

## Subtype ASThermal i 12-16 series(1ph)

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Country	CN
Certification Body	DIN CERTCO Gesellschaft für Konformitätsbewertung mbH
Subtype title	ASThermal i 12-16 series(1ph)
Registration number	011-1W1022
Heat Pump Type	Outdoor Air/Water
Refrigerant	R290
Mass of Refrigerant	1.35 kg
Certification Date	18.03.2025
Testing basis	HP KEYMARK certification scheme rules rev. 14

## Model AMH-12R2

Model name	AMH-12R2
Application	Heating (medium temp)
Units	Outdoor
Climate zone (for heating)	Warmer, Warmer Climate
Reversibility	Yes
Cooling mode application (optional)	+7°C/12°C, +18°C/+23°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	12.34 kW	12.36 kW
El input	2.48 kW	3.89 kW
COP	4.98	3.19

### EN 14511-2 | Cooling

	+7°C/+12°C	+18°C/+23°C
El input	3.60 kW	2.65 kW
Cooling capacity	11.55	12.39
EER	3.21	4.67

### EN 12102-1 | Average Climate

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

### EN 14825 | Average Climate

	Low temperature	Medium temperature
$\eta_s$	187 %	145 %
Prated	12.36 kW	12.00 kW
SCOP	4.74	3.70
Tbiv	-7 °C	-7 °C
TOL	-10 °C	-10 °C

Pdh Tj = -7°C	10.93 kW	10.62 kW
COP Tj = -7°C	2.93	2.29
Cdh Tj = -7 °C	0.900	0.900
Pdh Tj = +2°C	6.95 kW	6.85 kW
COP Tj = +2°C	4.60	3.67
Cdh Tj = +2 °C	0.900	0.900
Pdh Tj = +7°C	5.03 kW	5.51 kW
COP Tj = +7°C	6.71	5.00
Cdh Tj = +7 °C	0.900	0.900
Pdh Tj = 12°C	6.05 kW	5.83 kW
COP Tj = 12°C	8.08	6.68
Cdh Tj = +12 °C	0.900	0.900
Pdh Tj = Tbiv	10.93 kW	10.62 kW
COP Tj = Tbiv	2.93	2.29
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	10.35 kW	9.80 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.72	2.02
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	0.900	0.900
WTOL	75 °C	75 °C
Poff	9 W	9 W
PTO	9 W	9 W
PSB	9 W	9 W
PCK	0 W	0 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	2.01 kW	2.21 kW
Annual energy consumption Qhe	5387 kWh	6695 kWh

#### EN 12102-1 | Warmer Climate

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

#### EN 14825 | Warmer Climate

	Low temperature	Medium temperature
ηs	254 %	189 %
Prated	11.83 kW	12.22 kW
SCOP	6.44	4.79
Tbiv	2 °C	2 °C
TOL	2 °C	2 °C
Pdh Tj = +2°C	11.83 kW	12.22 kW
COP Tj = +2°C	3.51	2.50
Cdh Tj = +2 °C	0.900	0.900
Pdh Tj = +7°C	7.93 kW	8.17 kW
COP Tj = +7°C	6.17	4.23
Cdh Tj = +7 °C	0.900	0.900

Pdh Tj = 12°C	6.04 kW	5.92 kW
COP Tj = 12°C	7.90	6.34
Cdh Tj = +12 °C	0.900	0.900
Pdh Tj = Tbiv	11.83 kW	12.20 kW
COP Tj = Tbiv	3.51	2.50
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	11.83 kW	12.20 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	3.51	2.50
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	0.900	0.900
WTOL	75 °C	75 °C
Poff	9 W	9 W
PTO	9 W	9 W
PSB	9 W	9 W
PCK	0 W	0 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	0.00 kW	0.00 kW
Annual energy consumption Qhe	2456 kWh	3410 kWh

