

Subtype DC Inverter Air to Water Heat Pump Unit- R32- 09- 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- R32- 09- C
Registration number	041-K027-18
Heat Pump Type	Outdoor Air/Water
Refrigerant	R32
Mass of Refrigerant	1.6 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: AVH-09V1FX-250L/IX, Outdoor unit: AVH-09V1FXX

Model name	Indoor unit: AVH-09V1FX-250L/IX, Outdoor unit: AVH-09V1FXX
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	46 dB(A)
Sound power level outdoor	54 dB(A)

EN 16147 | Average Climate

Declared load profile	L
Efficiency η_{DHW}	124 %
COP	2.94
Heating up time	24:51:34 h:min
Standby power input	36.0 W
Reference hot water temperature	44.5 °C
Mixed water at 40°C	214 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	5.72 kW	8.04 kW
El input	1.09 kW	3.16 kW

COP	5.26	2.54
EN 12102-1 Average Climate		
Sound power level indoor	Low temperature	Medium temperature
Sound power level outdoor	45 dB(A)	46 dB(A)
53 dB(A)	54 dB(A)	
EN 14825 Average Climate		
ηs	Low temperature	Medium temperature
Prated	181 %	130 %
SCOP	6.39 kW	5.97 kW
Tbiv	4.61	3.32
TOL	-7 °C	-25 °C
Pdh Tj = -7°C	-25 °C	-25 °C
COP Tj = -7°C	5.65 kW	5.28 kW
Cdh Tj = -7 °C	3.19	1.94
Pdh Tj = +2°C	0.900	0.900
COP Tj = +2°C	3.52 kW	3.41 kW
Cdh Tj = +2 °C	4.43	3.34
Pdh Tj = +7°C	0.900	0.900
COP Tj = +7°C	3.36 kW	3.15 kW
Cdh Tj = +7 °C	6.36	4.60
Pdh Tj = 12°C	0.900	0.900
COP Tj = 12°C	3.96 kW	3.73 kW
Cdh Tj = +12 °C	8.37	6.49
Pdh Tj = Tbiv	0.900	0.900
COP Tj = Tbiv	5.65 kW	5.28 kW
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	3.19	1.94
Pdh Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	5.32 kW	4.80 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.82	1.71
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	0.900	0.900
WTOL	57 °C	57 °C
Poff	10 W	10 W
PTO	19 W	19 W
PSB	10 W	10 W
PCK	27 W	27 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	1.07 kW	1.17 kW
Annual energy consumption Qhe	2864 kWh	3720 kWh

Model Indoor unit: PAVH-09V1FX-250L/IX, Outdoor unit: PAVH-09V1FXX

Model name	Indoor unit: PAVH-09V1FX-250L/IX, Outdoor unit: PAVH-09V1FXX
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	46 dB(A)
Sound power level outdoor	54 dB(A)

EN 16147 | Average Climate

Declared load profile	L
Efficiency η_{DHW}	124 %
COP	2.94
Heating up time	24:51:34 h:min
Standby power input	36.0 W
Reference hot water temperature	44.5 °C
Mixed water at 40°C	214 l

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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	5.72 kW	8.04 kW
El input	1.09 kW	3.16 kW
COP	5.26	2.54

EN 12102-1 | Average Climate

	Low temperature	Medium temperature
Sound power level indoor	45 dB(A)	46 dB(A)
Sound power level outdoor	53 dB(A)	54 dB(A)

EN 14825 | Average Climate

	Low temperature	Medium temperature
η_S	181 %	130 %
P _{rated}	6.39 kW	5.97 kW
SCOP	4.61	3.32
T _{biv}	-7 °C	-7 °C
T _{OL}	-25 °C	-25 °C
P _{dh T_j} = -7°C	5.65 kW	5.28 kW
COP T _j = -7°C	3.19	1.94
C _{dh T_j} = -7 °C	0.900	0.900
P _{dh T_j} = +2°C	3.52 kW	3.41 kW
COP T _j = +2°C	4.43	3.34
C _{dh T_j} = +2 °C	0.900	0.900
P _{dh T_j} = +7°C	3.36 kW	3.15 kW
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P _{dh T_j} = 12°C	3.96 kW	3.73 kW
COP T _j = 12°C	8.37	6.49
C _{dh T_j} = +12 °C	0.900	0.900
P _{dh T_j} = T _{biv}	5.65 kW	5.28 kW
COP T _j = T _{biv}	3.19	1.94
P _{dh T_j} = T _{OL} or P _{dh T_j} = T _{designh} if T _{OL} < T _{designh}	5.32 kW	4.80 kW
COP T _j = T _{OL} or COP T _j = T _{designh} if T _{OL} < T _{designh}	2.82	1.71
C _{dh T_j} = T _{OL} or P _{dh T_j} = T _{designh} if T _{OL} < T _{designh}	0.900	0.900
WT _{OL}	57 °C	57 °C
P _{off}	10 W	10 W
PTO	19 W	19 W
PSB	10 W	10 W
PCK	27 W	27 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	1.07 kW	1.17 kW
Annual energy consumption Q _{he}	2864 kWh	3720 kWh