₂ sensor (option).
6 | Water leakage sensor (option).

SENSING AND CONTROL TECHNOLOGY

Using sensors from Schneider Electric, high-quality - occupancy control and automatic IAQ control are realized. The sensors detect the presence or absence of occupants, and the opening and closing of doors and windows to achieve the most efficient energy management for exceptional air-conditioned comfort.
Flexible installation is possible to match different applications and building features such as walls, ceilings and proximity to doors and windows.
No wiring means extra installation versatility.

Batteries last for up to five years (10-year battery for CO2 sensor) and are easy to install and replace.

Pana Net Con, RH, No PIR, SE Brand, R1R2 SER8150R0B1194 **Pana Net Con, RH, PIR, SE Brand, R1R2** SER8150R5B1194	**Wireless ZigBee® Pro communication card** VCM8000V5094P

Hotel room expansion module 14 indoor units HRCEP14R	**Hotel room controller 28 indoor units** HRCPBG28R	**Hotel room controller w/display 42 indoor units** HRCPDG42R

* Those accessories require system integrator support on site.

Sensor with room CO₂, temperature and humidity SED-CO2-G-5045	**Sensor with room temperature and humidity** SED-TRH-G-5045	**Door/window sensor** SED-WDC-G-5045	**Wall/ceiling motion/temperature/humidity sensor** SED-MTH-G-5045	**Water leakage sensor** SED-WLS-G-5045

Cover frame - Silver FAS-00	**Cover frame - White** FAS-01	**Cover frame - Glossy translucent white** FAS-03	**Cover frame - Light tan wood** FAS-05
Cover frame - Dark brown wood FAS-06	**Cover frame - Dark black wood** FAS-07	**Cover frame - Brushed steel finish** FAS-10	

Up to 5 years battery life (batteries included). Battery life of CO₂ sensor up to 10 years. Battery level data point.

CONTROL
Solutions

K865 15" | KOT21 21.5" | KOT32 32" | KOT43 43" | KOT55 55"

Interactive KIOSK

Better customer experience with Panasonic Interactive Kiosks.

Panasonic Interactive Kiosks has different types and sizes that cater to different industries with different applications depending on the requirement of the client. It is customizable, easy to operate, and has many provisions that can be modified.
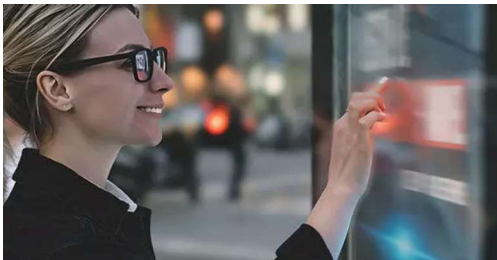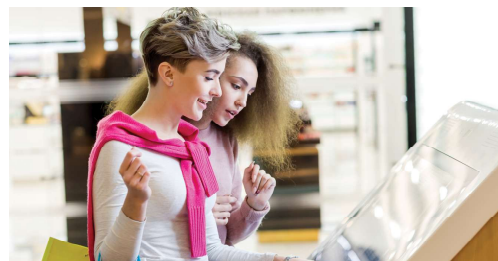

Help re-deploy the workforce to smarter customer retention

Allow customers to engage directly with the ordering system to ensure they get what they want.
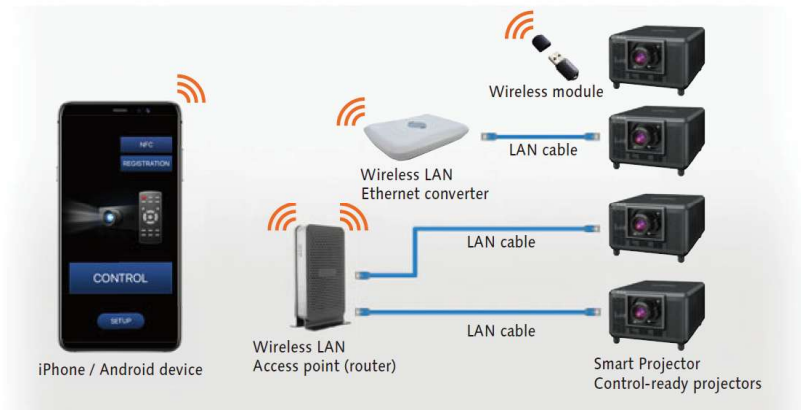

Provide faster service to increase table turnover.

The integrated content designing tools help to create a truly unique experience for customers.

Smart Projector Control

Smart Projector Control is a smartphone application that enables various controls, from turning the power on and off to various lens adjustments.

Wireless module

Wireless LAN
Ethernet converter

LAN cable

LAN cable

LAN cable

iPhone / Android device

Wireless LAN
Access point (router)

Smart Projector
Control-ready projectors

GET IT ON
Google Play

Download on the
App Store

Download Smart Projector Control
(free) from App Store or Google Play.

ADVANTAGES

● The projector can be set and operated from a smartphone application, so there is no hassle associated with the remote control or main body buttons.

● Multiple projectors* can be operated simultaneously, and the status of a selected projector can be checked.
 * Up to 64 projectors can be registered.

● A detailed screen of projectors registered in Early Warning Software can be displayed.

Geometric Adjustment Feature and Upgrade Kits Expand Projection Capability

Flexible projection with a peripheral system turns image viewing into a memorable experience. Panasonic offers features that provide truly unique applications.

Geometric Adjustment (free)

Projectors with a built-in Geometric Adjustment functiony expand projection capability onto spherical, cylindrical, and other specially shaped screens.

Geometry Manager Pro Software & Upgrade Kit (for a fee)

Using this software allows you to perform real-time geometric compensation and other fine adjustments and corrections that cannot be handled on the projector side.

Wireless Projector for Android

GET IT ON
Google Play

Download Panasonic Wireless Projector
(free) from Google Play.

The AJ-WM50 is the dual band, compact wireless module for P2HD and AG-DVX200 camera recorders.

The WM50 dual band (2.4GHz and 5GHz) makes for a more reliable , stable connection to a network in various environments yet its compact size enables it to fit in the wireless module compartment of the P2HD cameras. 2.4GHz offers strong connection through obstacles and compatible with many devices whereas 5GHz offers stability from radio wave interference (Microwave, Bluetooth, etc.)

Key Features

● Compact size, fits inside camera body same as WM30
● Dual Band 2.4GHz and 5GHz (IEEE802.11 a/b/g/n/ac compliant)
● High security WPA2-PSK (TKIP/AES) WPA-PSK (TKIP/AES) WEP (64bit/128bit)

Displayable Content
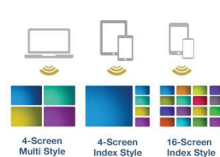
● JPEG/PNG files
● PDF files
● Camera
 (camera equipped devices only)
● Snap Shot

Marker Function

Multi-Live Mode

[Blackboard mode*⁶]

4-Screen
Multi Style

4-Screen
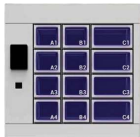Index Style

16-Screen
Index Style

Web Control Function
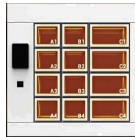
Browser Remote Control Function

Smart Food Locker

Smart Locker technology from Panasonic provides guests with an easy and secure option to pick up off -premise orders at peak freshness, all in a dedicated space.

COLD　　**HOT**　　**AMBIENT**

THE NEXT GENERATION OF TAKE-OUT ORDERING

Panasonic provides the latest technology in meals to go, which offers the ability for a customer to order and pre pay through a mobile app or stationary ordering kiosk. The cubby wall is available with rear or front loading, where the system software selects the appropriate cubby that can be hot, cold, or ambient. Once the cubby is loaded, a code can be sent to the customer which will direct them to their designated cubby.It can then be easily opened for order pick up.

● **CUSTOMIZABLE COLOR**　　● **MODULAR DESIGN**

EASY TO ADD INTO YOUR EXISTING SPACE
Install in a restaurant or communal space and create a dedicated area for take-out orders

CUSTOMERS CAN ONLY ACCESS THEIR SPECIFIC LOCKER
Smart Lockers can only be opened by the customer with the corresponding order code. Simply scan the code and your locker will open

A SEAMLESS INTEGRATION
Smart Food Locker hardware integrates with your native ordering system, as well as popular app-based delivery platforms

3 EASY STEPS

1 **LOCKER IS LOADED**
Restaurant's runner loads the food locker unit with an order and assigns the locker to the corresponding customer

2 **CUSTOMER IS ALERTED**
Panasonic's custom-tailored software notifies the customer their is order is ready and provides locker access instructions

3 **UNIT IS UNLOCKED**
Upon arrival, the customer enters the code provided in the locker access instructions and is able to retrieve their food
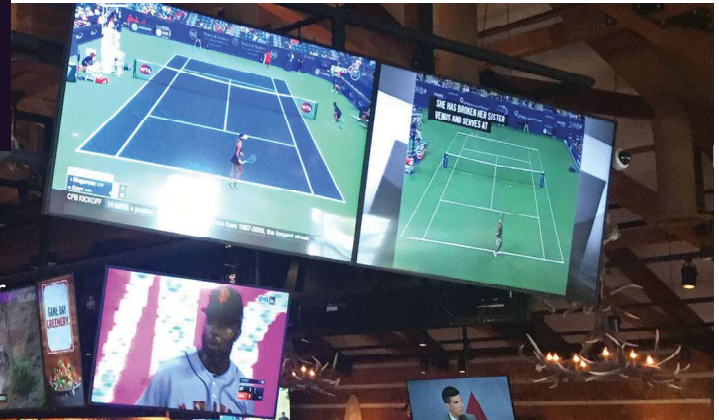
CONTACTLESS CARRY OUT SIMPLIFIED
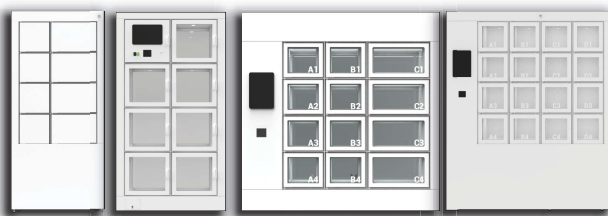
FLAT PANEL DISPLAY
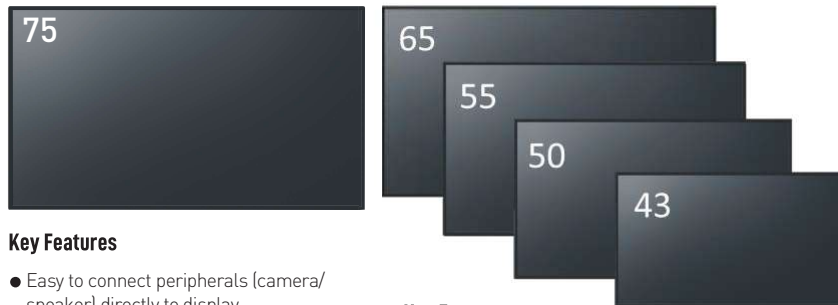
TH-98SQ1 | TH-43SQ2H | TH-55SQP1

Stylish, simple and flexible digital signage displays

Versatile flexibility in a sleek, slim design, these displays offer stunning images in a variety of sizes up to 84-inch, with appealing narrow bezel, wide-viewing angle and built-in USB media player.

EQ2 Series

TH-75EQ2W; TH-65EQ2W; TH-55EQ2W; TH-50EQ2W; TH-43EQ2W
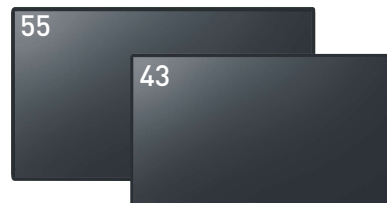
75

65

55

50

43

Key Features

- Easy to connect peripherals (camera/speaker) directly to display
- Increased input type and number of available inputs
- Function slot for increased functionality
- Higher visibility due brightness typically found on higher end products
- Installation flexibility – portrait and tilt supported

Key Features

- High image quality and high legibility suitable for various scenes
- Superb Reliability & Easy Installation
- Various external linkage suitable for conference room and signage applications

Unique feature of EQ2 Series

- **Built-in Whiteboard (Mouse Annotation)**
  Able to write onto the display screen out with the mouse.You can also zoom the screen by scrolling the mouse wheel.

- **USB Pass Through** USB-A ⇒ USB-C
  USB devices can be connected to the display via a USB-A cable and controlled using a PC connected to the EQ2 via the USB-C port.

USB Device
Speakerphone
Camera・Mic・SPK
USB-A Cable
EQ2
USB-C Cable
Control USB device from a PC

SQP1 Series

55

43

Key Features

- High image quality through HDR support (HLG system) that displays light and dark images in a realistic way
- 4k USB Media P.layer: eliminates the need for external devices and allows updates via LAN.
- High expandability with ultra-slim Intel® SDM (Intel® Smart Display Module), Display Port connection for daisy-chain signage, multiple screen function (quad, PinP, PbyP) and 4K DIGITAL LINK
- Flexible and light installation either in portrait or landscape.

500 cd/m², 4K IPS [anel with slim and stylish design and 24/7 operation.

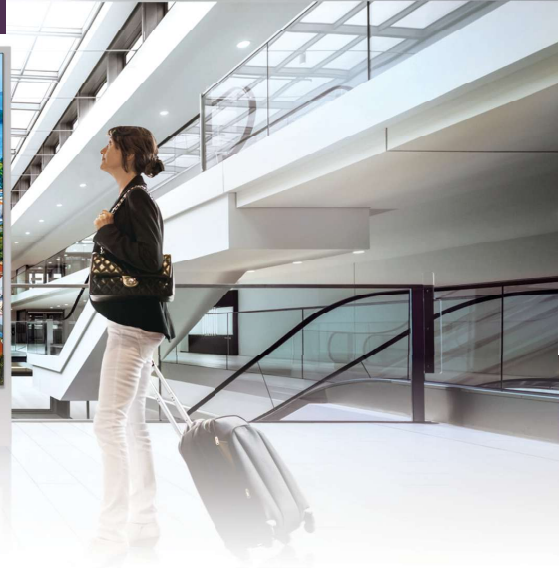| Education | Corporate | Museum/Exhibits | Transportation | Advertisement | Showrooms | Entertainment | Digital Menu Boards |

Video Wall DIsplay

Stop audiences in their tracks.

An ideal solution to create large engaging video walls with an ultra-thin narrow frame and usage in digital signage, broadcast and control rooms.

VF SERIES

The VF Series delivers seamless, multi-screen Display for dynamic, large-screen use.

TH-55VF21

TH-55VF31

24/7 Operation   **Portrait**

0.88 mm   **1.8 mm**

Key Features (TH-55VF2 & TH-55VF2H)

- Durable panel material and quality components ensures dependable 24 hours operation seven days a week

- Ultra narrow bezels on the VF31 series video wall reduce bezel-to-bezel distance to a near-invisible 0.88mm

MODEL	TH-55VF31	TH-55VF21
SCREEN SIZE	55-inch	55-inch
BRIGHTNESS	500cd/m²	500cd/m²
PANEL TYPE	IPS / Direct-LED	IPS / Direct-LED
PANEL SURFACE TREATMENT	Anti-glare (Haze 28%)	Anti-glare (Haze 28%)
OPERATING TIME	24 h/day	24 h/day
RESOLUTION	1920 x 1080	1920 x 1080
BEZEL TO BEZEL	0.88mm	1.8mm

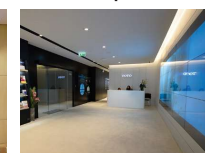**Railway & Traffic Management**

Control Room

Museum and Exhibits

Advertisement & Transport

Schools and Corporate

Showroom and Virtual Windows

Projectors

Absolute Brilliance

Create engaging experiences with bold, bright, vivid visuals. No matter the venue or size of your audience, our range of projectors will help your creative vision come to life.

