Panasonic

■ Please read the Installation Instructions carefully before installing the unit, and the Operating Instructions before using it.
■ Specifications are subject to change without prior notice.
■ The contents of this catalogue are accurate as of October 2020
■ Due to printing considerations, actual colours may vary slightly from those shown.
■ All graphics are provided solely for the purpose of illustrating a point.

Do not add or replace refrigerant other than the specified type. Manufacturer is not responsible for damage or deterioration in safety due to usage of other refrigerant.

Authorised Dealer

總代理 Sole Agent:

FreeMulti10/20

SHUN HING GROUP
信興集團
SINCE 1953

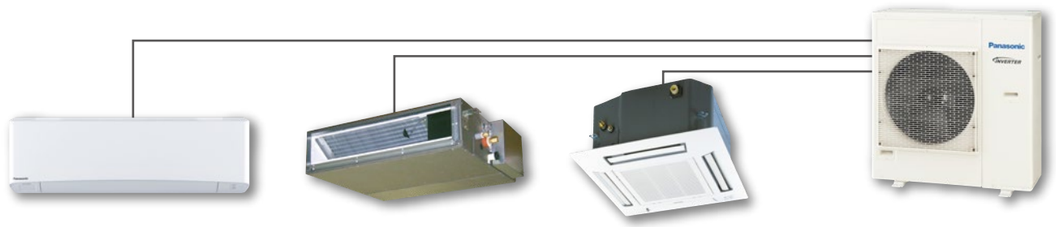
信興電工工程有限公司
SHUN HING ELECTRIC WORKS AND ENGINEERING CO., LTD.

辦公室： 香港九龍尖沙咀東部麼地道67號半島中心9樓909-912室
Office: Room 909-912, 9/F, Peninsula Centre, 67 Mody Road, Tsim Sha Tsui East, Kowloon, Hong Kong.
電話 Tel: (852) 2861 2767
傳真 Fax: (852) 2865 6706
網址 Website: www.shew.com.hk
電郵 E-mail: shew@shunhinggroup.com

保養及維修 Maintenance and Repair Service
信興電器服務中心有限公司
SHUN HING ELECTRIC SERVICE CENTRE LTD.
辦公室： 香港新界葵涌勝耀街2號信興中心11樓
Office: 11/F, Shun Hing Centre, 2 Shing Yiu Street, Kwai Chung, New Territories, Hong Kong.
電話 Tel: (852) 2406 5666
傳真 Fax: (852) 2408 0316
網址 Website: www.shunhing-service.com

Panasonic

FREE MULTI AIR CONDITIONING SYSTEM



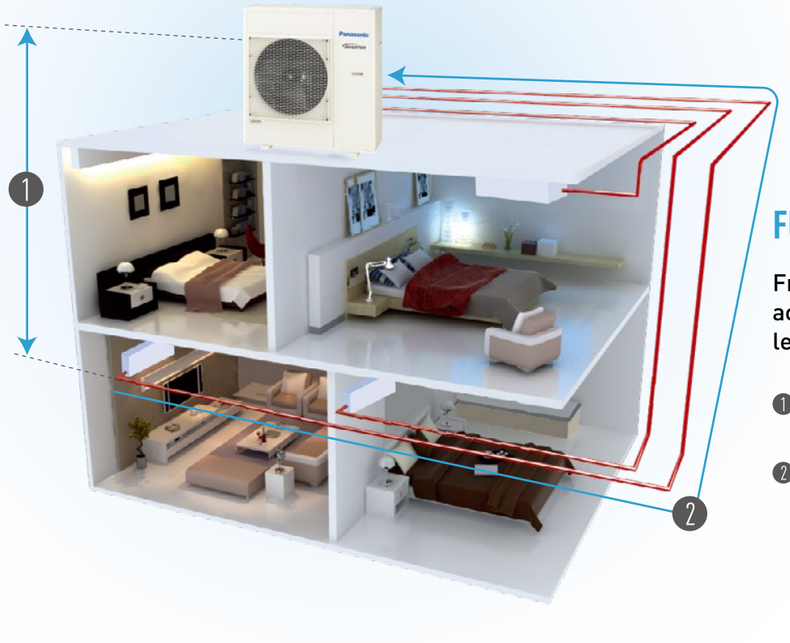
nanoe™ INVERTER

A Better Life, A Better World

QUALITY AIR FOR LIFE

Advantages of Panasonic Free Multi Air Conditioning System

Panasonic's free multi air conditioning systems are designed to enable flexible configuration and installation of indoor and outdoor units based on room conditions, location and installation convenience.



