

Subtype Monobloc ACHP-H series 12/14/16	5
Certificate Holder	Ningbo AUX Electric Co., Ltd
Address	1166 Mingguang North Road
ZIP	315191
City	Ningbo Zhejiang
Country	CN
Certification Body	DIN CERTCO Gesellschaft für Konformitätsbewertung mbH
Subtype title	Monobloc ACHP-H series 12/14/16
Registration number	011-1W0741
Heat Pump Type	Outdoor Air/Water
Refrigerant	R290
Mass of Refrigerant	1.35 kg
Certification Date	27.11.2023
Testing basis	European KEYMARK Scheme for Heat Pumps Version 12 (2023-03)



Model ACHP-H12/5R2HA-M		
Model name	ACHP-H12/5R2HA-M	
Application	Heating (medium temp)	
Units	Outdoor	
Climate zone (for heating)	Warmer	
Reversibility	Yes	
Cooling mode application (optional)	n/a	
Any additional heat sources	n/a	
General data		
Power supply	3x400V 50Hz	
Off-peak product	n/a	
Outdoor Air/Water		
EN 14511-4 Heating		
Shutting off the heat transfer medium flow		
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	12.00 kW
El input	2.45 kW	3.69 kW
СОР	4.90	3.25
EN 12102-1 Average Climate		
	Low temperature	Medium temperature
Sound power level outdoor	58 dB(A)	58 dB(A)
EN 14825 Average Climate		
	Low temperature	Medium temperature
ης	186 %	150 %
Prated	12.20 kW	12.00 kW
SCOP	4.72	3.82
Tbiv	-7 °C	-7 °C
TOL	-10 °C	-10 °C
Pdh Tj = -7° C	10.79 kW	10.62 kW
$COP Tj = -7^{\circ}C$	3.02	2.40
Cdh Tj = -7 °C	0.900	0.900
Pdh Tj = $+2^{\circ}$ C	6.57 kW	6.46 kW
$COP Tj = +2^{\circ}C$	4.50	3.67
Cdh Tj = +2 °C	0.900	0.900
Pdh $Tj = +7$ °C	4.22 kW	4.15 kW



$COP Tj = +7^{\circ}C$	6.60	5.18
Cdh Tj = +7 °C	0.900	0.900
Pdh Tj = 12°C	4.69 kW	4.12 kW
COP Tj = 12°C	9.38	7.60
Cdh Tj = +12 °C	0.900	0.900
Pdh Tj = Tbiv	10.79 kW	10.62 kW
COP Tj = Tbiv	3.02	2.40
Pdh $Tj = TOL$ or Pdh $Tj = Tdesignh$ if TOL	10.10 kW	9.16 kW
< Tdesignh		
COP Tj = TOL or COP Tj = Tdesignh if TOL	2.61	2.15
< Tdesignh		
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL	0.900	0.900
< Tdesignh	75.00	75.00
WTOL	75 °C	75 °C
Poff	2 W	2 W
PTO	30 W	30 W
PSB PSK	2 W	2 W
PCK	0 W	0 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	2.10 kW	2.84 kW
Annual energy consumption Qhe	5314 kWh	6477 kWh
EN 12102-1 Warmer Climate		
Sound power level outdoor	Low temperature 58 dB(A)	Medium temperature 58 dB(A)
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Sound power level outdoor	58 dB(A)	58 dB(A)
Sound power level outdoor EN 14825 Warmer Climate	58 dB(A) Low temperature	58 dB(A) Medium temperature
Sound power level outdoor EN 14825 Warmer Climate ηs	58 dB(A) Low temperature 254 %	58 dB(A) Medium temperature 174 %
Sound power level outdoor EN 14825 Warmer Climate ηs Prated	Low temperature 254 % 11.10 kW	Medium temperature 174 % 12.50 kW
Sound power level outdoor EN 14825 Warmer Climate	Low temperature 254 % 11.10 kW 6.42	Medium temperature 174 % 12.50 kW 4.42
Sound power level outdoor EN 14825 Warmer Climate ηs Prated SCOP Tbiv	58 dB(A) Low temperature 254 % 11.10 kW 6.42 7 °C	Medium temperature 174 % 12.50 kW 4.42 7 °C
Sound power level outdoor EN 14825 Warmer Climate ns Prated SCOP Tbiv TOL	58 dB(A) Low temperature 254 % 11.10 kW 6.42 7 °C 2 °C	58 dB(A) Medium temperature 174 % 12.50 kW 4.42 7 °C 2 °C
Sound power level outdoor EN 14825 Warmer Climate	58 dB(A) Low temperature 254 % 11.10 kW 6.42 7 °C 2 °C 10.90 kW	58 dB(A) Medium temperature 174 % 12.50 kW 4.42 7 °C 2 °C 12.30 kW
Sound power level outdoor EN 14825 Warmer Climate	58 dB(A) Low temperature 254 % 11.10 kW 6.42 7 °C 2 °C	58 dB(A) Medium temperature 174 % 12.50 kW 4.42 7 °C 2 °C 12.30 kW 2.31
Sound power level outdoor EN 14825 Warmer Climate ns Prated SCOP Tbiv TOL Pdh Tj = +2°C COP Tj = +2°C Cdh Tj = +2°C	58 dB(A) Low temperature 254 % 11.10 kW 6.42 7 °C 2 °C 10.90 kW 3.59 0.900	58 dB(A) Medium temperature 174 % 12.50 kW 4.42 7 °C 2 °C 12.30 kW 2.31 0.900
Sound power level outdoor EN 14825 Warmer Climate	58 dB(A) Low temperature 254 % 11.10 kW 6.42 7 °C 2 °C 10.90 kW 3.59	58 dB(A) Medium temperature 174 % 12.50 kW 4.42 7 °C 2 °C 12.30 kW 2.31
Sound power level outdoor EN 14825 Warmer Climate	58 dB(A) Low temperature 254 % 11.10 kW 6.42 7 °C 2 °C 10.90 kW 3.59 0.900 7.14 kW	58 dB(A) Medium temperature 174 % 12.50 kW 4.42 7 °C 2 °C 12.30 kW 2.31 0.900 8.04 kW
Sound power level outdoor EN 14825 Warmer Climate ns Prated SCOP Tbiv TOL Pdh Tj = +2°C COP Tj = +2°C Cdh Tj = +2°C Pdh Tj = +7°C COP Tj = +7°C	58 dB(A) Low temperature 254 % 11.10 kW 6.42 7 °C 2 °C 10.90 kW 3.59 0.900 7.14 kW 5.82	58 dB(A) Medium temperature 174 % 12.50 kW 4.42 7 °C 2 °C 12.30 kW 2.31 0.900 8.04 kW 3.82
Sound power level outdoor EN 14825 Warmer Climate ns Prated SCOP Tbiv TOL Pdh Tj = +2°C COP Tj = +2°C Cdh Tj = +2°C Pdh Tj = +7°C COP Tj = +7°C COP Tj = +7°C Cdh Tj = +7°C	58 dB(A) Low temperature 254 % 11.10 kW 6.42 7 °C 2 °C 10.90 kW 3.59 0.900 7.14 kW 5.82 0.900	58 dB(A) Medium temperature 174 % 12.50 kW 4.42 7 °C 2 °C 12.30 kW 2.31 0.900 8.04 kW 3.82 0.900
Sound power level outdoor EN 14825 Warmer Climate ns Prated SCOP Tbiv TOL Pdh Tj = +2°C COP Tj = +2°C Cdh Tj = +2°C Cdh Tj = +7°C COP Tj = +7°C COP Tj = +7°C Pdh Tj = 12°C	58 dB(A) Low temperature 254 % 11.10 kW 6.42 7 °C 2 °C 10.90 kW 3.59 0.900 7.14 kW 5.82 0.900 4.61 kW	58 dB(A) Medium temperature 174 % 12.50 kW 4.42 7 °C 2 °C 12.30 kW 2.31 0.900 8.04 kW 3.82 0.900 3.57 kW
Sound power level outdoor EN 14825 Warmer Climate ns Prated SCOP Tbiv TOL Pdh Tj = +2°C COP Tj = +2°C Cdh Tj = +2°C Pdh Tj = +7°C COP Tj = +7°C COP Tj = +7°C COP Tj = +7°C COP Tj = 12°C COP Tj = 12°C	58 dB(A) Low temperature 254 % 11.10 kW 6.42 7 °C 2 °C 10.90 kW 3.59 0.900 7.14 kW 5.82 0.900 4.61 kW 8.30	58 dB(A) Medium temperature 174 % 12.50 kW 4.42 7 °C 2 °C 12.30 kW 2.31 0.900 8.04 kW 3.82 0.900 3.57 kW 5.70
Sound power level outdoor EN 14825 Warmer Climate ns Prated SCOP Tbiv TOL Pdh Tj = +2°C COP Tj = +2°C Cdh Tj = +2°C Cdh Tj = +7°C COP Tj = +7°C Cdh Tj = +7°C Cdh Tj = +7°C Cdh Tj = +12°C Cdh Tj = 12°C Cdh Tj = +12°C	58 dB(A) Low temperature 254 % 11.10 kW 6.42 7 °C 2 °C 10.90 kW 3.59 0.900 7.14 kW 5.82 0.900 4.61 kW 8.30 0.900	58 dB(A) Medium temperature 174 % 12.50 kW 4.42 7 °C 2 °C 12.30 kW 2.31 0.900 8.04 kW 3.82 0.900 3.57 kW 5.70 0.900
Sound power level outdoor EN 14825 Warmer Climate ns Prated SCOP Tbiv TOL Pdh Tj = +2°C COP Tj = +2°C Cdh Tj = +2°C COP Tj = +7°C COP Tj = +7°C COP Tj = +7°C Cdh Tj = +12°C Cdh Tj = 12°C Cdh Tj = 12°C Cdh Tj = +12°C Pdh Tj = Tbiv	58 dB(A) Low temperature 254 % 11.10 kW 6.42 7 °C 2 °C 10.90 kW 3.59 0.900 7.14 kW 5.82 0.900 4.61 kW 8.30 0.900 7.14 kW	58 dB(A) Medium temperature 174 % 12.50 kW 4.42 7 °C 2 °C 12.30 kW 2.31 0.900 8.04 kW 3.82 0.900 3.57 kW 5.70 0.900 8.04 kW



COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	3.59	2.31
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	0.900	0.900
WTOL	75 °C	75 °C
Poff	2 W	2 W
PTO	30 W	30 W
PSB	2 W	2 W
PCK	0 W	0 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	0.20 kW	0.20 kW
Annual energy consumption Qhe	2308 kWh	3775 kWh



Model ACHP-H14/5R2HA-M		
Model name	ACHP-H14/5R2HA-M	
Application	Heating (medium temp)	
Units	Outdoor	
Climate zone (for heating)	Warmer	
Reversibility	Yes	
Cooling mode application (optional)	n/a	
Any additional heat sources	n/a	
General data		
Power supply	3x400V 50Hz	
Off-peak product	n/a	
Outdoor Air/Water		
EN 14511-4 Heating		
Shutting off the heat transfer medium flow		
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	14.00 kW
El input	2.92 kW	4.38 kW
СОР	4.80	3.20
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
ης	186 %	150 %
Prated	14.50 kW	14.00 kW
SCOP	4.72	3.82
Tbiv	-7 °C	-7 °C
ΓOL	-10 °C	-10 °C
Pdh Tj = -7°C	12.83 kW	12.38 kW
COP Tj = -7°C	3.00	2.40
Cdh Tj = -7 °C	0.900	0.900
Pdh Tj = +2°C	7.81 kW	7.54 kW
$COP Tj = +2^{\circ}C$	4.52	3.66
Cdh Tj = +2 °C	0.000	0.900
$Pdh Tj = +7^{\circ}C$	0.900	0.900





