

## Subtype R290 Hydro Split and Hydro all in one 12/14kW

Certificate Holder	Qingdao Haier Air Conditioner Electric Co., Ltd.
Address	Haier Development Zone Industrial Park, Economic Development Zone, Qingdao City,
ZIP	
City	Shandong Province
Country	CN
Certification Body	DIN CERTCO Gesellschaft für Konformitätsbewertung mbH
Subtype title	R290 Hydro Split and Hydro all in one 12/14kW
Registration number	011-1W0825
Heat Pump Type	Outdoor Air/Water
Refrigerant	R290
Mass of Refrigerant	1 kg
Certification Date	27.08.2024
Testing basis	HP KEYMARK certification scheme rules V14

## Model AW122HVGHA+HU162WAHYA

Model name	AW122HVGHA+HU162WAHYA
Application	Heating (medium 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 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	12.00 kW	11.50 kW
El input	2.35 kW	3.48 kW
COP	5.10	3.30

### EN 12102-1 | Average Climate

	Low temperature	Medium temperature
Sound power level indoor	42 dB(A)	42 dB(A)
Sound power level outdoor	63 dB(A)	66 dB(A)

### EN 14825 | Average Climate

	Low temperature	Medium temperature
$\eta_s$	190 %	151 %
Prated	8.50 kW	6.80 kW
SCOP	4.82	3.85
Tbiv	-7 °C	-7 °C
TOL	-25 °C	-25 °C
Pdh Tj = -7°C	7.48 kW	5.98 kW
COP Tj = -7°C	3.12	2.36
Cdh Tj = -7 °C	0.900	0.900
Pdh Tj = +2°C	4.59 kW	3.67 kW
COP Tj = +2°C	4.60	3.75
Cdh Tj = +2 °C	0.900	0.900

Pdh Tj = +7°C	2.98 kW	2.38 kW
COP Tj = +7°C	6.72	5.46
Cdh Tj = +7 °C	0.900	0.900
Pdh Tj = 12°C	5.08 kW	4.79 kW
COP Tj = 12°C	8.35	6.90
Cdh Tj = +12 °C	0.900	0.900
Pdh Tj = Tbiv	7.48 kW	5.98 kW
COP Tj = Tbiv	3.12	2.36
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	6.26 kW	6.74 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.16	1.65
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	0.900	0.900
WTOL	80 °C	80 °C
Poff	18 W	18 W
PTO	18 W	18 W
PSB	18 W	18 W
PCK	0 W	0 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	2.24 kW	0.06 kW
Annual energy consumption Qhe	3647 kWh	3650 kWh

## Model AW122HVGHA+HU162WAHYB

Model name	AW122HVGHA+HU162WAHYB
Application	Heating (medium 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 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	12.00 kW	11.50 kW
El input	2.35 kW	3.48 kW
COP	5.10	3.30

### EN 12102-1 | Average Climate

	Low temperature	Medium temperature
Sound power level indoor	42 dB(A)	42 dB(A)
Sound power level outdoor	63 dB(A)	66 dB(A)

### EN 14825 | Average Climate

	Low temperature	Medium temperature
$\eta_s$	190 %	151 %
Prated	8.50 kW	6.80 kW
SCOP	4.82	3.85
Tbiv	-7 °C	-7 °C
TOL	-25 °C	-25 °C
Pdh Tj = -7°C	7.48 kW	5.98 kW
COP Tj = -7°C	3.12	2.36
Cdh Tj = -7 °C	0.900	0.900
Pdh Tj = +2°C	4.59 kW	3.67 kW
COP Tj = +2°C	4.60	3.75
Cdh Tj = +2 °C	0.900	0.900

