

Aug 26, 2016  
Issue-1  
MRD-T16016-01

## Technical Proof Document for CE conformity marking

### Part – I: General

Product : Air-to-Water Heat Pump System  
(Air-to-Water Hydromodule + Tank)  
Trade Name : Panasonic  
Model No. : As below (Indoor Unit / Outdoor Unit)

WH-ADC0309H3E5, WH-ADC0309H3E5UK, or WH-ADC0309H3E5B /  
WH-UD03HE5-1, WH-UD05HE5-1, WH-UD07HE5-1, WH-UD09HE5-1

The product complies with essential requirements of the EC Council Directives

1. **2014/30/EU** (EMC),
2. **2014/35/EU** (LVD) and EU Council Recommendation **1999/519/EC** (EMF),
3. **2011/65/EU** (ROHS)
4. Commission Regulation (EU) No **813/2013** implementing Directive **2009/125/EC** (Commission Communication 2014/C 207/02) (ErP)
5. Commission Regulation (EU) No **622/2012** implementing Directive **2009/125/EC** amending Regulation (EC) No 641/2009 (ErP)

Approved and signed by:



(Name of signatory): SHIRAI KENJI

(Title): Director

(Name of Division/ Company): Panasonic Appliances Air-Conditioning R&D  
Malaysia Sdn. Bhd. (PAPARADMY)

(Address): Lot 2, Persiaran Tengku Ampuan, Section 21, Shah  
Alam Industrial Site, 40300 Shah Alam,  
Selangor Darul Ehsan, Malaysia.

On behalf of Manufacturer: Panasonic Corporation

(Address): 1006 Kadoma, Kadoma City, Osaka, Japan

## Technical Construction Document Part-II

### Product Identification & Description

1. Name of product : Air-to-Water Heat Pump System (Air-to-Water Hydromodule + Tank)
2. Trade name : Panasonic
3. Model No.  
(Indoor Unit):  
WH-ADC0309H3E5, WH-ADC0309H3E5UK, WH-ADC0309H3E5B  
(Outdoor Unit):  
WH-UD03HE5-1, WH-UD05HE5-1, WH-UD07HE5-1, WH-UD09HE5-1
4. Product Certification
  - (1) Product electrical safety is tested and certified  
See CB test report
  - (2) Product EMC is evaluated
  - (3) Product energy efficiency and sound power level are evaluated
5. Rating and nameplate : See CB report
6. General appearance : See CB report
7. Place(s) of Factory

*To be produced by following manufacturer.*

Panasonic Appliances Air-Conditioning Malaysia Sdn. Bhd.  
Lot 2, Persiaran Tengku Ampuan, Sec. 21, Shah Alam Industrial Site,  
Selangor, MALAYSIA

8. Numbering system for serial number 

XXXXXX	XXXXXX
①	②

  - ① : Five digits number for the identification of the model.
  - ② : Serial number starting from 00001.

9. Safety precautions
  - (1) Mainly household and similar use.
  - (2) Instructions for safe use in details : Refer to the appendix 1 which is integral part of operating and installation manuals accompanied with each product.

# Technical Construction Document

## Part-II

### Product Identification & Description

(continued)

10. Authorised Representative in EU (EC)

Panasonic Testing Centre  
Panasonic Marketing Europe GmbH  
Winsbergring 15, 22525 Hamburg, Germany

11. RoHS Directive

Product Category: Category 1, Large Household Appliances.

These products are managed by the environmental standard “Production Control Standards for the Non-Use of Environmental Load Material” of our Quality Management System.

ISO 9001 Certification Information:

Manufacturer: Panasonic Appliances Air-Conditioning Malaysia Sdn. Bhd.

Certification body: SIRIM QAS International Sdn. Bhd.

Registration number: AR 1010 (Refer to the appendix 2)

### CE marking and EU declaration of conformity

12. Product affixed with CE marking upon satisfied the applicable essential requirements of directives.

A written EU declaration of conformity is drawn up for the product and it will be kept together with the technical documentation at the disposal of the national market surveillance authorities for 10 years after the electrical equipment has been placed on the market.