PT-REQ15
1-Chip DLP™ Projectors 4K Laser Projector

Designed to streamline productions and expand the endless possibilities of entertainment by delivering exceptional, highly engaging immersive experiences with up to 12,000lm brightness, 4k resolution and 240 Hz projection capability
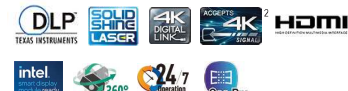
PT-REZ15
1-Chip DLP™ Projectors

Transform Your Experience with Evolved 1-Chip DLP™ Projectors, Delivering Up to 15,000 lm on AC 100–240 V

Model	PT-REQ15	PT-REZ15
Light Output [4]	15,000lm	
Dimensions (W x H x D)	W/out lens 498 x 212 x 538 mm (19 5/8" x 8 11/32" x 21 3/6") (W/ feet at shortest position)	
Weight	W/out lens: Approx.27.0 kg (59.52lbs)(TBD)	
Resolution	4K (3840 X 2400 px)[1]	WUXGA
Operation noise[2] Normal/Quiet	42 dB(38dB)(TBD)	

Key Features

● **Spectacular Visual**
- Smooth, and Dimensional 4K[1] Images
- Deep image with evolved Dynamic Contrast
- Smooth Playback of 2K/240 Hz[3] Content

● **Effortless Workflow**
- Full brightness on AC100-240V
- Wide Scalability with Intel® SDM-ready Slot
- Works with new lens lineup featuring wider lens ,shift range, all motor driven (powered periphery focus added)

● **Reliable Operation**
- Optical engine and laser light source module compliant with the IP5X Dust Protected (IEC 60529) standard
- Remote Preview LITE for Monitoring During Events
- Backup input, Multi-Laser Drive Engine for reliable operation

1 REQ15 only. With Quad Pixel Drive [ON]. 2 Only when optional TY-SB01DL DIGITAL LINK Terminal Board is loaded. 3 PT-REQ15 only. Supports input signals up to 1080p. The display frame rate corresponds to the input signal frame rate.4 Measurement, measuring conditions, and method of notation all comply with ISO/IEC 21118: 2020 international standards. Value is the average of all products when shipped.

PT-RQ35K
Large Venue

Deliver More for Less with the World's Smallest and Lightest20,000lm 3-Chip DLP™ 4K Laser Projector

Key Features
● Compact Form-Factor Streamlines Workflow
● Create an Engaging Visual Experience
● Reliable and Maintenance-free for Peace of Mind
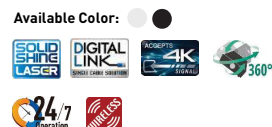● Dome Mapping; Theme Park, VR Simulation

PT-VMZ1
Portable Laser Projector

Delivers Up to7,000 lm for Clear, Vivid Images in Well-Lit Classrooms and Offices.

Key Features
● High brightness from light and compact body
● Flexible installation adapts to any space
● Smooth and effortless collaboration
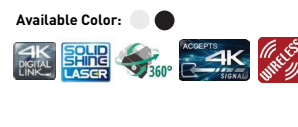
Available Color: ⚪ ⚫

PT-CMZ50
Ultra Short Throw

Laser Projector Delivers Big Pictures from Ultra-Short Distances (1 cm)

Key Features
● Delivers 80-inch image from about 1 cm
● Simplified Installation, Setup, & Adjustment
● Wireless Projection

Available Color: ⚪ ⚫

PT-MZ20K
Installation

The World's Smallest, Lightest, and Quietest 20,000 lm1 Projector

Key Features
● Compact but with high brightness and vividness
● High reliability & energy-saving design
● Simplified Installation with enhanced functions

Available Color: ⚪ ⚫

Safety
Solutions

Products and Systems that provide safety for your home and family.

Ensure safety of your family and property with our products developed to provide utmost protection featuring technologies that are carefully chosen and certified as recommended by industry professionals.

Applications

- RESIDENTIAL
- RESTAURANTS
- SCHOOLS
- OFFICES
- HOSPITALS
- STORES
- FACTORIES

Key Factors

- ✓ Applicable to new and renovation projects.

- ✓ Provides total safety solution for different applications.

Safe and comfortable life
Delivered by Panasonic

Miniature Circuit Breakers

Safe and comfortable life delivered by Panasonic

Panasonic, with more than 100 years of expertise forged in the Electrical Construction Material field with its Wiring Devices series, has also been expanding Switchgear devices business throughout the world. Panasonic focuses on providing high durability and performance for many years of reliable use, and selects materials with full consideration of the global environment. Certification by third-party institutions and compliance with a wide range of international standards attest to these efforts. This approach is also used with Panasonic's MCBs, to allow our worldwide customers to experience a new level of safety and comfort in your life.
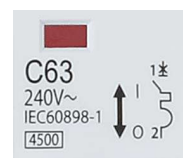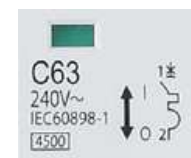
Adequate Line-Up

Rated breaking capacity (Icn): 4.5kA / 6kA / 10kA
Rated current (In): 6,8,10,13,16,20,25,32,40,50,63A
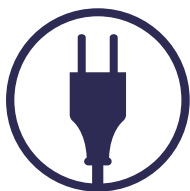Thermo-magnetic release characteristic: B / C / D

Clear Indicator

Current markings indicated by 2 colors (Green / Red)
Easy to know the status (ON / OFF)

On : Red

Off ,Trip : Green

IEC60898-1
IEC61008-1
IEC61009-1

Compliant with IEC standards

Panasonic's products have been recognized and certified by worldwide famous organizations as the complied products with IEC (International Electrotechnical Commission) standards, the top reference for electrical and electronic safety standards.

Compliant with the RoHS Directive

Panasonic's manufacturing processes are based on management standards for chemical substances by complying with the EU RoHS directive in order to provide all of our customers safer products with less impact on the environment.

RoHS Compliant

Compliant with the RoHS Directive on the restriction of the use of certain hazardous substances in electrical and electronic equipment. ✓

THE TRIPPING MECHANISM OF MCBs is THERMAL MAGNETIC TYPE

Thermal operation

- The thermal operation provides protection from moderate overloads. Under overload condition, a thermo-metallic element (bimetallic strip) deflects until it operates a latching mechanism allowing the main contacts to open.

Magnetic operation

– In magnetic operation, large overloads or short circuit current actuates a solenoid causing a plunger to strike the latching mechanism, rapidly opening the main contacts.
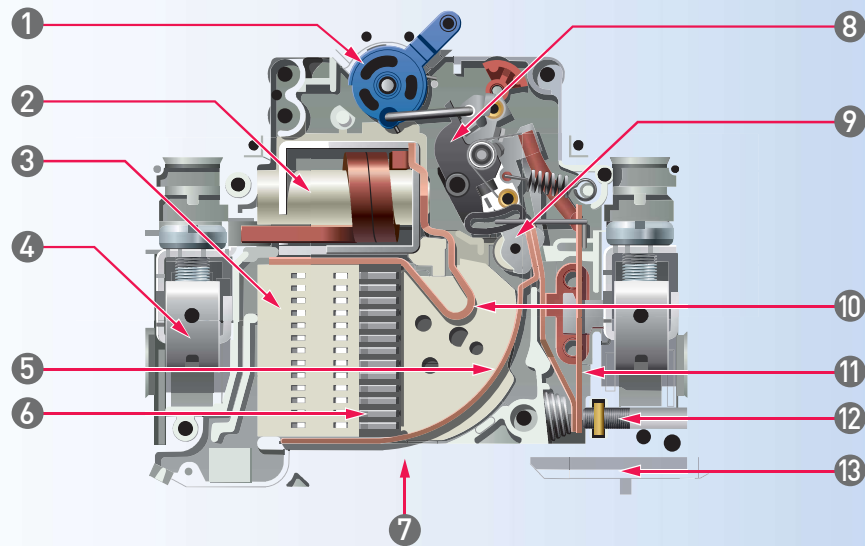
1 Operating Knob	6 Arc Chute Plate	11 Thermostatic Bi-metal Strip
2 Magnetic Element	7 Body or Housing of MCB	12 Calibration Screw
3 Arc Chute Assembly	8 Operating Mechanism	13 DIN Clip
4 Terminal	9 Moving Contact	
5 Arc Runner	10 Arc Horn	

Comply with Class 3 (MCB 63AF)

Shortens the cutoff time during a short circuit and suppresses ignitions and explosions

REFERENCE:

I(A)

Prospective short circuit current

Let-through energy

Regular

t/ms

Quickly cuts off
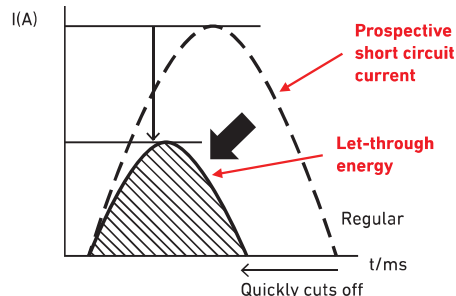
*Circuit breakers of B-type and C-type up to and including 63A shall be classified into energy limiting classes in 1 or 3.

Safe and comfortable life
Delivered by panasonic

MCB Panel Boxes

Features

- Clear cover that lets you check the MCB status easily
- Compliant with IP performance below
  IP40 : 2-36 Modules (Flush/Surface Mounted)
  IP20 : 1,1-2,3-4 Modules (Surface Mounted)
- Heat resistance up to 650°C

- Includes ground terminal with insulating cover
- Water level gauge that supports horizontal construction (16-36 Modules)
- Locked cover system Features

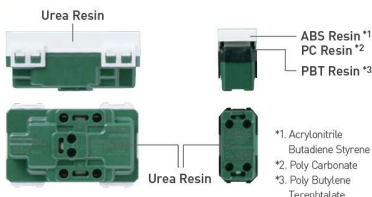| No. of Row	No. of Modules per Row	Capacity in 18mm Modules in Row	Flush Mounted	Surface Mounted
1	1	1	–	BQDT20101-PH
1	1-2	1-2	–	BQDT20201-PH
1	2	2	BQDT10211-PH	BQDT20211-PH
1	3-4	3-4	–	BQDT20401-PH
1	4	4	BQDT10411-PH	BQDT20411-PH
1	6	6	BQDT10611-PH	BQDT20611-PH
1	8	8	BQDT10811-PH	BQDT20811-PH
1	12	12	BQDT11211-PH	BQDT21211-PH
2	8	16	BQDT11611-PH	BQDT21611-PH
1	18	18	BQDT11811-PH	BQDT21811-PH
2	12	24	BQDT12411-PH	BQDT22411-PH
3	12	36	BQDT13611-PH	BQDT23611-PH

SECURITY &COMFORT

1 Flame-retardant Material
Urea Resin

Utilizing urea resin improves flame resistance and outstanding anti-tracking prevents electric shocks.

Completely Insulated Construction

Urea Resin

ABS Resin *1
PC Resin *2
PBT Resin *3

Urea Resin

*1. Acrylonitrile Butadiene Styrene
*2. Poly Carbonate
*3. Poly Butylene Terephtalate

■ **Protection Against Electric shock**

Enclosure Material Characteristics (Reference)

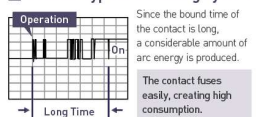|	Urea	PBT	Polycarbonate
Tracking Performance	Excellent	Good	Poor
Heat Deformation	Good	Good	Fair
Self-Extinguishment	Good	Good	Good

Switch

Receptacle

2 Durable & Smooth Operations
Direct Driving Mechanism

Panasonic's proprietary method helps stabilizing the pressure applied to the contacts to ensure low heat and minimalize the arc energy.
This process reduces the risk of contact fuse and provides longer lasting resistance.

■ **Direct Driving Mechanism**

Operation
On

Short Time

Since the bound time of the contact is short when it is switched "ON", low arc energy is produced.

The contact does not fuse easily, and therefore its consumption is low.
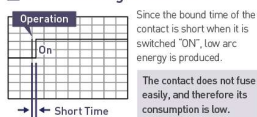
■ **Seesaw Type of Switching System**

Operation
On

Long Time

Since the bound time of the contact is long, a considerable amount of arc energy is produced.

The contact fuses easily, creating high consumption.

3 Quick & Secure Connection
Quick-Connect Terminal

These terminals improve site construction quality since fewer tightening screws are required, simplifying connections.

Reduces the execution time considerably

10-20 second Insert wire → Tighten screw → 1 second connection

Quick-Conenect Terminal
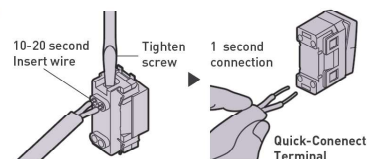
■ **Tensile strength after connection**

IEC60669-1 IEC60884-1 Standard Value	FULL-COLOR WIDE SERIES / SlimArt	
IEC Standard	Wire	Strength
30N min.	1.5 mm² 4.0 mm²	30N min. or more

EASY TO INSTALL

Panasonic-designing one-touch action products that are easy to install.

The all On-Touch Action design concept that attaches devices to body plates and body plates to the cover plates makes the installation process easier than ever, saving both time & labor.

Highly efficient, because of improvements in the utility box.
Sufficient space has been provided to house the connectors, and this has resulted in a higher efficiency than ever before.

1-TOUCH Construction

■ Device & Body Plate   ■ Body Plate & Cover Plate
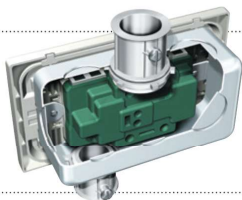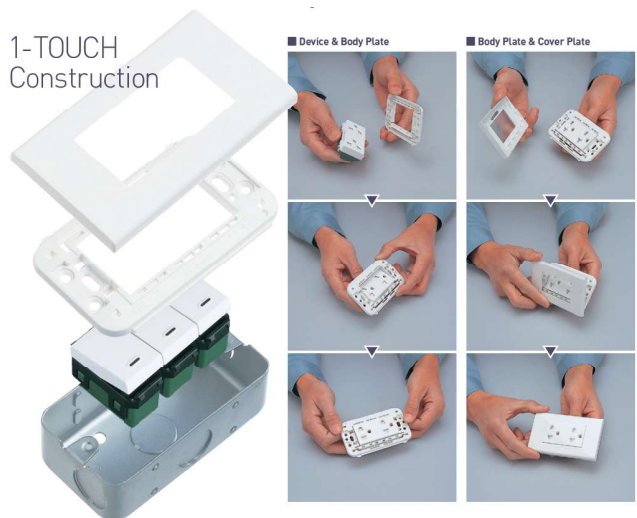
VARIOUS TERMINALS AVAILABLE

We offer a wide range of terminals to suit the electrical cabling requirements of every country.

Panasonic has made available various terminals to suit the cabling environment anywhere in the world. With a structure which can be handled with more safety than ever before. Connections can be smoothly made, which leads to labor saving.

Types of Electrical Cables and Terminals

Terminal	Quick Connect Terminal		Global Terminal	Pillar Terminal Ⅱ
ICON	QUICK & SAFETY Quick Connect Terminal Quick & Safety Solid Wire only 1.5-2.5mm²	QUICK & SAFE Screw-less Terminal Solid Wire:1.5-2.5mm² Stranded Wire:1.5-2.5mm²	QUICK & SAFETY Ⅱ Solid Wire:1.5-2.5mm² Stranded Wire:1.5-2.5mm²	QUICK & SAFE Solid Wire:1.5-4mm² Stranded Wire:1.5-4mm²	★ 1.5-4.0mm² Solid, Stranded and Flexible wire
APPLICABLE WIRE	Solid OK	Solid Stranded OK		Solid Stranded OK	Flexible OK

Switches

- Designed for long service life (compliant with IEC standard) with 40,000 testing operations at 16A 250V~ full rating.
- Heat-resistant, highly conductive material used for the terminal plate reduces temperature increases in the terminal section.

Terminal Section Temperature rise

IEC60669-1 Standard value		Conditions
Initial	45K max.	20A current
Use as 40,000 testing operations		16A current

Receptacles

- Wide receptacles secures insulation distance between contacts and external metal parts improving safety. (Compliant with IEC standard which requires insulation distance over 4.5 mm)
- Long-life design, capable of 10,000 strokes at 16A 250V ~ full rating.
- Heat-resistant, highly conductive material is used for the blade sockets and terminal point to reduce temperature increase.

Over 4.5mm

WORLDWIDE STANDARDS

Safety design conforming to IEC standards

Switches conform to the IEC60669-1 standard(16A 250V~). Receptacles conform to the IEC60884-1 standard. All devices guarantee protection against electric shock and are designed for endurance, service longevity, and safety.
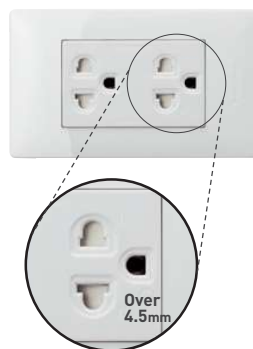
Terminal Section Temperature Rise

IEC60884-1 Standard value		Conditions
Initial	45K max.	20A current
After 10,000 Strokes		16A current

Withdrawal Forces

IEC60884-1 Standard value		
After 10,000 Strokes	3 blades	54N max.
	2 blades	50N max.
	Single blades	2N min.

