

Model No.:	WH-ADF0309J3E5CM / CU-2WZ71YBE5		
Air-to-water heat pump [YES/NO]:	YES	Low-temperature heat pump [YES/NO]:	NO
Water-to-water heat pump [YES/NO]:	NO	Brine-to-water heat pump [YES/NO]:	NO
Equipped with a supplementary heater [YES/NO]:	YES		
Heat pump combination heater [YES/NO]:	YES		

The references for harmonized standard applied:

- CRD 811/2013, CRD 813/2013, OJ 2014/C 207/02
- CRD 812/2013, CRD 814/2013, OJ 2014/C 207/03
- EN 12102-1:2017, EN 14825:2018, EN 14511-2/EN 14511-3
- EN 16147:2017, EN 12897:2016

for Heat Pump Space Heater **Parameters for Low-Temperature & Medium-Temperature**

Item	Symb.	Value	Unit	-	Item	Symb.	Value	Unit
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Parameters (AVERAGE / Medium-Temperature) climate conditions:-

Rated heat output (*)	P_{rated}	7	kW	-	Seasonal space heating energy efficiency	η_s	125	%
Declared capacity for heating for part load at indoor temperature 20 °C and outdoor temperature T_j				Cdh (**)	Declared coefficient of performance for part load at indoor temperature 20 °C and outdoor temperature T_j			
$T_j = -7\text{ °C}$	Pdh	6.18	kW	0.99	$T_j = -7\text{ °C}$	$COPd$	2.14	—
$T_j = +2\text{ °C}$	Pdh	3.77	kW	0.97	$T_j = +2\text{ °C}$	$COPd$	3.16	—
$T_j = +7\text{ °C}$	Pdh	2.60	kW	0.94	$T_j = +7\text{ °C}$	$COPd$	3.90	—
$T_j = +12\text{ °C}$	Pdh	3.20	kW	0.93	$T_j = +12\text{ °C}$	$COPd$	5.45	—
$T_j = T_{biv}$	Pdh	6.18	kW	0.90	$T_j = T_{biv}$	$COPd$	2.14	—
$T_j = TOL$	Pdh	6.42	kW	0.90	$T_j = TOL$	$COPd$	1.80	—
Bivalent temperature	T_{biv}	-7	°C	-	Operation limit temperature	TOL	-10	°C
Cycling interval capacity for heating	P_{cyc}	—	kW	-	Cycling interval efficiency	COP_{cyc}	—	—
Rated Seasonal COP of Space Heating	$SCOP$	3.2	-	-	Annual energy consumption	Q_{HE}	4524	kWh


Parameters (WARMER / Medium-Temperature) climate conditions:-

Rated heat output (*)	P_{rated}	6	kW	-	Seasonal space heating energy efficiency	η_s	145	%
Declared capacity for heating for part load at indoor temperature 20 °C and outdoor temperature T_j				Cdh (**)	Declared coefficient of performance for part load at indoor temperature 20 °C and outdoor temperature T_j			
$T_j = +2\text{ °C}$	Pdh	5.99	kW	0.98	$T_j = +2\text{ °C}$	$COPd$	2.40	—
$T_j = +7\text{ °C}$	Pdh	3.81	kW	0.97	$T_j = +7\text{ °C}$	$COPd$	3.18	—
$T_j = +12\text{ °C}$	Pdh	3.10	kW	0.94	$T_j = +12\text{ °C}$	$COPd$	4.86	—
$T_j = T_{biv}$	Pdh	5.99	kW	0.90	$T_j = T_{biv}$	$COPd$	2.40	—
$T_j = TOL$	Pdh	5.99	kW	0.90	$T_j = TOL$	$COPd$	2.40	—
Bivalent temperature	T_{biv}	2	°C	-	Operation limit temperature	TOL	2	°C
Cycling interval capacity for heating	P_{cyc}	—	kW	-	Cycling interval efficiency	COP_{cyc}	—	—
Rated Seasonal COP of Space Heating	$SCOP$	3.69	-	-	Annual energy consumption	Q_{HE}	2170	kWh

Parameters (COLDER / Medium-Temperature) climate conditions:-

Rated heat output (*)	P_{rated}	6	kW	-	Seasonal space heating energy efficiency	η_s	109	%
Declared capacity for heating for part load at indoor temperature 20 °C and outdoor temperature T_j				Cdh (**)	Declared coefficient of performance for part load at indoor temperature 20 °C and outdoor temperature T_j			
$T_j = -7\text{ °C}$	Pdh	3.61	kW	0.97	$T_j = -7\text{ °C}$	$COPd$	2.43	—
$T_j = +2\text{ °C}$	Pdh	2.23	kW	0.94	$T_j = +2\text{ °C}$	$COPd$	3.46	—
$T_j = +7\text{ °C}$	Pdh	2.65	kW	0.93	$T_j = +7\text{ °C}$	$COPd$	4.68	—
$T_j = +12\text{ °C}$	Pdh	3.20	kW	0.91	$T_j = +12\text{ °C}$	$COPd$	6.80	—