## Technical Construction Document Part-III

### Conformity assessment For Air-to-Water Heat Pump

#### Conformity assessment

Product: Air-to-Water Heat Pump System (Air-to-Water Hydromodule + Tank)

Trade Name: Panasonic

Model Designation:

	<u>Model No.</u> (Indoor Unit / Outdoor Unit):	<u>Document No.</u>
Part-III-1	(Indoor Unit): WH-ADC0309H3E5, WH-ADC0309H3E5UK, WH-ADC0309H3E5B (Outdoor Unit): WH-UD03HE5-1, WH-UD05HE5-1, WH-UD07HE5-1, WH-UD09HE5-1	MRD-T16016-1-01

## Technical Construction Document Part-III-1

### Conformity assessment

Product: Air-to-Water Heat Pump System (Air-to-Water Hydromodule + Tank)  
Model No.:  
(Indoor Unit) WH-ADC0309H3E5, WH-ADC0309H3E5UK, WH-ADC0309H3E5B &  
(Outdoor Unit) WH-UD03HE5-1, WH-UD05HE5-1, WH-UD07HE5-1, WH-UD09HE5-1

#### 1. Low voltage directive 2014/35/EU

Principal Elements of the Safety Objectives	Applicable Harmonised Standards	Product Design Features & Conformity Assessment Results
Annex I Item 1, a) ~ c)	EN 60335-1:2012 +A11:2014  EN 60335-2-40:2003 +A1:2006, +A2:2009, +A11:2004, +A12:2005, +A13: 2012	a) Operating/Installation Instructions and precautions are provided with the product. b) Manufacturer's information is shown on the name plate and/or on the package. c) The product is manufactured in accordance with the good engineering practices and quality assurance system meeting with ISO 9001. d) The product complies with EN 60335-1 and EN 60335-2-40.
Annex I Item 2, a) ~ d)	EN 60335-2-21:2003 +A1:2005, +A2:2008	a) The product complies with the electrical and mechanical construction requirements of EN 60335-1 and EN 60335-2-40. b) Temperatures in or on the product and radiation hazards are lowered so as not to cause a danger. c) The product complies with the non-electrical requirements of EN 60335-1 and EN 60335-2-40. d) Insulation systems comply with EN 60335-2-40 and EN 60335-1.
Annex I Item 3, a) ~ c)		The product complies with the mechanical construction and test requirements of EN 60335-1 and EN 60335-2-40. Refer to the CB test report 16063157 001, 16062804001, 18504616 001, 18005422001.
Annex III.2 Risk Analysis  CENELEC Guide 32	Same as above	CENELEC Guide 32 is considered to be the reference for the filling-in of Annex ZZ for the products covered by the mentioned standards to answer to the requirements of the LVD (2014/35/EU). The assessment are made, followed to below: <ul style="list-style-type: none"> <li>• based on Annex D of CENELEC Guide 32</li> <li>• Result are in the table D.1 of Annex D where the specific risks are considered with respect to mentioned standards (EN 60335-2-40) accordingly</li> <li>• Reference document : SRFI-16062</li> </ul>
Electromagnetic Field	EN 62233:2008	The product complies with the EU council recommendation 1999/519/EC. Refer to the attached EMF test report 18005100 001, 18005098001, 18005409001, 18005630001

## 2. EMC directive 2014/30/EU:

Protection requirements	Applicable Harmonised Standards	Product Design Features & Conformity Assessment Results
Annex I, 1 (a)	<p>EN 55014-1:2006 +A1 :2009, +A2 :2011</p> <p>EN 61000-3-2:2006 +A1 :2009, +A2 :2009</p> <p>EN 61000-3-3:2013</p> <p>EN 61000-3-11:2000</p>	<p>Electromagnetic disturbance generated by the apparatus do not exceed a level allowing other equipment to operate as intended.</p> <p>Refer to the attached EMC test report 18005099 001, 18005097001, 18005629001, 18005408001</p>
Annex I, 1 (b)	<p><u>Power Supply 1 &amp; 2</u> EN 55014-2:1997 +A1:2001, +A2:2008</p>	<p>The product has an adequate level of immunity to the electromagnetic disturbance in its intended use.</p> <p>Refer to the attached EMC test report 18005099 001, 18005097001, 18005629001, 18005408001</p>
Annex II, 3 Electromagnetic Compatibility Assessment		<p>The electromagnetic compatibility assessment has been performed on the product on the basis of the relevant phenomena, at all normal intended operating conditions.</p> <p>Refer to Appendix 4.</p>

## 3. RoHS directive 2011/65/EU:

Essential requirements	Applicable Harmonised Standard	Product Design Features & Conformity Assessment Results
Article 4	EN50581:2012	<p>Design fundamental for complying with the Essential requirements prescribed.</p> <p>Except for exemption of RoHS directive (See appendix 3 for RoHS Exemption List), all materials and parts used in the product has been confirmed not containing the restricted substances above the restricted values in Annex II of RoHS directive by following documents and/or reports.</p> <ol style="list-style-type: none"> <li>1) Supplier declarations : Non-use warranty certificates</li> <li>2) Material declarations by suppliers: List of specific substance content and identifying any exemptions</li> <li>3) Analytical test results: Analytical test results by supplier or own company referenced in EN 62321:2009</li> </ol> <p>RoHS Directive Conformity Assessment Report, see document: SRFI-16063</p>

### Remarks:

Even if there were some changes in 2011/65/EU Annex III (Applications exempted from the restriction), the conformity assessment information above will not be revised if those changes do not impact the exemptions used in the product.