$COP Tj = +7^{\circ}C$	6.40	5.18
Cdh Tj = $+7$ °C	0.900	0.900
Pdh Tj = 12°C	4.68 kW	2.15 kW
COP Tj = 12°C	10.00	7.60
Cdh Tj = +12 °C	0.900	0.900
Pdh Tj = Tbiv	12.83 kW	12.38 kW
COP Tj = Tbiv	3.00	2.39
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	11.46 kW	10.50 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.73	2.13
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	0.900	0.900
WTOL	75 °C	75 °C
Poff	2 W	2 W
PTO	30 W	30 W
PSB	2 W	2 W
PCK	0 W	0 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	3.04 kW	3.50 kW
Annual energy consumption Qhe	6317 kWh	7563 kWh
EN 12102-1 Warmer Climate		
	Low tomporature	Modium tomporaturo
Sound nower level outdoor	Low temperature	Medium temperature
Sound power level outdoor	Low temperature 59 dB(A)	Medium temperature 59 dB(A)
Sound power level outdoor EN 14825 Warmer Climate	·	•
	59 dB(A) Low temperature	59 dB(A) Medium temperature
EN 14825 Warmer Climate	59 dB(A) Low temperature 259 %	59 dB(A) Medium temperature 178 %
EN 14825 Warmer Climate ηs Prated	Low temperature 259 % 12.10 kW	Medium temperature 178 % 13.70 kW
EN 14825 Warmer Climate ηs Prated SCOP	59 dB(A) Low temperature 259 % 12.10 kW 6.55	Medium temperature 178 % 13.70 kW 4.52
EN 14825 Warmer Climate ηs Prated SCOP Tbiv	59 dB(A) Low temperature 259 % 12.10 kW 6.55 7 °C	59 dB(A) Medium temperature 178 % 13.70 kW 4.52 7 °C
ηs Prated SCOP Tbiv TOL	59 dB(A) Low temperature 259 % 12.10 kW 6.55 7 °C 2 °C	59 dB(A) Medium temperature 178 % 13.70 kW 4.52 7 °C 2 °C
RN 14825 Warmer Climate ηs Prated SCOP Tbiv TOL Pdh Tj = +2°C	59 dB(A) Low temperature 259 % 12.10 kW 6.55 7 °C 2 °C 12.00 kW	59 dB(A) Medium temperature 178 % 13.70 kW 4.52 7 °C 2 °C 13.60 kW
ης Prated SCOP Tbiv TOL Pdh Tj = +2°C COP Tj = +2°C	59 dB(A) Low temperature 259 % 12.10 kW 6.55 7 °C 2 °C 12.00 kW 3.44	59 dB(A) Medium temperature 178 % 13.70 kW 4.52 7 °C 2 °C 13.60 kW 2.18
ης Prated SCOP Tbiv TOL Pdh Tj = +2°C COP Tj = +2°C Cdh Tj = +2°C	59 dB(A) Low temperature 259 % 12.10 kW 6.55 7 °C 2 °C 12.00 kW 3.44 0.900	59 dB(A) Medium temperature 178 % 13.70 kW 4.52 7 °C 2 °C 13.60 kW 2.18 0.900
RN 14825 Warmer Climate ης Prated SCOP Tbiv TOL Pdh Tj = +2°C COP Tj = +2°C Cdh Tj = +2°C Pdh Tj = +7°C	59 dB(A) Low temperature 259 % 12.10 kW 6.55 7 °C 2 °C 12.00 kW 3.44 0.900 7.78 kW	59 dB(A) Medium temperature 178 % 13.70 kW 4.52 7 °C 2 °C 13.60 kW 2.18 0.900 8.83 kW
ης Prated SCOP Tbiv TOL Pdh Tj = +2°C COP Tj = +2°C Cdh Tj = +2°C Pdh Tj = +7°C COP Tj = +7°C	59 dB(A) Low temperature 259 % 12.10 kW 6.55 7 °C 2 °C 12.00 kW 3.44 0.900 7.78 kW 5.84	59 dB(A) Medium temperature 178 % 13.70 kW 4.52 7 °C 2 °C 13.60 kW 2.18 0.900 8.83 kW 3.91
ης Prated SCOP Tbiv TOL Pdh Tj = +2°C COP Tj = +2°C Cdh Tj = +2°C Pdh Tj = +7°C COP Tj = +7°C Cdh Tj = +7°C	59 dB(A) Low temperature 259 % 12.10 kW 6.55 7 °C 2 °C 12.00 kW 3.44 0.900 7.78 kW 5.84 0.900	59 dB(A) Medium temperature 178 % 13.70 kW 4.52 7 °C 2 °C 13.60 kW 2.18 0.900 8.83 kW 3.91 0.900
RN 14825 Warmer Climate ης Prated SCOP Tbiv TOL Pdh Tj = +2°C COP Tj = +2°C Cdh Tj = +2°C Cdh Tj = +7°C COP Tj = +7°C COP Tj = +7°C Cdh Tj = +7°C Pdh Tj = +7°C Pdh Tj = 12°C	59 dB(A) Low temperature 259 % 12.10 kW 6.55 7 °C 2 °C 12.00 kW 3.44 0.900 7.78 kW 5.84 0.900 4.23 kW	59 dB(A) Medium temperature 178 % 13.70 kW 4.52 7 °C 2 °C 13.60 kW 2.18 0.900 8.83 kW 3.91 0.900 4.08 kW
ης Prated SCOP Tbiv TOL Pdh Tj = +2°C COP Tj = +2°C Cdh Tj = +2°C Pdh Tj = +7°C COP Tj = +7°C Cdh Tj = +7°C	59 dB(A) Low temperature 259 % 12.10 kW 6.55 7 °C 2 °C 12.00 kW 3.44 0.900 7.78 kW 5.84 0.900 4.23 kW 8.43	59 dB(A) Medium temperature 178 % 13.70 kW 4.52 7 °C 2 °C 13.60 kW 2.18 0.900 8.83 kW 3.91 0.900
RN 14825 Warmer Climate ης Prated SCOP Tbiv TOL Pdh Tj = +2°C COP Tj = +2°C Cdh Tj = +2°C Cdh Tj = +7°C COP Tj = +7°C COP Tj = +7°C Cdh Tj = +7°C Pdh Tj = +7°C Pdh Tj = 12°C	59 dB(A) Low temperature 259 % 12.10 kW 6.55 7 °C 2 °C 12.00 kW 3.44 0.900 7.78 kW 5.84 0.900 4.23 kW	59 dB(A) Medium temperature 178 % 13.70 kW 4.52 7 °C 2 °C 13.60 kW 2.18 0.900 8.83 kW 3.91 0.900 4.08 kW
ης Prated SCOP Tbiv TOL Pdh Tj = +2°C COP Tj = +2°C Cdh Tj = +2°C Pdh Tj = +7°C COP Tj = 12°C	59 dB(A) Low temperature 259 % 12.10 kW 6.55 7 °C 2 °C 12.00 kW 3.44 0.900 7.78 kW 5.84 0.900 4.23 kW 8.43	59 dB(A) Medium temperature 178 % 13.70 kW 4.52 7 °C 2 °C 13.60 kW 2.18 0.900 8.83 kW 3.91 0.900 4.08 kW 5.90
ης Prated SCOP Tbiv TOL Pdh Tj = +2°C COP Tj = +2°C Cdh Tj = +2°C Cdh Tj = +7°C COP Tj = +7°C COP Tj = +7°C COP Tj = +7°C Cdh Tj = +7°C Cdh Tj = +2°C Cdh Tj = +2°C Cdh Tj = +2°C	59 dB(A) Low temperature 259 % 12.10 kW 6.55 7 °C 2 °C 12.00 kW 3.44 0.900 7.78 kW 5.84 0.900 4.23 kW 8.43 0.900	59 dB(A) Medium temperature 178 % 13.70 kW 4.52 7 °C 2 °C 13.60 kW 2.18 0.900 8.83 kW 3.91 0.900 4.08 kW 5.90 0.900



COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	3.44	2.18
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	0.900	0.900
WTOL	75 °C	75 °C
Poff	2 W	2 W
PTO	30 W	30 W
PSB	2 W	2 W
PCK	0 W	0 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	0.10 kW	0.10 kW
Annual energy consumption Qhe	2463 kWh	4037 kWh



Model ACHP-H16/5R2HA-M		
Model name	ACHP-H16/5R2HA-M	
Application	Heating (medium temp)	
Units	Outdoor	
Climate zone (for heating)	Warmer	
Reversibility	Yes	
Cooling mode application (optional)	n/a	
Any additional heat sources	n/a	
General data		
Power supply	3x400V 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	15.10 kW	15.10 kW
El input	3.21 kW	4.79 kW
COP	4.70	3.15
EN 12102-1 Average Climate		
	Low temperature	Medium temperature
Sound power level outdoor	60 dB(A)	60 dB(A)
EN 14825 Average Climate		
	Low temperature	Medium temperature
ης	188 %	150 %
Prated	15.50 kW	14.00 kW
SCOP	4.77	3.82
Tbiv	-7 °C	-7 °C
TOL	-10 °C	-10 °C
Pdh Tj = -7 °C COP Tj = -7 °C	13.71 kW 3.01	12.38 kW 2.27
Cdh Tj = -7 °C	0.900	0.900
Pdh Tj = $+2^{\circ}$ C	8.35 kW	7.54 kW
$COP Tj = +2^{\circ}C$	4.48	3.66
Cdh Tj = $+2$ °C	0.900	0.900
Pdh Tj = $+7^{\circ}$ C	5.37 kW	4.85 kW
•		



$COP Tj = +7^{\circ}C$	6.73	5.18
Cdh Tj = $+7$ °C	0.900	0.900
Pdh Tj = 12°C	2.38 kW	4.43 kW
COP Tj = 12°C	10.05	8.75
Cdh Tj = +12 °C	0.900	0.900
Pdh Tj = Tbiv	13.71 kW	12.38 kW
COP Tj = Tbiv	3.01	2.39
Pdh $Tj = TOL$ or Pdh $Tj = Tdesignh$ if TOL	13.42 kW	10.50 kW
< Tdesignh		
COP Tj = TOL or COP Tj = Tdesignh if TOL	2.78	2.13
< Tdesignh		
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL	0.900	0.900
< Tdesignh	75.00	75.00
WTOL	75 °C	75 °C
Poff	2 W	2 W
PTO	30 W	30 W
PSB	2 W	2 W
PCK	0 W	0 W
Supplementary Heater: Type of energy	Electricity	Electricity
input	2.00 LW	2.50.174
Supplementary Heater: PSUP	2.08 kW	3.50 kW
Annual energy consumption Qhe	6604 kWh	7563 kWh
EN 12102-1 Warmer Climate		
	Low temperature	Medium temperature
Sound power level outdoor	Low temperature 60 dB(A)	Medium temperature 60 dB(A)
Sound power level outdoor EN 14825 Warmer Climate	·	·
·	·	·
·	60 dB(A)	60 dB(A)
EN 14825 Warmer Climate	60 dB(A) Low temperature	60 dB(A) Medium temperature
EN 14825 Warmer Climate	60 dB(A) Low temperature 246 %	Medium temperature
EN 14825 Warmer Climate ηs Prated	Low temperature 246 % 13.10 kW	Medium temperature 176 % 13.80 kW
EN 14825 Warmer Climate ηs Prated SCOP	60 dB(A) Low temperature 246 % 13.10 kW 6.22	Medium temperature 176 % 13.80 kW 4.47
RN 14825 Warmer Climate ης Prated SCOP Tbiv	60 dB(A) Low temperature 246 % 13.10 kW 6.22 7 °C	60 dB(A) Medium temperature 176 % 13.80 kW 4.47 7 °C
RN 14825 Warmer Climate ηs Prated SCOP Tbiv TOL	60 dB(A) Low temperature 246 % 13.10 kW 6.22 7 °C 2 °C	60 dB(A) Medium temperature 176 % 13.80 kW 4.47 7 °C 2 °C
RN 14825 Warmer Climate ης Prated SCOP Tbiv TOL Pdh Tj = +2°C COP Tj = +2°C	60 dB(A) Low temperature 246 % 13.10 kW 6.22 7 °C 2 °C 12.97 kW	60 dB(A) Medium temperature 176 % 13.80 kW 4.47 7 °C 2 °C 13.67 kW
ης Prated SCOP Tbiv TOL Pdh Tj = +2°C COP Tj = +2°C Cdh Tj = +2°C	60 dB(A) Low temperature 246 % 13.10 kW 6.22 7 °C 2 °C 12.97 kW 3.35 0.900	60 dB(A) Medium temperature 176 % 13.80 kW 4.47 7 °C 2 °C 13.67 kW 2.25 0.900
ης Prated SCOP Tbiv TOL Pdh Tj = +2°C COP Tj = +2°C Cdh Tj = +2°C Pdh Tj = +7°C	60 dB(A) Low temperature 246 % 13.10 kW 6.22 7 °C 2 °C 12.97 kW 3.35 0.900 8.42 kW	60 dB(A) Medium temperature 176 % 13.80 kW 4.47 7 °C 2 °C 13.67 kW 2.25 0.900 8.87 kW
ης Prated SCOP Tbiv TOL Pdh Tj = +2°C COP Tj = +2°C Cdh Tj = +2°C Pdh Tj = +7°C COP Tj = +7°C	60 dB(A) Low temperature 246 % 13.10 kW 6.22 7 °C 2 °C 12.97 kW 3.35 0.900	60 dB(A) Medium temperature 176 % 13.80 kW 4.47 7 °C 2 °C 13.67 kW 2.25 0.900
ης Prated SCOP Tbiv TOL Pdh Tj = +2°C COP Tj = +2°C Cdh Tj = +7°C COP Tj = +7°C Cdh Tj = +7°C Cdh Tj = +7°C	60 dB(A) Low temperature 246 % 13.10 kW 6.22 7 °C 2 °C 12.97 kW 3.35 0.900 8.42 kW 5.31 0.900	Medium temperature 176 % 13.80 kW 4.47 7 °C 2 °C 13.67 kW 2.25 0.900 8.87 kW 3.80 0.900
ης Prated SCOP Tbiv TOL Pdh Tj = +2°C COP Tj = +2°C Cdh Tj = +2°C Chh Tj = +7°C COP Tj = +7°C COP Tj = +7°C Chh Tj = +7°C	60 dB(A) Low temperature 246 % 13.10 kW 6.22 7 °C 2 °C 12.97 kW 3.35 0.900 8.42 kW 5.31 0.900 4.29 kW	60 dB(A) Medium temperature 176 % 13.80 kW 4.47 7 °C 2 °C 13.67 kW 2.25 0.900 8.87 kW 3.80 0.900 3.94 kW
ης Prated SCOP Tbiv TOL Pdh Tj = +2°C COP Tj = +2°C Cdh Tj = +2°C Pdh Tj = +7°C COP Tj = 12°C COP Tj = 12°C	60 dB(A) Low temperature 246 % 13.10 kW 6.22 7 °C 2 °C 12.97 kW 3.35 0.900 8.42 kW 5.31 0.900 4.29 kW 8.23	Medium temperature 176 % 13.80 kW 4.47 7 °C 2 °C 13.67 kW 2.25 0.900 8.87 kW 3.80 0.900 3.94 kW 5.88
ης Prated SCOP Tbiv TOL Pdh Tj = +2°C COP Tj = +2°C Cdh Tj = +2°C Cdh Tj = +7°C COP Tj = +7°C COP Tj = +7°C COP Tj = +7°C Cdh Tj = +7°C Cdh Tj = +7°C Cdh Tj = +2°C Cdh Tj = +2°C	60 dB(A) Low temperature 246 % 13.10 kW 6.22 7 °C 2 °C 12.97 kW 3.35 0.900 8.42 kW 5.31 0.900 4.29 kW 8.23 0.900	Medium temperature 176 % 13.80 kW 4.47 7 °C 2 °C 13.67 kW 2.25 0.900 8.87 kW 3.80 0.900 3.94 kW 5.88 0.900
RN 14825 Warmer Climate ης Prated SCOP Tbiv TOL Pdh Tj = +2°C COP Tj = +2°C Cdh Tj = +2°C Cdh Tj = +7°C COP Tj = +7°C COP Tj = +7°C COP Tj = +7°C Cdh Tj = +7°C Cdh Tj = +7°C Pdh Tj = 12°C COP Tj = 12°C COP Tj = 12°C Cdh Tj = +12 °C Pdh Tj = Tbiv	60 dB(A) Low temperature 246 % 13.10 kW 6.22 7 °C 2 °C 12.97 kW 3.35 0.900 8.42 kW 5.31 0.900 4.29 kW 8.23 0.900 8.42 kW	Medium temperature 176 % 13.80 kW 4.47 7 °C 2 °C 13.67 kW 2.25 0.900 8.87 kW 3.80 0.900 3.94 kW 5.88 0.900 8.87 kW
ης Prated SCOP Tbiv TOL Pdh Tj = +2°C COP Tj = +2°C Cdh Tj = +2°C Cdh Tj = +7°C COP Tj = +7°C COP Tj = +7°C COP Tj = +7°C Cdh Tj = +7°C Cdh Tj = +7°C Cdh Tj = +2°C Cdh Tj = +2°C	60 dB(A) Low temperature 246 % 13.10 kW 6.22 7 °C 2 °C 12.97 kW 3.35 0.900 8.42 kW 5.31 0.900 4.29 kW 8.23 0.900	Medium temperature 176 % 13.80 kW 4.47 7 °C 2 °C 13.67 kW 2.25 0.900 8.87 kW 3.80 0.900 3.94 kW 5.88 0.900



Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh WTOL 75 °C 75 °C Poff 2 W PTO 30 W 30 W PSB 2 W 2 W PCK 0 W Supplementary Heater: Type of energy input Supplementary Heater: PSUP 0 13 kW 0 13 kW 0 13 kW 0 13 kW	COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	3.35	2.25
Poff 2 W 2 W PTO 30 W 30 W PSB 2 W 2 W PCK 0 W 0 W Supplementary Heater: Type of energy input		0.900	0.900
PTO 30 W 30 W PSB 2 W 2 W PCK 0 W 0 W Supplementary Heater: Type of energy input Electricity	WTOL	75 °C	75 °C
PSB 2 W 2 W PCK 0 W 0 W Supplementary Heater: Type of energy input Electricity Electricity	Poff	2 W	2 W
PCK 0 W 0 W Supplementary Heater: Type of energy input Electricity Electricity	PTO	30 W	30 W
Supplementary Heater: Type of energy Electricity Electricity input	PSB	2 W	2 W
input	PCK	0 W	0 W
Supplementary Heater: PSUP 0.13 kW 0.13 kW		Electricity	Electricity
Supplementary fleater. 1301 0.13 kW 0.13 kW	Supplementary Heater: PSUP	0.13 kW	0.13 kW
Annual energy consumption Qhe 2812 kWh 4118 kWh	Annual energy consumption Qhe	2812 kWh	4118 kWh



Model ACHP-H12/5R2HA-M(NE)		
Model name	ACHP-H12/5R2HA-M(NE)	
Application	Heating (medium temp)	
Units	Outdoor Warmer	
Climate zone (for heating) Reversibility	Yes	
Cooling mode application (optional)	n/a	
Any additional heat sources	n/a	
This dedication in the secure cos		
General data		
Power supply	3x400V 50Hz	
Off-peak product	n/a	
Outdoor Air/Water		
EN 14511-4 Heating		
Shutting off the heat transfer medium flow	•	
Complete power supply failure Defrost test	passed passed	
Starting and operating test	passed	
Starting and operating test	pusseu	
EN 14511-2 Heating		
	Low temperature	Medium temperature
Heat output	12.00 kW	12.00 kW
El input	2.45 kW	3.69 kW
СОР	4.90	3.25
EN 12102-1 Average Climate		
	Low temperature	Medium temperature
Sound power level outdoor	58 dB(A)	58 dB(A)
EN 14925 Average Climate		
EN 14825 Average Climate		
	Low temperature	Medium temperature
ης	186 %	150 %
Prated	12.20 kW	12.00 kW
SCOP Tbiv	4.72 -7 °C	3.82 -7 °C
TOL	-10 °C	-7 °C
Pdh Tj = -7°C	10.79 kW	10.62 kW
$COP Tj = -7^{\circ}C$	3.02	2.40
Cdh Tj = -7 °C	0.900	0.900
Pdh Tj = $+2^{\circ}$ C	6.57 kW	6.46 kW
$COPTj = +2^{\circ}C$	4.50	3.67
Cdh Tj = +2 °C	0.900	0.900
Pdh Tj = $+7$ °C	4.22 kW	4.15 kW
1 uii 1j = +7 C	T.LL NVV	T.17 VVV



$COP Tj = +7^{\circ}C$	6.60	5.18
Cdh Tj = $+7$ °C	0.900	0.900
Pdh Tj = 12°C	4.69 kW	4.12 kW
COP Tj = 12°C	9.38	7.60
Cdh Tj = +12 °C	0.900	0.900
Pdh Tj = Tbiv	10.79 kW	10.62 kW
COP Tj = Tbiv	3.02	2.40
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	10.10 kW	9.16 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.61	2.15
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	0.900	0.900
WTOL	75 °C	75 °C
Poff	2 W	2 W
PTO	30 W	30 W
PSB	2 W	2 W
PCK	0 W	0 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	2.10 kW	2.84 kW
Annual energy consumption Qhe	5314 kWh	6477 kWh
EN 12102-1 Warmer Climate		
Liv 12102-1 Warmer Climate	Law tanananah wa	Madissa towards and true
	Low temperature	Medium temperature
Sound power level outdoor	Low temperature 58 dB(A)	Medium temperature 58 dB(A)
	•	·
Sound power level outdoor	58 dB(A) Low temperature	·
Sound power level outdoor	58 dB(A)	58 dB(A)
Sound power level outdoor EN 14825 Warmer Climate	58 dB(A) Low temperature	58 dB(A) Medium temperature
Sound power level outdoor EN 14825 Warmer Climate ηs	Low temperature 254 % 11.10 kW 6.42	Medium temperature 174 % 12.50 kW 4.42
Sound power level outdoor EN 14825 Warmer Climate	58 dB(A) Low temperature 254 % 11.10 kW 6.42 7 °C	Medium temperature 174 % 12.50 kW 4.42 7 °C
Sound power level outdoor EN 14825 Warmer Climate ns Prated SCOP	Low temperature 254 % 11.10 kW 6.42	58 dB(A) Medium temperature 174 % 12.50 kW 4.42 7 °C 2 °C
Sound power level outdoor EN 14825 Warmer Climate	58 dB(A) Low temperature 254 % 11.10 kW 6.42 7 °C	Medium temperature 174 % 12.50 kW 4.42 7 °C
Sound power level outdoor EN 14825 Warmer Climate	58 dB(A) Low temperature 254 % 11.10 kW 6.42 7 °C 2 °C	58 dB(A) Medium temperature 174 % 12.50 kW 4.42 7 °C 2 °C
Sound power level outdoor EN 14825 Warmer Climate ns Prated SCOP Tbiv TOL Pdh Tj = +2°C	58 dB(A) Low temperature 254 % 11.10 kW 6.42 7 °C 2 °C 10.90 kW 3.59 0.900	58 dB(A) Medium temperature 174 % 12.50 kW 4.42 7 °C 2 °C 12.30 kW
Sound power level outdoor EN 14825 Warmer Climate	58 dB(A) Low temperature 254 % 11.10 kW 6.42 7 °C 2 °C 10.90 kW 3.59	58 dB(A) Medium temperature 174 % 12.50 kW 4.42 7 °C 2 °C 12.30 kW 2.31
Sound power level outdoor EN 14825 Warmer Climate	58 dB(A) Low temperature 254 % 11.10 kW 6.42 7 °C 2 °C 10.90 kW 3.59 0.900	58 dB(A) Medium temperature 174 % 12.50 kW 4.42 7 °C 2 °C 12.30 kW 2.31 0.900
Sound power level outdoor EN 14825 Warmer Climate ns Prated SCOP Tbiv TOL Pdh Tj = +2°C COP Tj = +2°C Cdh Tj = +2°C Cdh Tj = +7°C COP Tj = +7°C Cdh Tj = +7°C	58 dB(A) Low temperature 254 % 11.10 kW 6.42 7 °C 2 °C 10.90 kW 3.59 0.900 7.14 kW 5.82 0.900	58 dB(A) Medium temperature 174 % 12.50 kW 4.42 7 °C 2 °C 12.30 kW 2.31 0.900 8.04 kW 3.82 0.900
Sound power level outdoor EN 14825 Warmer Climate	58 dB(A) Low temperature 254 % 11.10 kW 6.42 7 °C 2 °C 10.90 kW 3.59 0.900 7.14 kW 5.82 0.900 4.61 kW	58 dB(A) Medium temperature 174 % 12.50 kW 4.42 7 °C 2 °C 12.30 kW 2.31 0.900 8.04 kW 3.82
Sound power level outdoor EN 14825 Warmer Climate ns Prated SCOP Tbiv TOL Pdh Tj = +2°C COP Tj = +2°C Cdh Tj = +2°C Cdh Tj = +7°C COP Tj = +7°C Cdh Tj = +7°C	58 dB(A) Low temperature 254 % 11.10 kW 6.42 7 °C 2 °C 10.90 kW 3.59 0.900 7.14 kW 5.82 0.900	58 dB(A) Medium temperature 174 % 12.50 kW 4.42 7 °C 2 °C 12.30 kW 2.31 0.900 8.04 kW 3.82 0.900
Sound power level outdoor EN 14825 Warmer Climate	58 dB(A) Low temperature 254 % 11.10 kW 6.42 7 °C 2 °C 10.90 kW 3.59 0.900 7.14 kW 5.82 0.900 4.61 kW	58 dB(A) Medium temperature 174 % 12.50 kW 4.42 7 °C 2 °C 12.30 kW 2.31 0.900 8.04 kW 3.82 0.900 3.57 kW
Sound power level outdoor EN 14825 Warmer Climate ns Prated SCOP Tbiv TOL Pdh Tj = +2°C COP Tj = +2°C Cdh Tj = +2°C COP Tj = +7°C COP Tj = +7°C COP Tj = +7°C COP Tj = +7°C COP Tj = 12°C	58 dB(A) Low temperature 254 % 11.10 kW 6.42 7 °C 2 °C 10.90 kW 3.59 0.900 7.14 kW 5.82 0.900 4.61 kW 8.30	58 dB(A) Medium temperature 174 % 12.50 kW 4.42 7 °C 2 °C 12.30 kW 2.31 0.900 8.04 kW 3.82 0.900 3.57 kW 5.70
Sound power level outdoor EN 14825 Warmer Climate ns Prated SCOP Tbiv TOL Pdh Tj = +2°C COP Tj = +2°C Cdh Tj = +2°C Cdh Tj = +7°C COP Tj = +7°C Cdh Tj = +7°C Cdh Tj = +7°C Cdh Tj = +12°C Cdh Tj = 12°C Cdh Tj = +12°C	58 dB(A) Low temperature 254 % 11.10 kW 6.42 7 °C 2 °C 10.90 kW 3.59 0.900 7.14 kW 5.82 0.900 4.61 kW 8.30 0.900	58 dB(A) Medium temperature 174 % 12.50 kW 4.42 7 °C 2 °C 12.30 kW 2.31 0.900 8.04 kW 3.82 0.900 3.57 kW 5.70 0.900



COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	3.59	2.31
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	0.900	0.900
WTOL	75 °C	75 °C
Poff	2 W	2 W
PTO	30 W	30 W
PSB	2 W	2 W
PCK	0 W	0 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	0.20 kW	0.20 kW
Annual energy consumption Qhe	2308 kWh	3775 kWh



Model ACHD H14/5D2HA M/NE)		
Model ACHP-H14/5R2HA-M(NE)	A CUID LITA (EDOLLA MANE)	
Model name Application	ACHP-H14/5R2HA-M(NE) Heating (medium temp)	
Units	Outdoor	
Climate zone (for heating)	Warmer	
Reversibility	Yes	
Cooling mode application (optional)	n/a	
Any additional heat sources	n/a	
General data		
	2400\/ 50\ -	
Power supply Off peak product	3x400V 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		
EN 11911 2 Heading		
Heat subsub	Low temperature 14.00 kW	Medium temperature 14.00 kW
Heat output El input	2.92 kW	4.38 kW
СОР	4.80	3.20
	4.00	3.20
EN 12102-1 Average Climate		
	Low temperature	Medium temperature
Sound power level outdoor	59 dB(A)	59 dB(A)
EN 14825 Average Climate		
, j	Low temperature	Medium temperature
ης	186 %	150 %
Prated	14.50 kW	14.00 kW
SCOP	4.72	3.82
Tbiv	-7 °C	-7 °C
TOL	-10 °C	-10 °C
Pdh $Tj = -7$ °C	12.83 kW	12.38 kW
$COP Tj = -7^{\circ}C$	3.00	2.40
Cdh Tj = -7 °C	0.900	0.900
Pdh Tj = $+2^{\circ}$ C	7.81 kW	7.54 kW
$COP Tj = +2^{\circ}C$	4.52	3.66 0.900
Cdh Tj = +2 °C	0.900	U.900
Pdh $T_i = +7^{\circ}C$	5.02 kW	4.85 kW