Pdh Tj = +7°C	2.98 kW	2.38 kW
COP Tj = +7°C	6.72	5.46
Cdh Tj = +7 °C	0.900	0.900
Pdh Tj = 12°C	5.08 kW	4.79 kW
COP Tj = 12°C	8.35	6.90
Cdh Tj = +12 °C	0.900	0.900
Pdh Tj = Tbiv	7.48 kW	5.98 kW
COP Tj = Tbiv	3.12	2.36
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	6.26 kW	6.74 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.16	1.65
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	0.900	0.900
WTOL	80 °C	80 °C
Poff	18 W	18 W
PTO	18 W	18 W
PSB	18 W	18 W
PCK	0 W	0 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	2.24 kW	0.06 kW
Annual energy consumption Qhe	3647 kWh	3650 kWh

## Model AW12NHVGHA+HU16NWAHYAE3

Model name	AW12NHVGHA+HU16NWAHYAE3
Application	Heating (medium 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	3x230V 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	12.00 kW	11.50 kW
El input	2.35 kW	3.48 kW
COP	5.10	3.30

### EN 12102-1 | Average Climate

	Low temperature	Medium temperature
Sound power level indoor	42 dB(A)	42 dB(A)
Sound power level outdoor	63 dB(A)	66 dB(A)

### EN 14825 | Average Climate

	Low temperature	Medium temperature
$\eta_s$	190 %	151 %
Prated	8.50 kW	6.80 kW
SCOP	4.82	3.85
Tbiv	-7 °C	-7 °C
TOL	-25 °C	-25 °C
Pdh Tj = -7°C	7.48 kW	5.98 kW
COP Tj = -7°C	3.12	2.36
Cdh Tj = -7 °C	0.900	0.900
Pdh Tj = +2°C	4.59 kW	3.67 kW
COP Tj = +2°C	4.60	3.75
Cdh Tj = +2 °C	0.900	0.900

Pdh Tj = +7°C	2.98 kW	2.38 kW
COP Tj = +7°C	6.72	5.46
Cdh Tj = +7 °C	0.900	0.900
Pdh Tj = 12°C	5.08 kW	4.79 kW
COP Tj = 12°C	8.35	6.90
Cdh Tj = +12 °C	0.900	0.900
Pdh Tj = Tbiv	7.48 kW	5.98 kW
COP Tj = Tbiv	3.12	2.36
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	6.26 kW	6.74 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.16	1.65
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	0.900	0.900
WTOL	80 °C	80 °C
Poff	18 W	18 W
PTO	18 W	18 W
PSB	18 W	18 W
PCK	0 W	0 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	2.24 kW	0.06 kW
Annual energy consumption Qhe	3647 kWh	3650 kWh

## Model AW12NHVGHA+HU16NWAHYBE3

Model name	AW12NHVGHA+HU16NWAHYBE3
Application	Heating (medium 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	3x230V 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	12.00 kW	11.50 kW
El input	2.35 kW	3.48 kW
COP	5.10	3.30

### EN 12102-1 | Average Climate

	Low temperature	Medium temperature
Sound power level indoor	42 dB(A)	42 dB(A)
Sound power level outdoor	63 dB(A)	66 dB(A)

### EN 14825 | Average Climate

	Low temperature	Medium temperature
$\eta_s$	190 %	151 %
Prated	8.50 kW	6.80 kW
SCOP	4.82	3.85
Tbiv	-7 °C	-7 °C
TOL	-25 °C	-25 °C
Pdh Tj = -7°C	7.48 kW	5.98 kW
COP Tj = -7°C	3.12	2.36
Cdh Tj = -7 °C	0.900	0.900
Pdh Tj = +2°C	4.59 kW	3.67 kW
COP Tj = +2°C	4.60	3.75
Cdh Tj = +2 °C	0.900	0.900



Pdh Tj = +7°C	2.98 kW	2.38 kW
COP Tj = +7°C	6.72	5.46
Cdh Tj = +7 °C	0.900	0.900
Pdh Tj = 12°C	5.08 kW	4.79 kW
COP Tj = 12°C	8.35	6.90
Cdh Tj = +12 °C	0.900	0.900
Pdh Tj = Tbiv	7.48 kW	5.98 kW
COP Tj = Tbiv	3.12	2.36
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	6.26 kW	6.74 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.16	1.65
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	0.900	0.900
WTOL	80 °C	80 °C
Poff	18 W	18 W
PTO	18 W	18 W
PSB	18 W	18 W
PCK	0 W	0 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	2.24 kW	0.06 kW
Annual energy consumption Qhe	3647 kWh	3650 kWh