4. ErP Directive Commission regulation (EU) No 813/2013 and Commission Regulation (EU) No 814/2013 for 2009/125/EC:

Principal Elements of the objective	Applicable Harmonised Standards	Product Design Features & Conformity Assessment Results
Annex I,  Minimum energy Efficiency  Maximum sound power level	EN 14511-2:2013, EN 14511-3:2013, EN 14825:2013  EN 12102:2013	The product complies with the minimum energy efficiency requirements. Measurement and calculations are made according to Annex II.  Refer to test report ERP-PL-00008, ERP-PL-00007, ERP-PL-00006, ERP-PL-00005
COP DHW, Standby Heat Loss	EN 16147:2011, EN12897:2006	Refer to test report 16A2W-DHW-0001, 16A2W-DHW-0002, 16A2W-DHW-0003, 16A2W-DHW-0004
Annex I Product Information		The product information is provided on Panasonic Testing Centre (PTC) free web. <a href="http://www.ptc.panasonic.de">http://www.ptc.panasonic.de</a>

5. ErP Directive Commission Regulation (EU) No 622/2012 for 2009/125/EC (amending Regulation (EC) No 641/2009) :

Principal Elements of the objective	Applicable Harmonised Standards	Product Design Features & Conformity Assessment Results
Annex I,  energy efficiency index (EEI)	EN 16297-1:2012, EN 16297-3:2012	Circulating pump, Panasonic, PY-122NDJA3 integrated in captioned model and $EEI \leq 0,23$  Refer to test report ERP-15185.
Annex I Product Information		The information is mentioned in the product information sheets of the captioned model, which would be provided on Panasonic Testing Centre (PTC) free web. <a href="http://www.ptc.panasonic.de">http://www.ptc.panasonic.de</a>

#### 6. Additional Information

A. The product complies with the requirements of energy labelling, according to the Commission Delegated Regulation (EU) No. 626/2011 supplementing Directive 2010/30/EU, the following information is provided in Panasonic Testing Centre (PTC) web. (<http://www.ptc.panasonic.de>)

(1) Technical Documentation (Annex V of Delegated Regulation (EU) No 626/2011)

(2) Product Fiche for other combinations

(applicable in the case of where multi combinations are available).

B. Hereby to declare that, the constructional design, specification, and performance of the models WH-ADC0309H3E5, WH-ADC0309H3E5UK and WH-ADC0309H3E5B will be similar to the previous referral CE marking models respectively, details of comparison in below table,

## Indoor Unit

New Models	Referral Models	Remarks <u>The new models would have below changes, compared to referral models:</u>
<b>WH-ADC0309H3E5</b> (one zone operation) <b>WH-ADC0309H3E5UK</b> (one zone operation)	<b>WH-ADC0309G3E5</b> <b>WH-ADC0309G3E5UK</b>	(MRD-EU-SMD1601) Applicable for both <b>WH-ADC0309H3E5</b> , <b>WH-ADC0309H3E5UK</b> , and <b>WH-ADC0309H3E5B</b> <ul style="list-style-type: none"> <li>Built-in Pressure Safety Valve</li> <li>Different water tubes / pipings</li> <li>Different remote control panel</li> <li>New Heating insulation layer, Vacuum insulated panel (Panasonic U-Vacua) replacing the existing formed-Polystyrene (PS).</li> </ul> Applicable for <b>WH-ADC0309H3E5B</b> only, <ul style="list-style-type: none"> <li>Additional Mixing Valve and pump for 2<sup>nd</sup> zone heating operation</li> </ul>
<b>WH-ADC0309G3E5B</b> (two zones operation)		

## Outdoor Unit

New Models	Referral Models	Remarks <u>The new models would have below changes, compared to referral models:</u>
WH-UD09HE5-1	WH-UD09HE5	(MRD-EU-SMD1602) Main Different: <ul style="list-style-type: none"> <li>Printing Parts and Software for different models</li> </ul> Test Report of Referral Models: (LVD) 18504616001, 18005422001,18005409001,18005630001 (EMC) 18005629001,18005408001
WH-UD07HE5-1	WH-UD07HE5	
WH-UD05HE5-1	WH-UD05HE5	
WH-UD03HE5-1	WH-UD03HE5	



## Appendix 1

### Instructions for safe use

1. Following precautions are instructed in the Installation manuals.

Engage dealer or specialist for installation.

The equipment is strongly recommended to be installed with Earth Leakage Circuit Breaker (ELCB) or Residual Current Device (RCD).

This equipment must be properly earthed.

For electrical work, follow the local national wiring standard, regulation and this installation instruction.