Insulation Resistance

EC60884-1 Standard value	
Initial	5M Ω min.
After 10,000 Strokes	

Electric Strength

IEC60884-1 Standard value	
Initial	2,000V 1 min.
After 10,000 Strokes	1,500V 1 min.

Earth Leakage Guard (GFCI)

Features

- **Good for indoor & outdoor use**
  Applicable in places exposed to dust and water splash as bathroom, patio, rooftop terrace, pool area with pump, etc.

- **Fit with weatherproof cover with IP55**
  Weather proof cover shields against dust and water from all directions, which allows EL-Guard to be installed not only in the kitchen and bathroom, but also outside your home.

- **Required by the Philippines Electrical Code**
  The use od devices with ground fault protection is indicated in the PEC Article 2.10.1.8.

BATHROOM   PATIO   POOL SIDE   ROOFTOP TERRACE

Line Up

WEGP1741SW9-PH   WEGP1741H9-PH   WEGP1741W9-PH

Combination Devices and Cover Plate

FIT FOR WEATHERPROOF COVER

WEG8881K-PH   WEG8981K-PH

Weather Proof Plate

WEG7801 — IPX3 — Metal
WEG7901K-PH — NEW — IP55 — Beige
WEG7901SWK-PH — NEW — IP55 — Snow White
WEG7901HK-PH — NEW — IP55 — Gray

	1-Gang 2-Device	1-Gang 3-Device
Metal	WEG7802	WEG7803
Beige	WEG7902K-PH	WEG7903K-PH
Snow White	WEG7902SWK-PH	WEG7903SWK-PH
Gray	WEG7902HK-PH	WEG7903HK-PH

Weather Proof Cover Plate (Horizontal Type)

WEG8881K-PH — IP55 — Metal
WEG8981K-PH — IP55 — Plastic
137 / 95
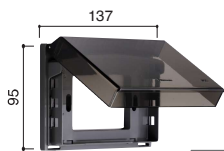
Weather Proof Plate for Receptacle Plug-In Type

WEG8991SW-PH — NEW — IP55 — White
WEG8991LH-PH — NEW — IP55 — Gray

Normal System

Live → 10A
230V ~
Neutral ← 10A
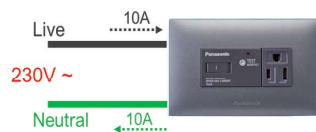
10 Amperes **IN** = 10 Amperes **OUT**

Leak System

Live → 10A
230V ~
Neutral ← 9.98A
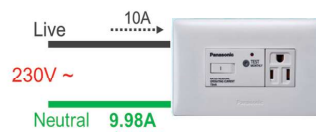
10 Amperes **IN** ≠ 9.98 Amperes **OUT**
(EL Guard will shut off)

NEW AND IMPROVED SERIES

Ceiling-Mount Ventilating Fan

Natural Ventilation
Unstable ventilating capacity

Mechanical Ventilation
Stable ventilating capacity
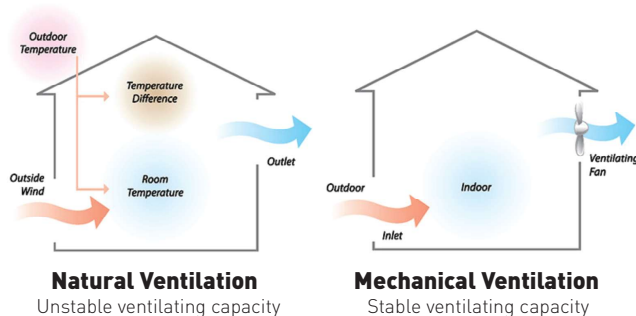
Ways to improve Indoor Air Quality

The first step to improve indoor air quality should reduce or remove the source of the pollutants. Unfortunately, indoor pollutant are virtually impossible to eliminate completely, creating the need for a second step - ventilation. Ventilation is divided into "Natural Ventilation" and "Mechanical Ventilation".

Natural ventilation is neither consistent nor reliable since it relies heavily on wind and weather conditions. Mechanical ventilation removes stale, moist, polluted air, and replaces it with fresh outside air by using a fan.

Continuous Ventilation

Sometimes referred to as general, central, whole-house or primary ventilation. Continuous ventilation is used to remove stale air and provide fresh air on a slow, continuous basis.
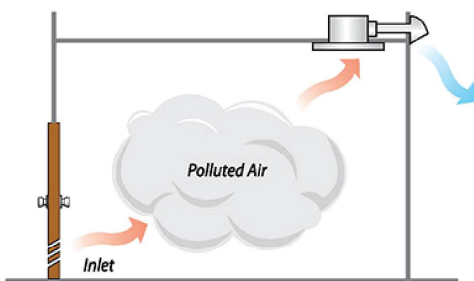
Enhance ventilation in the whole house to replace polluted air with fresh air by ventilation equipments.

Intermittent Ventilation

Sometimes referred to as spot, local or secondary ventilation. Intermittent ventilation is used to capture and remove pollutant quickly at the source. This secondary process exhaust "bad air" from contaminated areas quickly, before it can spread throughout the house.
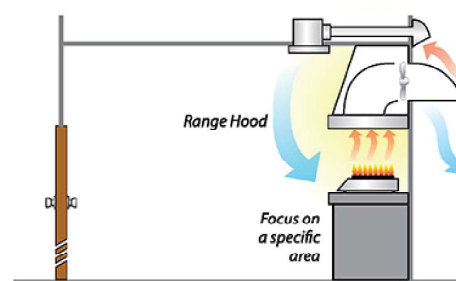
Enhance ventilation in specific part of a house.
(e.g. bathroom, kitchen)

DAY

NIGHT

24-hour
nanoe™X
Protection

24-HOUR PROTECTION

with nanoe™ X + Comfort Cloud

Your health starts with you at home from the outside world. nanoe™ X with hydroxyl radicals contained in water helps families to ensure constantly clean and safe indoor environments by inhibiting bacteria, viruses, mold and other pollutants while deodorizing for clean and fresh air.

Choose Panasonic air conditioners equipped with nanoe™ X and stay connected by downloading the Panasonic Comfort Cloud App* to manage your air conditioners with one device.

nanoeX
(Air Purification)

+
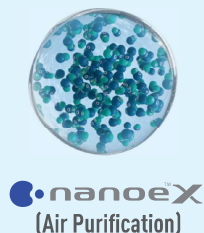
Panasonic
Comfort Cloud App
(Air Connectivity)

*A router with Internet connection is required to connect your air conditioner with the Panasonic Comfort Cloud App. The CZ-TACG1 accessory is required for PREMIUM INVERTER (3.0HP), DELUXE INVERTER and STANDARD INVERTER (1.0HP-2.5HP). Built-in Wireless LAN is only available for PREMIUM INVERTER (1.0HP-2.5HP).

Stay Safe Indoors with 24-Hour nanoe™ X Air Protection[1]

nanoe™ X technology with the benefits of hydroxyl radicals can effectively inhibit adhered and airborne pollutants, and reduce odors. You can switch ON nanoe™ X mode with the air conditioning operation ON or OFF to actively clean your air when you are at home or operate independently when you are away from home.

nanoe™ X mode operates on low energy consumption and requires no maintenance – thanks to the titanium-made nanoe™ X device. nanoe™ X keeps you and your family safe indoors with 24-hour active air protection.

nanoe X

PURIFY WITH COOLING OFF LOW ENERGY CONSUMPTION

Only at 25W/Hour*
Low energy consumption with fan mode 25W per hour for a single unit.

Maintenance-Free
No maintenance required for nanoe™ X device.

Switch nanoe™ X mode ON to inhibit pollutants and deodorise while you're away.

Provides a cleaner and comfortable space for you and your loved ones.

*Energy consumption may vary depending on models.

Smartify Your Air Conditioner Anytime, Anywhere

Take control of single or multiple air conditioning units wherever you are. Purify your home with the Panasonic Comfort Cloud App on your mobile device on-the-move.

Purify On-The-Go

Panasonic

Switch on nanoe™ X mode without cooling while away from home.

Control Single or Multiple Units

ON
Bedroom
Living Room — ON
Dining Room — ON
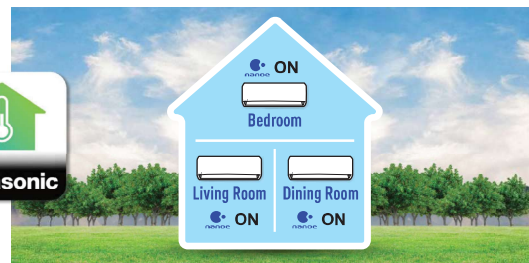
Convenient to monitor and manage the air conditioners with one mobile device.

[1] The nanoe™ X mode can be run independently from cooling mode, and needs to be ON for the 24-hour air purification to function.

nanoe™X

Hazardous Substances

Pollen

Mold

Skin & Hair

Odors

Allergens

Bacteria & Viruses

7 Effects of nanoe™ X

nanoe™ X technology effectively inhibits 5 types of pollutants, deodorizes, and moisturizes with the benefits of hydroxyl radicals contained in water.

Deodorizes	Inhibits 5 Types of Pollutants					Moisturizes
Odors	Bacteria & Viruses	Mold	Allergens	Pollen	Hazardous Substances	Skin & Hair

Deodorizes Various Types of Odors

BBQ Odor

Sweat Odor

Cigarette Smoke Odor

Durian Odor

nanoe™ X reduces strong, adhesive odors[1] by deeply penetrating into fabrics, resulting in lasting freshness in your living space.

How nanoe™ X Reduces Odor

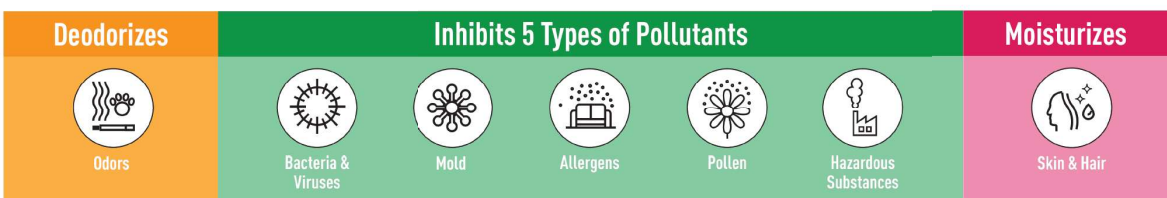| A	B	C
nanoe™ X reaches odor in fabric	Hydroxyl radicals break down odor-causing substances	Odor is eliminated

Inhibits 5 Types of Pollutants

Bacteria & Viruses

Mold

Allergens

Hazardous Substances

Pollen
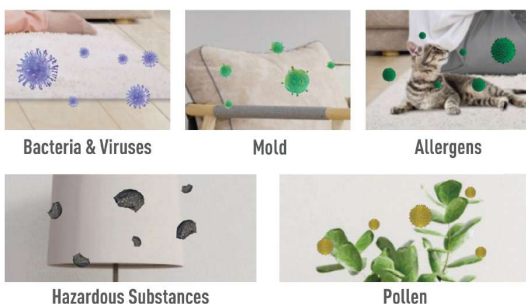
nanoe™ X inhibits airborne and adhered pollutants[2], providing better air quality for your loved ones.

How nanoe™ X Inhibits Pollutants

A	B	C
nanoe™ X reaches pollutants in fabrics	Hydroxyl radicals take hydrogen away from pollutants	Hydroxyl radicals transform hydrogen to inhibit the activity of pollutants

PREMIUM *INVERTER* Single-Split Type Air Conditioner

CS-XU9XKQ (Outdoor unit: CU-XU9AKQ)

Brave the new normal with care, thanks to nanoe™ X's 24-hour protection.

nanoeX
nanoe X Generator Mark 2

24-hour nanoeX Protection

A.C.T. Now
Anti-COVID-19 Technology

PROTECTION THAT IS SCIENTIFICALLY PROVEN EFFECTIVE.

Ease out from your worries by ensuring that your living spaces are purified with Panasonic's air conditioners. Keep yourself and your family protected with the power of long-lasting nanoe™ X that produces hydroxyl radicals that inhibit [2] [3] both airborne and adhered viruses with 99.99%[2] [3] effectivity.

*1

*1 Creative visualization of hydroxyl radicals inhibiting activity of novel coronavirus adhered on surfaces.
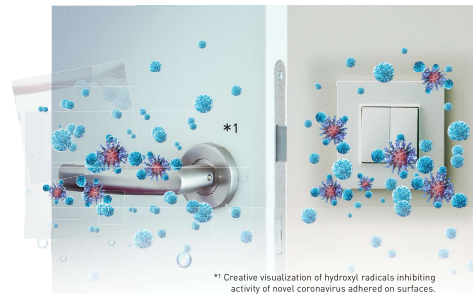
PREMIUM *INVERTER* Window Type with nanoe™ X Technology

CW-XU1021VPH

nanoeX

24-hour nanoeX Protection

A.C.T. Now
Anti-COVID-19 Technology
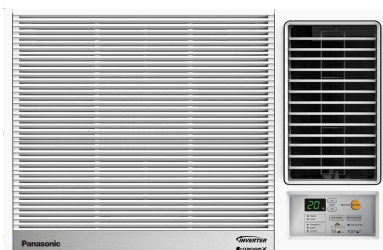
nanoe™ X are nano-sized electrostatic atomized water particles with plentiful hyrdoxyl radicals.

Experimental results have proven the benefits of nanoe™ X generated by the nanoe™ X device with the cutting-edge nanoe-technology, generating 4.8 trillion hyrdoxyl radicals per second.

Brave the new normal and breathe healthy air with nanoe™ X, anywhere.

Quality Air Solutions

More than just fresh air for your health & beauty

Live comfortably with an Air Purifier that inhibits viruses, bacteria, and allergens over a wide coverage area for a healthier indoor air quality.

Air Purifier
F-PXU70AWP

nanoeX

HIGH ALLERGY FOUNDATION — ALLERGY UK SEAL OF APPROVAL

24-hour nanoeX Protection

Portable nanoe™ X Generator
F-GPT01A-K | F-GPT01A-R

ANTI-COVID-19 SOLUTION

STAY SAFE AGAINST THE KILLER VIRUS*
Using the Portable nanoe™ X Generator

nanoeX

| Model	F-GPT01A
Applicable Volume	3m³
Air Volume	0.07 m³/min
Noise	34 dB
Consumption	3.5W
Power Cord	1.5m Type C USB
Voltage	DC 5V (Adaptor 1.5A above)
Dimension	170 x 90 x 66 mm (H) x (Top) x (Base)
Weight	0.4 kg
Color	Black, Red
Origin	Guangdong, China

Applications

Hotel · Shoes Rack · Office · Car · Bedroom · Cafe

*testing done in a gauze saturated with SARS-CoV-2 virus solution was exposed to a nanoe™ X device from a distance of 15cm in a 45L box. The result is that over 99.99% of the activity of the SARS-CoV-2 virus was inhibited in 2 hours.

Note: This verification was designed to generate basic research data on the effects of nanoe™ X on the novel coronavirus in laboratory conditions. It was not designed to evaluate product performance.

How nanoe™ X Technology Works

Hydroxyl Radicals

← Approx 5-20nm →

nanoeX device
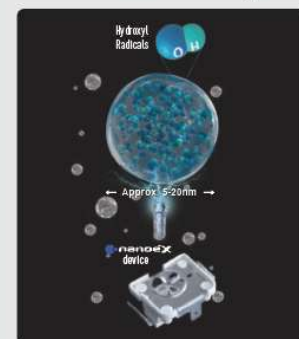
The invisible hydroxyl (OH) radicals, amounting to 4.8 trillion/second, released by the device capture virus and bacteria floating in the air and turn them into water, effectively inhibiting them.