## Model AW122HVGHA+HU162F20AHYA

Model name	AW122HVGHA+HU162F20AHYA
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 | Average Climate

Declared load profile	L
Efficiency $\eta_{DHW}$	140 %
COP	3.10
Heating up time	1:35 h:min
Standby power input	72.0 W
Reference hot water temperature	52.5 °C
Mixed water at 40°C	260 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	12.00 kW	11.50 kW
El input	2.35 kW	3.48 kW
COP	5.10	3.30

### EN 12102-1 | Average Climate

	Low temperature	Medium temperature
Sound power level indoor	42 dB(A)	42 dB(A)
Sound power level outdoor	63 dB(A)	66 dB(A)

### EN 14825 | Average Climate

	Low temperature	Medium temperature
$\eta_s$	190 %	151 %

Prated	8.50 kW	6.80 kW
SCOP	4.82	3.85
Tbiv	-7 °C	-7 °C
TOL	-25 °C	-25 °C
Pdh Tj = -7°C	7.48 kW	5.98 kW
COP Tj = -7°C	3.12	2.36
Cdh Tj = -7 °C	0.900	0.900
Pdh Tj = +2°C	4.59 kW	3.67 kW
COP Tj = +2°C	4.60	3.75
Cdh Tj = +2 °C	0.900	0.900
Pdh Tj = +7°C	2.98 kW	2.38 kW
COP Tj = +7°C	6.72	5.46
Cdh Tj = +7 °C	0.900	0.900
Pdh Tj = 12°C	5.08 kW	4.79 kW
COP Tj = 12°C	8.35	6.90
Cdh Tj = +12 °C	0.900	0.900
Pdh Tj = Tbiv	7.48 kW	5.98 kW
COP Tj = Tbiv	3.12	2.36
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	6.26 kW	6.74 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.16	1.65
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	0.900	0.900
WTOL	80 °C	80 °C
Poff	18 W	18 W
PTO	18 W	18 W
PSB	18 W	18 W
PCK	0 W	0 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	2.24 kW	0.06 kW
Annual energy consumption Qhe	3647 kWh	3650 kWh

## Model AW12NHVGHA+HU162F20AHYAE3

Model name	AW12NHVGHA+HU162F20AHYAE3
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	3x230V 50Hz
Off-peak product	n/a

## Outdoor Air/Water

### EN 16147 | Average Climate

Declared load profile	L
Efficiency $\eta_{DHW}$	140 %
COP	3.10
Heating up time	1:35 h:min
Standby power input	72.0 W
Reference hot water temperature	52.5 °C
Mixed water at 40°C	260 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	12.00 kW	11.50 kW
El input	2.35 kW	3.48 kW
COP	5.10	3.30

### EN 12102-1 | Average Climate

	Low temperature	Medium temperature
Sound power level indoor	42 dB(A)	42 dB(A)
Sound power level outdoor	63 dB(A)	66 dB(A)

### EN 14825 | Average Climate

	Low temperature	Medium temperature
$\eta_s$	190 %	151 %

Prated	8.50 kW	6.80 kW
SCOP	4.82	3.85
Tbiv	-7 °C	-7 °C
TOL	-25 °C	-25 °C
Pdh Tj = -7°C	7.48 kW	5.98 kW
COP Tj = -7°C	3.12	2.36
Cdh Tj = -7 °C	0.900	0.900
Pdh Tj = +2°C	4.59 kW	3.67 kW
COP Tj = +2°C	4.60	3.75
Cdh Tj = +2 °C	0.900	0.900
Pdh Tj = +7°C	2.98 kW	2.38 kW
COP Tj = +7°C	6.72	5.46
Cdh Tj = +7 °C	0.900	0.900
Pdh Tj = 12°C	5.08 kW	4.79 kW
COP Tj = 12°C	8.35	6.90
Cdh Tj = +12 °C	0.900	0.900
Pdh Tj = Tbiv	7.48 kW	5.98 kW
COP Tj = Tbiv	3.12	2.36
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	6.26 kW	6.74 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.16	1.65
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	0.900	0.900
WTOL	80 °C	80 °C
Poff	18 W	18 W
PTO	18 W	18 W
PSB	18 W	18 W
PCK	0 W	0 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	2.24 kW	0.06 kW
Annual energy consumption Qhe	3647 kWh	3650 kWh