#### EN 14825 | Cooling

	+7°C/+12°C	+18°C/+23°C
Pdesignc	11.55 kW	12.39 kW
SEER	5.44	7.08
Pdc Tj = 35°C	11.55 kW	12.39 kW
EER Tj = 35°C	3.21	4.67
Cdc Tj = 35 °C	0.900	0.900
Pdc Tj = 30°C	8.66 kW	9.53 kW
EER Tj = 30°C	4.79	6.92
Cdc Tj = 30 °C	0.900	0.900
Pdc Tj = 25°C	5.80 kW	6.06 kW
EER Tj = 25°C	6.53	7.75
Cdc Tj = 25 °C	0.900	0.900
Pdc Tj = 20°C	4.76 kW	6.03 kW
EER Tj = 20°C	6.41	8.58
Cdc Tj = 20 °C	0.900	0.900
Poff	9 W	9 W
PTO	0 W	0 W
PSB	9 W	9 W
PCK	0 W	0 W
Annual energy consumption Qce	1273 kWh	1050 kWh

## Model AMH-14R2

Model name	AMH-14R2
Application	Heating (medium temp)
Units	Outdoor
Climate zone (for heating)	Warmer, Warmer Climate
Reversibility	Yes
Cooling mode application (optional)	+7°C/12°C, +18°C/+23°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	14.24 kW	14.33 kW
El input	3.06 kW	4.64 kW
COP	4.65	3.09

### EN 14511-2 | Cooling

	+7°C/+12°C	+18°C/+23°C
El input	4.44 kW	3.21 kW
Cooling capacity	13.26	14.16
EER	2.99	4.42

### EN 12102-1 | Average Climate

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

### EN 14825 | Average Climate

	Low temperature	Medium temperature
$\eta_s$	187 %	146 %
Prated	13.76 kW	13.11 kW
SCOP	4.76	3.73
Tbiv	-7 °C	-7 °C
TOL	-10 °C	-10 °C

Pdh Tj = -7°C	12.17 kW	11.60 kW
COP Tj = -7°C	2.86	2.25
Cdh Tj = -7 °C	0.900	0.900
Pdh Tj = +2°C	7.58 kW	7.46 kW
COP Tj = +2°C	4.54	3.66
Cdh Tj = +2 °C	0.900	0.900
Pdh Tj = +7°C	5.12 kW	5.56 kW
COP Tj = +7°C	7.00	5.11
Cdh Tj = +7 °C	0.900	0.900
Pdh Tj = 12°C	6.03 kW	5.87 kW
COP Tj = 12°C	8.09	6.76
Cdh Tj = +12 °C	0.900	0.900
Pdh Tj = Tbiv	12.17 kW	11.60 kW
COP Tj = Tbiv	2.86	2.25
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	11.84 kW	10.63 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.62	2.04
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	0.900	0.900
WTOL	75 °C	75 °C
Poff	9 W	9 W
PTO	9 W	9 W
PSB	9 W	9 W
PCK	0 W	0 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	1.91 kW	2.48 kW
Annual energy consumption Qhe	5972 kWh	7264 kWh

#### EN 12102-1 | Warmer Climate

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

#### EN 14825 | Warmer Climate

	Low temperature	Medium temperature
ηs	251 %	189 %
Prated	12.92 kW	13.02 kW
SCOP	6.34	4.80
Tbiv	2 °C	2 °C
TOL	2 °C	2 °C
Pdh Tj = +2°C	12.92 kW	13.02 kW
COP Tj = +2°C	3.30	2.41
Cdh Tj = +2 °C	0.900	0.900
Pdh Tj = +7°C	8.46 kW	8.50 kW
COP Tj = +7°C	5.88	4.20
Cdh Tj = +7 °C	0.900	0.900