The value in Specification table are representative characteristics value at (*1)230V/60Hz and (*2)220V/60Hz
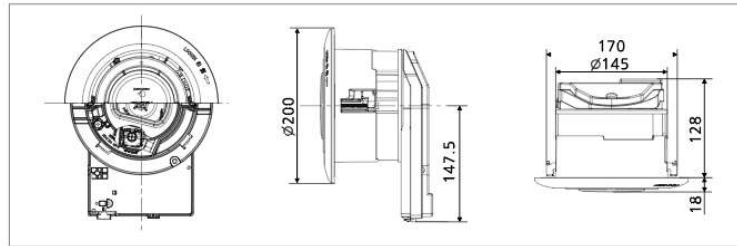
FV-15CSD115

Ceiling Mount nanoe™ X Generator

FV-15CSD1

- nanoe™ X Purification
- Silent Operation
- Low Power Consumption
- Easy Installation
- Contemporary Design
- Compact Size

■ **Dimensions** (unit: mm)

■ **Specifications**

Rated Voltage [V]	Rated Frequency [Hz]	Power Consumption [W]	Air Volume [m³/h]	Noise [dB]	Net weight [kg]
230	60	4.0	16	25.5	1.1

Deodorization | Inhibiting Bacteria, Virus, Mold & Allergen

Purify the indoor air with the unique nanoe™ X technology by Air-e (nanoe™ X Generator)

Walk-in Closet | Shoe Cloakroom | Changing Room
Living Room | Dining Area | Bedroom
Guest Room | Rest Room | Elderly House
Meeting Room | Nursery | Reception

- The value of air volume, power consumption and noise are specified at static pressure 0 Pa.
- The value of air volume is the mean value and a tolerance of ±10% is allowed.
- The value of noise level is A weight average sound pressure level, the mean value is measured by our company. A tolerance of +3dB/-7dB is allowed. The noise is measured at 1m apart from the left, the front and the below of the product.
- Condition for generating nanoe™ X
  - Room temperature : about 5°C ~ 40°C (Dew point temperature more than 2°C)
  - Relative humidity : about 30% ~ 85%
  nanoe™ X is generated using the air in the room, and its amount is subject to the temperature and humidity.

DISCLAIMER

- Data provided regarding the effectiveness of nanoe™ X have been obtained through experiments under special conditions using devices which generate electrostatic atomized water, and have not been tested through commercial products with the devices incorporated in them.
- Deodorization effect varies according to the environment (temperature and humidity), operation time, odor, and fabric types. It does not eliminate toxic substances in cigarettes (carbon monoxide, etc.). Odors that are continuously generated (e.g. building material odors and pet odors) are not completely eliminated. Results may vary based on usage, and seasonal/environmental variables (temperature and humidity). nanoe™ X inhibit activity or growth of viruses, but do not prevent infection.
- Individual results may vary based on usage, and environmental variables (temperature and humidity).

Electric Bidet
DL-EH10PH-W

Better Personal Hygiene with Flexible Cleaning Modes

Panasonic's electric bidet is a great addition to your family, making toilet visits easier and simpler for everyday use. Great for those with limited mobility, such as senior citizens or people with disabilities. Also ideal for children who are starting toilet practices.

Effortless & User-friendly

Easy to Operate

The simple icon design featured on the control panel can be understood and operated easily by users.

Dry & Clean Bathroom

With a built-in bidet, bathroom floors are less likely to become wet. A dry and clean bathroom can improve family members' overall safety by reducing the risk of slipping.

Hassle-free Cleaning

Minimizes the need for people with limited mobility, such as senior citizens, pregnant women, and people with disabilities to reach for the water hose for cleaning.

Easy Installation
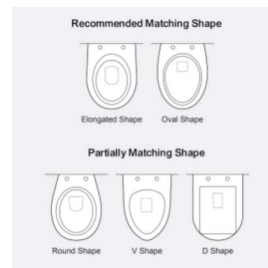
Compatible Toilet Bowl Shape

Shape Compatibility Check: Ensure your toilet bowl shape and dimensions match well with our bidet.

Toilet Bowl Dimension

Refer to this guide to easily check if your toilet is compatible with Panasonic's electric bidet. Ensure all measurements from A to D are within the same range.

Four Foot Rubbers

Ensure the four rubber feet align with the toilet bowl seat.

Saving
Solutions

Reduction on energy consumption through efficient products and systems.

With our commitment for effective use of energy and reduction on power consumption, we have developed a range of products that contributes to the effective production and management of electricity suitable for every type of your projects.

Applications

- RESIDENTIAL
- RESTAURANTS
- SCHOOLS
- OFFICES
- HOSPITALS
- STORES
- FACTORIES
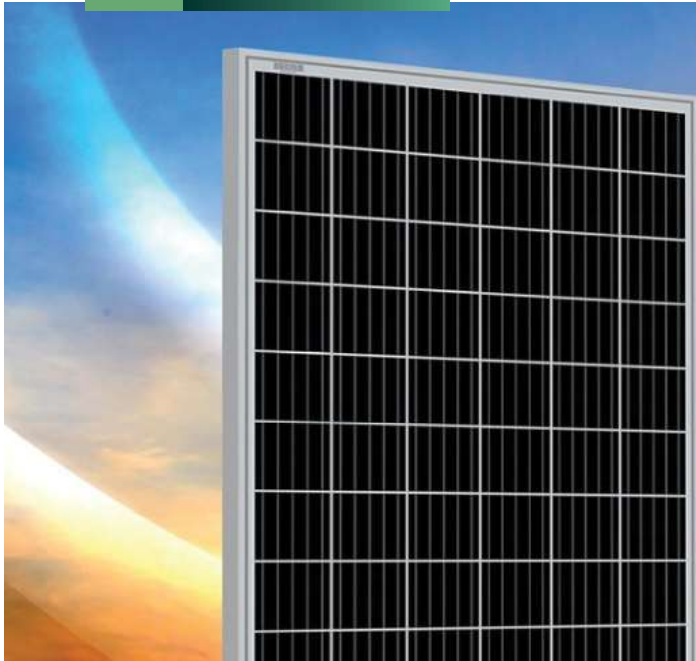
Key Factors

- ✓ Applicable to new and renovation projects.

- ✓ Maximum savings in less ROI duration.

- ✓ Software based design for easy understanding.

ANCHOR
by **Panasonic**

AE14HXXXVHC10B

550W Mono Perc Module
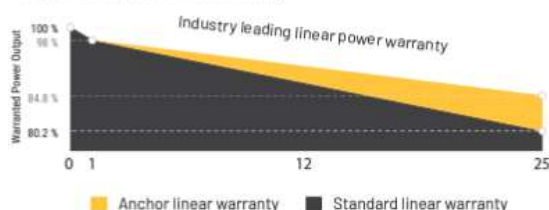# 144 Half-Cell Solar Panel

Special Cell Design

10B technology decreases the distance between bus bars and finger grid line which is beneficial to power increase. Half-cell aims to eliminate the cell gap to increase module efficiency.

IP68 Rated Junction Box

The IP 68 rated junction box ensures an outstanding waterproofing, supports installation in all orientations with less stress on the cables. Highly reliable performance with low resistance connectors ensures maximum output for higher energy production

Trust Anchor to Deliver Reliable Performance Over Time

- World-class manufacturer of crystalline silicon photovoltaic modules
- Rigorous quality control meeting the highest international standards: ISO 9001, ISO 14001 and ISO17025
- Regular independently checked production process from international accredited institute/company
- Tested for harsh environments (IEC 61701, IEC 62716)
- Long-term reliability tests
- 2 × 100% EL inspection ensuring defect-free modules

Industry-leading Warranty based on nominal power

- 98% in the first year; thereafter, for years two (2) through twenty five (25), 0.55% maximum decrease from MODULE'S nominal power output per year, ending with the 84.8% in the 25th year after the defined WARRANTY STARTING DATE.
- Product Warranty is of 12 Years**
- 25 year linear performance warranty

Industry leading linear power warranty

☐ Anchor linear warranty   ☐ Standard linear warranty

High module conversion efficiency
Module efficiency up to 21.3 % achieved through advanced cell technology and manufacturing process

Anchor current sorting process
Up to 2 % power loss caused by current mismatch could be diminished by current sorting technique to maximize system power output

Excellent weak light performance
More power output in weak light condition, such as haze, clouds, early and late sun hours

Lower operating temperature
Lower operating temperature and temperature coefficient increases the power output

Extended wind and snow load tests
Module certified to withstand extreme wind (2400 Pascal) and snow loads (5400 Pascal) *

Withstanding Harsh Environment
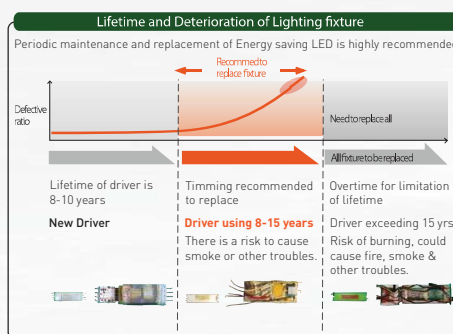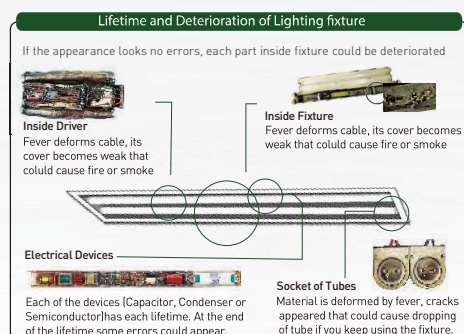Reliable quality leads to better sustainability even in harsh environment like desert and coastal area

PRO iD Series

New generation luminaries with extremely efficient, smart, and safety design emiting a perfect seamless light.

Caution for Risk of overtime use

Panasonic highly recommends to replace not only lamp tube, also lighting fixture in case of using more than 10 years.

Lifetime and Deterioration of Lighting fixture

If the appearance looks no errors, each part inside fixture could be deteriorated

Inside Driver
Fever deforms cable, its cover becomes weak that coluld cause fire or smoke

Inside Fixture
Fever deforms cable, its cover becomes weak that coluld cause fire or smoke

Electrical Devices
Each of the devices (Capacitor, Condenser or Semiconductor)has each lifetime. At the end of the lifetime some errors could appear.

Socket of Tubes
Material is deformed by fever, cracks appeared that could cause dropping of tube if you keep using the fixture.

Lifetime and Deterioration of Lighting fixture

Periodic maintenance and replacement of Energy saving LED is highly recommended

Recommed to replace fixture

Defective ratio

Need to replace all

All fixture to be replaced

Lifetime of driver is 8-10 years
New Driver

Timming recommended to replace
Driver using 8-15 years
There is a risk to cause smoke or other troubles.

Overtime for limitation of lifetime
Driver exceeding 15 yrs.
Risk of burning, could cause fire, smoke & other troubles.

Baselight

| | Long Lifetime 40,000 to 50,000 H | High Efficacy 129~150lm/W | Power Factor 0.95 | CRI 80 | Durability Body: Steel |

Batten Type	
Reflector Type	
V-Shape Type	
Recessed Type (Width 300mm)	
Recessed Type (Width 150mm)	

Panasonic highly recommends to replace an existing fixture with lamp tube for LED fixture, which is Energy saving,long lifetime and safety designed. Especially PRO ID series has various types of shape for your requirements

2x2 Panel Light_SP 2G

120% UP
30000 hours

Improve and extend lifetime (30000 hours) for various usage

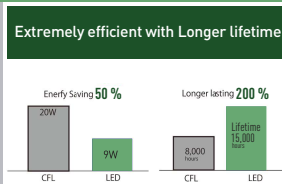## BaseLight Low Temperature (Suitable for cold storage environment)

low temperature warehouse (Ceiling high 4~6m)
Prefabricated warehouse (Ceiling high ~4m)

D Style	
Reflector	
I Style	

Ex Splash Proof (2G)

Water proof (IP65) and high effcient fixture is sutable for area, such as parking lot, where use lighting for long period of time.

LED Downlight

Extremely efficient with Longer lifetime

Enerfy Saving 50 %
20W / 9W
Longer lasting 200 %
8,000 hours CFL / Lifetime 15,000 hours LED

Installation Friendly and Simple Design
• Design of frame of the Downlight can fit with the ceiling for installation, that makes the finishing look flat even in case the ceiling is not flat.
• Simple and elegant design meet with any application

LED Mini Flood Light

IP65 Waterproof
IP65 is recommended to be used for outdoor.

Input Power Voltage	AC220-240V
Frequency	50/60Hz
Life time	25000h
Power Factor	0.9
IP	65
Material	Body: ADC12 (Black) Panel: Glass (Transparent)

Material used tempered glass(Panel) & ADC(Bod) ensure reliability and durabilty of this fixture.
Reliable and Durable Design

Direction is adjustable for your usage and application.
Free Adjustment

LED Strip Light

Input Power Voltage: DC220-240V
Lifetime: 20000h
Dimensions: Width 11
Length 50000
Height 7

Material:
Body: PVC

Floor Standing

S-24PB3Q6 | S-34PB3Q6/S-43PB3Q6/S-48PB3Q6

- Stylish design & powerful air flow
- The control panel/remote controller have nanoe™ X displays
- Compact 34,100 Btu ODU (210 mm shorter/27 kg lighter than current model)

(S-24PB3Q6 Accessory)

(S-24PB3Q6 Control Panel)

(S-34/43/48 PB3Q6 Accessory)

(S-34/43/48 PB3Q6 Control Panel)

Clean airflow direction control with remote controller

Easily swing thelouver at the touch of a button.

S-24PB3Q6   Blow distance: Up to 7 m

Push UP/DOWN   Push LEFT/RIGHT

S-34/43/48PB3Q6   Blow distance: Up to 11 m

UP/DOWN by Manual Setting   LEFT/RIGHT with a Button AIR SWING

Other Functions

Random auto restart

During a power failure, when power is restored, it automatically restarts operating in the same mode as just before power was lost.

Auto fan mode

When the auto fan mode is set, the indoor unit of the air conditioner automatically is adjusted the suitable fan speed according to factors such as load.

12-hour On/Off delay setting timer

Pressing the timer button on the remote control lets you set operation start/stop time within 12 hours of the current time.
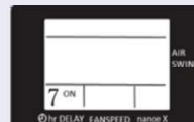
* The images above show the remote controller screen display.

Packaged Type Air Conditioners

4-WAY CASSETTE	ADAPTIVE DUCTED	CEILING MOUNTED
• nanoe™ X technology • Inverter • Smart Comfort w/ Conex (Common Panel: CZ-KPU3H)	• nanoe™ X technology • Inverter • Smart Comfort w/ Conex (Common Panel: CZ-RTC4)	• nanoe™ X technology • Inverter • Smart Comfort w/ Conex

Ceiling Fan

Optimizes air delivery while ensuring quiet, smooth operation with an elegant design that blends perfectly with your modern interior

SAVE UP TO 55% ELECTRICITY

DC Motor ENERGY SAVING

COMPREHENSIVE SAFETY FEATURES

1/f Yuragi NATURAL BREEZE

LED

F-60UFN
- 4-Mode Brightness Selection
- 3D Blade delivers smoot & strong airflow
- Durable Blades (PPG Material)
- LCD Remote Control with 9-sequential speed selection
- 1-8 Hours On & Off Timer
- 2-8 Hours Sleep Timer

F-48DFL
- 3-Mode Brightness Selection
- 3D Blade delivers smooth and strong airflow
- Durable Blades (PPG Material)
- LCD Remote Control with 9-sequential speed selection
- 1-8 Hours On & Off Timer
- 2-8 Hours Sleep Timer

F-60XDN
- Sleek and smooth design
- 3D Blade delivers smooth and strong airflow
- Durable Blades (PPG Material)
- LCD Remote Control with 9-sequential speed selection
- 1-8 Hours On & Off Timer
- 2-8 Hours Sleep Timer

F-60TDN
- 3D Blade delivers smooth and strong airflow
- Durable Blades (PPG Material)
- LCD Remote Control with 9-sequential speed selection
- 1-8 Hours On & Off Timer
- 2-8 Hours Sleep Timer

F-56XPG
- Non-LCD emote control
- 3-Speed Selection
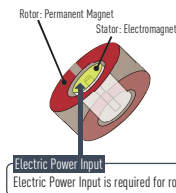- 1,3 or 6-hour Off Timer
- 3 or 6 Hours Sleep Timer

Advantages of DC Motor

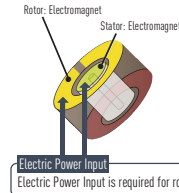**DC MOTOR IS UP TO 55% MORE ENERGY SAVINGS COMPARED TO AC MOTOR.**

- Lighter motor polarity where this process requires less electrical energy.
- Quite operation.
- More compact and half the size of AC motor
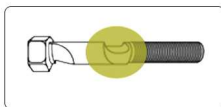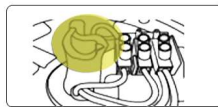
Safety Policy by Panasonic

The fan or its blade may dislodge due to following factors undermining the integrity of the unit.