## Model AW142HVGHA+HU162WAHYA

Model name	AW142HVGHA+HU162WAHYA
Application	Heating (medium 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 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	14.00 kW	13.50 kW
El input	2.83 kW	4.22 kW
COP	4.95	3.20

### EN 12102-1 | Average Climate

	Low temperature	Medium temperature
Sound power level indoor	42 dB(A)	42 dB(A)
Sound power level outdoor	64 dB(A)	67 dB(A)

### EN 14825 | Average Climate

	Low temperature	Medium temperature
$\eta_s$	189 %	150 %
Prated	8.50 kW	6.80 kW
SCOP	4.80	3.83
Tbiv	-7 °C	-7 °C
TOL	-25 °C	-25 °C
Pdh Tj = -7°C	7.48 kW	5.98 kW
COP Tj = -7°C	3.12	2.36
Cdh Tj = -7 °C	0.900	0.900
Pdh Tj = +2°C	4.59 kW	3.67 kW
COP Tj = +2°C	4.64	3.69
Cdh Tj = +2 °C	0.900	0.900

Pdh Tj = +7°C	2.98 kW	2.38 kW
COP Tj = +7°C	6.75	5.46
Cdh Tj = +7 °C	0.900	0.900
Pdh Tj = 12°C	5.08 kW	4.79 kW
COP Tj = 12°C	8.39	6.76
Cdh Tj = +12 °C	0.900	0.900
Pdh Tj = Tbiv	7.48 kW	5.98 kW
COP Tj = Tbiv	3.12	2.36
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	6.26 kW	6.74 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.17	1.64
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	0.900	0.900
WTOL	80 °C	80 °C
Poff	18 W	18 W
PTO	18 W	18 W
PSB	18 W	18 W
PCK	0 W	0 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	2.24 kW	0.06 kW
Annual energy consumption Qhe	3662 kWh	3669 kWh

## Model AW142HVGHA+HU162WAHYB

Model name	AW142HVGHA+HU162WAHYB
Application	Heating (medium 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 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	14.00 kW	13.50 kW
El input	2.83 kW	4.22 kW
COP	4.95	3.20

### EN 12102-1 | Average Climate

	Low temperature	Medium temperature
Sound power level indoor	42 dB(A)	42 dB(A)
Sound power level outdoor	64 dB(A)	67 dB(A)

### EN 14825 | Average Climate

	Low temperature	Medium temperature
$\eta_s$	189 %	150 %
Prated	8.50 kW	6.80 kW
SCOP	4.80	3.83
Tbiv	-7 °C	-7 °C
TOL	-25 °C	-25 °C
Pdh Tj = -7°C	7.48 kW	5.98 kW
COP Tj = -7°C	3.12	2.36
Cdh Tj = -7 °C	0.900	0.900
Pdh Tj = +2°C	4.59 kW	3.67 kW
COP Tj = +2°C	4.64	3.69
Cdh Tj = +2 °C	0.900	0.900



Pdh Tj = +7°C	2.98 kW	2.38 kW
COP Tj = +7°C	6.75	5.46
Cdh Tj = +7 °C	0.900	0.900
Pdh Tj = 12°C	5.08 kW	4.79 kW
COP Tj = 12°C	8.39	6.76
Cdh Tj = +12 °C	0.900	0.900
Pdh Tj = Tbiv	7.48 kW	5.98 kW
COP Tj = Tbiv	3.12	2.36
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	6.26 kW	6.74 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.17	1.64
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	0.900	0.900
WTOL	80 °C	80 °C
Poff	18 W	18 W
PTO	18 W	18 W
PSB	18 W	18 W
PCK	0 W	0 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	2.24 kW	0.06 kW
Annual energy consumption Qhe	3662 kWh	3669 kWh