Flexible Installation

Free multi air conditioning system accommodates piping with a total length of up to 80 metres

1. Maximum height up to 15 meters for indoor and outdoor unit.
2. Piping can be extended up to a total length of 80 metres.*

* Applicable to CU-5E34PBE

Up to 5 indoor units of 3 types connect to 1 outdoor unit

Wall-mounted

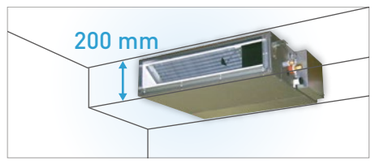
nanoe™ for better indoor air quality

4-way 60x60 Cassette

The 4-way airflow for wide and even cooling

Low Static Ducted

More compact for more space



Adaptor installation necessary for easier control via internet

CZ-TACG1 WIFI ADAPTOR (OPTIONAL)

Connection Diagram to Panasonic Comfort Cloud

Indoor unit with CN-CNT port *

+

WLAN adaptor (CZ-TACG1)

Indoor unit with WLAN adaptor (1 adaptor by 1 indoor unit)

* Applicable for Wall Mounted, Cassette and Ducted type

Other hardware requirements (purchase and subscribe separately).

Panasonic Cloud Server is designed, operated and managed by Panasonic.

Download free App

Panasonic

Panasonic Comfort Cloud

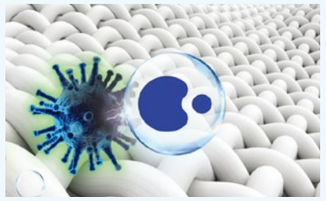
nanoe™ Quality Air for Life

nanoe™, technology with the benefits of hydoroxyl radicals

nanoe™ effectively inhibits bacteria and viruses. Regular air purifiers that use a filter are effective only against airborne bacteria and viruses, but nanoe™ is also effective against adhered bacteria and viruses.

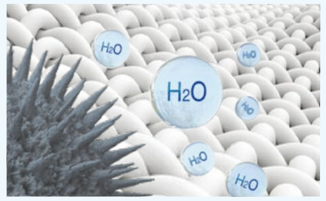
Hydroxyl radicals inhibit the growth of pollutants such as bacteria, viruses, moulds, and odours, breaking them down and neutralising the unpleasant effects. This naturally occurring process has major benefits to improve indoor environments.
By creating hydroxyl radicals contained in tiny water particles, nanoe™ technology significantly boosts their effectiveness, increasing hydroxyl radicals lifetime from less than a second in nature, to more than 600 seconds – 10 minutes so that nanoe™ can spread over long distances.

How nanoe™ works



nanoe™ reaches pollutants in fabrics

Hydoroxyl radicals take hydrogen away from pollutants



Hydoroxyl radicals transform hydrogen to inhibit the activity of pollutants

What is nanoe™ ?

nano-technology + electric = nanoe™

nanoe™ is nano-sized electrostatic atomised water particles that are rich in hydroxyl radicals.

Water-based particles for lasting effectiveness

nanoe™ has lasting effectiveness as it is enveloped in water.

Huge quantity of hydroxyl radicals throughout the room

nanoe™ device generates 480 billion hydroxyl radicals per second that spread out extensively to every corner of your home.

Tiny, nano-sized particles penetrate into fabrics easily

Much smaller than a steam particle, nanoe™ particles sized 5-20nm can deeply penetrate into fabrics to inhibit pollutants and deodorise.

7 effects of nanoe™ technology with the benefits of hydroxyl radical technology

*Annotations for this information can be found on page 7

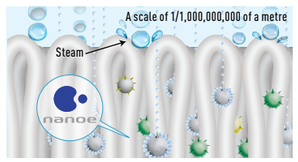
Deodorises
Odours*1

Inhibits 5 types of pollutants
Bacteria & viruses*2
Mould*3
Allergens*4
Pollen*5
Hazardous substances*6

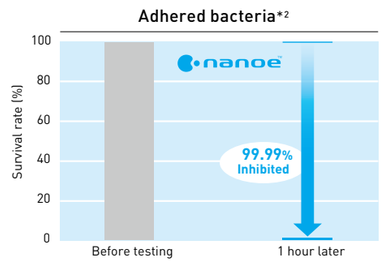
Moisturises
Skin & Hair*7

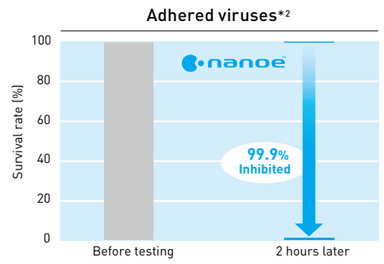
nanoe™ inhibits not only airborne, but also adhered viruses

Panasonic's unique nanoe™ has an outstanding effect on a wide range of air pollutants. It is also highly effective against adhered bacteria and viruses.



nanoe™ is much smaller than steam and can deeply penetrate cloth fabrics to deodorise.