T j = T biv	<i>P_{dh}</i>	4.85	kW	0.90	T j = T biv	<i>COP_d</i>	1.85	—
T j = TOL	<i>P_{dh}</i>	4.85	kW	0.90	T j = TOL	<i>COP_d</i>	1.85	—
T j = - 15 °C	<i>P_{dh}</i>	4.85	kW	0.98	T j = - 15 °C	<i>COP_d</i>	1.85	—
Bivalent temperature	<i>T_{biv}</i>	-15	°C	-	Operation limit temperature	<i>TOL</i>	-15	°C
Cycling interval capacity for heating	<i>P_{cyh}</i>	—	kW	-	Cycling interval efficiency	<i>COP_{cyh}</i>	—	—
Rated Seasonal COP of Space Heating	<i>SCOP</i>	2.8	-	-	Annual energy consumption	<i>Q_{HE}</i>	5289	kWh
Parameters (AVERAGE / Low-Temperature) climate conditions:-								
<i>Rated heat output (*)</i>	<i>P_{rated}</i>	7	kW	-	Seasonal space heating energy efficiency	<i>η_s</i>	157	%
Declared capacity for heating for part load at indoor temperature 20 °C and outdoor temperature T j				<i>C_{dh}</i> (**)	Declared coefficient of performance for part load at indoor temperature 20 °C and outdoor temperature T j			
T j = - 7 °C	<i>P_{dh}</i>	6.23	kW	0.98	T j = - 7 °C	<i>COP_d</i>	2.85	—
T j = + 2 °C	<i>P_{dh}</i>	3.86	kW	0.96	T j = + 2 °C	<i>COP_d</i>	3.90	—
T j = + 7 °C	<i>P_{dh}</i>	2.89	kW	0.93	T j = + 7 °C	<i>COP_d</i>	4.90	—
T j = + 12 °C	<i>P_{dh}</i>	3.46	kW	0.92	T j = + 12 °C	<i>COP_d</i>	6.55	—
T j = T biv	<i>P_{dh}</i>	7.18	kW	0.90	T j = T biv	<i>COP_d</i>	2.60	—
T j = TOL	<i>P_{dh}</i>	7.18	kW	0.90	T j = TOL	<i>COP_d</i>	2.60	—
Bivalent temperature	<i>T_{biv}</i>	-10	°C	-	Operation limit temperature	<i>TOL</i>	-10	°C
Cycling interval capacity for heating	<i>P_{cyh}</i>	—	kW	-	Cycling interval efficiency	<i>COP_{cyh}</i>	—	—
Rated Seasonal COP of Space Heating	<i>SCOP</i>	4	-	-	Annual energy consumption	<i>Q_{HE}</i>	3614	kWh
Parameters (WARMER / Low-Temperature) climate conditions:-								
<i>Rated heat output (*)</i>	<i>P_{rated}</i>	7	kW	-	Seasonal space heating energy efficiency	<i>η_s</i>	224	%
Declared capacity for heating for part load at indoor temperature 20 °C and outdoor temperature T j				<i>C_{dh}</i> (**)	Declared coefficient of performance for part load at indoor temperature 20 °C and outdoor temperature T j			
T j = + 2 °C	<i>P_{dh}</i>	6.97	kW	0.98	T j = + 2 °C	<i>COP_d</i>	3.25	—
T j = + 7 °C	<i>P_{dh}</i>	4.38	kW	0.95	T j = + 7 °C	<i>COP_d</i>	5.16	—
T j = + 12 °C	<i>P_{dh}</i>	3.44	kW	0.91	T j = + 12 °C	<i>COP_d</i>	7.45	—
T j = T biv	<i>P_{dh}</i>	6.97	kW	0.90	T j = T biv	<i>COP_d</i>	3.25	—
T j = TOL	<i>P_{dh}</i>	6.97	kW	0.90	T j = TOL	<i>COP_d</i>	3.25	—
Bivalent temperature	<i>T_{biv}</i>	2	°C	-	Operation limit temperature	<i>TOL</i>	2	°C
Cycling interval capacity for heating	<i>P_{cyh}</i>	—	kW	-	Cycling interval efficiency	<i>COP_{cyh}</i>	—	—
Rated Seasonal COP of Space Heating	<i>SCOP</i>	5.69	-	-	Annual energy consumption	<i>Q_{HE}</i>	1644	kWh
Parameters (COLDER / Low-Temperature) climate conditions:-								
<i>Rated heat output (*)</i>	<i>P_{rated}</i>	6	kW	-	Seasonal space heating energy efficiency	<i>η_s</i>	141	%
Declared capacity for heating for part load at indoor temperature 20 °C and outdoor temperature T j				<i>C_{dh}</i> (**)	Declared coefficient of performance for part load at indoor temperature 20 °C and outdoor temperature T j			
T j = - 7 °C	<i>P_{dh}</i>	3.62	kW	0.97	T j = - 7 °C	<i>COP_d</i>	3.06	—
T j = + 2 °C	<i>P_{dh}</i>	2.25	kW	0.91	T j = + 2 °C	<i>COP_d</i>	4.95	—
T j = + 7 °C	<i>P_{dh}</i>	2.85	kW	0.91	T j = + 7 °C	<i>COP_d</i>	6.18	—
T j = + 12 °C	<i>P_{dh}</i>	3.24	kW	0.89	T j = + 12 °C	<i>COP_d</i>	8.65	—
T j = T biv	<i>P_{dh}</i>	4.86	kW	0.90	T j = T biv	<i>COP_d</i>	2.56	—
T j = TOL	<i>P_{dh}</i>	4.86	kW	0.90	T j = TOL	<i>COP_d</i>	1.85	—
T j = - 15 °C	<i>P_{dh}</i>	4.86	kW	0.98	T j = - 15 °C	<i>COP_d</i>	2.56	—
Bivalent temperature	<i>T_{biv}</i>	-15	°C	-	Operation limit temperature	<i>TOL</i>	-15	°C
Cycling interval capacity for heating	<i>P_{cyh}</i>	—	kW	-	Cycling interval efficiency	<i>COP_{cyh}</i>	—	—
Rated Seasonal COP of Space Heating	<i>SCOP</i>	3.61	-	-	Annual energy consumption	<i>Q_{HE}</i>	4101	kWh