## Model AW14NHVGHA+HU16NWAHYAE3

Model name	AW14NHVGHA+HU16NWAHYAE3
Application	Heating (medium 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	3x230V 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	14.00 kW	13.50 kW
El input	2.83 kW	4.22 kW
COP	4.95	3.20

#### EN 12102-1 | Average Climate

	Low temperature	Medium temperature
Sound power level indoor	42 dB(A)	42 dB(A)
Sound power level outdoor	64 dB(A)	67 dB(A)

#### EN 14825 | Average Climate

	Low temperature	Medium temperature
$\eta_s$	189 %	150 %
Prated	8.50 kW	6.80 kW
SCOP	4.80	3.83
Tbiv	-7 °C	-7 °C
TOL	-25 °C	-25 °C
Pdh Tj = -7°C	7.48 kW	5.98 kW
COP Tj = -7°C	3.12	2.36
Cdh Tj = -7 °C	0.900	0.900
Pdh Tj = +2°C	4.59 kW	3.67 kW
COP Tj = +2°C	4.64	3.69
Cdh Tj = +2 °C	0.900	0.900

Pdh Tj = +7°C	2.98 kW	2.38 kW
COP Tj = +7°C	6.75	5.46
Cdh Tj = +7 °C	0.900	0.900
Pdh Tj = 12°C	5.08 kW	4.79 kW
COP Tj = 12°C	8.39	6.76
Cdh Tj = +12 °C	0.900	0.900
Pdh Tj = Tbiv	7.48 kW	5.98 kW
COP Tj = Tbiv	3.12	2.36
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	6.26 kW	6.74 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.17	1.64
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	0.900	0.900
WTOL	80 °C	80 °C
Poff	18 W	18 W
PTO	18 W	18 W
PSB	18 W	18 W
PCK	0 W	0 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	2.24 kW	0.06 kW
Annual energy consumption Qhe	3662 kWh	3669 kWh

## Model AW14NHVGHA+HU16NWAHYBE3

Model name	AW14NHVGHA+HU16NWAHYBE3
Application	Heating (medium 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	3x230V 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	14.00 kW	13.50 kW
El input	2.83 kW	4.22 kW
COP	4.95	3.20

#### EN 12102-1 | Average Climate

	Low temperature	Medium temperature
Sound power level indoor	42 dB(A)	42 dB(A)
Sound power level outdoor	64 dB(A)	67 dB(A)

#### EN 14825 | Average Climate

	Low temperature	Medium temperature
$\eta_s$	189 %	150 %
Prated	8.50 kW	6.80 kW
SCOP	4.80	3.83
Tbiv	-7 °C	-7 °C
TOL	-25 °C	-25 °C
Pdh Tj = -7°C	7.48 kW	5.98 kW
COP Tj = -7°C	3.12	2.36
Cdh Tj = -7 °C	0.900	0.900
Pdh Tj = +2°C	4.59 kW	3.67 kW
COP Tj = +2°C	4.64	3.69
Cdh Tj = +2 °C	0.900	0.900

Pdh Tj = +7°C	2.98 kW	2.38 kW
COP Tj = +7°C	6.75	5.46
Cdh Tj = +7 °C	0.900	0.900
Pdh Tj = 12°C	5.08 kW	4.79 kW
COP Tj = 12°C	8.39	6.76
Cdh Tj = +12 °C	0.900	0.900
Pdh Tj = Tbiv	7.48 kW	5.98 kW
COP Tj = Tbiv	3.12	2.36
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	6.26 kW	6.74 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.17	1.64
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	0.900	0.900
WTOL	80 °C	80 °C
Poff	18 W	18 W
PTO	18 W	18 W
PSB	18 W	18 W
PCK	0 W	0 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	2.24 kW	0.06 kW
Annual energy consumption Qhe	3662 kWh	3669 kWh