Pdh Tj = 12°C	6.04 kW	5.94 kW
COP Tj = 12°C	7.98	6.40
Cdh Tj = +12 °C	0.900	0.900
Pdh Tj = Tbiv	12.92 kW	13.02 kW
COP Tj = Tbiv	3.30	2.41
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	12.92 kW	13.02 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	3.30	2.41
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	0.900	0.900
WTOL	75 °C	75 °C
Poff	9 W	9 W
PTO	9 W	9 W
PSB	9 W	9 W
PCK	0 W	0 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	0.00 kW	0.00 kW
Annual energy consumption Qhe	2722 kWh	3622 kWh

#### EN 14825 | Cooling

	+7°C/+12°C	+18°C/+23°C
Pdesignc	13.26 kW	14.16 kW
SEER	5.30	7.25
Pdc Tj = 35°C	13.26 kW	14.16 kW
EER Tj = 35°C	2.99	4.42
Cdc Tj = 35 °C	0.900	0.900
Pdc Tj = 30°C	9.96 kW	10.79 kW
EER Tj = 30°C	4.51	6.58
Cdc Tj = 30 °C	0.900	0.900
Pdc Tj = 25°C	6.42 kW	6.85 kW
EER Tj = 25°C	6.33	8.46
Cdc Tj = 25 °C	0.900	0.900
Pdc Tj = 20°C	4.82 kW	6.06 kW
EER Tj = 20°C	6.50	8.60
Cdc Tj = 20 °C	0.900	0.900
Poff	9 W	9 W
PTO	0 W	0 W
PSB	9 W	9 W
PCK	0 W	0 W
Annual energy consumption Qce	1501 kWh	1172 kWh

## Model AMH-16R2

Model name	AMH-16R2
Application	Heating (medium temp)
Units	Outdoor
Climate zone (for heating)	Warmer, Warmer Climate
Reversibility	Yes
Cooling mode application (optional)	+7°C/12°C, +18°C/+23°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	15.30 kW	15.53 kW
El input	3.37 kW	5.15 kW
COP	4.54	3.02

### EN 14511-2 | Cooling

	+7°C/+12°C	+18°C/+23°C
El input	5.05 kW	3.89 kW
Cooling capacity	14.48	16.29
EER	2.87	4.19

### EN 12102-1 | Average Climate

	Low temperature	Medium temperature
Sound power level outdoor	65 dB(A)	65 dB(A)

### EN 14825 | Average Climate

	Low temperature	Medium temperature
$\eta_s$	187 %	146 %
Prated	15.00 kW	14.55 kW
SCOP	4.75	3.72
Tbiv	-7 °C	-7 °C
TOL	-10 °C	-10 °C

Pdh Tj = -7°C	13.26 kW	12.87 kW
COP Tj = -7°C	2.75	2.17
Cdh Tj = -7 °C	0.900	0.900
Pdh Tj = +2°C	8.23 kW	8.33 kW
COP Tj = +2°C	4.51	3.63
Cdh Tj = +2 °C	0.900	0.900
Pdh Tj = +7°C	5.42 kW	5.35 kW
COP Tj = +7°C	7.26	5.30
Cdh Tj = +7 °C	0.900	0.900
Pdh Tj = 12°C	6.04 kW	5.89 kW
COP Tj = 12°C	8.13	6.81
Cdh Tj = +12 °C	0.900	0.900
Pdh Tj = Tbiv	13.26 kW	12.87 kW
COP Tj = Tbiv	2.75	2.17
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	12.55 kW	11.40 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.56	2.01
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	0.900	0.900
WTOL	75 °C	75 °C
Poff	9 W	9 W
PTO	9 W	9 W
PSB	9 W	9 W
PCK	0 W	0 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	2.44 kW	3.15 kW
Annual energy consumption Qhe	6518 kWh	8071 kWh

#### EN 12102-1 | Warmer Climate

	Low temperature	Medium temperature
Sound power level outdoor	65 dB(A)	65 dB(A)