2. Following precautions are instructed in the operating manuals in addition to the requirements of EN60335-1 and EN60335-2-40.

Turn off the power supply if the unit is not used for a long period of time.

Do not sit or step on the units.

In case of emergency or abnormal conditions (burnt smell, etc), turn off the power supply and please consult authorized dealer.

Do not install the unit close to any combustible equipment or at bathroom. Otherwise, it may cause electric shock or fire.

Do not place anything on top or beneath of the unit.

ISO9001:2008 certificate for Panasonic Appliances Air-Conditioning Malaysia Sdn. Bhd.



# CERTIFICATE



SIRIM QAS International hereby certifies that

PANASONIC APPLIANCES AIR-CONDITIONING MALAYSIA SDN. BHD.  
(PAPAMY 1)  
LOT 2, PERSIARAN TENGGU AMPUAN  
SECTION 21, SHAH ALAM INDUSTRIAL SITE  
40300 SHAH ALAM  
SELANGOR DARUL EHSAN  
MALAYSIA



has implemented a Quality Management System complying with

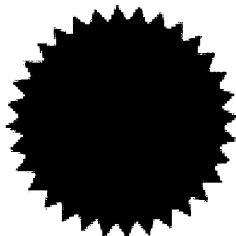
**ISO 9001 : 2008**

## QUALITY MANAGEMENT SYSTEMS - Requirements



### Scope of Certification

- 1) MANUFACTURE OF AIR-CONDITIONERS AND RELATED COMPONENTS.
- 2) DESIGN, MANUFACTURE AND SERVICING OF DIE AND MOULD AND PROTOTYPE PARTS MAKING.



Issue date : 10 February 2015

Validity period : 28 February 2015 - 27 February 2018

Certification No. : AR 1010

**S&S&S International, Inc.**  
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1 Chetivdal-puntaf

**Khalidah Mustafa**  
Managing Director  
SIRIM QAS International Sdn. Bhd.

Figure 1. The effect of the initial concentration of the monomer on the polymerization of  $\alpha$ -methylstyrene initiated by  $\text{TiCl}_4$  in  $\text{CH}_2\text{Cl}_2$  at  $-78^\circ\text{C}$ . The concentration of the initiator was  $0.01 \text{ mol/L}$ . The concentration of the monomer was  $0.01 \text{ mol/L}$  (a),  $0.02 \text{ mol/L}$  (b),  $0.03 \text{ mol/L}$  (c),  $0.04 \text{ mol/L}$  (d),  $0.05 \text{ mol/L}$  (e),  $0.06 \text{ mol/L}$  (f),  $0.07 \text{ mol/L}$  (g),  $0.08 \text{ mol/L}$  (h),  $0.09 \text{ mol/L}$  (i),  $0.10 \text{ mol/L}$  (j).

<sup>a</sup>Not available for non-responding subjects; for the lowest available response rate, see table 1 in the Period 1 column.

## Appendix 3

### RoHS Exemption List

Use exemptions covered in 2011/65/EU, Annex III, on July 1st 2011.

Exemption	
6(a)	Lead as an alloying element in steel for machining purposes and in galvanized steel containing up to 0.35% lead by weight
6(b)	Lead as an alloying element in aluminum containing up to 0.4% lead By weight
6(c)	Copper alloy containing up to 4% lead by weight
7(a)	Lead in high melting temperature type solders (i.e. lead-based alloys containing 85% by weight or more lead)
7(c) - I	Electrical and electronic components containing lead in a glass or ceramic other than dielectric ceramic in capacitors, e.g. piezoelectronic devices , or in a glass or ceramic matrix compound

## Appendix 4

### Electromagnetic Compatibility Assessment

Families of products	Standards covering the protection EMC requirements			
	Emission			Immunity
	Harmonics	Voltage fluctuations	Radio-interference	(All aspects)
Household appliances and portable tools (motor-driven such as vacuum cleaners, washing machines etc; heating and cooking appliances, etc.)	When connect with WH-UD03HE5-1, WH-UD05HE5-1			
	EN 61000-3-2 (Power Supply 1&2)	EN 61000-3-3 (Power Supply 1) & EN 61000-3-11 (Power Supply 2)	EN 55014-1 (Power Supply 1 & 2)	EN 55014-2 (Power Supply 1 & 2)
	When connect with WH-UD07HE5-1, WH-UD09HE5-1			
	EN 61000-3-2 (Power Supply 2) & EN61000-3-12 (Power Supply 1)	EN 61000-3-11 (Power Supply 1 & 2)	EN 55014-1 (Power Supply 1 & 2)	EN 55014-2 (Power Supply 1 & 2)

## REVISION RECORD

No.	Date	Description of revision	Reason for revision
1	Aug 26, 2016	-	Initial release