1 Worn out bolts

2 Broken or damaged shaft

- Use of incompatible parts
- Use of non-original factorycomponents
- Excessive wear and tear of fasteners
- Incorrect installation
- Material fatigue

Safety Measure Application by Panasonic

Cut-off Safety Switch
A cut-off safety switch is equipped to cease the power supply when dangerous wear & tear of the shaft and bolt are detected. If the abnormal wobbling continues, the lever will detach from the switch and the fan unit will detach. This will prevents further wear to the damaged part. It can also minimize parts fracturing to reduce the possibility of the fan unit to fall.

Safety Wire
A special safety wire has been equipped to secure the fan motor to the ceiling hook which prevents it from falling off in the eventthat the fan motor detaches from the pipe rod.
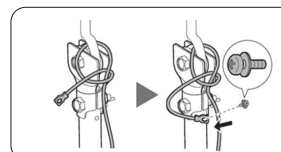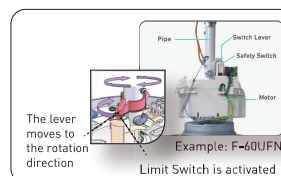
Current Fuse
During excessive current supply, the Current Fuse will cut off the power supply motor

DC Motor Technology

Direct Current (DC Motor)
Rotor: Permanent Magnet
Stator: Electromagnet
Electric Power Input
Electric Power Input is required for rotor and stator

Alternating Current (AC Motor)
Rotor: Electromagnet
Stator: Electromagnet
Electric Power Input
Electric Power Input is required for rotor and stator

These fans are equipped with **1/f YURAGI function** which is a fluctuating pattern that mimic natural and gentle breeze. With this sophisticated formula in varying air velocity and controlling wind force, these new ceiling fans gives you and comfortable feeling.

Air Speed
Time (s)
Pattern period is 128 sec
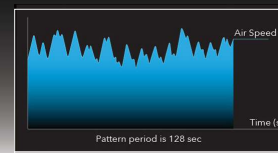
Incorporated with this human-concerned technology, this kind of rhythm maintainsyour external body temperature by giving you a feeling of natural wind when there is a change wind velocity

Pipe
Switch Lever
Safety Switch
Motor
The lever moves to the rotation direction
Example: F-60UFN
Limit Switch is activated

LED Model: F-60UFN

4-Mode Brightness Selection

High Brightness	Medium Brightness
White	Cool Daylight

Medium Brightness	Low Brightness
Warm	Warm

85% Energy Saving
Compared to incondescent bulb

Hassle-Free
No Bulb Replacement Needed
With the long lifespan of LED light, there is no need to constantly change your light bulb - and reduce garbage waste
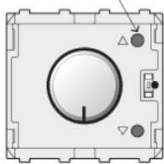
LED Dimmer Switch

Features

• **Superior smooth control from lower to higher adjustment**

Adjust the luminance level to minimum without flickering.

• **Minimum Brightness Adjustment Function**
Adjust from 5% to 40% as the default for user.

• **Adequate LED capacity**

Connect LED dimmable bulb without limitation within the wattage of rated capacity.

Minimum Brightness Adjustment Function

PUSH OFF/ON   LED MAX 100W

The technician sets the minimum level as the default for user

Minimum Adjustment from 5 to 40%

Maximum Number of LED Dimmable Bulb for total 200W

The room is too dark or flickering appears
Some bulb might not activate or is flickering at minimum.

Min (Not Activated)   Max

After adjustments
Min   Max

Minimum brightness can be adjusted if the following incidents happen
• Bulb is flickering : Increase the lower limit
• Too bright at minimum level : Decrease the lower limit
• Non equally brightness for each bulb : Increase the lower limit

① Remove Panel cover
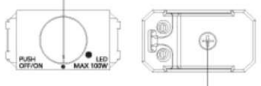
Panel cover

② Adjust the knob to minimum position

OFF → Minimum position

③ Adjust the minimum brightness level by pressing the set up button

△ ● Pressing the UP button will Increase the minimum level

▽ ● Pressing the Down button will Decrease the minimum level

✷ Indicator lamp (Orange)
Indicator will blink when the adjustment reach to minimum or maximum

① Adjust the knob to minimum position
The minimum position

PUSH OFF/ON   LED MAX 100W

② Adjust the minimum brightness level by turining the minimum brightness setting knob.

✷ Please use the screwdriver with a width of 3.5 ~ 4.0 mm, and rotating torque less then 0.4kgf・cm.

| ⊕ ↻ | >> | Turn the setting knob clockwise to Increase the minimum level |
| ↺ ⊕ | >> | Turn the setting knob counterclockwise to decrease the minimum level. |

Precautions

Applicable incandescent lamps & low voltage halogen lamps & LED bulbs

Chandelier lamp   Silica lamp   Clear lamp   Hi-beam lamp   Halogen lamp   LED dimmable bulb

• When using low voltage halogen lamps, use an applicable transformer to convert voltage from 220 V - 240 V to 12 V.
• The brightness when dimmed is defferent depending on the LED bulb types and brand.

• When the knob is at lower limit, brightness is different depending on the LED bulb types and brand.
• Be sure to use a light bulb with a built-in fuse.
Not doing so may result in damage to the dimmer switch when the light bulb burns out.
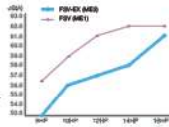
VRF Air-Conditioner

FSV EX
Flexi System VRF | Eco Extreme

Panasonic

Low-Noise Operation

Numerous technological innovations, including an improved compressor and a newly designed bell mouth and larger fan, have dramatically reduced the outdoor noise level. The result is an even more comfortable building environment.

Multiple large-capacity all inverter compressors
(more than 14HP)

Two independently controlled inverter compressors achieve high efficiency. Redesigned components in the body provide performance improvement especially in the rated cooling condition and EER performance.

Enlarged heat exchanger surface area with triple surface*

The new heat exchanger features a triple-surface construction. Compared to the divided dual-surface construction in current models, there is no division of space and the area for heat exchange is larger. Also, highly efficient piping pattern increases heat exchange performance by 5%.
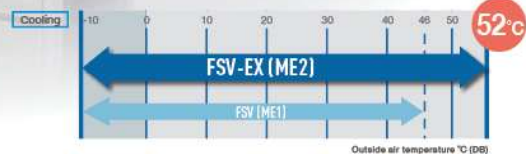
*For 8 & 10HP unit, the heat exchanger is 2 row design.

FSV-EX Series / Exclusive Feature 1 /

EXTENDED OPERATION RANGE UP TO 52°C

High reliability even under high temperature conditions

Designed to be durable enough to withstand extreme heat, FSV EX ensures reliable cooling operation over an extended operation range up to 52°C.

OPERATING RANGE

Cooling — FSV-EX (ME2) / FSV (ME1) — 52°c

Outside air temperature °C (DB)

Heating — FSV-EX (ME2) -25°C 16°C / FSV (ME1) -25°C 18°c

Outside air temperature °C (WB)

MAXIMUM 96HP FSV-MS3 Series

Connecting 4 units together in a single system allows maximum output of 96 HP

LE1 Series
4.20*
EER
* In the case of 8HP

LE2 Series
5.08*
EER
* In the case of 4HP

A large number of indoor units can be connected

Up to 64 indoor units can be connected in a single system for ultimate design flexibility.

Up to 64 Indoor Units Connectable!*

*Maximum number of indoor units depends on outdoor unit capacity.

FSV-EX Advantages

The most efficient, powerful and quiet system in Panasonic's history.
There has never been a VRF system like it.
It's the story of a true game changer.

Extraordinary Energy-Saving Performance

The FSV-EX marks a revolutionary step forward in VRF efficiency. A look at the incredible EER value clearly indicates that. What's more, this high EER value is achieved even during part load operation.
This shows the extraordinary energy-saving performance the FSV-EX is capable of providing.
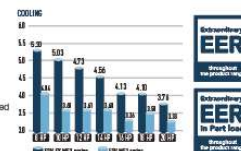
Extended Operation Range Up to 52°C

The FSV-EX can provide cooling even when the outside temperature reaches a maximum of about 52°C. And amazingly, it can still operate at 100% capacity when the outside temperature is as high as 43°C.
This high power capability enables reliable operation even under extremely high temperature conditions.

Inverter Commercial Refrigerator/Freezer
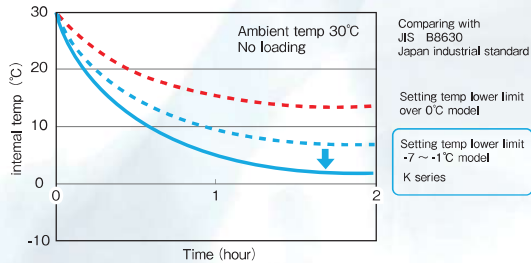## (UPRIGHT TYPE & UNDER-COUNTER)

INVERTER

High energy saving performance

- Inverter compressor
- Automatic frame heater duty optimization
- Automatic condensing fan speed control

K series pull down speed image (refrigerator)
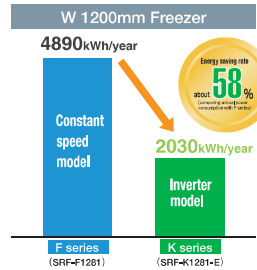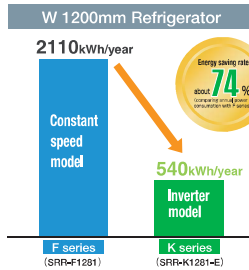-Far exceeding strict Japanese industrial standard

Ambient temp 30℃
No loading

Comparing with
JIS B8630
Japan industrial standard

Setting temp lower limit
over 0℃ model

Setting temp lower limit
-7 ～ -1℃ model
K series

internal temp（℃）

Time（hour）

Advanced cooling performance to keep food freshness
Refrigerator：–6～12°C
Freezer：–25～–15°C

- High pull down speed by strong cooling performance
- Slow down the speed of food deterioration
- Prevention of bacteria growing
- Suitable for storage of premium ice cream & frozen food

The longer K series is used, the more cost & energy is saved

W 1200mm Refrigerator
2110kWh/year

Energy saving rate
about **74**%
(Comparing annual power consumption with F series)

Constant speed model

540kWh/year
Inverter model

F series
(SRR-F1281)

K series
(SRR-K1281-E)

W 1200mm Freezer
4890kWh/year

Energy saving rate
about **58**%
(Comparing annual power consumption with F series)

Constant speed model

2030kWh/year
Inverter model

F series
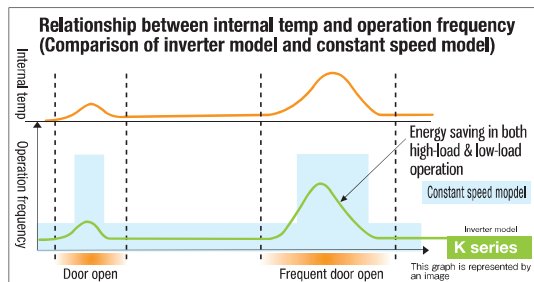(SRF-F1281)

K series
(SRF-K1281-E)

"Panasonic Econavi" promotes energy saving further more

- Automatically "Econavi" optimizes energy saving operation with Panasonic original sensing technology.

ECONAVI

Panasonic
SRR-K1281

ECONAVI lamp will bright during
ECONAVI   ti

Relationship between internal temp and operation frequency
(Comparison of inverter model and constant speed model)

Internal temp

Operation frequency

Energy saving in both
high-load & low-load
operation
Constant speed mopdel

Inverter model
K series

Door open

Frequent door open

This graph is represented by
an image

- Control condensing fan rotation speed
- Optimize frame heater duty
- Control compressor frequency

Condensing fan

Frame heater

Frame heater
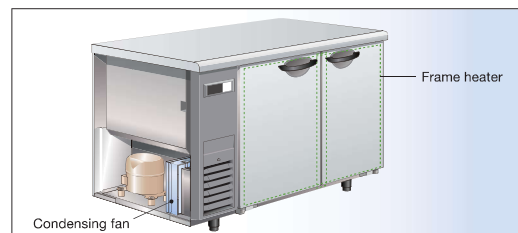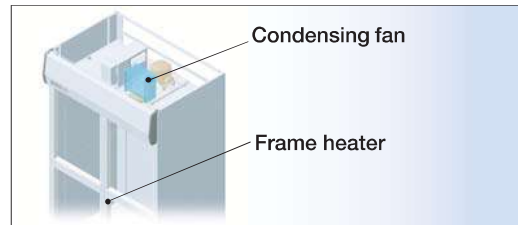
Condensing fan

Panasonic Inverter Condensing Units (8HP)

Inverter

Wide range
Ambient temp ： -15℃〜+43℃、
Evaporating temp ： -45℃〜-5℃ (8HP)

High performance ： Big heat exchanger
（Adopting sub cool system）

Low noise ： Large size fan / Fan revolution control

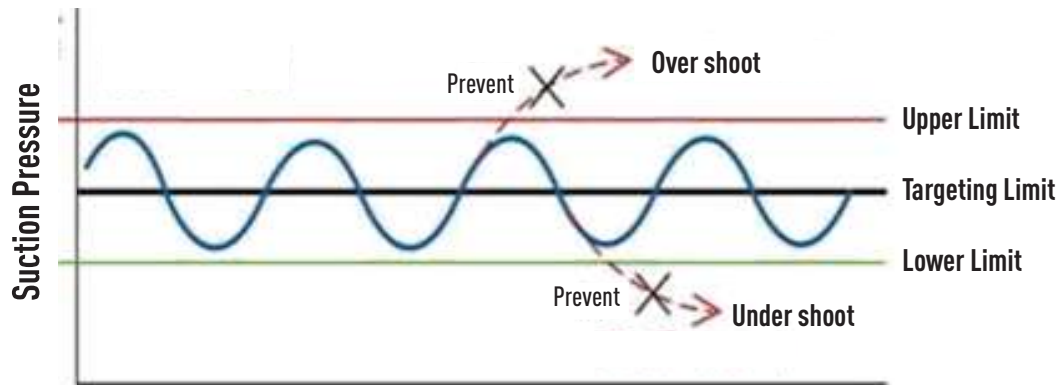## Data communication ： Low pressure auto shift, Sequential Defrost, etc.

Energy Saving : Over 30%

Comparison of Operation Control; Inverter VS. Constant-rate
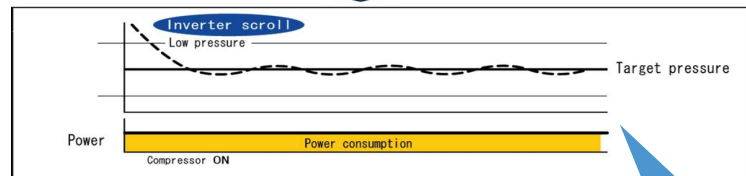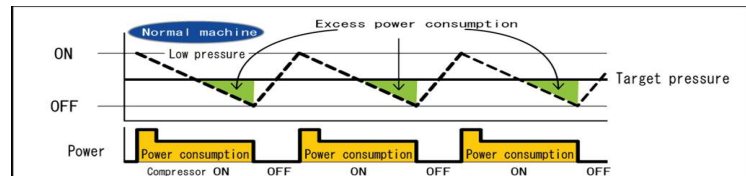
-Stabilization of suction pressure
-Speed up of Pull Down
=> **Over 30%** Energy Saving than Normal Machine

Stabilization of suction pressure by output requirement prediction function
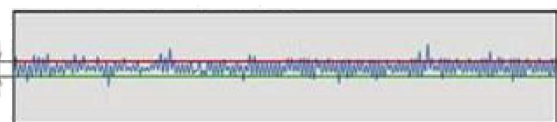

Suction Pressure Fluctuation of Normal machine

Suction Pressure Fluctuation of Inverter machine

1/5 of constant-rate model

ONE SYSTEM
# THAT HOUSES ALL

Panasonic Multi-Split Air Conditioning
System with R32 Refrigerant

Panasonic's Multi-Split Air Conditioning System with the environmentally friendly R32 refrigerant offers flexible multi-zone cooling solutions with just one outdoor unit, perfect for installation with limited outdoor spaces. Connects up to 4 rooms with independent indoor operational control and a vast selection of indoor types from a wide cooling capacity range. Enjoy a comfortable and cleaner living space with our customisable multi-split system.