$COP Tj = +7^{\circ}C$	6.40	5.18
Cdh Tj = +7 °C	0.900	0.900
Pdh Tj = 12°C	4.68 kW	2.15 kW
COP Tj = 12°C	10.00	7.60
Cdh Tj = +12 °C	0.900	0.900
Pdh Tj = Tbiv	12.83 kW	12.38 kW
COP Tj = Tbiv	3.00	2.39
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL	11.46 kW	10.50 kW
< Tdesignh	22.10 KW	10.50 KH
COP Tj = TOL or COP Tj = Tdesignh if TOL	2.73	2.13
< Tdesignh		
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL	0.900	0.900
< Tdesignh		
WTOL	75 °C	75 °C
Poff	2 W	2 W
PTO	30 W	30 W
PSB	2 W	2 W
PCK	0 W	0 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	3.04 kW	3.50 kW
Annual energy consumption Qhe	6317 kWh	7563 kWh
EN 12102-1 Warmer Climate		
Sound power level outdoor	Low temperature 59 dB(A)	Medium temperature 59 dB(A)
	<u> </u>	·
Sound power level outdoor	59 dB(A)	59 dB(A)
Sound power level outdoor EN 14825 Warmer Climate	59 dB(A) Low temperature	59 dB(A) Medium temperature
Sound power level outdoor EN 14825 Warmer Climate ηs	59 dB(A) Low temperature 259 %	59 dB(A) Medium temperature 178 %
Sound power level outdoor EN 14825 Warmer Climate ηs Prated	Low temperature 259 % 12.10 kW	Medium temperature 178 % 13.70 kW
Sound power level outdoor EN 14825 Warmer Climate	59 dB(A) Low temperature 259 % 12.10 kW 6.55	Medium temperature 178 % 13.70 kW 4.52
Sound power level outdoor EN 14825 Warmer Climate	59 dB(A) Low temperature 259 % 12.10 kW 6.55 7 °C	59 dB(A) Medium temperature 178 % 13.70 kW 4.52 7 °C
Sound power level outdoor EN 14825 Warmer Climate ns Prated SCOP Tbiv TOL	59 dB(A) Low temperature 259 % 12.10 kW 6.55 7 °C 2 °C	59 dB(A) Medium temperature 178 % 13.70 kW 4.52 7 °C 2 °C
Sound power level outdoor EN 14825 Warmer Climate	59 dB(A) Low temperature 259 % 12.10 kW 6.55 7 °C 2 °C 12.00 kW	59 dB(A) Medium temperature 178 % 13.70 kW 4.52 7 °C 2 °C 13.60 kW
Sound power level outdoor EN 14825 Warmer Climate	59 dB(A) Low temperature 259 % 12.10 kW 6.55 7 °C 2 °C 12.00 kW 3.44	59 dB(A) Medium temperature 178 % 13.70 kW 4.52 7 °C 2 °C 13.60 kW 2.18
Sound power level outdoor EN 14825 Warmer Climate ns Prated SCOP Tbiv TOL Pdh Tj = +2°C COP Tj = +2°C Cdh Tj = +2°C	59 dB(A) Low temperature 259 % 12.10 kW 6.55 7 °C 2 °C 12.00 kW 3.44 0.900	59 dB(A) Medium temperature 178 % 13.70 kW 4.52 7 °C 2 °C 13.60 kW 2.18 0.900
Sound power level outdoor EN 14825 Warmer Climate	59 dB(A) Low temperature 259 % 12.10 kW 6.55 7 °C 2 °C 12.00 kW 3.44 0.900 7.78 kW	59 dB(A) Medium temperature 178 % 13.70 kW 4.52 7 °C 2 °C 13.60 kW 2.18 0.900 8.83 kW
Sound power level outdoor EN 14825 Warmer Climate ns Prated SCOP Tbiv TOL Pdh Tj = +2°C COP Tj = +2°C Cdh Tj = +2°C Pdh Tj = +7°C COP Tj = +7°C	59 dB(A) Low temperature 259 % 12.10 kW 6.55 7 °C 2 °C 12.00 kW 3.44 0.900 7.78 kW 5.84	59 dB(A) Medium temperature 178 % 13.70 kW 4.52 7 °C 2 °C 13.60 kW 2.18 0.900 8.83 kW 3.91
Sound power level outdoor EN 14825 Warmer Climate ns Prated SCOP Tbiv TOL Pdh Tj = +2°C COP Tj = +2°C Cdh Tj = +2°C Pdh Tj = +7°C COP Tj = +7°C COP Tj = +7°C Cdh Tj = +7°C	59 dB(A) Low temperature 259 % 12.10 kW 6.55 7 °C 2 °C 12.00 kW 3.44 0.900 7.78 kW 5.84 0.900	59 dB(A) Medium temperature 178 % 13.70 kW 4.52 7 °C 2 °C 13.60 kW 2.18 0.900 8.83 kW 3.91 0.900
Sound power level outdoor EN 14825 Warmer Climate ns Prated SCOP Tbiv TOL Pdh Tj = +2°C COP Tj = +2°C Cdh Tj = +2°C Cdh Tj = +7°C COP Tj = +7°C COP Tj = +7°C Pdh Tj = 12°C	59 dB(A) Low temperature 259 % 12.10 kW 6.55 7 °C 2 °C 12.00 kW 3.44 0.900 7.78 kW 5.84 0.900 4.23 kW	59 dB(A) Medium temperature 178 % 13.70 kW 4.52 7 °C 2 °C 13.60 kW 2.18 0.900 8.83 kW 3.91 0.900 4.08 kW
Sound power level outdoor EN 14825 Warmer Climate ns Prated SCOP Tbiv TOL Pdh Tj = +2°C COP Tj = +2°C Cdh Tj = +2°C Pdh Tj = +7°C COP Tj = +7°C COP Tj = +7°C COP Tj = 12°C COP Tj = 12°C	59 dB(A) Low temperature 259 % 12.10 kW 6.55 7 °C 2 °C 12.00 kW 3.44 0.900 7.78 kW 5.84 0.900 4.23 kW 8.43	59 dB(A) Medium temperature 178 % 13.70 kW 4.52 7 °C 2 °C 13.60 kW 2.18 0.900 8.83 kW 3.91 0.900 4.08 kW 5.90
Sound power level outdoor EN 14825 Warmer Climate ns Prated SCOP Tbiv TOL Pdh Tj = +2°C COP Tj = +2°C Cdh Tj = +2°C Cdh Tj = +7°C COP Tj = +7°C COP Tj = +7°C Cdh Tj = +7°C Cdh Tj = +7°C Cdh Tj = +12°C Cdh Tj = 12°C Cdh Tj = +12°C	59 dB(A) Low temperature 259 % 12.10 kW 6.55 7 °C 2 °C 12.00 kW 3.44 0.900 7.78 kW 5.84 0.900 4.23 kW 8.43 0.900	59 dB(A) Medium temperature 178 % 13.70 kW 4.52 7 °C 2 °C 13.60 kW 2.18 0.900 8.83 kW 3.91 0.900 4.08 kW 5.90 0.900
Sound power level outdoor EN 14825 Warmer Climate ns Prated SCOP Tbiv TOL Pdh Tj = +2°C COP Tj = +2°C Cdh Tj = +2°C COP Tj = +7°C COP Tj = +7°C COP Tj = +7°C Cdh Tj = +7°C Cdh Tj = +12°C Pdh Tj = 12°C Cdh Tj = +12°C Pdh Tj = Tbiv	59 dB(A) Low temperature 259 % 12.10 kW 6.55 7 °C 2 °C 12.00 kW 3.44 0.900 7.78 kW 5.84 0.900 4.23 kW 8.43 0.900 7.78 kW	59 dB(A) Medium temperature 178 % 13.70 kW 4.52 7 °C 2 °C 13.60 kW 2.18 0.900 8.83 kW 3.91 0.900 4.08 kW 5.90 0.900 8.83 kW
Sound power level outdoor EN 14825 Warmer Climate ns Prated SCOP Tbiv TOL Pdh Tj = +2°C COP Tj = +2°C Cdh Tj = +2°C Cdh Tj = +7°C COP Tj = +7°C Cdh Tj = +7°C Cdh Tj = +7°C Cdh Tj = +12°C Cdh Tj = 12°C Cdh Tj = +12°C	59 dB(A) Low temperature 259 % 12.10 kW 6.55 7 °C 2 °C 12.00 kW 3.44 0.900 7.78 kW 5.84 0.900 4.23 kW 8.43 0.900	59 dB(A) Medium temperature 178 % 13.70 kW 4.52 7 °C 2 °C 13.60 kW 2.18 0.900 8.83 kW 3.91 0.900 4.08 kW 5.90 0.900



COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	3.44	2.18
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	0.900	0.900
WTOL	75 °C	75 °C
Poff	2 W	2 W
PTO	30 W	30 W
PSB	2 W	2 W
PCK	0 W	0 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	0.10 kW	0.10 kW
Annual energy consumption Qhe	2463 kWh	4037 kWh



Model ACHP-H16/5R2HA-M(NE)		
Model name	ACHP-H16/5R2HA-M(NE)	
Application	Heating (medium temp)	
Units	Outdoor	
Climate zone (for heating)	Warmer	
Reversibility	Yes	
Cooling mode application (optional) Any additional heat sources	n/a n/a	
Arry additional fleat sources	11/a	
General data		
Power supply	3x400V 50Hz	
Off-peak product	n/a	
Outdoor Air/Water		
EN 14511-4 Heating		
Shutting off the heat transfer medium flow	•	
Complete power supply failure	passed	
Defrost test	passed	
Starting and operating test	passed	
EN 14511-2 Heating		
	Low temperature	Medium temperature
Heat output	15.10 kW	15.10 kW
El input	3.21 kW	4.79 kW
СОР	4.70	3.15
EN 12102-1 Average Climate		
	Low temperature	Medium temperature
Sound power level outdoor	60 dB(A)	60 dB(A)
EN 14825 Average Climate		
	Low temperature	Medium temperature
ης	188 %	150 %
Prated	15.50 kW	14.00 kW
SCOP	4.77	3.82
Tbiv	-7 °C	-7 °C
TOL	-10 °C	-10 °C
Pdh Tj = -7 °C	13.71 kW	12.38 kW
$COP Tj = -7^{\circ}C$	3.01	2.27
Cdh Tj = -7 °C	0.900	0.900
$Pdh Tj = +2^{\circ}C$	8.35 kW	7.54 kW
$COP Tj = +2^{\circ}C$	4.48	3.66
COP $Tj = +2$ °C Cdh $Tj = +2$ °C Pdh $Tj = +7$ °C	4.48 0.900 5.37 kW	3.66 0.900 4.85 kW



$COP Tj = +7^{\circ}C$	6.73	5.18
Cdh Tj = $+7$ °C	0.900	0.900
Pdh Tj = 12°C	2.38 kW	4.43 kW
COP Tj = 12°C	10.05	8.75
Cdh Tj = +12 °C	0.900	0.900
Pdh Tj = Tbiv	13.71 kW	12.38 kW
COP Tj = Tbiv	3.01	2.39
Pdh $Tj = TOL$ or Pdh $Tj = Tdesignh$ if TOL	13.42 kW	10.50 kW
< Tdesignh		
COP Tj = TOL or COP Tj = Tdesignh if TOL	2.78	2.13
< Tdesignh		
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL	0.900	0.900
< Tdesignh	75.00	75.00
WTOL	75 °C	75 °C
Poff	2 W	2 W
PTO	30 W	30 W
PSB	2 W	2 W
PCK	0 W	0 W
Supplementary Heater: Type of energy	Electricity	Electricity
input	2.00 LW	2.50.174
Supplementary Heater: PSUP	2.08 kW	3.50 kW
Annual energy consumption Qhe	6604 kWh	7563 kWh
EN 12102-1 Warmer Climate		
	Low temperature	Medium temperature
Sound power level outdoor	Low temperature 60 dB(A)	Medium temperature 60 dB(A)
Sound power level outdoor EN 14825 Warmer Climate	·	·
·	·	·
·	60 dB(A)	60 dB(A)
EN 14825 Warmer Climate	60 dB(A) Low temperature	60 dB(A) Medium temperature
EN 14825 Warmer Climate	60 dB(A) Low temperature 246 %	Medium temperature
EN 14825 Warmer Climate ηs Prated	Low temperature 246 % 13.10 kW	Medium temperature 176 % 13.80 kW
EN 14825 Warmer Climate ηs Prated SCOP	60 dB(A) Low temperature 246 % 13.10 kW 6.22	Medium temperature 176 % 13.80 kW 4.47
RN 14825 Warmer Climate ης Prated SCOP Tbiv	60 dB(A) Low temperature 246 % 13.10 kW 6.22 7 °C	60 dB(A) Medium temperature 176 % 13.80 kW 4.47 7 °C
RN 14825 Warmer Climate ηs Prated SCOP Tbiv TOL	60 dB(A) Low temperature 246 % 13.10 kW 6.22 7 °C 2 °C	60 dB(A) Medium temperature 176 % 13.80 kW 4.47 7 °C 2 °C
RN 14825 Warmer Climate ης Prated SCOP Tbiv TOL Pdh Tj = +2°C COP Tj = +2°C	60 dB(A) Low temperature 246 % 13.10 kW 6.22 7 °C 2 °C 12.97 kW	60 dB(A) Medium temperature 176 % 13.80 kW 4.47 7 °C 2 °C 13.67 kW
ης Prated SCOP Tbiv TOL Pdh Tj = +2°C COP Tj = +2°C Cdh Tj = +2°C	60 dB(A) Low temperature 246 % 13.10 kW 6.22 7 °C 2 °C 12.97 kW 3.35 0.900	60 dB(A) Medium temperature 176 % 13.80 kW 4.47 7 °C 2 °C 13.67 kW 2.25 0.900
ης Prated SCOP Tbiv TOL Pdh Tj = +2°C COP Tj = +2°C Cdh Tj = +2°C Pdh Tj = +7°C	60 dB(A) Low temperature 246 % 13.10 kW 6.22 7 °C 2 °C 12.97 kW 3.35 0.900 8.42 kW	60 dB(A) Medium temperature 176 % 13.80 kW 4.47 7 °C 2 °C 13.67 kW 2.25 0.900 8.87 kW
ης Prated SCOP Tbiv TOL Pdh Tj = +2°C COP Tj = +2°C Cdh Tj = +2°C Pdh Tj = +7°C COP Tj = +7°C	60 dB(A) Low temperature 246 % 13.10 kW 6.22 7 °C 2 °C 12.97 kW 3.35 0.900	60 dB(A) Medium temperature 176 % 13.80 kW 4.47 7 °C 2 °C 13.67 kW 2.25 0.900
ης Prated SCOP Tbiv TOL Pdh Tj = +2°C COP Tj = +2°C Cdh Tj = +7°C COP Tj = +7°C Cdh Tj = +7°C Cdh Tj = +7°C	60 dB(A) Low temperature 246 % 13.10 kW 6.22 7 °C 2 °C 12.97 kW 3.35 0.900 8.42 kW 5.31 0.900	Medium temperature 176 % 13.80 kW 4.47 7 °C 2 °C 13.67 kW 2.25 0.900 8.87 kW 3.80 0.900
ης Prated SCOP Tbiv TOL Pdh Tj = +2°C COP Tj = +2°C Cdh Tj = +2°C Chh Tj = +7°C COP Tj = +7°C COP Tj = +7°C Chh Tj = +7°C	60 dB(A) Low temperature 246 % 13.10 kW 6.22 7 °C 2 °C 12.97 kW 3.35 0.900 8.42 kW 5.31 0.900 4.29 kW	60 dB(A) Medium temperature 176 % 13.80 kW 4.47 7 °C 2 °C 13.67 kW 2.25 0.900 8.87 kW 3.80 0.900 3.94 kW
ης Prated SCOP Tbiv TOL Pdh Tj = +2°C COP Tj = +2°C Cdh Tj = +2°C Pdh Tj = +7°C COP Tj = 12°C COP Tj = 12°C	60 dB(A) Low temperature 246 % 13.10 kW 6.22 7 °C 2 °C 12.97 kW 3.35 0.900 8.42 kW 5.31 0.900 4.29 kW 8.23	Medium temperature 176 % 13.80 kW 4.47 7 °C 2 °C 13.67 kW 2.25 0.900 8.87 kW 3.80 0.900 3.94 kW 5.88
ης Prated SCOP Tbiv TOL Pdh Tj = +2°C COP Tj = +2°C Cdh Tj = +2°C Cdh Tj = +7°C COP Tj = +7°C COP Tj = +7°C COP Tj = +7°C Cdh Tj = +7°C Cdh Tj = +7°C Cdh Tj = +2°C Cdh Tj = +2°C	60 dB(A) Low temperature 246 % 13.10 kW 6.22 7 °C 2 °C 12.97 kW 3.35 0.900 8.42 kW 5.31 0.900 4.29 kW 8.23 0.900	Medium temperature 176 % 13.80 kW 4.47 7 °C 2 °C 13.67 kW 2.25 0.900 8.87 kW 3.80 0.900 3.94 kW 5.88 0.900
RN 14825 Warmer Climate ης Prated SCOP Tbiv TOL Pdh Tj = +2°C COP Tj = +2°C Cdh Tj = +2°C Cdh Tj = +7°C COP Tj = +7°C COP Tj = +7°C COP Tj = +7°C Cdh Tj = +7°C Cdh Tj = +7°C Pdh Tj = 12°C COP Tj = 12°C COP Tj = 12°C Cdh Tj = +12 °C Pdh Tj = Tbiv	60 dB(A) Low temperature 246 % 13.10 kW 6.22 7 °C 2 °C 12.97 kW 3.35 0.900 8.42 kW 5.31 0.900 4.29 kW 8.23 0.900 8.42 kW	Medium temperature 176 % 13.80 kW 4.47 7 °C 2 °C 13.67 kW 2.25 0.900 8.87 kW 3.80 0.900 3.94 kW 5.88 0.900 8.87 kW
ης Prated SCOP Tbiv TOL Pdh Tj = +2°C COP Tj = +2°C Cdh Tj = +2°C Cdh Tj = +7°C COP Tj = +7°C COP Tj = +7°C COP Tj = +7°C Cdh Tj = +7°C Cdh Tj = +7°C Cdh Tj = +2°C Cdh Tj = +2°C	60 dB(A) Low temperature 246 % 13.10 kW 6.22 7 °C 2 °C 12.97 kW 3.35 0.900 8.42 kW 5.31 0.900 4.29 kW 8.23 0.900	Medium temperature 176 % 13.80 kW 4.47 7 °C 2 °C 13.67 kW 2.25 0.900 8.87 kW 3.80 0.900 3.94 kW 5.88 0.900



COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	3.35	2.25
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	0.900	0.900
WTOL	75 °C	75 °C
Poff	2 W	2 W
PTO	30 W	30 W
PSB	2 W	2 W
PCK	0 W	0 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	0.13 kW	0.13 kW
Annual energy consumption Qhe	2812 kWh	4118 kWh



Model ACHP-H12/4R2HA-M		
Model name	ACHP-H12/4R2HA-M	
Application	Heating (medium temp)	
Units	Outdoor	
Climate zone (for heating)	Warmer	
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	12.00 kW
El input	2.45 kW	3.69 kW
СОР	4.90	3.25
EN 12102-1 Average Climate		
	Low temperature	Medium temperature
Sound power level outdoor	58 dB(A)	58 dB(A)
EN 14825 Average Climate		
	Low temperature	Medium temperature
ης	186 %	150 %
Prated	12.20 kW	12.00 kW
SCOP	4.72	3.82
Tbiv	-7 °C	-7 °C
TOL	-10 °C	-10 °C
Pdh Tj = -7 °C	10.79 kW	10.62 kW
COP Tj = -7 °C	3.02	2.40
Cdh Tj = -7 °C	0.900	0.900
Pdh Tj = $+2$ °C	6.57 kW	6.46 kW
$COP Tj = +2^{\circ}C$	4.50	3.67
Cdh Tj = +2 °C	0.900	0.900
Pdh Tj = $+7^{\circ}$ C	4.22 kW	4.15 kW



$COP Tj = +7^{\circ}C$	6.60	5.18
Cdh Tj = $+7$ °C	0.900	0.900
Pdh Tj = 12°C	4.69 kW	4.12 kW
$COP Tj = 12^{\circ}C$	9.38	7.60
Cdh Tj = +12 °C	0.900	0.900
Pdh Tj = Tbiv	10.79 kW	10.62 kW
COP Tj = Tbiv	3.02	2.40
Pdh $Tj = TOL$ or Pdh $Tj = Tdesignh$ if TOL	10.10 kW	9.16 kW
< Tdesignh		
COP Tj = TOL or COP Tj = Tdesignh if TOL	2.61	2.15
< Tdesignh		
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL	0.900	0.900
< Tdesignh	75.00	75.00
WTOL	75 °C	75 °C
Poff	2 W	2 W
PTO	30 W	30 W
PSB	2 W	2 W
PCK	0 W	0 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	2.10 kW	2.84 kW
Annual energy consumption Qhe	5314 kWh	6477 kWh
EN 12102-1 Warmer Climate		
	Low temperature	Medium temperature
Sound power level outdoor	Low temperature 58 dB(A)	Medium temperature 58 dB(A)
Sound power level outdoor EN 14825 Warmer Climate	•	·
	•	·
	58 dB(A)	58 dB(A)
EN 14825 Warmer Climate	58 dB(A) Low temperature	58 dB(A) Medium temperature
EN 14825 Warmer Climate	58 dB(A) Low temperature 254 %	58 dB(A) Medium temperature 174 %
EN 14825 Warmer Climate ηs Prated	Low temperature 254 % 11.10 kW	Medium temperature 174 % 12.50 kW
EN 14825 Warmer Climate ηs Prated SCOP	Low temperature 254 % 11.10 kW 6.42	Medium temperature 174 % 12.50 kW 4.42
EN 14825 Warmer Climate ηs Prated SCOP Tbiv	58 dB(A) Low temperature 254 % 11.10 kW 6.42 7 °C	Medium temperature 174 % 12.50 kW 4.42 7 °C
ηs Prated SCOP Tbiv TOL	58 dB(A) Low temperature 254 % 11.10 kW 6.42 7 °C 2 °C	58 dB(A) Medium temperature 174 % 12.50 kW 4.42 7 °C 2 °C
RN 14825 Warmer Climate ηs Prated SCOP Tbiv TOL Pdh Tj = +2°C	58 dB(A) Low temperature 254 % 11.10 kW 6.42 7 °C 2 °C 10.90 kW	58 dB(A) Medium temperature 174 % 12.50 kW 4.42 7 °C 2 °C 12.30 kW
ης Prated SCOP Tbiv TOL Pdh Tj = +2°C COP Tj = +2°C	58 dB(A) Low temperature 254 % 11.10 kW 6.42 7 °C 2 °C 10.90 kW 3.59	58 dB(A) Medium temperature 174 % 12.50 kW 4.42 7 °C 2 °C 12.30 kW 2.31
ης Prated SCOP Tbiv TOL Pdh Tj = +2°C COP Tj = +2°C Cdh Tj = +2°C	58 dB(A) Low temperature 254 % 11.10 kW 6.42 7 °C 2 °C 10.90 kW 3.59 0.900	58 dB(A) Medium temperature 174 % 12.50 kW 4.42 7 °C 2 °C 12.30 kW 2.31 0.900
RN 14825 Warmer Climate ης Prated SCOP Tbiv TOL Pdh Tj = +2°C COP Tj = +2°C Cdh Tj = +2°C Pdh Tj = +7°C	58 dB(A) Low temperature 254 % 11.10 kW 6.42 7 °C 2 °C 10.90 kW 3.59 0.900 7.14 kW	58 dB(A) Medium temperature 174 % 12.50 kW 4.42 7 °C 2 °C 12.30 kW 2.31 0.900 8.04 kW
ης Prated SCOP Tbiv TOL Pdh Tj = +2°C COP Tj = +2°C Cdh Tj = +2°C Pdh Tj = +7°C COP Tj = +7°C	58 dB(A) Low temperature 254 % 11.10 kW 6.42 7 °C 2 °C 10.90 kW 3.59 0.900 7.14 kW 5.82	58 dB(A) Medium temperature 174 % 12.50 kW 4.42 7 °C 2 °C 12.30 kW 2.31 0.900 8.04 kW 3.82
RN 14825 Warmer Climate ης Prated SCOP Tbiv TOL Pdh Tj = +2°C COP Tj = +2°C Cdh Tj = +2°C Cdh Tj = +7°C COP Tj = +7°C COP Tj = +7°C Cdh Tj = +7°C Pdh Tj = +7°C Pdh Tj = 12°C	58 dB(A) Low temperature 254 % 11.10 kW 6.42 7 °C 2 °C 10.90 kW 3.59 0.900 7.14 kW 5.82 0.900	58 dB(A) Medium temperature 174 % 12.50 kW 4.42 7 °C 2 °C 12.30 kW 2.31 0.900 8.04 kW 3.82 0.900
ης Prated SCOP Tbiv TOL Pdh Tj = +2°C COP Tj = +2°C Cdh Tj = +2°C Pdh Tj = +7°C COP Tj = 12°C	58 dB(A) Low temperature 254 % 11.10 kW 6.42 7 °C 2 °C 10.90 kW 3.59 0.900 7.14 kW 5.82 0.900 4.61 kW 8.30	58 dB(A) Medium temperature 174 % 12.50 kW 4.42 7 °C 2 °C 12.30 kW 2.31 0.900 8.04 kW 3.82 0.900 3.57 kW 5.70
ης Prated SCOP Tbiv TOL Pdh Tj = +2°C COP Tj = +2°C Cdh Tj = +2°C Cdh Tj = +7°C COP Tj = +7°C COP Tj = +7°C COP Tj = +7°C Cdh Tj = +7°C Cdh Tj = +2°C Cdh Tj = +2°C Cdh Tj = +2°C	58 dB(A) Low temperature 254 % 11.10 kW 6.42 7 °C 2 °C 10.90 kW 3.59 0.900 7.14 kW 5.82 0.900 4.61 kW 8.30 0.900	58 dB(A) Medium temperature 174 % 12.50 kW 4.42 7 °C 2 °C 12.30 kW 2.31 0.900 8.04 kW 3.82 0.900 3.57 kW 5.70 0.900
RN 14825 Warmer Climate ης Prated SCOP Tbiv TOL Pdh Tj = +2°C COP Tj = +2°C Cdh Tj = +2°C Cdh Tj = +7°C COP Tj = +7°C COP Tj = +7°C COP Tj = +7°C Cdh Tj = +7°C Cdh Tj = +7°C Pdh Tj = 12°C COP Tj = 12°C COP Tj = 12°C Cdh Tj = +12 °C Pdh Tj = Tbiv	58 dB(A) Low temperature 254 % 11.10 kW 6.42 7 °C 2 °C 10.90 kW 3.59 0.900 7.14 kW 5.82 0.900 4.61 kW 8.30 0.900 7.14 kW	58 dB(A) Medium temperature 174 % 12.50 kW 4.42 7 °C 2 °C 12.30 kW 2.31 0.900 8.04 kW 3.82 0.900 3.57 kW 5.70 0.900 8.04 kW
ης Prated SCOP Tbiv TOL Pdh Tj = +2°C COP Tj = +2°C Cdh Tj = +2°C Cdh Tj = +7°C COP Tj = +7°C COP Tj = +7°C COP Tj = +7°C Cdh Tj = +7°C Cdh Tj = +2°C Cdh Tj = +2°C Cdh Tj = +2°C	58 dB(A) Low temperature 254 % 11.10 kW 6.42 7 °C 2 °C 10.90 kW 3.59 0.900 7.14 kW 5.82 0.900 4.61 kW 8.30 0.900	58 dB(A) Medium temperature 174 % 12.50 kW 4.42 7 °C 2 °C 12.30 kW 2.31 0.900 8.04 kW 3.82 0.900 3.57 kW 5.70 0.900



COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	3.59	2.31
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	0.900	0.900
WTOL	75 °C	75 °C
Poff	2 W	2 W
PTO	30 W	30 W
PSB	2 W	2 W
PCK	0 W	0 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	0.20 kW	0.20 kW
Annual energy consumption Qhe	2308 kWh	3775 kWh



Model ACHP-H14/4R2HA-M		
Model name	ACHP-H14/4R2HA-M	
Application	Heating (medium temp)	
Units	Outdoor	
Climate zone (for heating)	Warmer	
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		
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	14.00 kW
El input	2.92 kW	4.38 kW
COP	4.80	3.20
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
ης	186 %	150 %
Prated	14.50 kW	14.00 kW
SCOP	4.72	3.82
Tbiv	-7 °C	-7 °C
TOL	-10 °C	-10 °C
Pdh Tj = -7°C	12.83 kW	12.38 kW
$COP Tj = -7^{\circ}C$	3.00	2.40
Cdh Tj = -7 °C	0.900	0.900
$Pdh Tj = +2^{\circ}C$	7.81 kW	7.54 kW
$COP Tj = +2^{\circ}C$	4.52	3.66
Cdh Tj = $+2$ °C	0.900	0.900
Pdh Tj = $+7^{\circ}$ C	5.02 kW	4.85 kW