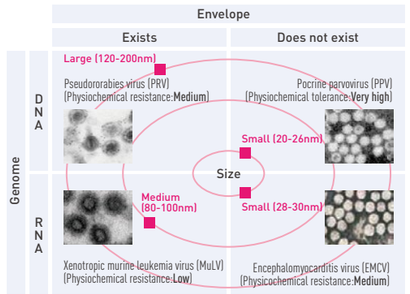
Verify that the potential to inhibit highly resistant and unknown viruses

Four types of viruses were selected based on the virus clearance test guidelines, and comparison of nanoe™ exposure and non-exposure was carried out in testing according to GLP standards. It was confirmed that 99% of the virus infection value of the four types of virus was suppressed in six hours.

Test outline

Charles River Biopharmaceutical Services GmbH (Germany)

Test period: September to November 2011
Test subjects: Xenotropic murine leukemia virus, Encephalomyocarditis virus, Pseudorabies virus, Porcine parvovirus
Test method •Test box volume: 45L • Exposure time: 6 hours • Exposure distance: 15cm



Panasonic comfort cloud app. convenient centralised control

Panasonic
Download on the App Store
GET IT ON Google Play

Advanced smartphone control for domestic range.

Control cooling/heat pump operation with Panasonic Comfort Cloud plus additional functions only available through the Cloud from wherever and whenever. One user can manage up to 200 units and also set up different user rights. Also, energy monitoring is possible allowing opportunity to learn how to reduce the operating cost even more.

1 Smart Control

In control of cooling comfort anytime, anywhere.

Connect & control operation.
•20 units per location and up to 10 different locations
•Transform multiple remote controls into one device

Manage multiple units at once.
•Turn on all AC units at the same time or by group settings
•Set weekly timers for multiple units to cater to your daily routines

2 Smart Comfort

Easily manage your comfort and air quality.

Adjust set temperature.
Set temperature by monitoring real time indoor and outdoor temperatures.

Pre-heat or cool.
Control your house or office comfort before you arrive!

nanoe™ 1)
Activate nanoe™, the advanced technology to deodorise and create healthier environment.

3 Smart Efficiency

More comfort with less wasted energy.

Energy usage analysis[2].
Monitor energy consumption based on different temperature settings.

Energy usage comparison (day/week/month/year).
Compare energy usage history of AC units for better budget planning.

4 Smart Assist

Be informed of breakdowns.

Error codes notification and identification[3].
Launch the App to check error codes for effortless troubleshooting. Help technicians to easily identify the issues.

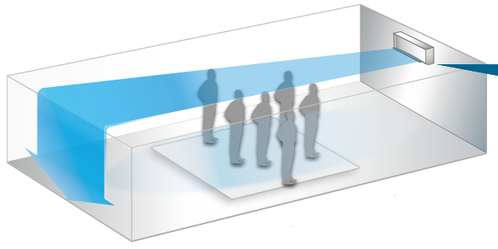
User's control right.
Register multiple users. Set administrator rights and assign users access.

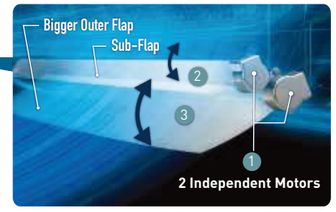
1) nanoe™ is available in certain series. 2) Estimated energy consumption data accuracy depends on power supply quantity. 3) Contact trained technicians to perform any repairing/service.

AEROWINGS

Cool air flows along the ceiling, not into your face, for comfort without feeling too cold.

Concentrated Airflow, Further and faster airflow across the room.





Further, faster, concentrated airflow with 2 independent flaps and motors.

1 2 Independent Motors
Control the Sub-Flap and Bigger Outer Flap separately.

