

## Subtype DC Inverter Air to Water Heat Pump Unit- R290- 06- C

Certificate Holder	Zhongshan Amitime Electric Co., Ltd
Address	5th Yandong Rd
ZIP	
City	Zhongshan City - Guangdong
Country	CN
Certification Body	BRE Global Limited
Subtype title	DC Inverter Air to Water Heat Pump Unit- R290- 06- C
Registration number	041-K027-13
Heat Pump Type	Outdoor Air/Water
Refrigerant	R290
Mass of Refrigerant	0.6 kg
Certification Date	22.09.2023
Testing basis	Heat Pump Keymark Scheme Rules Rev 12
Testing laboratory	TÜV SÜD Certification and Testing Co., Ltd. Guangzhou Branch, CN

Model Indoor unit: PAVH-06-20V1GX-250L/IX, Outdoor unit: PAVH-06V1GXX

Model name	Indoor unit: PAVH-06-20V1GX-250L/IX, Outdoor unit: PAVH-06V1GXX
Application	Heating + DHW + low temp
Units	Indoor, Outdoor
Climate zone (for heating)	n/a
Heat Source	Outdoor Air
Reversibility	Yes
Cooling mode application (optional)	n/a
Any additional heat sources	n/a

#### General data

Power supply	1x230V 50Hz
Off-peak product	No

#### Outdoor Air/Water

##### EN 16147 | Operating test

Temperature operating range	2
Safety devices checking test	2
Condensate draining	2

##### EN 12102-2 | Average Climate

Sound power level indoor	37 dB(A)
Sound power level outdoor	57 dB(A)

##### EN 16147 | Average Climate

Declared load profile	L
Efficiency $\eta_{DHW}$	124 %
COP	2.99
Heating up time	43:16:40 h:min
Standby power input	24.0 W
Reference hot water temperature	45.2 °C
Mixed water at 40°C	222 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	4.38 kW	5.58 kW
El input	0.88 kW	1.85 kW

COP	4.99	3.03
EN 12102-1   Average Climate		
	Low temperature	Medium temperature
Sound power level indoor	33 dB(A)	37 dB(A)
Sound power level outdoor	54 dB(A)	57 dB(A)
EN 14825   Average Climate		
	Low temperature	Medium temperature
$\eta_s$	189 %	141 %
Prated	4.91 kW	4.55 kW
SCOP	4.81	3.59
Tbiv	-7 °C	-7 °C
TOL	-25 °C	-25 °C
Pdh Tj = -7°C	4.35 kW	4.02 kW
COP Tj = -7°C	2.98	2.29
Cdh Tj = -7 °C	0.900	0.900
Pdh Tj = +2°C	3.01 kW	2.59 kW
COP Tj = +2°C	4.78	3.39
Cdh Tj = +2 °C	0.900	0.900
Pdh Tj = +7°C	2.30 kW	2.15 kW
COP Tj = +7°C	6.60	5.17
Cdh Tj = +7 °C	0.900	0.900
Pdh Tj = 12°C	2.74 kW	2.59 kW
COP Tj = 12°C	9.70	7.45
Cdh Tj = +12 °C	0.900	0.900
Pdh Tj = Tbiv	4.35 kW	4.02 kW
COP Tj = Tbiv	2.98	2.29
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	4.01 kW	3.54 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.95	2.18
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	0.900	0.900
WTOL	56 °C	56 °C
Poff	20 W	20 W
PTO	23 W	23 W
PSB	20 W	20 W
PCK	30 W	30 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	0.90 kW	1.01 kW
Annual energy consumption Qhe	2111 kWh	2616 kWh

Model Indoor unit: ecoSTAR All-in-one, Outdoor unit: ecoSTAR06

Model name	Indoor unit: ecoSTAR All-in-one, Outdoor unit: ecoSTAR06
Application	Heating + DHW + low temp
Units	Indoor, Outdoor
Climate zone (for heating)	n/a
Reversibility	Yes
Cooling mode application (optional)	n/a
Any additional heat sources	n/a

#### General data

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

#### Outdoor Air/Water

##### EN 16147 | Operating test

Temperature operating range	2
Safety devices checking test	2
Condensate draining	2

##### EN 12102-2 | Average Climate

Sound power level indoor	37 dB(A)
Sound power level outdoor	57 dB(A)

##### EN 16147 | Average Climate

Declared load profile	L
Efficiency $\eta_{DHW}$	124 %
COP	2.99
Heating up time	43:16:40 h:min
Standby power input	24.0 W
Reference hot water temperature	45.2 °C
Mixed water at 40°C	222 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	4.38 kW	5.58 kW
El input	0.88 kW	1.85 kW
COP	4.99	3.03

##### EN 12102-1 | Average Climate

	Low temperature	Medium temperature
Sound power level indoor	33 dB(A)	37 dB(A)
Sound power level outdoor	54 dB(A)	57 dB(A)

#### EN 14825 | Average Climate

	Low temperature	Medium temperature
$\eta_s$	189 %	141 %
Prated	4.91 kW	4.55 kW
SCOP	4.81	3.59
Tbiv	-7 °C	-7 °C
TOL	-25 °C	-25 °C
Pdh Tj = -7°C	4.35 kW	4.02 kW
COP Tj = -7°C	2.98	2.29
Cdh Tj = -7 °C	0.900	0.900
Pdh Tj = +2°C	3.01 kW	2.59 kW
COP Tj = +2°C	4.78	3.39
Cdh Tj = +2 °C	0.900	0.900
Pdh Tj = +7°C	2.30 kW	2.15 kW
COP Tj = +7°C	6.60	5.17
Cdh Tj = +7 °C	0.900	0.900
Pdh Tj = 12°C	2.74 kW	2.59 kW
COP Tj = 12°C	9.70	7.45
Cdh Tj = +12 °C	0.900	0.900
Pdh Tj = Tbiv	4.35 kW	4.02 kW
COP Tj = Tbiv	2.98	2.29
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	4.01 kW	3.54 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.95	2.18
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	0.900	0.900
WTOL	56 °C	56 °C
Poff	20 W	20 W
PTO	23 W	23 W
PSB	20 W	20 W
PCK	30 W	30 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	0.90 kW	1.01 kW
Annual energy consumption Qhe	2111 kWh	2616 kWh