#### EN 14825 | Warmer Climate

	Low temperature	Medium temperature
ηs	252 %	191 %
Prated	14.04 kW	13.55 kW
SCOP	6.37	4.85
Tbiv	2 °C	2 °C
TOL	2 °C	2 °C
Pdh Tj = +2°C	14.04 kW	13.55 kW
COP Tj = +2°C	3.17	2.39
Cdh Tj = +2 °C	0.900	0.900
Pdh Tj = +7°C	9.15 kW	8.86 kW
COP Tj = +7°C	5.86	4.23
Cdh Tj = +7 °C	0.900	0.900

Pdh Tj = 12°C	6.05 kW	5.95 kW
COP Tj = 12°C	8.03	6.46
Cdh Tj = +12 °C	0.900	0.900
Pdh Tj = Tbiv	14.04 kW	13.55 kW
COP Tj = Tbiv	3.17	2.39
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	14.04 kW	13.55 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	3.17	2.39
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	0.900	0.900
WTOL	75 °C	75 °C
Poff	9 W	9 W
PTO	9 W	9 W
PSB	9 W	9 W
PCK	0 W	0 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	0.00 kW	0.00 kW
Annual energy consumption Qhe	2945 kWh	3733 kWh

#### EN 14825 | Cooling

	+7°C/+12°C	+18°C/+23°C
Pdesignc	14.50 kW	16.29 kW
SEER	5.30	6.96
Pdc Tj = 35°C	14.50 kW	16.29 kW
EER Tj = 35°C	2.87	4.19
Cdc Tj = 35 °C	0.900	0.900
Pdc Tj = 30°C	10.96 kW	12.32 kW
EER Tj = 30°C	4.48	6.16
Cdc Tj = 30 °C	0.900	0.900
Pdc Tj = 25°C	7.05 kW	7.82 kW
EER Tj = 25°C	6.16	7.91
Cdc Tj = 25 °C	0.900	0.900
Pdc Tj = 20°C	5.21 kW	6.10 kW
EER Tj = 20°C	6.95	8.68
Cdc Tj = 20 °C	0.900	0.900
Poff	9 W	9 W
PTO	0 W	0 W
PSB	9 W	9 W
PCK	0 W	0 W
Annual energy consumption Qce	1643 kWh	1403 kWh

## Model AMH-12R2B3

Model name	AMH-12R2B3
Application	Heating (medium temp)
Units	Outdoor
Climate zone (for heating)	Warmer, Warmer Climate
Reversibility	Yes
Cooling mode application (optional)	+7°C/12°C, +18°C/+23°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	12.34 kW	12.36 kW
El input	2.48 kW	3.89 kW
COP	4.98	3.19

### EN 14511-2 | Cooling

	+7°C/+12°C	+18°C/+23°C
El input	3.60 kW	2.65 kW
Cooling capacity	11.55	12.39
EER	3.21	4.67

### EN 12102-1 | Average Climate

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

### EN 14825 | Average Climate

	Low temperature	Medium temperature
$\eta_s$	187 %	145 %
Prated	12.36 kW	12.00 kW
SCOP	4.74	3.70
Tbiv	-7 °C	-7 °C
TOL	-10 °C	-10 °C

Pdh Tj = -7°C	10.93 kW	10.62 kW
COP Tj = -7°C	2.93	2.29
Cdh Tj = -7 °C	0.900	0.900
Pdh Tj = +2°C	6.95 kW	6.85 kW
COP Tj = +2°C	4.60	3.67
Cdh Tj = +2 °C	0.900	0.900
Pdh Tj = +7°C	5.03 kW	5.51 kW
COP Tj = +7°C	6.71	5.00
Cdh Tj = +7 °C	0.900	0.900
Pdh Tj = 12°C	6.05 kW	5.83 kW
COP Tj = 12°C	8.08	6.68
Cdh Tj = +12 °C	0.900	0.900
Pdh Tj = Tbiv	10.93 kW	10.62 kW
COP Tj = Tbiv	2.93	2.29
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	10.35 kW	9.80 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.72	2.02
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	0.900	0.900
WTOL	75 °C	75 °C
Poff	9 W	9 W
PTO	9 W	9 W
PSB	9 W	9 W
PCK	0 W	0 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	2.01 kW	2.21 kW
Annual energy consumption Qhe	5387 kWh	6695 kWh