Model	System 2	System 3	System 4	
	CU-2U18YBZ	CU-3U27YBZ	CU-4U28YBZ	CU-4U34YBZ
Capacity Range (kW) Rated (Min - Max)	5.10 (1.50 – 6.10)	7.50 (2.80 – 9.50)	8.00 (2.80 – 10.20)	9.50 (2.90 – 11.50)
Indoor Selection	X-DELUXE INVERTER R32	STANDARD INVERTER R32	SLIM DUCTED	
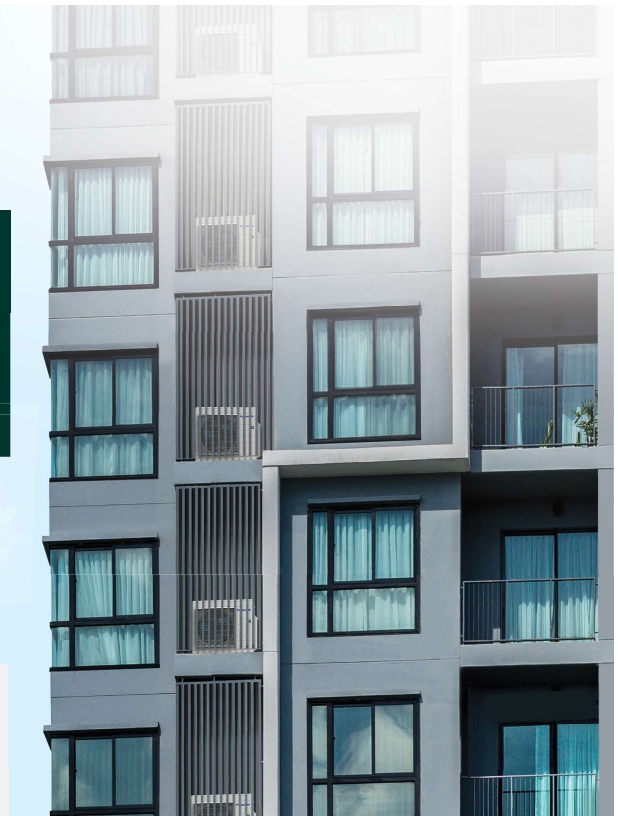
BENEFITS OF PANASONIC MULTI-SPLIT SYSTEM

Panasonic Multi-Split system offers installation versatility, independent control, space saving while maintaining great efficiency.

VARIOUS COMBINATIONS FOR DIFFERENT NEEDS

Multiple types of indoor units are available for you to choose from based on your needs, preferences, and interior layouts. The various combinations of indoor units offer an ideal multi-zone cooling solution for your home.

INDEPENDENT INDOOR UNIT OPERATIONAL CONTROL

Multiple indoor units are connected independently to the outdoor unit, enabling each indoor unit to be controlled separately.
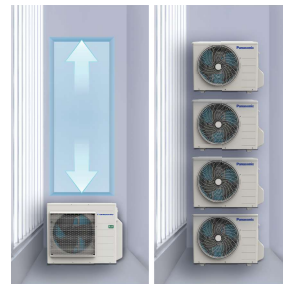
IDEAL SOLUTION FOR LIMITED SPACES

A tidier solution is to install only one outdoor unit rather than multiple outdoor units. This is great for residential buildings with limited outdoor unit installation.
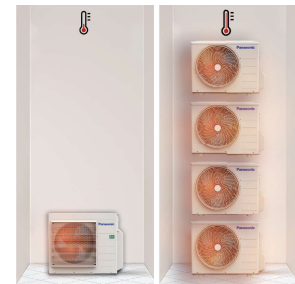
BETTER HEATDISPERSION TO MAINTAIN EFFICIENCY

Since the outdoor unit releases hot air out to the environment during the cooling operation, placing multiple outdoor units in a narrow space may cause overheating and potentially damage or shorten the lifespan of the outdoor units. Meanwhile, a single outdoor unit provides better air circulation and heat dispersion, while maintaining cooling performance and efficiency.

ERV
Energy Recovery Ventilator

Among various ways of achieving ventilation, the utilization of Energy Recovery Ventilator (ERV) is a modern and effective solution. In different aspects, ERV is able to bring more benefits, comparing to the traditional ventilation method.
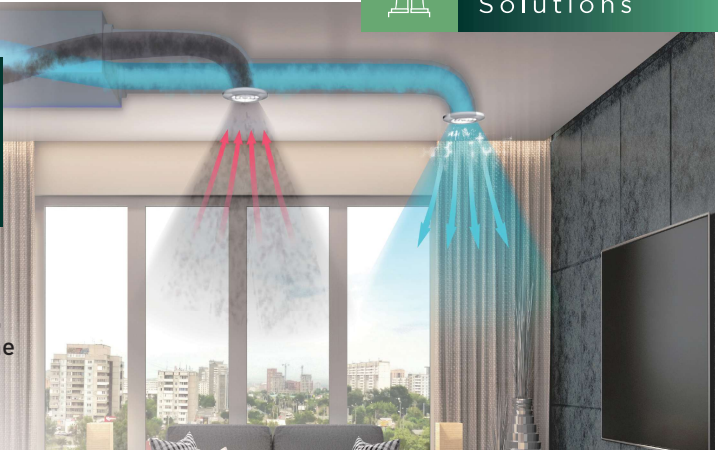
1. Achieve Air Purification   2. Increase Comfort Level   3. Increase Energy Saving

Air Purification

The Energy Recovery Ventilator draws fresh air from outside while stale indoor air is exhausted. With 24-hour continuous ventilation, Indoor Air Quality (IAQ) is enhanced by exhausting out harmful indoor air contaminants.

Energy Recovery Ventilator Filter Structure

MERV16 High-density purifying filter
Filtering dust and particles as tiny as 0.3μm

High-efficiency purifying filter
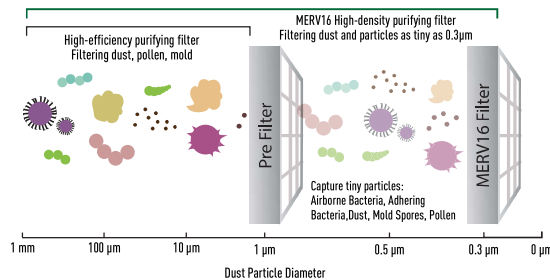Filtering dust, pollen, mold

Pre Filter

MERV16 Filter

Capture tiny particles:
Airborne Bacteria, Adhering Bacteria,Dust, Mold Spores, Pollen

1 mm   100 μm   10 μm   1 μm   0.5 μm   0.3 μm   0 μm

Dust Particle Diameter

MERV16 Filter

High-density purifying filter removal of particles as tiny as 0.3μm

Able to filter 0.3μm up to
≥95%*

*Tested by using MERV16 filter for model FV-35ZY1, following ANSI/ASHRAE Standard 52.2-2017 [Testing Institution: Blue Heaven Technologies, Test report no. 23-105-1]

Recommended to change filter every 4-6 months and clean every month

Diversion damper is equipped for Bypass Ventilation.

EA   SA   EA   SA
OA   RA   OA   RA

[Heat Exchange Mode]   [Normal Ventilation Mode]
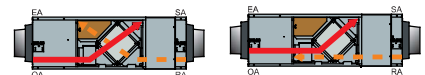
•In heat exchange mode, it pre-cools the hot outdoor air before entering the house. Thus, energy is saved while providing fresh air.

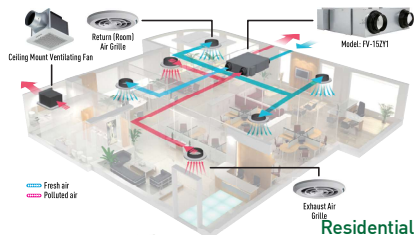■ Bypass vertilation
•When outdoor air is highly polluted, it is not recommended to use bypass ventilation. It may cause negative pressure and polluted outdoor air may ingress into the houses through the gaps at the doors and windows.

When room airflow (RA) is greater than supply airflow (SA), it allows speedy exhaust of indoor polluted air. By using bypass ventilation during season change, it achieves better thermal comfort and energy savings.

Comfort

Office

Return (Room) Air Grille

Ceiling Mount Ventilating Fan

Model: FV-15ZY1

Fresh air
Polluted air

Exhaust Air Grille

Residential

Exhaust Fan

Return (Room) Air Grille

Exhaust Air Grille

Fresh air
Polluted air

Model: FV-15ZY1

Exhaust Air Grille
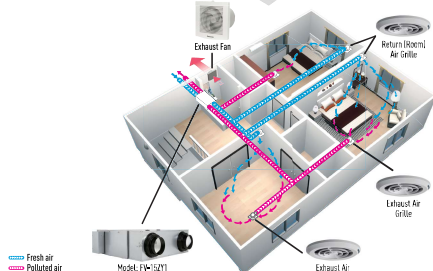
An Energy Recovery Ventilator employs energy recovery technology, which uses balanced airflows and recovers otherwise-expended total energy comprised of heat (sensible energy) and humidity (latent energy). Subsequently, less energy is needed for conditioning while maintaining high-level ventilation.

The newly developed Energy Recovery Ventilator can be interlocked with air conditioning system. It offers balance, humidity control and comfort. Indoor occupants get to enjoy fresh air currents while maintaining optimal temperature.

Inside of Heat Exchange Core (diagram)

SUMMER

Outdoor fresh air

Indoor return air

Hot air
Cool air 25°C   Humidity

Indoor supply air 29.8°C

Outdoor Exhaust 27.2°C

Hot air 32°C

Outdoor exhaust air

Indoor supply air
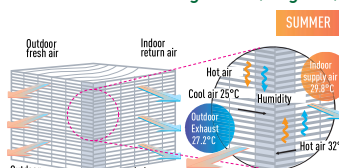
Principle of Heat Exchange

Indoor
Return Air

Energy Recovery Ventilator

Outdoor
Outdoor air

Supply Air

Filter

Heat exchange core

Exhaust air
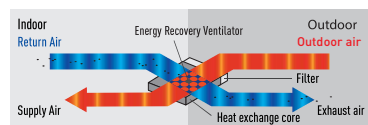
Panasonic Power and Space Savings Multi-Split

Panasonic Multi-Split Outdoor is designed to produce increased cooling capacity indoors to accommodate large spaces. It is energy saving with its high energy efficiency by using the inverter technology and R32 refrigerant gas. The outdoor offers flexibility up to 11.50kW and up to 4 ports. It is equipped with chargeless gas for easy installation and is durable outdoors. The compact design and long piping provides greater installation flexibility for indoor units.

Connectable up to 2 indoor units	Connectable up to 3 indoor units	Connectable up to 4 indoor units	
CU-2U18YBZ	CU-3U27YBZ	CU-4U28YBZ	CU-4U34YBZ

R32 REFRIGERANT **INVERTER** **Blue Fin Condenser** **COPPER TUBE CONDENSER**

ENERGY EFFICIENCY
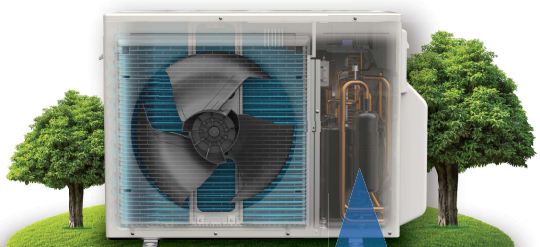
R32 REFRIGERANT

Panasonic air conditioners are equipped with the environmentally friendly R32 refrigerant which efficiently carries heat, leading to greater energy and cost-effectiveness with lower environmental impact.

Panasonic **INVERTER** technology
Quick Cooling and Constant Comfort

Panasonic-made microcomputer
Unique & Precise

Panasonic-made compressor
Gentle & Powerful

HIGHER *COOLING CAPACITY*   **REDUCE** *ENERGY COST*   **ECO** *FRIENDLY*

INVERTER

Panasonic Inverter technology controls the temperature precisely to provide consistent cooling comfort while saving energy.

WIDE COOLING CAPACITY RANGE

With maximum outdoor cooling capacity range of up to 11.50kW*, a single outdoor unit can now be connected to indoor units of higher cooling capacity range, offering more flexibility to scale cooling operation according to different needs and preferences.

Outdoor unit	Outdoor Cooling Capacity kW Rated (min-max)	Max. indoor units combination
CU-2U18YBZ	5.10 (1.50 - 6.10)	8.5kW
CU-3U27YBZ	7.50 (2.80 - 9.50)	14.8kW
CU-4U28YBZ	8.0 (2.80 - 10.20)	16.2kW
CU-4U34YBZ	9.50 (2.90 - 11.50)	17.6kW

*Up to 11.50kW apply to CU-4U34YBZ.

INDOOR SELECTION

X-DELUXE **INVERTER** R32

The X-Deluxe Inverter R32 comes with nanoe™X air purification system to provide 24-hour nanoe™X protection while AEROWINGS provides further and faster airflow. Comes with a built-in network adaptor that helps connect to the Panasonic Comfort Cloud App and gain remote access to control the air conditioning units anytime, anywhere.

CS-MXPU24YKZ (6.0 kW) I CS-MXPU28YKZ (7.1 kW)

CS-MXPU9YKZ (2.8 kW) I CS-MXPU12YKZ (3.5kW) I CS-MXPU18YKZ (5.0kW)

24-hour nanoe™X Protection nanoeX Generator Mark1 Panasonic Comfort Cloud App BUILT-IN AEROWINGS

POWERFUL mode nanoe-G

STANDARD **INVERTER** R32

The Standard Inverter R32 series provides instant cooling upon start-up with POWERFUL Mode. For cooling comfort, AEROWINGS delivers further and faster airflow, while Big Flap directs cool air across the room. With an optional network adaptor, you can control the air conditioning units with the Panasonic Comfort Cloud App anytime, anywhere.

CS-MXPU24YKZ (6.0 kW) I CS-MXPU28YKZ (7.1 kW)

CS-MXPU9YKZ (2.8 kW) I CS-MXPU12YKZ (3.5kW) I CS-MXPU18YKZ (5.0kW)

BIG FLAP (CS-MPU9/12/18YKZ) AEROWINGS (CS-MPU24/28YKZ) mode POWERFUL Panasonic Comfort Cloud App (Optional)

SLIM DUCTED

Featuring slim and compact design with built-in drain pump for flexible installation in narrow ceiling spaces. Cool airflow is directed towards the ceiling over a wide-angle range. With an optional network adaptor (CZ-TACG1), connect air conditioning units to Panasonic Comfort Cloud App for a convenient control anytime, anywhere.

CS-MUYD32 (2.8 kW) I CS-MUI 2YD32 (3.5kW) I CS-MUI 8YD32 (5.0 kW) I CS-MU24YD32 (6.0 kW)

DP AIR INTAKE POWERFUL mode Panasonic Comfort Cloud App (Optional)

ECONAVI
Detects Inefficiencies and Saves Energy

ECONAVI

In the morning
Thorough cooling when there is a high level of activity

In the afternoon
Reduced cooling when there are fewer people

At night
Automatic Thermo Off depending on conditions at the end of the day*

DETECTION OF LEVEL OF ACTIVITY ENABLES PRECISE POWER SAVING.

Presence or absence of people at their desks and the level of activity in the office are detected in real time. Set temperature is automatically adjusted to optimise the lower power consumption.

Human activity and presence detection

Activity detection		Presence detection	
HIGHER ACTIVITY	LOWER ACTIVITY	After 20 mins absence	After 3 hours absence
Cooling Set Temp. +/-0°C	Cooling Set Temp. +1°C	Cooling Set Temp. +2°C	Cooling Thermo OFF*
Heating Set Temp. -1°C	Heating Set Temp. +/-0 °C	Heating Set Temp. -2°C	Heating Thermo OFF*
Every 2 min	Every 2 min	After 3 hours the setting can change to Stop or Temperature Shift	

*Depending on conditions, the setting can change to Switch Off After 3 Hours, Thermo Off or Temperature Shift.
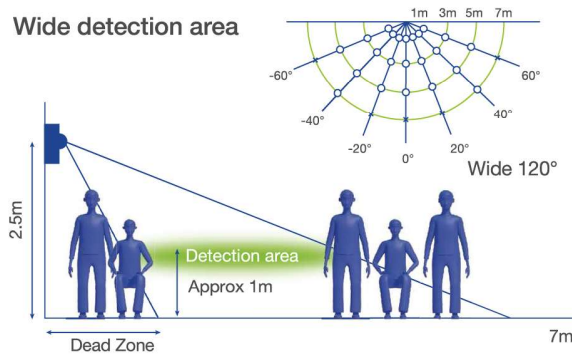
ECONAVI

Remote ECONAVI sensor allows optimum energy operation

Pillars, walls, cabinets, and other fittings obstruct the sensor, reducing the area of detection and lowering the energy-saving effect. Taking into consideration blind spots, Panasonic enables the optimum layout for sensors in any office.