2 Sub-Flap
Compresses and concentrates cool air.

3 Bigger Outer Flap
Helps to deliver airflow further.

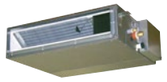
Optional wired remote controller
CZ-RD514C

Wall-mounted	Cooling capacity	Heating capacity	Sound pressure	Dimension / Net weight	Piping connections
Indoor unit (Wireless Remote)			Cool - Heat [Hi / Lo / S-Lo]	H x W x D	Liquid / Gas pipe
	kW	kW	dB[A]	mm / kg	Inch [mm]
CS-Z20TKEW	2.0	3.2	39 / 26 / 21 – 40 / 27 / 21	295 x 919 x 194 / 9	1/4 [6.35] / 3/8 [9.52]
CS-Z25TKEW	2.5	3.6	41 / 27 / 21 – 43 / 29 / 21	295 x 919 x 194 / 10	1/4 [6.35] / 3/8 [9.52]
CS-Z35TKEW	3.2	4.5 (4.4 only for CU-2E18SBE)	44 / 30 / 21 – 45 / 35 / 21	295 x 919 x 194 / 10	1/4 [6.35] / 3/8 [9.52]
CS-Z42TKEW	4.0	5.6 (5.0 only for CU-2E18SBE)	44 / 33 / 27 – 45 / 37 / 31	295 x 919 x 194 / 10	1/4 [6.35] / 3/8 [9.52]*1
CS-Z50TKEW	5.0	6.8 (5.3 only for CU-2E18SBE)	44 / 39 / 32 – 46 / 39 / 32	302 x 1120 x 236 / 12	1/4 [6.35] / 3/8 [9.52]*1
CS-Z71TKEW	7.0	8.7	49 / 40 / 32 – 49 / 40 / 32	302 x 1120 x 236 / 13	1/4 [6.35] / 1/2 [12.70]*2*3

CZ-BT20EW

Optional wired remote controller
CZ-RD52CP

4-way 60x60 Cassette	Cooling capacity	Heating capacity	Sound pressure	Dimension / Net weight		Piping connections
Indoor / Panel (Wireless Remote)			Cool - Heat [Hi / Lo / S-Lo]	Indoor H x W x D	Panel H x W x D	Liquid / Gas pipe
	kW	kW	dB[A]	mm / kg		Inch [mm]
CS-Z35UB4EAW / CZ-BT20EW	3.2	4.5 (4.4 only for CU-2E18SBE)	36 / 28 / 25 – 37 / 30 / 27	260 x 575 x 575 / 18	51 x 700 x 700 / 2,5	1/4 [6.35] / 3/8 [9.52]
CS-Z50UB4EAW / CZ-BT20EW	5.0	6.8 (5.3 only for CU-2E18SBE)	39 / 30 / 27 – 40 / 31 / 28	260 x 575 x 575 / 18	51 x 700 x 700 / 2,5	1/4 [6.35] / 3/8 [9.52]*1



Optional wireless remote controller
CZ-RL511D

Low Static Ducted	Cooling capacity	Heating capacity	Sound pressure	Dimension / Net weight	Piping connections
Indoor (Wired Remote)			Cool - Heat [Hi / Lo / S-Lo]	H x W x D	Liquid / Gas pipe
	kW	kW	dB[A]	mm / kg	Inch [mm]
CS-Z35UD3EAW	3.2	4.5 (4.4 only for CU-2E18SBE)	35 / 29 / 26 – 37 / 29 / 26	200 x 750 x 640 / 19	1/4 [6.35] / 3/8 [9.52]
CS-Z50UD3EAW	5.0	6.8 (5.3 only for CU-2E18SBE)	41 / 31 / 28 – 41 / 32 / 29	200 x 750 x 640 / 19	1/4 [6.35] / 3/8 [9.52]*1
CS-Z60UD3EAW	6.0	8.5	43 / 32 / 29 – 43 / 34 / 31	200 x 750 x 640 / 19	1/4 [6.35] / 1/2 [12.70]*2