#### EN 12102-1 | Warmer Climate

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

#### EN 14825 | Warmer Climate

	Low temperature	Medium temperature
ηs	254 %	189 %
Prated	11.83 kW	12.22 kW
SCOP	6.44	4.79
Tbiv	2 °C	2 °C
TOL	2 °C	2 °C
Pdh Tj = +2°C	11.83 kW	12.22 kW
COP Tj = +2°C	3.51	2.50
Cdh Tj = +2 °C	0.900	0.900
Pdh Tj = +7°C	7.93 kW	8.17 kW
COP Tj = +7°C	6.17	4.23
Cdh Tj = +7 °C	0.900	0.900

Pdh Tj = 12°C	6.04 kW	5.92 kW
COP Tj = 12°C	7.90	6.34
Cdh Tj = +12 °C	0.900	0.900
Pdh Tj = Tbiv	11.83 kW	12.20 kW
COP Tj = Tbiv	3.51	2.50
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	11.83 kW	12.20 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	3.51	2.50
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	0.900	0.900
WTOL	75 °C	75 °C
Poff	9 W	9 W
PTO	9 W	9 W
PSB	9 W	9 W
PCK	0 W	0 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	0.00 kW	0.00 kW
Annual energy consumption Qhe	2456 kWh	3410 kWh

#### EN 14825 | Cooling

	+7°C/+12°C	+18°C/+23°C
Pdesignc	11.55 kW	12.39 kW
SEER	5.44	7.08
Pdc Tj = 35°C	11.55 kW	12.39 kW
EER Tj = 35°C	3.21	4.67
Cdc Tj = 35 °C	0.900	0.900
Pdc Tj = 30°C	8.66 kW	9.53 kW
EER Tj = 30°C	4.79	6.92
Cdc Tj = 30 °C	0.900	0.900
Pdc Tj = 25°C	5.80 kW	6.06 kW
EER Tj = 25°C	6.53	7.75
Cdc Tj = 25 °C	0.900	0.900
Pdc Tj = 20°C	4.76 kW	6.03 kW
EER Tj = 20°C	6.41	8.58
Cdc Tj = 20 °C	0.900	0.900
Poff	9 W	9 W
PTO	0 W	0 W
PSB	9 W	9 W
PCK	0 W	0 W
Annual energy consumption Qce	1273 kWh	1050 kWh

## Model AMH-14R2B3

Model name	AMH-14R2B3
Application	Heating (medium temp)
Units	Outdoor
Climate zone (for heating)	Warmer, Warmer Climate
Reversibility	Yes
Cooling mode application (optional)	+7°C/12°C, +18°C/+23°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	14.24 kW	14.33 kW
El input	3.06 kW	4.64 kW
COP	4.65	3.09

### EN 14511-2 | Cooling

	+7°C/+12°C	+18°C/+23°C
El input	4.44 kW	3.21 kW
Cooling capacity	13.26	14.16
EER	2.99	4.42

### EN 12102-1 | Average Climate

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

### EN 14825 | Average Climate

	Low temperature	Medium temperature
$\eta_s$	187 %	146 %
Prated	13.76 kW	13.11 kW
SCOP	4.76	3.73
Tbiv	-7 °C	-7 °C
TOL	-10 °C	-10 °C