## Model AW142HVGHA+HU162F20AHYA

Model name	AW142HVGHA+HU162F20AHYA
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 | Average Climate

Declared load profile	L
Efficiency $\eta_{DHW}$	140 %
COP	3.10
Heating up time	1:35 h:min
Standby power input	72.0 W
Reference hot water temperature	52.5 °C
Mixed water at 40°C	260 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	14.00 kW	13.50 kW
El input	2.83 kW	4.22 kW
COP	4.95	3.20

### EN 12102-1 | Average Climate

	Low temperature	Medium temperature
Sound power level indoor	42 dB(A)	42 dB(A)
Sound power level outdoor	64 dB(A)	67 dB(A)

### EN 14825 | Average Climate

	Low temperature	Medium temperature
$\eta_s$	189 %	150 %

Prated	8.50 kW	6.80 kW
SCOP	4.80	3.83
Tbiv	-7 °C	-7 °C
TOL	-25 °C	-25 °C
Pdh Tj = -7°C	7.48 kW	5.98 kW
COP Tj = -7°C	3.12	2.36
Cdh Tj = -7 °C	0.900	0.900
Pdh Tj = +2°C	4.59 kW	3.67 kW
COP Tj = +2°C	4.64	3.69
Cdh Tj = +2 °C	0.900	0.900
Pdh Tj = +7°C	2.98 kW	2.38 kW
COP Tj = +7°C	6.75	5.46
Cdh Tj = +7 °C	0.900	0.900
Pdh Tj = 12°C	5.08 kW	4.79 kW
COP Tj = 12°C	8.39	6.76
Cdh Tj = +12 °C	0.900	0.900
Pdh Tj = Tbiv	7.48 kW	5.98 kW
COP Tj = Tbiv	3.12	2.36
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	6.26 kW	6.74 kW
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Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	0.900	0.900
WTOL	80 °C	80 °C
Poff	18 W	18 W
PTO	18 W	18 W
PSB	18 W	18 W
PCK	0 W	0 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	2.24 kW	0.06 kW
Annual energy consumption Qhe	3662 kWh	3669 kWh

## Model AW14NHVGHA+HU162F20AHYAE3

Model name	AW14NHVGHA+HU162F20AHYAE3
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	3x230V 50Hz
Off-peak product	n/a

## Outdoor Air/Water

### EN 16147 | Average Climate

Declared load profile	L
Efficiency $\eta_{DHW}$	140 %
COP	3.10
Heating up time	1:35 h:min
Standby power input	72.0 W
Reference hot water temperature	52.5 °C
Mixed water at 40°C	260 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	14.00 kW	13.50 kW
El input	2.83 kW	4.22 kW
COP	4.95	3.20

### EN 12102-1 | Average Climate

	Low temperature	Medium temperature
Sound power level indoor	42 dB(A)	42 dB(A)
Sound power level outdoor	64 dB(A)	67 dB(A)

### EN 14825 | Average Climate

	Low temperature	Medium temperature
$\eta_s$	189 %	150 %



Prated	8.50 kW	6.80 kW
SCOP	4.80	3.83
Tbiv	-7 °C	-7 °C
TOL	-25 °C	-25 °C
Pdh Tj = -7°C	7.48 kW	5.98 kW
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Cdh Tj = -7 °C	0.900	0.900
Pdh Tj = +2°C	4.59 kW	3.67 kW
COP Tj = +2°C	4.64	3.69
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Pdh Tj = +7°C	2.98 kW	2.38 kW
COP Tj = +7°C	6.75	5.46
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WTOL	80 °C	80 °C
Poff	18 W	18 W
PTO	18 W	18 W
PSB	18 W	18 W
PCK	0 W	0 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	2.24 kW	0.06 kW
Annual energy consumption Qhe	3662 kWh	3669 kWh