$COP Tj = +7^{\circ}C$	6.40	5.18
Cdh Tj = $+7$ °C	0.900	0.900
Pdh Tj = 12°C	4.68 kW	2.15 kW
$COP Tj = 12^{\circ}C$	10.00	7.60
Cdh Tj = +12 °C	0.900	0.900
Pdh Tj = Tbiv	12.83 kW	12.38 kW
COP Tj = Tbiv	3.00	2.39
Pdh $Tj = TOL$ or Pdh $Tj = Tdesignh$ if TOL	11.46 kW	10.50 kW
< Tdesignh		
COP Tj = TOL or COP Tj = Tdesignh if TOL	2.73	2.13
< Tdesignh		
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL	0.900	0.900
< Tdesignh	75 °C	75 °C
WTOL		
Poff	2 W	2 W
PTO	30 W	30 W
PSB	2 W	2 W
PCK	0 W	0 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	3.04 kW	3.50 kW
Annual energy consumption Qhe	6317 kWh	7563 kWh
EN 12102-1 Warmer Climate		
	Low temperature	Medium temperature
Sound power level outdoor	Low temperature 59 dB(A)	Medium temperature 59 dB(A)
Sound power level outdoor EN 14825 Warmer Climate	•	·
	•	·
	59 dB(A)	59 dB(A)
EN 14825 Warmer Climate	59 dB(A) Low temperature	59 dB(A) Medium temperature
EN 14825 Warmer Climate	59 dB(A) Low temperature 259 %	59 dB(A) Medium temperature 178 %
EN 14825 Warmer Climate ηs Prated	Low temperature 259 % 12.10 kW	Medium temperature 178 % 13.70 kW
EN 14825 Warmer Climate ηs Prated SCOP	59 dB(A) Low temperature 259 % 12.10 kW 6.55	Medium temperature 178 % 13.70 kW 4.52
EN 14825 Warmer Climate ηs Prated SCOP Tbiv	59 dB(A) Low temperature 259 % 12.10 kW 6.55 7 °C	59 dB(A) Medium temperature 178 % 13.70 kW 4.52 7 °C
ηs Prated SCOP Tbiv TOL	59 dB(A) Low temperature 259 % 12.10 kW 6.55 7 °C 2 °C	59 dB(A) Medium temperature 178 % 13.70 kW 4.52 7 °C 2 °C
RN 14825 Warmer Climate ηs Prated SCOP Tbiv TOL Pdh Tj = +2°C	59 dB(A) Low temperature 259 % 12.10 kW 6.55 7 °C 2 °C 12.00 kW	59 dB(A) Medium temperature 178 % 13.70 kW 4.52 7 °C 2 °C 13.60 kW
ης Prated SCOP Tbiv TOL Pdh Tj = +2°C COP Tj = +2°C	59 dB(A) Low temperature 259 % 12.10 kW 6.55 7 °C 2 °C 12.00 kW 3.44	59 dB(A) Medium temperature 178 % 13.70 kW 4.52 7 °C 2 °C 13.60 kW 2.18
ης Prated SCOP Tbiv TOL Pdh Tj = +2°C COP Tj = +2°C Cdh Tj = +2°C	59 dB(A) Low temperature 259 % 12.10 kW 6.55 7 °C 2 °C 12.00 kW 3.44 0.900	59 dB(A) Medium temperature 178 % 13.70 kW 4.52 7 °C 2 °C 13.60 kW 2.18 0.900
RN 14825 Warmer Climate ης Prated SCOP Tbiv TOL Pdh Tj = +2°C COP Tj = +2°C Cdh Tj = +2°C Pdh Tj = +7°C	59 dB(A) Low temperature 259 % 12.10 kW 6.55 7 °C 2 °C 12.00 kW 3.44 0.900 7.78 kW	59 dB(A) Medium temperature 178 % 13.70 kW 4.52 7 °C 2 °C 13.60 kW 2.18 0.900 8.83 kW
ης Prated SCOP Tbiv TOL Pdh Tj = +2°C COP Tj = +2°C Cdh Tj = +2°C Pdh Tj = +7°C COP Tj = +7°C	59 dB(A) Low temperature 259 % 12.10 kW 6.55 7 °C 2 °C 12.00 kW 3.44 0.900 7.78 kW 5.84	59 dB(A) Medium temperature 178 % 13.70 kW 4.52 7 °C 2 °C 13.60 kW 2.18 0.900 8.83 kW 3.91
ης Prated SCOP Tbiv TOL Pdh Tj = +2°C COP Tj = +2°C Cdh Tj = +2°C Cdh Tj = +7°C COP Tj = +7°C Cdh Tj = +7°C Cdh Tj = +7°C Cdh Tj = +7°C Pdh Tj = +7°C Pdh Tj = 12°C	59 dB(A) Low temperature 259 % 12.10 kW 6.55 7 °C 2 °C 12.00 kW 3.44 0.900 7.78 kW 5.84 0.900 4.23 kW	59 dB(A) Medium temperature 178 % 13.70 kW 4.52 7 °C 2 °C 13.60 kW 2.18 0.900 8.83 kW 3.91 0.900
ης Prated SCOP Tbiv TOL Pdh Tj = +2°C COP Tj = +2°C Cdh Tj = +2°C Pdh Tj = +7°C COP Tj = 12°C	59 dB(A) Low temperature 259 % 12.10 kW 6.55 7 °C 2 °C 12.00 kW 3.44 0.900 7.78 kW 5.84 0.900 4.23 kW 8.43	59 dB(A) Medium temperature 178 % 13.70 kW 4.52 7 °C 2 °C 13.60 kW 2.18 0.900 8.83 kW 3.91 0.900 4.08 kW 5.90
ης Prated SCOP Tbiv TOL Pdh Tj = +2°C COP Tj = +2°C Cdh Tj = +2°C Cdh Tj = +7°C COP Tj = +7°C COP Tj = +7°C COP Tj = +7°C Cdh Tj = +7°C Cdh Tj = +2°C Cdh Tj = +2°C Cdh Tj = +2°C	59 dB(A) Low temperature 259 % 12.10 kW 6.55 7 °C 2 °C 12.00 kW 3.44 0.900 7.78 kW 5.84 0.900 4.23 kW 8.43 0.900	59 dB(A) Medium temperature 178 % 13.70 kW 4.52 7 °C 2 °C 13.60 kW 2.18 0.900 8.83 kW 3.91 0.900 4.08 kW 5.90 0.900
RN 14825 Warmer Climate ης Prated SCOP Tbiv TOL Pdh Tj = +2°C COP Tj = +2°C Cdh Tj = +2°C Cdh Tj = +7°C COP Tj = +7°C COP Tj = +7°C COP Tj = +7°C Cdh Tj = +7°C Cdh Tj = +7°C Pdh Tj = 12°C COP Tj = 12°C COP Tj = 12°C Cdh Tj = +12 °C Pdh Tj = Tbiv	59 dB(A) Low temperature 259 % 12.10 kW 6.55 7 °C 2 °C 12.00 kW 3.44 0.900 7.78 kW 5.84 0.900 4.23 kW 8.43 0.900 7.78 kW	59 dB(A) Medium temperature 178 % 13.70 kW 4.52 7 °C 2 °C 13.60 kW 2.18 0.900 8.83 kW 3.91 0.900 4.08 kW 5.90 0.900 8.83 kW
ης Prated SCOP Tbiv TOL Pdh Tj = +2°C COP Tj = +2°C Cdh Tj = +2°C Cdh Tj = +7°C COP Tj = +7°C COP Tj = +7°C COP Tj = +7°C Cdh Tj = +7°C Cdh Tj = +2°C Cdh Tj = +2°C Cdh Tj = +2°C	59 dB(A) Low temperature 259 % 12.10 kW 6.55 7 °C 2 °C 12.00 kW 3.44 0.900 7.78 kW 5.84 0.900 4.23 kW 8.43 0.900	59 dB(A) Medium temperature 178 % 13.70 kW 4.52 7 °C 2 °C 13.60 kW 2.18 0.900 8.83 kW 3.91 0.900 4.08 kW 5.90 0.900





COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	3.44	2.18
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	0.900	0.900
WTOL	75 °C	75 °C
Poff	2 W	2 W
PTO	30 W	30 W
PSB	2 W	2 W
PCK	0 W	0 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	0.10 kW	0.10 kW
Annual energy consumption Qhe	2463 kWh	4037 kWh



Model ACHP-H16/4R2HA-M		
Model name	ACHP-H16/4R2HA-M	
Application	Heating (medium temp)	
Units	Outdoor	
Climate zone (for heating)	Warmer	
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	
Starting and operating test	passeu	
EN 14511-2 Heating		
	Low temperature	Medium temperature
Heat output	15.10 kW	15.10 kW
El input	3.21 kW	4.79 kW
COP	4.70	3.15
EN 12102-1 Average Climate		
	Low temperature	Medium temperature
Sound power level outdoor	60 dB(A)	60 dB(A)
EN 14825 Average Climate		
	Low temperature	Medium temperature
ης	188 %	150 %
Prated	15.50 kW	14.00 kW
SCOP	4.77	3.82
Tbiv	-7 °C	-7 °C
TOL	-10 °C	-10 °C
Pdh Tj = -7°C	13.71 kW	12.38 kW
$COP Tj = -7^{\circ}C$	3.01	2.27
Cdh Tj = -7 °C	0.900	0.900
Pdh Tj = $+2^{\circ}$ C	8.35 kW	7.54 kW
$COP Tj = +2^{\circ}C$	4.48	3.66
Cdh Tj = +2 °C	0.900	0.900
$Pdh Tj = +7^{\circ}C$	5.37 kW	4.85 kW



$COP Tj = +7^{\circ}C$	6.73	5.18
Cdh Tj = +7 °C	0.900	0.900
Pdh Tj = 12°C	2.38 kW	4.43 kW
COP Tj = 12°C	10.05	8.75
Cdh Tj = +12 °C	0.900	0.900
Pdh Tj = Tbiv	13.71 kW	12.38 kW
COP Tj = Tbiv	3.01	2.39
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	13.42 kW	10.50 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.78	2.13
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	0.900	0.900
WTOL	75 °C	75 °C
Poff	2 W	2 W
PTO	30 W	30 W
PSB	2 W	2 W
PCK	0 W	0 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	2.08 kW	3.50 kW
Annual energy consumption Qhe	6604 kWh	7563 kWh
EN 12102-1 Warmer Climate		
Sound nower level outdoor	Low temperature	Medium temperature
Sound power level outdoor	Low temperature 60 dB(A)	Medium temperature 60 dB(A)
Sound power level outdoor EN 14825 Warmer Climate	·	•
	60 dB(A) Low temperature	•
	60 dB(A)	60 dB(A)
EN 14825 Warmer Climate	60 dB(A) Low temperature	60 dB(A) Medium temperature
EN 14825 Warmer Climate	Low temperature 246 % 13.10 kW 6.22	60 dB(A) Medium temperature 176 %
EN 14825 Warmer Climate ηs Prated	Low temperature 246 % 13.10 kW	Medium temperature 176 % 13.80 kW
Prated SCOP	Low temperature 246 % 13.10 kW 6.22	Medium temperature 176 % 13.80 kW 4.47
RN 14825 Warmer Climate ηs Prated SCOP Tbiv	60 dB(A) Low temperature 246 % 13.10 kW 6.22 7 °C	Medium temperature 176 % 13.80 kW 4.47 7 °C
ης Prated SCOP Tbiv TOL	60 dB(A) Low temperature 246 % 13.10 kW 6.22 7 °C 2 °C	60 dB(A) Medium temperature 176 % 13.80 kW 4.47 7 °C 2 °C
RN 14825 Warmer Climate ηs Prated SCOP Tbiv TOL Pdh Tj = +2°C	60 dB(A) Low temperature 246 % 13.10 kW 6.22 7 °C 2 °C 12.97 kW	60 dB(A) Medium temperature 176 % 13.80 kW 4.47 7 °C 2 °C 13.67 kW
ης Prated SCOP Tbiv TOL Pdh Tj = +2°C COP Tj = +2°C	60 dB(A) Low temperature 246 % 13.10 kW 6.22 7 °C 2 °C 12.97 kW 3.35	60 dB(A) Medium temperature 176 % 13.80 kW 4.47 7 °C 2 °C 13.67 kW 2.25
ης Prated SCOP Tbiv TOL Pdh Tj = +2°C COP Tj = +2°C Cdh Tj = +2°C	60 dB(A) Low temperature 246 % 13.10 kW 6.22 7 °C 2 °C 12.97 kW 3.35 0.900	60 dB(A) Medium temperature 176 % 13.80 kW 4.47 7 °C 2 °C 13.67 kW 2.25 0.900
ης Prated SCOP Tbiv TOL Pdh Tj = +2°C COP Tj = +2°C Cdh Tj = +2°C Pdh Tj = +7°C	60 dB(A) Low temperature 246 % 13.10 kW 6.22 7 °C 2 °C 12.97 kW 3.35 0.900 8.42 kW	60 dB(A) Medium temperature 176 % 13.80 kW 4.47 7 °C 2 °C 13.67 kW 2.25 0.900 8.87 kW
ης Prated SCOP Tbiv TOL Pdh Tj = +2°C COP Tj = +2°C Cdh Tj = +2°C Pdh Tj = +7°C COP Tj = +7°C	60 dB(A) Low temperature 246 % 13.10 kW 6.22 7 °C 2 °C 12.97 kW 3.35 0.900 8.42 kW 5.31	60 dB(A) Medium temperature 176 % 13.80 kW 4.47 7 °C 2 °C 13.67 kW 2.25 0.900 8.87 kW 3.80
ης Prated SCOP Tbiv TOL Pdh Tj = +2°C COP Tj = +2°C Cdh Tj = +2°C Pdh Tj = +7°C COP Tj = +7°C COP Tj = +7°C	60 dB(A) Low temperature 246 % 13.10 kW 6.22 7 °C 2 °C 12.97 kW 3.35 0.900 8.42 kW 5.31 0.900	60 dB(A) Medium temperature 176 % 13.80 kW 4.47 7 °C 2 °C 13.67 kW 2.25 0.900 8.87 kW 3.80 0.900
ης Prated SCOP Tbiv TOL Pdh Tj = +2°C COP Tj = +2°C Cdh Tj = +2°C COP Tj = +7°C COP Tj = +7°C COP Tj = +7°C COP Tj = +7°C Cdh Tj = +7°C Cdh Tj = +7°C Pdh Tj = 12°C	60 dB(A) Low temperature 246 % 13.10 kW 6.22 7 °C 2 °C 12.97 kW 3.35 0.900 8.42 kW 5.31 0.900 4.29 kW	60 dB(A) Medium temperature 176 % 13.80 kW 4.47 7 °C 2 °C 13.67 kW 2.25 0.900 8.87 kW 3.80 0.900 3.94 kW
ης Prated SCOP Tbiv TOL Pdh Tj = +2°C COP Tj = +2°C Cdh Tj = +2°C Pdh Tj = +7°C COP Tj = 12°C	60 dB(A) Low temperature 246 % 13.10 kW 6.22 7 °C 2 °C 12.97 kW 3.35 0.900 8.42 kW 5.31 0.900 4.29 kW 8.23	Medium temperature 176 % 13.80 kW 4.47 7 °C 2 °C 13.67 kW 2.25 0.900 8.87 kW 3.80 0.900 3.94 kW 5.88
ης Prated SCOP Tbiv TOL Pdh Tj = +2°C COP Tj = +2°C Cdh Tj = +2°C Cdh Tj = +7°C COP Tj = +7°C COP Tj = +7°C COP Tj = +7°C Cdh Tj = +7°C Cdh Tj = +2°C Cdh Tj = +2°C Cdh Tj = +2°C	60 dB(A) Low temperature 246 % 13.10 kW 6.22 7 °C 2 °C 12.97 kW 3.35 0.900 8.42 kW 5.31 0.900 4.29 kW 8.23 0.900	Medium temperature 176 % 13.80 kW 4.47 7 °C 2 °C 13.67 kW 2.25 0.900 8.87 kW 3.80 0.900 3.94 kW 5.88 0.900



COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	3.35	2.25
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	0.900	0.900
WTOL	75 °C	75 °C
Poff	2 W	2 W
PTO	30 W	30 W
PSB	2 W	2 W
PCK	0 W	0 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	0.13 kW	0.13 kW
Annual energy consumption Qhe	2812 kWh	4118 kWh



Madal ACUD HIZ (ADZHA MANE)		
Model ACHP-H12/4R2HA-M(NE)		
Model name	ACHP-H12/4R2HA-M(NE)	
Application Units	Heating (medium temp) Outdoor	
Climate zone (for heating)	Warmer	
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	12.00 kW
El input	2.45 kW	3.69 kW
COP	4.90	3.25
EN 12102-1 Average Climate		
	Low temperature	Medium temperature
Sound power level outdoor	58 dB(A)	58 dB(A)
EN 14825 Average Climate		
	Low temperature	Medium temperature
ης	186 %	150 %
Prated	12.20 kW	12.00 kW
SCOP	4.72	3.82
Tbiv	-7 °C	-7 °C
TOL	-10 °C	-10 °C
Pdh Tj = -7 °C COP Tj = -7 °C	10.79 kW 3.02	10.62 kW 2.40
Cdh Tj = -7 °C	0.900	0.900
Pdh Tj = $+2^{\circ}$ C	6.57 kW	6.46 kW
$COP Tj = +2^{\circ}C$	4.50	3.67
Cdh Tj = $+2$ °C	0.900	0.900
Pdh Tj = $+7^{\circ}$ C	4.22 kW	4.15 kW
•		



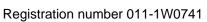
$COP Tj = +7^{\circ}C$	6.60	5.18
Cdh Tj = $+7$ °C	0.900	0.900
Pdh Tj = 12°C	4.69 kW	4.12 kW
$COP Tj = 12^{\circ}C$	9.38	7.60
Cdh Tj = +12 °C	0.900	0.900
Pdh Tj = Tbiv	10.79 kW	10.62 kW
COP Tj = Tbiv	3.02	2.40
Pdh $Tj = TOL$ or Pdh $Tj = Tdesignh$ if TOL	10.10 kW	9.16 kW
< Tdesignh		
COP Tj = TOL or COP Tj = Tdesignh if TOL	2.61	2.15
< Tdesignh		
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL	0.900	0.900
< Tdesignh	75.00	75.00
WTOL	75 °C	75 °C
Poff	2 W	2 W
PTO	30 W	30 W
PSB	2 W	2 W
PCK	0 W	0 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	2.10 kW	2.84 kW
Annual energy consumption Qhe	5314 kWh	6477 kWh
EN 12102-1 Warmer Climate		
	Low temperature	Medium temperature
Sound power level outdoor	Low temperature 58 dB(A)	Medium temperature 58 dB(A)
Sound power level outdoor EN 14825 Warmer Climate	•	·
	•	·
	58 dB(A)	58 dB(A)
EN 14825 Warmer Climate	58 dB(A) Low temperature	58 dB(A) Medium temperature
EN 14825 Warmer Climate	58 dB(A) Low temperature 254 %	58 dB(A) Medium temperature 174 %
EN 14825 Warmer Climate ηs Prated	Low temperature 254 % 11.10 kW	Medium temperature 174 % 12.50 kW
EN 14825 Warmer Climate ηs Prated SCOP	Low temperature 254 % 11.10 kW 6.42	Medium temperature 174 % 12.50 kW 4.42
EN 14825 Warmer Climate ηs Prated SCOP Tbiv	58 dB(A) Low temperature 254 % 11.10 kW 6.42 7 °C	Medium temperature 174 % 12.50 kW 4.42 7 °C
ηs Prated SCOP Tbiv TOL	58 dB(A) Low temperature 254 % 11.10 kW 6.42 7 °C 2 °C	58 dB(A) Medium temperature 174 % 12.50 kW 4.42 7 °C 2 °C
RN 14825 Warmer Climate ηs Prated SCOP Tbiv TOL Pdh Tj = +2°C	58 dB(A) Low temperature 254 % 11.10 kW 6.42 7 °C 2 °C 10.90 kW	58 dB(A) Medium temperature 174 % 12.50 kW 4.42 7 °C 2 °C 12.30 kW
ης Prated SCOP Tbiv TOL Pdh Tj = +2°C COP Tj = +2°C	58 dB(A) Low temperature 254 % 11.10 kW 6.42 7 °C 2 °C 10.90 kW 3.59	58 dB(A) Medium temperature 174 % 12.50 kW 4.42 7 °C 2 °C 12.30 kW 2.31
ης Prated SCOP Tbiv TOL Pdh Tj = +2°C COP Tj = +2°C Cdh Tj = +2°C	58 dB(A) Low temperature 254 % 11.10 kW 6.42 7 °C 2 °C 10.90 kW 3.59 0.900	58 dB(A) Medium temperature 174 % 12.50 kW 4.42 7 °C 2 °C 12.30 kW 2.31 0.900
RN 14825 Warmer Climate ης Prated SCOP Tbiv TOL Pdh Tj = +2°C COP Tj = +2°C Cdh Tj = +2°C Pdh Tj = +7°C	58 dB(A) Low temperature 254 % 11.10 kW 6.42 7 °C 2 °C 10.90 kW 3.59 0.900 7.14 kW	58 dB(A) Medium temperature 174 % 12.50 kW 4.42 7 °C 2 °C 12.30 kW 2.31 0.900 8.04 kW
ης Prated SCOP Tbiv TOL Pdh Tj = +2°C COP Tj = +2°C Cdh Tj = +2°C Pdh Tj = +7°C COP Tj = +7°C	58 dB(A) Low temperature 254 % 11.10 kW 6.42 7 °C 2 °C 10.90 kW 3.59 0.900 7.14 kW 5.82	58 dB(A) Medium temperature 174 % 12.50 kW 4.42 7 °C 2 °C 12.30 kW 2.31 0.900 8.04 kW 3.82
RN 14825 Warmer Climate ης Prated SCOP Tbiv TOL Pdh Tj = +2°C COP Tj = +2°C Cdh Tj = +2°C Cdh Tj = +7°C COP Tj = +7°C COP Tj = +7°C Cdh Tj = +7°C Pdh Tj = +7°C Pdh Tj = 12°C	58 dB(A) Low temperature 254 % 11.10 kW 6.42 7 °C 2 °C 10.90 kW 3.59 0.900 7.14 kW 5.82 0.900	58 dB(A) Medium temperature 174 % 12.50 kW 4.42 7 °C 2 °C 12.30 kW 2.31 0.900 8.04 kW 3.82 0.900
ης Prated SCOP Tbiv TOL Pdh Tj = +2°C COP Tj = +2°C Cdh Tj = +2°C Pdh Tj = +7°C COP Tj = 12°C	58 dB(A) Low temperature 254 % 11.10 kW 6.42 7 °C 2 °C 10.90 kW 3.59 0.900 7.14 kW 5.82 0.900 4.61 kW 8.30	58 dB(A) Medium temperature 174 % 12.50 kW 4.42 7 °C 2 °C 12.30 kW 2.31 0.900 8.04 kW 3.82 0.900 3.57 kW 5.70
ης Prated SCOP Tbiv TOL Pdh Tj = +2°C COP Tj = +2°C Cdh Tj = +2°C Cdh Tj = +7°C COP Tj = +7°C COP Tj = +7°C COP Tj = +7°C Cdh Tj = +7°C Cdh Tj = +2°C Cdh Tj = +2°C Cdh Tj = +2°C	58 dB(A) Low temperature 254 % 11.10 kW 6.42 7 °C 2 °C 10.90 kW 3.59 0.900 7.14 kW 5.82 0.900 4.61 kW 8.30 0.900	58 dB(A) Medium temperature 174 % 12.50 kW 4.42 7 °C 2 °C 12.30 kW 2.31 0.900 8.04 kW 3.82 0.900 3.57 kW 5.70 0.900
RN 14825 Warmer Climate ης Prated SCOP Tbiv TOL Pdh Tj = +2°C COP Tj = +2°C Cdh Tj = +2°C Cdh Tj = +7°C COP Tj = +7°C COP Tj = +7°C COP Tj = +7°C Cdh Tj = +7°C Cdh Tj = +7°C Pdh Tj = 12°C COP Tj = 12°C COP Tj = 12°C Cdh Tj = +12 °C Pdh Tj = Tbiv	58 dB(A) Low temperature 254 % 11.10 kW 6.42 7 °C 2 °C 10.90 kW 3.59 0.900 7.14 kW 5.82 0.900 4.61 kW 8.30 0.900 7.14 kW	58 dB(A) Medium temperature 174 % 12.50 kW 4.42 7 °C 2 °C 12.30 kW 2.31 0.900 8.04 kW 3.82 0.900 3.57 kW 5.70 0.900 8.04 kW
ης Prated SCOP Tbiv TOL Pdh Tj = +2°C COP Tj = +2°C Cdh Tj = +2°C Cdh Tj = +7°C COP Tj = +7°C COP Tj = +7°C COP Tj = +7°C Cdh Tj = +7°C Cdh Tj = +2°C Cdh Tj = +2°C Cdh Tj = +2°C	58 dB(A) Low temperature 254 % 11.10 kW 6.42 7 °C 2 °C 10.90 kW 3.59 0.900 7.14 kW 5.82 0.900 4.61 kW 8.30 0.900	58 dB(A) Medium temperature 174 % 12.50 kW 4.42 7 °C 2 °C 12.30 kW 2.31 0.900 8.04 kW 3.82 0.900 3.57 kW 5.70 0.900



COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	3.59	2.31
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	0.900	0.900
WTOL	75 °C	75 °C
Poff	2 W	2 W
PTO	30 W	30 W
PSB	2 W	2 W
PCK	0 W	0 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	0.20 kW	0.20 kW
Annual energy consumption Qhe	2308 kWh	3775 kWh



Model ACHP-H14/4R2HA-M(NE)		
Model name	ACHP-H14/4R2HA-M(NE)	
Application	Heating (medium temp)	
Units	Outdoor	
Climate zone (for heating)	Warmer	
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	14.00 kW
El input	2.92 kW	4.38 kW
COP	4.80	3.20
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
ης	186 %	150 %
Prated	14.50 kW	14.00 kW
SCOP	4.72	3.82
Tbiv	-7 °C	-7 °C
TOL	-10 °C	-10 °C
Pdh Tj = -7°C	12.83 kW	12.38 kW
$COP Tj = -7^{\circ}C$	3.00	2.40
Cdh Tj = -7 °C	0.900	0.900
Pdh Tj = $+2$ °C	7.81 kW	7.54 kW
$COP Tj = +2^{\circ}C$	4.52	3.66
Cdh Tj = $+2$ °C	0.900	0.900
Pdh Tj = $+7^{\circ}$ C	5.02 kW	4.85 kW