CU-2E18SBE

CU-4E23PBE

CU-5E34PBE

System Capacity (Min-Max Indoor Cooling Capacity Normal [Total Indoor Capacity Range]			3,2 to 7,5kW	4,5 to 11kW	4,5 to 17,5kW
Outdoor Unit			CU-2E18SBE	CU-4E23PBE	CU-5E34PBE
Cooling capacity	Nominal [Min - Max]	kW	5.20 [1.50–5.40]	6.80 [1.90–8.80]	10.00 [2.90–11.50]
EER	Nominal [Min - Max]	W/W	3.42 [6.00–3.42]	4.05 [5.59–3.56]	3.50 [5.27–2.98]
Input power cooling	Nominal [Min - Max]	kW	1.52 [0.25–1.58]	1.68 [0.34–2.47]	2.86 [0.55–3.86]
Heating capacity	Nominal [Min - Max]	kW	5.60 [1.10–7.20]	8.50 [3.00–10.60]	12.00 [3.40–14.50]
COP	Nominal [Min - Max]	W/W	4.63 [5.24–4.24]	4.47 [5.17–4.08]	4.20 [6.42–3.42]
Input power heating	Nominal [Min - Max]	kW	1.21 [0.21–1.70]	1.9 [0.58–2.60]	2.86 [0.53–4.24]
Current	Cool/Heat	A	7.10 / 5.35	7.50 / 8.80	13.20 / 13.40
Power source		V	230	230	230
Sound pressure	Cool/Heat (Hi)	dB(A)	49 / 51	48 / 49	53 / 54
Dimension	H x W x D	mm	619 x 824(+70) x 299	795 x 875(+95) x 320	999 x 940 x 340
Net Weight		kg	39	72	81
Piping connections	Liquid pipe	Inch (mm)	1/4 [6.35]	1/4 [6.35]	1/4 [6.35]
	Gas pipe		3/8 [9.52]	3/8 [9.52]	3/8 [9.52]
Max pipe length	(total room)	m	30	60	80
Pipe length range	(1 room)	m	3 – 20	3 – 25	3 – 25
Elevation difference	(in/out)	m	10	15	15
Pipe length for additional gas		m	20	30	45
Additional gas amount		g/m	15	20	20
Refrigerant	[R410A]	kg	1.40	2.64	3.40
Operating range	Cool Min - Max	°C	-10 ~ +46	-10 ~ +46	-10 ~ +46
	Heat Min - Max		-15 ~ +24	-15 ~ +24	-15 ~ +24

At least two indoor units must be connected.

Nominal cooling capacity / heating capacity are determined whereby the test to be performed with the system operating at a capacity ratio (of indoor units to outdoor unit) of 1, or as close as possible.

*1 CZ-MA1P is to be used to reduce the connection size on the indoor unit from 1/2" to 3/8".
*2 CZ-MA2P is to be used to increase the connection size on the outdoor unit from 3/8" to 1/2".
*3 CZ-MA3P is to be used to reduce the connection size on the indoor unit from 5/8" to 1/2".

ADDITIONAL PARTS

Pipe Size Reducer

ECONAVI
Sunlight Sensor technology can detect and reduce the waste of energy by optimising air conditioner operation according to room conditions. With just one touch of a button, you can save energy.

Inverter system
The Inverter range provides greater efficiency and comfort. Provides more precise temperature control, without highs and lows, and keeps the ambient temperature constant with lower energy consumption and a significant reduction in noise and vibration levels.

nanoe™
It promotes well-being by inhibiting growth of certain harmful viruses and bacteria, as well as deodorising your home.

Mild Dry cooling
Fine control helps prevent a rapid decrease in room humidity while maintaining the set temperature. Maintains an RH* up to 10 % higher than cooling operation (*RH: Relative Humidity). Ideal when sleeping with the air conditioner on.

Aerowings
More comfort with Aerowings. Direct airflow to the ceiling, creating a shower cooling effect with built-in twin flap.

Internet control
A next generation system providing user-friendly remote control of air conditioning units from everywhere, using a simple Android™ or iOS smartphone, tablet via the internet.

How do I combine indoor and outdoor units?

Each outdoor unit has a limit to the number of connecting indoor units, depending on capacity and the number of ports (rooms). To work out the connect combination, add the capacity index (kW) of each indoor unit you want to connect. The connect outdoor unit is the one that fits the total indoor capacity index within (and including) the minimum and maximum range. If there are several outdoor options to choose from, select higher or lower capacity outdoor depending on the simultaneous use you plan for your project.

Possible outdoor / indoor units combinations • R410A	Wall-mounted	4-way 60x60 Cassette	Low Static Ducted
Indoor unit capacity index	20 25 32 42 50 70	32 50	32 50 60
CU-2E18SBE // 3,2 - 7,5kW // 2 Rooms	✓ ✓ ✓ ✓*4 ✓*4	✓ ✓*4	✓ ✓*4
CU-4E23PBE // 4,5 - 11,0kW // 4 Rooms	✓ ✓ ✓ ✓*4 ✓*4	✓ ✓*4	✓ ✓*4 ✓*4
CU-5E34PBE // 4,5 - 17,5kW // 5 Rooms	✓ ✓ ✓ ✓*4 ✓*4 ✓*4	✓ ✓*4	✓ ✓*4 ✓*4

*4 A CZ-MA1P pipe reducer is needed on the 42 and 50, a CZ-MA2P pipe expander is needed on the 60 and CZ-MA3P pipe reducer on the 70.

