

## Subtype Aquarea Monobloc 5 kW STD (J Series)

Certificate Holder	Panasonic Marketing Europe GmbH
Address	Hagenauer Strasse 43, Wiesbaden
ZIP	65203
City	Wiesbaden
Country	DE
Certification Body	DIN CERTCO Gesellschaft für Konformitätsbewertung mbH
Subtype title	Aquarea Monobloc 5 kW STD (J Series)
Registration number	011-1W0398
Heat Pump Type	Outdoor Air/Water
Refrigerant	R32
Mass of Refrigerant	1.3 kg
Certification Date	06.08.2020
Testing basis	HP KEYMARK certification scheme rules V8

**Model WH-MDC05J3E5**

Model name	WH-MDC05J3E5
Application	Heating (medium temp)
Units	Outdoor
Climate zone (for heating)	n/a
Reversibility	Yes
Cooling mode application (optional)	+7°C/12°C
Any additional heat sources	n/a

**General data**

Power supply	1x230V 50Hz
Off-peak product	n/a

**Outdoor Air/Water****EN 14511-4 | Heating**

Shutting off the heat transfer medium flow	passed
Complete power supply failure	passed
Defrost test	passed
Starting and operating test	passed

**EN 14511-2 | Heating**

	Low temperature	Medium temperature
Heat output	5.00 kW	5.00 kW
El input	0.99 kW	1.66 kW
COP	5.08	3.01

**EN 14511-2 | Cooling**

	+7°C/+12°C	+18°C/+23°C
El input	1.51 kW	
Cooling capacity	5.00	
EER	3.31	

**EN 12102-1 | Average Climate**

	Low temperature	Medium temperature
Sound power level outdoor	59 dB(A)	59 dB(A)

**EN 14825 | Average Climate**

	Low temperature	Medium temperature
$\eta_s$	202 %	142 %
Prated	5.00 kW	5.00 kW
SCOP	5.12	3.63
Tbiv	-10 °C	-10 °C
TOL	-10 °C	-10 °C
Pdh Tj = -7°C	4.40 kW	4.50 kW

COP Tj = -7°C	2.76	2.30
Cdh Tj = -7 °C	0.970	0.980
Pdh Tj = +2°C	2.60 kW	2.70 kW
COP Tj = +2°C	5.44	3.58
Cdh Tj = +2 °C	0.910	0.940
Pdh Tj = +7°C	3.00 kW	2.80 kW
COP Tj = +7°C	7.15	4.89
Cdh Tj = +7 °C	0.890	0.920
Pdh Tj = 12°C	3.50 kW	3.40 kW
COP Tj = 12°C	8.65	6.92
Cdh Tj = +12 °C	0.880	0.910
Pdh Tj = Tbiv	5.00 kW	5.00 kW
COP Tj = Tbiv	2.50	1.98
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	5.00 kW	5.00 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.50	1.98
WTOL	55 °C	55 °C
Poff	2 W	2 W
PTO	44 W	44 W
PSB	10 W	10 W
PCK	10 W	10 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	0.00 kW	0.00 kW
Annual energy consumption Qhe	2018 kWh	2849 kWh

## EN 12102-1 | Colder Climate

	Low temperature	Medium temperature
Sound power level outdoor	59 dB(A)	59 dB(A)

## EN 14825 | Colder Climate

	Low temperature	Medium temperature
$\eta_s$	160 %	115 %
Prated	6.00 kW	4.00 kW
SCOP	4.08	2.95
Tbiv	-15 °C	-15 °C
TOL	-22 °C	-22 °C
Pdh Tj = -7°C	3.60 kW	2.40 kW
COP Tj = -7°C	3.73	2.53
Cdh Tj = -7 °C	0.95	0.95
Pdh Tj = +2°C	2.50 kW	2.30 kW
COP Tj = +2°C	4.50	3.53
Cdh Tj = +2 °C	0.92	0.93
Pdh Tj = +7°C	3.00 kW	2.80 kW
COP Tj = +7°C	7.25	5.61

Cdh Tj = +7 °C	0.89	0.91
Pdh Tj = 12°C	3.50 kW	3.40 kW
COP Tj = 12°C	8.45	7.55
Cdh Tj = +12 °C	0.89	0.90
Pdh Tj = Tbiv	4.90 kW	3.30 kW
COP Tj = Tbiv	2.80	1.77
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	4.00 kW	4.00 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.19	1.49
WTOL	55 °C	55 °C
Poff	2 W	2 W
PTO	44 W	44 W
PSB	10 W	10 W
PCK	10 W	10 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	3.00 kW	3.00 kW
Annual energy consumption Qhe	3625 kWh	3338 kWh
Pdh Tj = -15°C (if TOL	4.90	3.30
COP Tj = -15°C (if TOL	2.80	1.77
Cdh Tj = -15 °C	0.98	0.98

## EN 12102-1 | Warmer Climate

	Low temperature	Medium temperature
Sound power level outdoor	59 dB(A)	59 dB(A)