Wide detection area

1m 3m 5m 7m

-60°   60°
-40°   40°
-20° 20°
0°

Wide 120°

2.5m

Detection area
Approx 1m

Dead Zone

7m

A sensor is remotely set to maximize the detection area.

Installation flexibility ready for indoor unit replacement and layout changes.

4-Way Cassette

Mini Cassette

Wall-Mounted

Ducted Twenty Series

Mid Static Duct

Ceiling Mounted

ECONAVI sensor
CZ-CENSC1

Panasonic enables use with various types of indoor units

Providing outstanding energy-saving performance, Panasonic's inverter VRF System can be connected to ECONAVI to detect when energy is being wasted. ECONAVI senses the presence or absence of people and the level of activity in each area of an office. When unnecessary heating or cooling is detected, indoor units are individually controlled to match office conditions for energy-saving operation.

ECONAVI VRF Field Test

7F
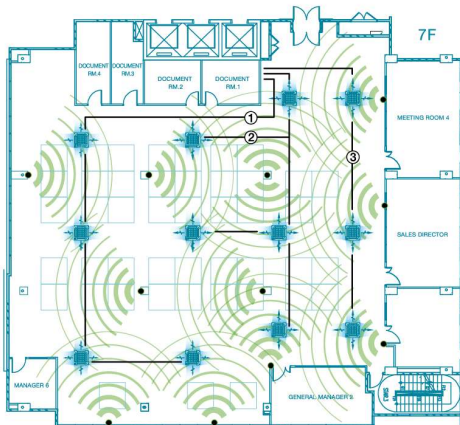
Indoor units (12)

Sensors (12)

■ Trial term: 11 Apr - 16 May 2014
■ Location: Panasonic Malaysia Building
■ Office floor: Cooling capacity 112kW
■ Testing conditions:
  · Remote controller setting temperature 23℃
  · Setting time AM7:00~PM21:00
■ Units used

System	Outdoor unit		Indoor unit
① CU-L7-6	U-20ME1E8	1	S-106MU1E5
		2	S-106MU1E5
		3	S-106MU1E5
		4	S-106MU1E5
② CU-L7-7	U-20ME1E8	5	S-56MU1E5
		6	S-106MU1E5
		7	S-106MU1E5
		8	S-56MU1E5
③ CU-L7-7	U-14ME1E8	9	S-106MU1E5
		10	S-106MU1E5
		11	S-56MU1E5
		12	S-106MU1E5

Panasonic Malaysia Building

Outdoor units on the roof

Sensor installation example

Interior of the office

Power consumption

Without ECONAVI
↓
With ECONAVI

Up to **15**% energy saving

Energy-saving effect tested and verified by Field test

Security
Solutions

Monitor and secure your properties
from any unwanted incidents.

Applications

- RESIDENTIAL
- RESTAURANTS
- SCHOOLS
- OFFICES
- HOSPITALS
- STORES
- FACTORIES

Security has always been a top priority to every project developments and we at Panasonic, take this aspect seriously by developing products and systems that has technological advantage and key features that are first in the market and has a proven a track of project references worldwide.

Key Factors

- ✓ Applicable to new and renovation projects.

- ✓ Technological features addressing current property security issues.

- ✓ Requires low maintenance.

Slim Smoke & Voice Alarm

**Provides prompt notification
in the event of a fire.**

Clear and easy-to-understand "alarm voice" and a long-life battery of up to 10 years

Approx. 87 dB at 1m distance from equipment (at peak value)(measured by our company based on corporate judgment standard) For alarm sound "Whiz, whiz," a wide frequency band from 0.3 kHz to 4.0 kHz is adopted for easy catching even by old people and children. The battery lasts up to 10 years.
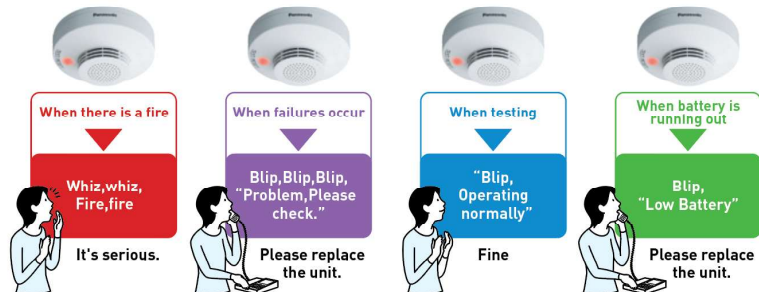
**Whiz,whiz,
Fire,fire**

10 YEARS BATTERY

SH28455911

Smoke alarm for residential use

Immediately understands what happened.

When there is a fire	When failures occur	When testing	When battery is running out
Whiz,whiz, Fire,fire	Blip,Blip,Blip, "Problem,Please check."	"Blip, Operating normally"	Blip, "Low Battery"
It's serious.	Please replace the unit.	Fine	Please replace the unit.

Model No.	SH28455911
Power Supply	Dedicated Lithium Battery (3V)×1
Battery Life	Approximately 10 years(*)
Detecting Method	Smoke Type (Photoelectric Method)
Class	Type2
Alarm Sound/ Voice Alarm — Fire	Whiz, whiz, fire, fire!
Alarm Sound/ Voice Alarm — Low Battery	"Blip, Low Battery!" × 3 times. "Blip, approx. every 40 seconds after that.
Alarm Sound/ Voice Alarm — Trouble	"Blip, blip, blip, Problem, Please check" × 3 times. "Blip, blip, blip," approx. every 40 seconds after that.
Alarm Volume	84 dB or more at 1 m distance from equipment
Dimension	Approx. Ø100 mm × 44 mm (including attachment base)
Weight (Including Dedicated Lithium Battery)	Approx. 140g.
Operating Temperature	0∞C to + 50∞C
Installation Location	Ceiling/Wall Surface

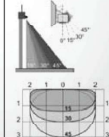| Signal Transmission Contact (No-Voltage)	—

*It may be shorter depending on usage environment.

	Mode	Voice Alarm	Indication
Function	Normal	—	OFF
	Alarm	Whiz Whiz Fire Fire	Blink
	Silent	—	OFF
	Trouble #1	Blip, Blip, Blip, Problem please check	Blink
	Trouble (Silent)	—	Blink
	Low Battery #2	Blip, Low Battery	Blink every 8 seconds
	Low Battery (Silent)	—	Blink every 8 seconds

Autodoor System

Safety | Construction | Reliability | Multifunction

Motor

DC blushless motor with small volume and large power is used to accommodate deceleration of the high-speed gear box system with high transmission efficiency and small noise and then to drive the belt. A safety device is equipped inside. Despite of frequent switch on and off, it can run continuously without fault. The motor transmission belt pulley is made of metal and free from maintenance.

Controller

The controller module accepts inspection signals from the sensors or other signal switches drive the motor and control the door to run in an appropriate way. Two groups of aid light ray sensor interface and aid function interface are increased to further improve safety and multifunction of the product.

Sensor

- Operation Safer because of big sensing range and small blind area.
- Using the latest digital signal processing, with the static detection function.
- Adjustment easier, it can be adjusted flexibly according to the premises.

The sensing range can be adjustable, super-sensitive. Different detection range can be received by adjusting knob, and the detection range is: Min. 0.5m × 0.4m Max.4m × 2m

Specifications

Model of the door	Single door		Double doors		Single door		Double doors	
weight	Less than 120kg		Less than 120kg*2		Less than 150kg		Less than 150kg*2	
Width	Door width 600~1250mm							
Installation method	exposed	concealed	exposed	concealed	exposed	concealed	exposed	concealed
Opening speed	14-41cm/s (remote control, adjustable)		14-40cm/s (remote control, adjustable)		14-41cm/s (remote control, adjustable)		14-34cm/s (remote control, adjustable)	
Closing speed	10-40cm/s (remote control, adjustable)		10~38cm/s (remote control, adjustable)		10-39cm/s (remote control, adjustable)		10-34cm/s (remote control, adjustable)	
Open duration	0~9s				0~9s			
Manual opening force in case of power failure	46.0N(4.7kgf)		61.7N(6.3kgf)		63.7N(6.5kgf)		89.2N(9.1kgf)	
Ambient temperature	-20℃~+50℃				-20℃~+50℃			
voltage	AC 200~250V 50/60Hz				AC 200~250V 50/60Hz			

Door Closer Series

Long life

- Precise sealed, preventing oil leakage.
- High quality die-casting aluminum to ensure the useful time is more than 500,000 times.
- 180 degree hydraulic control.
- Two stage speed adjustment.

Super quiet

- To build the world's most advanced mute positioning device, the sliding arm introduced into imported spring piece.
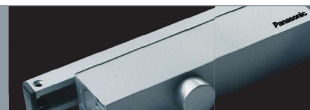
Elegance In Style

Sophisticated Manufacturing
Stable Solid

Lock Series

- Meet the GB 21556-2008/ BSEN 12209:2003 Standard
- Latch can be used more than 500,000 times
- Surface parts are made of SUS304 stainless steel
- Security design, prevent the screws from being unloaded outside
- Stability design, prevent the handle loosening
- Latch can be turned, it's easily used for both left-opened and right-opened door
- With white Copper keys
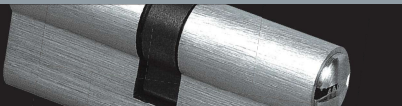
Hinge Series

- Panasonic hinge series have excellent material and fine grinding
- They run smoothly without noise, they are durable and easy to install
- Suiting to various kinds of wooden doors and mental doors

Refine Manufacturing

Functional Components

Electric lock

- The door will be locked when closed; the delay time can be adjustable from 0s to 9s.
- When the door opens, the lock will be automatically unlocked, and the delay time is 1s.
- Once the switch signal is inputted, access control unit and the remote control are to be connected.
- The technology and development of the lock aims at dealing with various running status of the auto-door.
- The stable performance preventing the possibilities of malfunctions
- The photosynthetic conjunction it possesses can achieve automatic lock if the door remains closed in 5 seconds.

Access control unit

• Technical parameters
① Operating voltage：12V
② Operating current：110mA
③ Operating temperature：-20℃～60℃

• Features
① Up to 1000 magcards are acceptable. And the stored information is still remained even if the power failure.
② The noctilucent keyboards are made of stainless steel, which is waterproof and vandal-resistant.
   Magnetic card has long induction distance and high sensitivity.
③ 2 groups of indicator lights (power and induction lights).
④ The new circuit board and control program design enrich the functions.

• 4 models of opening:
① Use the password (4-digit)
② Use the magcard
③ Use both the magcard and the 4-digit password
④ Use the magcard or the password

Remote control

• Features
① The dual-code technology can effectively avoid signal interference. More secure.
② The new designed circuit board and control program improve its stable performance. More accuracy in sending and receiving signals economizes the electricity of remote control, and extending the operation time effectively.The new design to ensure the remote control distance and the sensitivity.
③ The new added selection model can make the auto door automatically opens or closes when the door unlocked.

• Technical parameters:

Operating voltage	12V+0.5V	Operating current	< 7mA
Operating temperature	-25℃~65℃	Receiving sensitivity	-100dBm
Operating frequency	315MHZ	Output current	<10A

• Product introduction:

① Multi-function：
   Realizing four kinds of operating status, such as the auto door normal open, normal close, normal switch and access control.
   Realizing the linkage action with the access control system and the electrical lock.
② Professional：
   Combine with the market demand, and developed specially for automatic doors.
   The stable performance preventing the possibilities of malfunctions
③ Convenience：
   Convenient by the long remote control distance.
   The compact size makes it easy to install.

Wireless press switch:

The new improved wireless press switch, which is composed of signal receiving device (NACS-CMJ200) and signal transmitting device (NACS-CMF200), is specifically developed for auto doors. What you should do is just to reconcile the code on both the signal receiving device and the signal transmitting device since the intelligent matching function in debugging.

• Signal receiving device:
 It is easy to connect and adjust intelligently.
 The control signal can be adjusted during 1~10s.
 At the same time, the -100dBm high sensitive signal receiving can ensure the door operation more smoothly.

• Signal transmitting device:
 Energy saving. Only 2 AAA batteries are needed for operating. There is a prompt function when lack of electricity. The luxury and beauty silver-gray surface and the arc angular design, makes is has comfortable feel.

Contactless switch:

· Use the photoemission techniques to achieve the non-touch detection; the detection distance is adjustable within 300mm.
· It can avoid the cross-infection caused by the hand and elbow touch, to ensure the absolute hygiene. And it is particularly suitable for clean room, sterilization room, operating room, as well as food processing factory, pharmaceutical industry, chemical industry and other entrances.
· The unique protection structure makes it has waterproof function.
· The sensor is designed with infrared LED spotlights, which is not affected by the dust and dirt.
· Base on the elegant and compact design, the product can be embedded in various wall (except within the metal wall)

Fire Alarm Systems
EBL512G3 AND EBL128

EBL ONE Control and

EBL512G3 Control and
Indication Equipment (5000)

General

EBL512G3 and EBL ONE are analog addressable fire alarm systems which can also be used with addressable detectors, inputs and outputs as well as with conventional detectors. Both fulfill the EN54 standards: EN54 part 2 (Control and indicating equipment) and EN54 part 4 (Power Supply). Detectors, manual call points, and general input and output units for free programmable customer specific functions can be connected to the COM loops. Each loop unit uses one address.

INTEGRATED, INTELLIGENT PROTECTION

Fire is just one of the physical risks to your business. With Panasonic, you have the option to integrate your fire detection technology into wider solutions, providing seamless, more comprehensive security and monitoring.

Combine our fire alarms with our market-leading security surveillance systems and you benefit from the reassurance of having proven, ultra-reliable technology at work throughout your premises. Our expandable, interoperable systems deliver greater value, reduce workloads and improve effectiveness, creating flexible, intelligent industrial all-round protection systems in every professional setting.

Using the WEB-server module, we can connect the fire alarm system via TCP/IP with CCVE monitoring software, the WV-ASM200, and also with CCVE IP virtual matrix, the WV-ASC970/ASM970. This interoperability between both systems makes life easier for the operator by linking the fire and fault alarms from the control panel with the live and playback video from the cameras and recorders. This allows the operator to realize the situation in real time from the control room enabling them to take action quickly and safely. In addition, both CCVE monitoring systems (WV-ASM200 and WV-ASM970) provide a map window where all the fire detector icons can be added. This allows security personnel to easily check the status of all the detectors, which blink when there is an alarm.

Security Solutions

ONE COMPLETE
SOLUTION

i-PRO NETWORK PRODUCTS

i-PRO cameras are designed for multiple applications and provide a wide range of capabilities, including Enhanced Super Dynamic, High-accuracy Motion Detection, Analytic features, Face Detection, Wide-area Monitoring, and more.

NDAA Compliant

NDAA Compliant Devices

PTZ Cameras

i-PRO PTZ cameras combine unparalleled image quality with incredible durabilityand reliability. The perfect security camera for wide-area coverage requiring pan,tilt and zoom capability.

Multi Sensor Cameras

i-PRO multi-sensor cameras capture the highest quality images even in very challenging dynamic environments. These cameras can excel at capturing clear images, even in low light conditions from multiple angles through the use of their four repositionable lenses.

Dome Cameras

i-PRO fixed dome cameras have the power to be more discreet than standard fixed network cameras. i-PRO fixed dome cameras work well in busy open areas since they can conceal which direction they are pointing while still providing excellent and reliable video.

Bullet/Box Cameras

i-PRO fixed box bullet/box cameras provide a clearly visible, fixed angle of view, making it easy to see exactly where they're pointing and record a precisely defined area.

360 Degree Cameras

i-PRO vandal resistant 360° dome cameras are ideal for surveillance application where wide area coverage is required. This type of camera allows for multiple viewing angles and can be used to improve area management as well as detect activities in a large area.