Outdoor Multi combination model		Model
CS-Z20TKEW CS-Z25TKEW CS-Z35TKEW / CS-Z35UB4EAW / CS-Z35UD3EAW	CU-2E18SBE / CU-4E23PBE / CU-5E34PBE	-
CS-Z42TKEW CS-Z50TKEW / CS-Z50UB4EAW / CS-Z50UD3EAW	CU-2E18SBE / CU-4E23PBE / CU-5E34PBE	CZ-MA1P
CS-Z60UD3EAW	CU-4E23PBE / CU-5E34PBE	CZ-MA2P
CS-Z71TKEW	CU-4E23PBE / CU-5E34PBE	CZ-MA2P / CZ-MA3P*5

*5 For CZ-MA3P necessary to use adaptor CZ-MA2P too.

***Annotations for nanoe™ on page 4**

*1 [Testing organisation] Panasonic Product Analysis Center [Testing Method] Verified using the six-level odour intensity scale method in an approximately 23m³ sized test room [Deodorisation method] nanoe™ released [Test substance] Surface-attached cigarette smoke odour [Test result] Odour intensity reduced by 1.2 levels in 2 hours (BAA33-130125-D01)
*2 <Adhered bacteria (O157)> [Testing organisation] Japan Food Research Laboratories [Testing method] Measured the number of bacteria adhered to a cloth in an approximately 45L sized airtight test room [Inhibition method] nanoe™ released [Test substance] Adhered bacteria [Test result] Inhibited by at least 99.99% in 1 hour (208120880_001) <Adhered virus (Influenza virus H1N1 subtype)> [Testing organisation] Kitasato Research Center for Environmental Science [Testing method] Measured the number of virus adhered to a cloth in an approximately 1m³ sized airtight test room [Inhibition method] nanoe™ released [Test substance] Adhered virus [Test result] Inhibited by at least 99.9% in 2 hours (21_0084_1)
*3 [Testing organisation] Japan Food Research Laboratories [Testing method] Measured the number of mould altered in an approximately 23m³ sized test room [Inhibition method] nanoe™ released [Test substance] Airborne mould [Test result] Inhibited by at least 99% in 1 hour (205061541-001)
*4 <Dog-derived allergens and cat-derived allergens> [Testing organisation] Institute of Tokyo Environmental Allergens [Testing method] Direct exposure in a 45L airtight container and measured using the ELISA method [Inhibition method] nanoe™ released [Test substance] dog derived allergens, cat derived allergens [Test result] <Dog(dander)>Inhibited by at least 99% in 1 hour (11M-RPTAPR047_1) <Cat (dander)> Inhibited by at least 98% in 2 hours (11M-RPTAPR051_1)
*5 <Pollen> Cedar [Testing organisation] Panasonic Product Analysis Center [Testing method] Measured allergen attached to a cloth, using the ELISA method, in an approximately 23m³ sized test room [Inhibition method] nanoe™ released [Test substance] Cedar pollen [Test result] Inhibited by at least 88% in 8 hours (BAA33-130304-F01)
*6 [Testing organisation] Panasonic Product Analysis Center [Testing Method] Measured the amount of attached organic substances in an approximately 23m³ sized test room [Inhibition method] nanoe™ released [Test result] <Aromatic carboxylic acid (benzoic acid)> Broken down at least 99.9% in approximately 16 hours (Y13NF135)
*7 [Testing organisation] Panasonic Product Analysis Center [Testing Method & test result] Approximately 34m³ sized test room, room temperature 23 degrees Celsius, humidity 30%, 8 women aged 30-49 with varying skin conditions ranging from being averagely moist to dry, the stratum corneum water content was measured before and after resting for 90 minutes being exposed to a nanoe™ generating device, to find the average value of the change. (D01-071219F-01) [Testing organisation] Panasonic Product Analysis Center [Testing Method & test result] Approximately 46m³ sized test room, room temperature 25 degrees Celsius, humidity 40% Bundles (6 Bundles) of hair were suspended 2m from a nanoe™ generating device, with repeated operation of the nanoe™ generating device: 8 hours on and 16 hours off. (D01-091005-01TM) [Method] nanoe™ released [Test substance] Hair