Pdh Tj = -7°C	12.17 kW	11.60 kW
COP Tj = -7°C	2.86	2.25
Cdh Tj = -7 °C	0.900	0.900
Pdh Tj = +2°C	7.58 kW	7.46 kW
COP Tj = +2°C	4.54	3.66
Cdh Tj = +2 °C	0.900	0.900
Pdh Tj = +7°C	5.12 kW	5.56 kW
COP Tj = +7°C	7.00	5.11
Cdh Tj = +7 °C	0.900	0.900
Pdh Tj = 12°C	6.03 kW	5.87 kW
COP Tj = 12°C	8.09	6.76
Cdh Tj = +12 °C	0.900	0.900
Pdh Tj = Tbiv	12.17 kW	11.60 kW
COP Tj = Tbiv	2.86	2.25
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	11.84 kW	10.63 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.62	2.04
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	0.900	0.900
WTOL	75 °C	75 °C
Poff	9 W	9 W
PTO	9 W	9 W
PSB	9 W	9 W
PCK	0 W	0 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	1.91 kW	2.48 kW
Annual energy consumption Qhe	5972 kWh	7264 kWh

#### EN 12102-1 | Warmer Climate

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

#### EN 14825 | Warmer Climate

	Low temperature	Medium temperature
ηs	251 %	189 %
Prated	12.92 kW	13.02 kW
SCOP	6.34	4.80
Tbiv	2 °C	2 °C
TOL	2 °C	2 °C
Pdh Tj = +2°C	12.92 kW	13.02 kW
COP Tj = +2°C	3.30	2.41
Cdh Tj = +2 °C	0.900	0.900
Pdh Tj = +7°C	8.46 kW	8.50 kW
COP Tj = +7°C	5.88	4.20
Cdh Tj = +7 °C	0.900	0.900

Pdh Tj = 12°C	6.04 kW	5.94 kW
COP Tj = 12°C	7.98	6.40
Cdh Tj = +12 °C	0.900	0.900
Pdh Tj = Tbiv	12.92 kW	13.02 kW
COP Tj = Tbiv	3.30	2.41
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	12.92 kW	13.02 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	3.30	2.41
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	0.900	0.900
WTOL	75 °C	75 °C
Poff	9 W	9 W
PTO	9 W	9 W
PSB	9 W	9 W
PCK	0 W	0 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	0.00 kW	0.00 kW
Annual energy consumption Qhe	2722 kWh	3622 kWh

#### EN 14825 | Cooling

	+7°C/+12°C	+18°C/+23°C
Pdesignc	13.26 kW	14.16 kW
SEER	5.30	7.25
Pdc Tj = 35°C	13.26 kW	14.16 kW
EER Tj = 35°C	2.99	4.42
Cdc Tj = 35 °C	0.900	0.900
Pdc Tj = 30°C	9.96 kW	10.79 kW
EER Tj = 30°C	4.51	6.58
Cdc Tj = 30 °C	0.900	0.900
Pdc Tj = 25°C	6.42 kW	6.85 kW
EER Tj = 25°C	6.33	8.46
Cdc Tj = 25 °C	0.900	0.900
Pdc Tj = 20°C	4.82 kW	6.06 kW
EER Tj = 20°C	6.50	8.60
Cdc Tj = 20 °C	0.900	0.900
Poff	9 W	9 W
PTO	0 W	0 W
PSB	9 W	9 W
PCK	0 W	0 W
Annual energy consumption Qce	1501 kWh	1172 kWh

## Model AMH-16R2B3

Model name	AMH-16R2B3
Application	Heating (medium temp)
Units	Outdoor
Climate zone (for heating)	Warmer, Warmer Climate
Reversibility	Yes
Cooling mode application (optional)	+7°C/12°C, +18°C/+23°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	15.30 kW	15.53 kW
El input	3.37 kW	5.15 kW
COP	4.54	3.02

### EN 14511-2 | Cooling

	+7°C/+12°C	+18°C/+23°C
El input	5.05 kW	3.89 kW
Cooling capacity	14.48	16.29
EER	2.87	4.19

### EN 12102-1 | Average Climate

	Low temperature	Medium temperature
Sound power level outdoor	65 dB(A)	65 dB(A)