## EN 14825 | Warmer Climate

	Low temperature	Medium temperature
$\eta_s$	237 %	165 %
Prated	5.00 kW	4.00 kW
SCOP	6.00	4.20
Tbiv	2 °C	2 °C
TOL	2 °C	2 °C
Pdh Tj = +2°C	5.10 kW	4.00 kW
COP Tj = +2°C	3.05	3.00
Cdh Tj = +2 °C	0.97	0.97
Pdh Tj = +7°C	3.30 kW	2.60 kW
COP Tj = +7°C	5.75	3.63
Cdh Tj = +7 °C	0.92	0.94
Pdh Tj = 12°C	3.50 kW	3.30 kW
COP Tj = 12°C	8.58	6.17
Cdh Tj = +12 °C	0.89	0.92
Pdh Tj = Tbiv	5.00 kW	4.00 kW
COP Tj = Tbiv	3.89	2.46
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	5.00 kW	4.00 kW

COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	3.89	2.46
WTOL	55 °C	55 °C
Poff	2 W	2 W
PTO	44 W	44 W
PSB	10 W	10 W
PCK	10 W	10 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	3.00 kW	3.00 kW
Annual energy consumption Qhe	1113 kWh	1274 kWh

## EN 14825 | Cooling

	+7°C/+12°C	+18°C/+23°C
Pdesignc	5.00 kW	
SEER	5.56	
Pdc Tj = 35°C	5.00 kW	
EER Tj = 35°C	3.17	
Pdc Tj = 30°C	3.68 kW	
EER Tj = 30°C	4.59	
Cdc Tj = 30 °C	0.9	
Pdc Tj = 25°C	2.37 kW	
EER Tj = 25°C	6.70	
Cdc Tj = 25 °C	0.9	
Pdc Tj = 20°C	1.05 kW	
EER Tj = 20°C	8.62	
Cdc Tj = 20 °C	0.9	
Poff	8 W	
PTO	0 W	
PSB	10 W	
PCK	0 W	
Annual energy consumption Qce	315 kWh	

**Model WH-MDC05J3E5 + DGC200**

Model name	WH-MDC05J3E5 + DGC200
Application	Heating + DHW + low temp
Units	Outdoor
Climate zone (for heating)	n/a
Reversibility	Yes
Cooling mode application (optional)	+7°C/12°C
Any additional heat sources	n/a

**General data**

Power supply	1x230V 50Hz
Off-peak product	n/a

**Outdoor Air/Water****EN 16147 | Average Climate**

Declared load profile	L
Efficiency $\eta_{DHW}$	125 %
COP	2.96
Heating up time	01:31 h:min
Standby power input	40.0 W
Reference hot water temperature	53.3 °C
Mixed water at 40°C	268 l

**EN 14511-4 | Heating**

Shutting off the heat transfer medium flow	passed
Complete power supply failure	passed
Defrost test	passed
Starting and operating test	passed

**EN 14511-2 | Heating**

	Low temperature	Medium temperature
Heat output	5.00 kW	5.00 kW
El input	0.99 kW	1.66 kW
COP	5.08	3.01

**EN 14511-2 | Cooling**

	+7°C/+12°C	+18°C/+23°C
El input	1.51 kW	
Cooling capacity	5.00	
EER	3.31	

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TOL	-10 °C	-10 °C
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COP Tj = -7°C	2.76	2.30
Cdh Tj = -7 °C	0.970	0.980
Pdh Tj = +2°C	2.60 kW	2.70 kW
COP Tj = +2°C	5.44	3.58
Cdh Tj = +2 °C	0.910	0.940
Pdh Tj = +7°C	3.00 kW	2.80 kW
COP Tj = +7°C	7.15	4.89
Cdh Tj = +7 °C	0.890	0.920
Pdh Tj = 12°C	3.50 kW	3.40 kW
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Pdh Tj = Tbiv	5.00 kW	5.00 kW
COP Tj = Tbiv	2.50	1.98
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	5.00 kW	5.00 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.50	1.98
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Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	0.00 kW	0.00 kW
Annual energy consumption Qhe	2018 kWh	2849 kWh

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Pdh Tj = -7°C	3.60 kW	2.40 kW

COP Tj = -7°C	3.73	2.53
Cdh Tj = -7 °C	0.95	0.95
Pdh Tj = +2°C	2.50 kW	2.30 kW
COP Tj = +2°C	4.50	3.53
Cdh Tj = +2 °C	0.92	0.93
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Pdh Tj = +2°C	5.10 kW	4.00 kW
COP Tj = +2°C	3.05	3.00
Cdh Tj = +2 °C	0.97	0.97
Pdh Tj = +7°C	3.30 kW	2.60 kW
COP Tj = +7°C	5.75	3.63



Cdh Tj = +7 °C	0.92	0.94
Pdh Tj = 12°C	3.50 kW	3.30 kW
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Supplementary Heater: PSUP	3.00 kW	3.00 kW
Annual energy consumption Qhe	1113 kWh	1274 kWh

## EN 14825 | Cooling

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Pdesignc	5.00 kW	
SEER	5.56	
Pdc Tj = 35°C	5.00 kW	
EER Tj = 35°C	3.17	
Pdc Tj = 30°C	3.68 kW	
EER Tj = 30°C	4.59	
Cdc Tj = 30 °C	0.9	
Pdc Tj = 25°C	2.37 kW	
EER Tj = 25°C	6.70	
Cdc Tj = 25 °C	0.9	
Pdc Tj = 20°C	1.05 kW	
EER Tj = 20°C	8.62	
Cdc Tj = 20 °C	0.9	
Poff	8 W	
PTO	0 W	
PSB	10 W	
PCK	0 W	
Annual energy consumption Qce	315 kWh	