Video Intercom System

VL-MC3000BX | VL-PC3400BXB | VL-PC3800BX | VL-VC3900BX | VL-VC3500BX

PSU **VL-PC3400BXB**

Room Monitor **VL-MC3000BX**

Door Station
VL-VC3500BX

Lobby Station
VL-VC3900BX

Power Distributor
VL-PC3800BX

Guard Station
VL-GC3700BX

Safe, Secure and Convinient Living

Greet Visitors Anytime, Anywhere

The Smartphone Connect feature connects mobile devices to the system so homeowners can receive guests anytime, anywhere. Answer guests in real-time throughthe smartphone whether you're inside or outside your home.

Additional Security with SOS One Touch

Security measure that connects residents to the guard station with just one push of the button in case of a break-in or other emergencies.

*Up to 8 slots can be used to link 3rd party devices (SOS buttons and sensors) to the IP video intercom system.

Safe and Quick Contactless Entry

Residents simply need to send a QR code to their invited guests or deliveries in advance, so they can directly go to the unit's front door.

Security Detection for Home Safety

The integration can be connected to the room monitor to detect emergencies such as fire, smoke, and break-ins. Upon detection, an alarm will be sent to the guard stationsimultaneously.

*Up to 8 slots can be used to link 3rd party devices (SOS buttons and sensors) to the IP video intercom system.
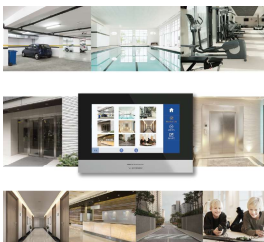
All-day Surveillance through Smartphone

Internet protocol (IP) cameras can provide live view videos of public spaces such as the lobby, car parking, and recreational areas for security purposes. Residents will be able to access via room monitor and smartphones anytime, anywhere.

*Up to 100 Internet protocol (IP) cameras can be integrated withIP video intercom system.

Elevator Ride Made Convenient and Easy

Contactless Guide to Your Guests and Deliveries

On-time Departure At Your Convenience

Comfort
Solutions

Achieve better lifestyle upgrades with products that improves your well being.

True to our commitment of providing a better life, we have developed a range of products from personal care to dwelling necessities providing wellness to your daily living.

Applications

RESIDENTIAL

HOTEL

HOSPITALS

SCHOOLS

Key Factors

- ✓ Applicable to new and renovation projects.

- ✓ Products ranges from personal care to home improvements

- ✓ Built in additional features for savings and safety

Panasonic Hotel TV

LED TV TH-65LX800X

See it all. Feel it all.

Ok Google   androidtv   **4K** HDR ULTRA HD TV
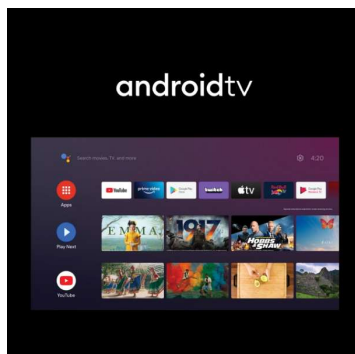
Get more from your TV

Simplify your entertainment experience with Android TV and discover 400,000+ movies and shows in one place.

Watch what you love, control it with your voice

Do more on your TV with your voice. Press the Google Assistant button on your remote to quickly search 400,000+ movies and shows, get recommendations to match your mood, control smart home devices, and more.

"Show me action movies"
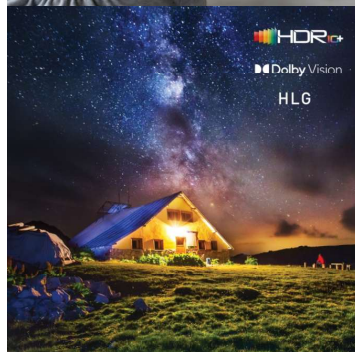
Optimal brightness and colors – whatever the source

Multi HDR Format - By supporting all HDR (High Dynamic Range) formats our TVs assure best possible performance - regardless of picture source. Brightness and colors are optimised scene-by-scene; whether the source is Dolby Vision, HLG, HDR10 or the HDR10+ format.

HDR10+
Dolby Vision
HLG

COMFORT Solutions

Bathroom Water Heater
DH-6SM1PW

No fails, only safe and easy shower with

Japan Quality Water Heater

- 6.0 kW
- Compact body for quick and easy installation
- Operate at Low Pressure
- Better Temperature Control

Multi-point Water Heater

9 Safety Points

Fully equipped with safety features for user's protection.

9 SAFETY POINTS

Water Flow Sensor	Manual Reset Thermostat	On-Off Switch
Water Splash Proof Case Cover	Insulated Structure	Auto Thermal Cut-Off
Reinforced Polyamide Heater Unit	Built-on ELB	Non Flammable Material Compliance

Hair Dryer

EH-NA98-K605

Total care for hair, scalp and skin

Moisture-rich nanoe™ moisturises hair and scalp, while nanoe™ & Double Mineral Ions prevent damage from brushing and protect from UV rays. It comes with four special modes for hair, scalp, and skin.

nanoe™	Double mineral ion	Hot/Cold alternating mode	Intelligent temperature control mode	3 airflow settings	Scalp & Skin mode

Reduces hair damage over time

Panasonic's advanced hair dryer is designed to have the combination of nanoe™ and Double Mineral technology to reduce hair damage over time. Use it to lock in moisture, reduce frizz, and protect your hair's shine by tightening the cuticle, making your hair look healthier and preventing damage from UV rays.

w/o nanoe™ & Double Mineral

with nanoe™ & Double Mineral
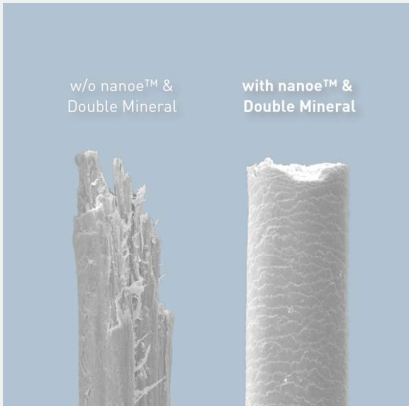
Reduction in split ends

To combat hair damage, moisture-rich nanoe™ penetrate the hair, while Double Mineral increase cuticle cohesion - taming the tips so they are less prone to splitting.
The result is reduction in split ends from 32% to 6% over time, for that healthy-looking hair you've always dreamed of.

*Test result by SGS

Electric Iron
NI-M250T

It's time to straighten this out! Choose ironing made easy and fun.

Enjoy the benefits of a steamer and a dry iron enhanced with innovative design and functionality. Panasonic's electric steam irons effectively press flat against your clothes, while using little jets of steam to really iron wrinkles out of your clothes.

Continuous Steam
0-15 g/min

Powerful steam removes stubborn wrinkles

Spraying out up to 15 g/min. of steam, effectively smoothes out creases. In addition, push the button and the Power Shot function creates a powerful burst of steam which goes deep into the garment and is helpful for removing stubborn winkles.

Remove wrinkles from hanging garments

Vertical shot directs a full burst of steam to smooth out and remove wrinkles from hanging garments, curtains, drapes and more.

Smoothness 20%up [*1,*3]
Anti Scratch Performance 4 stages up [*1,*3] (2H to 6H)

Tough & Smooth Ironing

Advanced Titanium Coated Soleplate slides easily and stands up to long-nose. The smoothness of movement has increased by 20% [*1,*2] and anti-scratch performance has been improved by 4 stages (from 2H to 6H)[*2, *3]

[*1] The effort needed to move a hot iron (measured on a cotton fabric).

[*2] Tested with a pencil hardness test.

[*3] In-house comparison with the Panasonic P Series.

Cordless Stick Vacuum Cleaner

MODEL MC-SB53K

Tangle-free, easy maintenance

Made in JAPAN

SCAN FOR MORE INFO

Tangle-free Power Nozzle

Firmly captures hair from the floor. Transfers it to the thinner ends and sucks it in the

Float-lite Technology

Nozzle can be moved freely in 360° makes cleaning easier with less strain.

House Dust Sensor
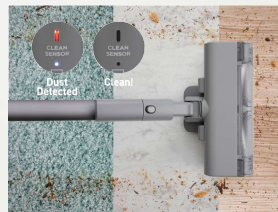
Detects invisible microscopic particles like bacteria, pollen, and mold.

Fuss-Free Cleaning

Removes pet fur from floors and furniture without tangling.

MODEL MC-SBM20 | Lightweight Easy Clean Routine

Lightweight & Easy to Handle

The light 1.6 kg weight makes flooring, high places, stairs, narrow spaces, and underneath the furniture easy and effortless to clean.

Powerful Cleaning in Every Corner

The nozzle reaches right up to walls to capture dust in every corner with 70 W of suction power for a thorough cleaning.

Versatile Cleaning Everywhere

Various attachments make cleaning easier.

Professional Microwave Oven NE-1853

Reliability

Reliability in "Heavy Use"

PMWO Usage per day *(2)

(Times/day)

0	30	50	100
20%	28%	31%	21%

KABD Reserch

Average customers use one PMWO about 50 times per day. The durability for heavy use is obviously very important. Left images are some of the tests that we carry out to ensure that our ovens can work efficiently in this environment.

Door open and close endurance test *(1)
Door open and close 400K times

Intermittent operation endurance test *(1)
On(60sec) and Off(30 sec), 200K times
On(20sec) and Off(10 sec), 200K times

Control panel endurance test *(1)
Operating the key pads 200K times

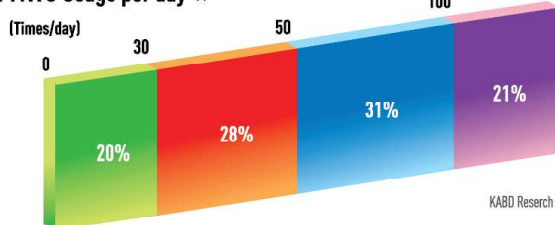*(1)This test is to study the design of our products in our testing room, and this information is not to guarantee the products quality in those situation all time.   *(2)This data is the average of the market survey made by KABD.

Reliability in EMC requirement

Accreditation, Authorization,Filing,Registration.

Electromagnetic Compatibility(EMC) is one of the most important issues facing the industry today. Panasonic Corporation have "Panasonic Corporation Analysis Center EMC Test Laboratory" in Japan, which is operated in accordance with our internal standard procedure/Quality System in compliance with ISO/IEC 17025.

Panasonic Corporation Analysis Center EMC Test Laboratory

Located in an area for precise testing without any interference from outside electromagnetic.

Europe — TUV SUD Product Service   Certification No: JPN1012A

Japan — Japan Accreditation Board (JAB)   JAB Code : RTL02730

Anechoic chamber
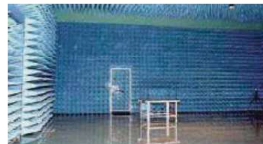
Open Test site (3m/10m/30m)

All evaluation testing engineers are certified as qualified Electromagnetic Compatibility Engineer by the National Association of Radio and Telecommunications Engineers,Inc. (USA)

KABD:Kitchen Appliances Business Division
PMWO: Professional Microwave Oven

ENERGY LABEL
One Door Refrigerating Appliance
Energy Efficiency Rating:
312 under test conditions

Issuance Year of Energy Rating: 2022
Monthly Energy Consumption*: 15.00 KWh
Brand Name: Panasonic
Product Model: NR-AQ151NS   Refrigerant: R600a (GWP < 1)
Freezing Capacity (kg/24hrs): 0.0   Volume (liters): 148.0
"More stars and higher rating means more savings"
*based on kWh/24 hrs x 30 days

For more information:
www.doe.gov.ph
CN: REF-0015-000425-1022

Energy Label issued under Section 15 of Republic Act No. 11285. Non-compliance, removal, defacing, or altering of the Energy Label is a violation under Section 30 and will be subject to the fines, penalties and criminal liability under Sections 32 and 33 of Republic Act No. 11285.

JAPAN QUALITY

ECO-FRIENDLY R600a REFRIGERANT

1 Door | Direct Cool Non-Inverter
NR-AQ151NS Single Door Refrigerator

Modern and Trendy Flat Door Design
Environment-Friendly, Energy Saving and Efficient Cooling

Product Dimension(WxDxH) : 540 x 600 x 997 mm
Capacity : 5.2 cu ft (148 L)
Weight : 27 kg

MAJOR KEY FEATURES

1 Modern & Trendy Flat Door Design

2 Environment - Friendly

3 Energy Saving & Efficient Cooling

2-Door Top Freezer No-Frost Deluxe Refrigerator
NR-BP272VD

★★★★★
5–STAR ENERGY EFFICIENCY
REFRIGERATOR-FREEZER

AI ECONAVI + *INVERTER*

← JUMBO FREEZER →

PRIME COOLING +

⫶⫶ *Ag Clean* ⫶⫶

ENERGY LABEL
Frost-Free Refrigerating Appliance
Energy Efficiency Rating:
452 under test conditions

★★★★★

Issuance Year of Energy Rating: 2022
Monthly Energy Consumption*: 21.30 kWh
Brand Name: Panasonic
Product Model: NR-BP272VD   Refrigerant: R600a (GWP < 1)
Freezing Capacity (kg/24hrs): 3.0   Volume (liters): 271.0
"More stars and higher rating means more savings"   *based on kWh/24 hrs x 30 days

For more information:
Energy Label issued under Section 15 of Republic Act No. 11285. Non-compliance, removal, defacing, or altering of the Energy Label is a violation under Section 30 and will be subject to the fines, penalties and criminal liability under Sections 32 and 33 of Republic Act No. 11285
www.doe.gov.ph   CN: REF-0015-000249-0722

Energy Efficient Food Storage with Superior Freshness

The No Frost Deluxe Refrigerator gives you superior energy savings while enjoying long lasting freshness.

SUPERIOR ENERGY SAVINGS

INTERNAL TEMPERATURE SENSOR
• Detects temperature inside the Refrigerator.

DOOR SENSOR
• Sensor detects frequency of door opening.

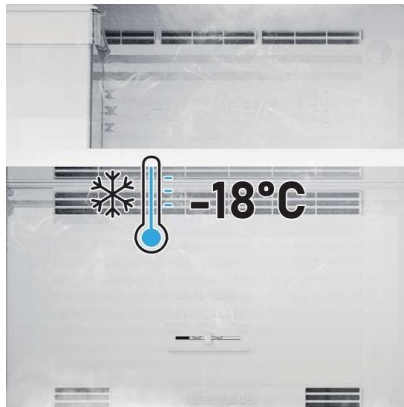ROOM TEMPERATURE SENSOR
• Senses surrounding temperature.

5-star enery rating with intelligent inverter

Powered with High Efficiency Inverter Compressor and AI ECONAVI.
AI ECONAVI sensors detect and microprocessor analyze the usage conditions optimizing the cooling performance.
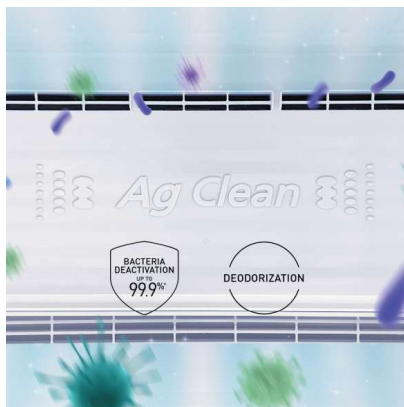
Features

5-Star Refrigerator-Freezer Category

Experience more efficient cooling with its -18°C Freezer compartment that passed testing conditions with 5-Star Refrigerator-Freezer category rating.

Jumbo Freezer for Bulk Buyers

The large-capacity freezer lets you buy in bulk without worries on the storage space.

Superior Cooling for Everyday Freshness

The Prime+ Cooling compartment maintains freshness for a longer period of time without freezing.

Hygienic Food Storage, Safe from Bacteria and Odors.

The Ag Filter deactivates 99.99%* of bacteria and reduces unpleasant odors for a more hygienic food storage.

*Certified by Broken Quality Evaluation Institute Test Report number: No. 20215058561-1

Long-Lasting Freshness for Fruits and Vegetables

The Fresh Safe compartment keeps the optimum humidity and constant temperature to retain freshness and moisture, making it an ideal storage for fruits and vegetables.

SCAN FOR MORE INFO

JAPAN QUALITY