### EN 14825 | Average Climate

	Low temperature	Medium temperature
$\eta_s$	187 %	146 %
Prated	15.00 kW	14.55 kW
SCOP	4.75	3.72
Tbiv	-7 °C	-7 °C
TOL	-10 °C	-10 °C

Pdh Tj = -7°C	13.26 kW	12.87 kW
COP Tj = -7°C	2.75	2.17
Cdh Tj = -7 °C	0.900	0.900
Pdh Tj = +2°C	8.23 kW	8.33 kW
COP Tj = +2°C	4.51	3.63
Cdh Tj = +2 °C	0.900	0.900
Pdh Tj = +7°C	5.42 kW	5.35 kW
COP Tj = +7°C	7.26	5.30
Cdh Tj = +7 °C	0.900	0.900
Pdh Tj = 12°C	6.04 kW	5.89 kW
COP Tj = 12°C	8.13	6.81
Cdh Tj = +12 °C	0.900	0.900
Pdh Tj = Tbiv	13.26 kW	12.87 kW
COP Tj = Tbiv	2.75	2.17
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	12.55 kW	11.40 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.56	2.01
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	0.900	0.900
WTOL	75 °C	75 °C
Poff	9 W	9 W
PTO	9 W	9 W
PSB	9 W	9 W
PCK	0 W	0 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	2.44 kW	3.15 kW
Annual energy consumption Qhe	6518 kWh	8071 kWh

#### EN 12102-1 | Warmer Climate

	Low temperature	Medium temperature
Sound power level outdoor	65 dB(A)	65 dB(A)

#### EN 14825 | Warmer Climate

	Low temperature	Medium temperature
ηs	252 %	191 %
Prated	14.04 kW	13.55 kW
SCOP	6.37	4.85
Tbiv	2 °C	2 °C
TOL	2 °C	2 °C
Pdh Tj = +2°C	14.04 kW	13.55 kW
COP Tj = +2°C	3.17	2.39
Cdh Tj = +2 °C	0.900	0.900
Pdh Tj = +7°C	9.15 kW	8.86 kW
COP Tj = +7°C	5.86	4.23
Cdh Tj = +7 °C	0.900	0.900

Pdh Tj = 12°C	6.05 kW	5.95 kW
COP Tj = 12°C	8.03	6.46
Cdh Tj = +12 °C	0.900	0.900
Pdh Tj = Tbiv	14.04 kW	13.55 kW
COP Tj = Tbiv	3.17	2.39
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	14.04 kW	13.55 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	3.17	2.39
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	0.900	0.900
WTOL	75 °C	75 °C
Poff	9 W	9 W
PTO	9 W	9 W
PSB	9 W	9 W
PCK	0 W	0 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	0.00 kW	0.00 kW
Annual energy consumption Qhe	2945 kWh	3733 kWh

#### EN 14825 | Cooling

	+7°C/+12°C	+18°C/+23°C
Pdesignc	14.50 kW	16.29 kW
SEER	5.30	6.96
Pdc Tj = 35°C	14.50 kW	16.29 kW
EER Tj = 35°C	2.87	4.19
Cdc Tj = 35 °C	0.900	0.900
Pdc Tj = 30°C	10.96 kW	12.32 kW
EER Tj = 30°C	4.48	6.16
Cdc Tj = 30 °C	0.900	0.900
Pdc Tj = 25°C	7.05 kW	7.82 kW
EER Tj = 25°C	6.16	7.91
Cdc Tj = 25 °C	0.900	0.900
Pdc Tj = 20°C	5.21 kW	6.10 kW
EER Tj = 20°C	6.95	8.68
Cdc Tj = 20 °C	0.900	0.900
Poff	9 W	9 W
PTO	0 W	0 W
PSB	9 W	9 W
PCK	0 W	0 W
Annual energy consumption Qce	1643 kWh	1403 kWh