Power consumption in modes other than active mode:				Other items: (◇) (□)			
Off mode	P_{OFF}	0.011	kW	Heating water operating limit temperature	WTOL	55	°C
Thermostat-off mode	P_{TO}	0.041	kW				
Standby mode	P_{SB}	0.011	kW	Capacity control	Variable		
Crankcase heater mode	P_{CK}	0.000	kW	Sound power level, indoor (◇)	L_{WA}	41	dB (A)
Supplementary heater				Sound power level, outdoor (◇)	L_{WA}	61	dB (A)
Rated heat output (*)	P_{sup}	3.0	kW	Sound power level, indoor (□)	L_{WA}	41	dB (A)
Type of energy input	230V 1ϕ 50Hz			Sound power level, outdoor (□)	L_{WA}	69	dB (A)
For water- or brine-to-water heat pumps: Rated brine or water flow rate, outdoor heat exchanger	—	—	m ³ /h	Rated air flow rate, outdoor	—	3648	m ³ /h
				Emissions of nitrogen oxides	NO _x	—	mg/kWh
For heat pump combination heater:				Declared load profile		L	
Parameters (AVERAGE/MEDIUM TEMPERATURE) climate conditions:-							
Water heating energy efficiency	η_{wh}	104 A	%	Standing Heat Loss	—	1410	W
Daily electricity consumption	Q_{elec}	4.434	kWh	Daily fuel consumption	Q_{fuel}	—	kWh
Annual electricity consumption	AEC	957	kWh	Annual fuel consumption	AFC	—	GJ
Parameters (WARMER/MEDIUM TEMPERATURE) climate conditions:-							
Water heating energy efficiency	η_{wh}	134 A+	%	Standing Heat Loss	—	1410	W
Daily electricity consumption	Q_{elec}	3.524	kWh	Daily fuel consumption	Q_{fuel}	—	kWh
Annual electricity consumption	AEC	760	kWh	Annual fuel consumption	AFC	—	GJ
Parameters (COLDER/MEDIUM TEMPERATURE) climate conditions:-							
Water heating energy efficiency	η_{wh}	92 A	%	Standing Heat Loss	—	1410	W
Daily electricity consumption	Q_{elec}	4.979	kWh	Daily fuel consumption	Q_{fuel}	—	kWh
Annual electricity consumption	AEC	1074	kWh	Annual fuel consumption	AFC	—	GJ
Contact details for obtaining more information: (the name and address of the supplier)	(Name and address of authorized representative in EU.) Panasonic Testing Centre, Panasonic Marketing Europe GmbH Winsbergring 15, 22525 Hamburg, Germany Contact in the UK: Panasonic UK, a branch of Panasonic, Marketing Europe GmbH Maxis 2, Western Road, Bracknell, Berkshire, RG12 1RT						
Other technical standards and specifications used (if applicable): N/A							
REMARK: ● You can find information and precautions relevant for installation and maintenance in the instruction manuals. ● You can find information relevant for disposal at end-of-life in the instruction manual. (*) For heat pump space heaters and heat pump combination heaters, the rated heat output Prated is equal to the design load for heating Pdesignh, and the rated heat output of a supplementary heater Psup is equal to the supplementary capacity for heating sup(Tj). (**) If Cdh is not determined by measurement, then the default degradation coefficient is Cdh = 0.9 (◇) Nominal A-Weighted Sound Power Level (LWA), according to regulation 811/2013, 813/2013 and standard EN14825 at A7(6), in dB (A). (□) Maximum A-Weighted Sound Power Level (LWA), according to EN12102-1 at A7(6) W55(47), in dB (A).							
Test report registration No. ▪ LR-B-WH-F-000090 ▪ ERP-P2021-00001 ▪ 21A2W-DHW-0001							
Approved and signed by:							
Name:	Hirokazu Kamoda						
Title:	Director						
Company Name:	Panasonic Appliances Air-Conditioning R&D Malaysia Sdn. Bhd.						
(on behalf of factory)	Panasonic Appliances Air-Conditioning Malaysia Sdn. Bhd.						