$COP Tj = +7^{\circ}C$	6.40	5.18
Cdh Tj = $+7$ °C	0.900	0.900
Pdh Tj = 12°C	4.68 kW	2.15 kW
COP Tj = 12°C	10.00	7.60
Cdh Tj = +12 °C	0.900	0.900
Pdh Tj = Tbiv	12.83 kW	12.38 kW
COP Tj = Tbiv	3.00	2.39
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	11.46 kW	10.50 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.73	2.13
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	0.900	0.900
WTOL	75 °C	75 °C
Poff	2 W	2 W
PTO	30 W	30 W
PSB	2 W	2 W
PCK	0 W	0 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	3.04 kW	3.50 kW
Annual energy consumption Qhe	6317 kWh	7563 kWh
EN 12102-1 Warmer Climate		
	Low tomporature	Modium tomporaturo
Sound nower level outdoor	Low temperature	Medium temperature
Sound power level outdoor	Low temperature 59 dB(A)	Medium temperature 59 dB(A)
Sound power level outdoor EN 14825 Warmer Climate	·	•
	59 dB(A) Low temperature	59 dB(A) Medium temperature
EN 14825 Warmer Climate	59 dB(A) Low temperature 259 %	59 dB(A) Medium temperature 178 %
EN 14825 Warmer Climate ηs Prated	Low temperature 259 % 12.10 kW	Medium temperature 178 % 13.70 kW
EN 14825 Warmer Climate ηs Prated SCOP	59 dB(A) Low temperature 259 % 12.10 kW 6.55	Medium temperature 178 % 13.70 kW 4.52
EN 14825 Warmer Climate ηs Prated SCOP Tbiv	59 dB(A) Low temperature 259 % 12.10 kW 6.55 7 °C	59 dB(A) Medium temperature 178 % 13.70 kW 4.52 7 °C
ηs Prated SCOP Tbiv TOL	59 dB(A) Low temperature 259 % 12.10 kW 6.55 7 °C 2 °C	59 dB(A) Medium temperature 178 % 13.70 kW 4.52 7 °C 2 °C
RN 14825 Warmer Climate ηs Prated SCOP Tbiv TOL Pdh Tj = +2°C	59 dB(A) Low temperature 259 % 12.10 kW 6.55 7 °C 2 °C 12.00 kW	59 dB(A) Medium temperature 178 % 13.70 kW 4.52 7 °C 2 °C 13.60 kW
ης Prated SCOP Tbiv TOL Pdh Tj = +2°C COP Tj = +2°C	59 dB(A) Low temperature 259 % 12.10 kW 6.55 7 °C 2 °C 12.00 kW 3.44	59 dB(A) Medium temperature 178 % 13.70 kW 4.52 7 °C 2 °C 13.60 kW 2.18
ης Prated SCOP Tbiv TOL Pdh Tj = +2°C COP Tj = +2°C Cdh Tj = +2°C	59 dB(A) Low temperature 259 % 12.10 kW 6.55 7 °C 2 °C 12.00 kW 3.44 0.900	59 dB(A) Medium temperature 178 % 13.70 kW 4.52 7 °C 2 °C 13.60 kW 2.18 0.900
RN 14825 Warmer Climate ης Prated SCOP Tbiv TOL Pdh Tj = +2°C COP Tj = +2°C Cdh Tj = +2°C Pdh Tj = +7°C	59 dB(A) Low temperature 259 % 12.10 kW 6.55 7 °C 2 °C 12.00 kW 3.44 0.900 7.78 kW	59 dB(A) Medium temperature 178 % 13.70 kW 4.52 7 °C 2 °C 13.60 kW 2.18 0.900 8.83 kW
ης Prated SCOP Tbiv TOL Pdh Tj = +2°C COP Tj = +2°C Cdh Tj = +2°C Pdh Tj = +7°C COP Tj = +7°C	59 dB(A) Low temperature 259 % 12.10 kW 6.55 7 °C 2 °C 12.00 kW 3.44 0.900 7.78 kW 5.84	59 dB(A) Medium temperature 178 % 13.70 kW 4.52 7 °C 2 °C 13.60 kW 2.18 0.900 8.83 kW 3.91
ης Prated SCOP Tbiv TOL Pdh Tj = +2°C COP Tj = +2°C Cdh Tj = +2°C Pdh Tj = +7°C COP Tj = +7°C Cdh Tj = +7°C	59 dB(A) Low temperature 259 % 12.10 kW 6.55 7 °C 2 °C 12.00 kW 3.44 0.900 7.78 kW 5.84 0.900	59 dB(A) Medium temperature 178 % 13.70 kW 4.52 7 °C 2 °C 13.60 kW 2.18 0.900 8.83 kW 3.91 0.900
RN 14825 Warmer Climate ης Prated SCOP Tbiv TOL Pdh Tj = +2°C COP Tj = +2°C Cdh Tj = +2°C Cdh Tj = +7°C COP Tj = +7°C COP Tj = +7°C Cdh Tj = +7°C Pdh Tj = +7°C Pdh Tj = 12°C	59 dB(A) Low temperature 259 % 12.10 kW 6.55 7 °C 2 °C 12.00 kW 3.44 0.900 7.78 kW 5.84 0.900 4.23 kW	59 dB(A) Medium temperature 178 % 13.70 kW 4.52 7 °C 2 °C 13.60 kW 2.18 0.900 8.83 kW 3.91 0.900 4.08 kW
ης Prated SCOP Tbiv TOL Pdh Tj = +2°C COP Tj = +2°C Cdh Tj = +2°C Pdh Tj = +7°C COP Tj = +7°C Cdh Tj = +7°C	59 dB(A) Low temperature 259 % 12.10 kW 6.55 7 °C 2 °C 12.00 kW 3.44 0.900 7.78 kW 5.84 0.900 4.23 kW 8.43	59 dB(A) Medium temperature 178 % 13.70 kW 4.52 7 °C 2 °C 13.60 kW 2.18 0.900 8.83 kW 3.91 0.900
RN 14825 Warmer Climate ης Prated SCOP Tbiv TOL Pdh Tj = +2°C COP Tj = +2°C Cdh Tj = +2°C Cdh Tj = +7°C COP Tj = +7°C COP Tj = +7°C Cdh Tj = +7°C Pdh Tj = +7°C Pdh Tj = 12°C	59 dB(A) Low temperature 259 % 12.10 kW 6.55 7 °C 2 °C 12.00 kW 3.44 0.900 7.78 kW 5.84 0.900 4.23 kW	59 dB(A) Medium temperature 178 % 13.70 kW 4.52 7 °C 2 °C 13.60 kW 2.18 0.900 8.83 kW 3.91 0.900 4.08 kW
ης Prated SCOP Tbiv TOL Pdh Tj = +2°C COP Tj = +2°C Cdh Tj = +2°C Pdh Tj = +7°C COP Tj = 12°C	59 dB(A) Low temperature 259 % 12.10 kW 6.55 7 °C 2 °C 12.00 kW 3.44 0.900 7.78 kW 5.84 0.900 4.23 kW 8.43	59 dB(A) Medium temperature 178 % 13.70 kW 4.52 7 °C 2 °C 13.60 kW 2.18 0.900 8.83 kW 3.91 0.900 4.08 kW 5.90
ης Prated SCOP Tbiv TOL Pdh Tj = +2°C COP Tj = +2°C Cdh Tj = +2°C Cdh Tj = +7°C COP Tj = +7°C COP Tj = +7°C COP Tj = +7°C Cdh Tj = +7°C Cdh Tj = +2°C Cdh Tj = +2°C Cdh Tj = +2°C	59 dB(A) Low temperature 259 % 12.10 kW 6.55 7 °C 2 °C 12.00 kW 3.44 0.900 7.78 kW 5.84 0.900 4.23 kW 8.43 0.900	59 dB(A) Medium temperature 178 % 13.70 kW 4.52 7 °C 2 °C 13.60 kW 2.18 0.900 8.83 kW 3.91 0.900 4.08 kW 5.90 0.900



COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	3.44	2.18
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	0.900	0.900
WTOL	75 °C	75 °C
Poff	2 W	2 W
PTO	30 W	30 W
PSB	2 W	2 W
PCK	0 W	0 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	0.10 kW	0.10 kW
Annual energy consumption Qhe	2463 kWh	4037 kWh



Model ACHP-H16/4R2HA-M(NE)		
Model name	ACHP-H16/4R2HA-M(NE)	
Application	Heating (medium temp)	
Units	Outdoor	
Climate zone (for heating)	Warmer	
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		
Complete power supply failure	passed	
Defrost test	passed	
Starting and operating test	passed	
EN 14511-2 Heating		
	Low temperature	Medium temperature
Heat output	15.10 kW	15.10 kW
El input	3.21 kW	4.79 kW
СОР	4.70	3.15
EN 12102-1 Average Climate		
	Low temperature	Medium temperature
Sound power level outdoor	60 dB(A)	60 dB(A)
EN 14825 Average Climate		
	Low temperature	Medium temperature
ης	188 %	150 %
Prated	15.50 kW	14.00 kW
SCOP	4.77	3.82
Tbiv	-7 °C	-7 °C
TOL	-10 °C	-10 °C
Pdh Tj = -7 °C	13.71 kW	12.38 kW
COP $Tj = -7$ °C	3.01	2.27
Cdh Tj = -7 °C	0.900	0.900
Pdh Tj = $+2$ °C	8.35 kW	7.54 kW
$COP Tj = +2^{\circ}C$		
<u> </u>	4.48	3.66
Cdh Tj = $+2$ °C Pdh Tj = $+7$ °C	4.48 0.900 5.37 kW	3.66 0.900 4.85 kW



$COP Tj = +7^{\circ}C$	6.73	5.18
Cdh Tj = +7 °C	0.900	0.900
Pdh Tj = 12°C	2.38 kW	4.43 kW
COP Tj = 12°C	10.05	8.75
Cdh Tj = +12 °C	0.900	0.900
Pdh Tj = Tbiv	13.71 kW	12.38 kW
COP Tj = Tbiv	3.01	2.39
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL	13.42 kW	10.50 kW
< Tdesignh	131.12 KW	10.30 KH
COP Tj = TOL or COP Tj = Tdesignh if TOL	2.78	2.13
< Tdesignh		
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL	0.900	0.900
< Tdesignh		
WTOL	75 °C	75 °C
Poff	2 W	2 W
PTO	30 W	30 W
PSB	2 W	2 W
PCK	0 W	0 W
Supplementary Heater: Type of energy	Electricity	Electricity
input	2.08 kW	3.50 kW
Supplementary Heater: PSUP Annual energy consumption Qhe	6604 kWh	7563 kWh
Annual energy consumbtion one	0004 KWII	7505 KWII
EN 12102-1 Warmer Climate	Low temperature	<u> </u>
EN 12102-1 Warmer Climate		Medium temperature 60 dB(A)
EN 12102-1 Warmer Climate Sound power level outdoor	Low temperature	Medium temperature 60 dB(A)
EN 12102-1 Warmer Climate Sound power level outdoor	Low temperature	60 dB(A)
EN 12102-1 Warmer Climate Sound power level outdoor EN 14825 Warmer Climate	Low temperature 60 dB(A)	60 dB(A)
EN 12102-1 Warmer Climate Sound power level outdoor EN 14825 Warmer Climate	Low temperature 60 dB(A) Low temperature	60 dB(A) Medium temperature
EN 12102-1 Warmer Climate Sound power level outdoor EN 14825 Warmer Climate	Low temperature 60 dB(A) Low temperature 246 %	60 dB(A) Medium temperature 176 %
EN 12102-1 Warmer Climate Sound power level outdoor EN 14825 Warmer Climate	Low temperature 60 dB(A) Low temperature 246 % 13.10 kW	60 dB(A) Medium temperature 176 % 13.80 kW
EN 12102-1 Warmer Climate Sound power level outdoor EN 14825 Warmer Climate	Low temperature 60 dB(A) Low temperature 246 % 13.10 kW 6.22	60 dB(A) Medium temperature 176 % 13.80 kW 4.47
EN 12102-1 Warmer Climate Sound power level outdoor EN 14825 Warmer Climate	Low temperature 60 dB(A) Low temperature 246 % 13.10 kW 6.22 7 °C	Medium temperature 176 % 13.80 kW 4.47 7 °C
EN 12102-1 Warmer Climate Sound power level outdoor EN 14825 Warmer Climate	Low temperature 60 dB(A) Low temperature 246 % 13.10 kW 6.22 7 °C 2 °C	60 dB(A) Medium temperature 176 % 13.80 kW 4.47 7 °C 2 °C
EN 12102-1 Warmer Climate Sound power level outdoor EN 14825 Warmer Climate ns Prated SCOP Tbiv TOL Pdh Tj = +2°C COP Tj = +2°C	Low temperature 60 dB(A) Low temperature 246 % 13.10 kW 6.22 7 °C 2 °C 12.97 kW	60 dB(A) Medium temperature 176 % 13.80 kW 4.47 7 °C 2 °C 13.67 kW
EN 12102-1 Warmer Climate Sound power level outdoor EN 14825 Warmer Climate	Low temperature 60 dB(A) Low temperature 246 % 13.10 kW 6.22 7 °C 2 °C 12.97 kW 3.35	60 dB(A) Medium temperature 176 % 13.80 kW 4.47 7 °C 2 °C 13.67 kW 2.25
EN 12102-1 Warmer Climate Sound power level outdoor EN 14825 Warmer Climate ns Prated SCOP Tbiv TOL Pdh Tj = +2°C COP Tj = +2°C Cdh Tj = +2°C Pdh Tj = +7°C	Low temperature 60 dB(A) Low temperature 246 % 13.10 kW 6.22 7 °C 2 °C 12.97 kW 3.35 0.900 8.42 kW	60 dB(A) Medium temperature 176 % 13.80 kW 4.47 7 °C 2 °C 13.67 kW 2.25 0.900 8.87 kW
EN 12102-1 Warmer Climate Sound power level outdoor EN 14825 Warmer Climate ns Prated SCOP Tbiv TOL Pdh Tj = +2°C COP Tj = +2°C Cdh Tj = +2°C Cdh Tj = +7°C COP Tj = +7°C	Low temperature 60 dB(A) Low temperature 246 % 13.10 kW 6.22 7 °C 2 °C 12.97 kW 3.35 0.900 8.42 kW 5.31	60 dB(A) Medium temperature 176 % 13.80 kW 4.47 7 °C 2 °C 13.67 kW 2.25 0.900 8.87 kW 3.80
EN 12102-1 Warmer Climate Sound power level outdoor EN 14825 Warmer Climate	Low temperature 60 dB(A) Low temperature 246 % 13.10 kW 6.22 7 °C 2 °C 12.97 kW 3.35 0.900 8.42 kW 5.31 0.900	60 dB(A) Medium temperature 176 % 13.80 kW 4.47 7 °C 2 °C 13.67 kW 2.25 0.900 8.87 kW 3.80 0.900
EN 12102-1 Warmer Climate Sound power level outdoor EN 14825 Warmer Climate ns Prated SCOP Tbiv TOL Pdh Tj = +2°C COP Tj = +2°C Cdh Tj = +2°C Cdh Tj = +7°C COP Tj = +7°C Cdh Tj = +7°C Cdh Tj = +7°C Pdh Tj = +7°C	Low temperature 60 dB(A) Low temperature 246 % 13.10 kW 6.22 7 °C 2 °C 12.97 kW 3.35 0.900 8.42 kW 5.31 0.900 4.29 kW	60 dB(A) Medium temperature 176 % 13.80 kW 4.47 7 °C 2 °C 13.67 kW 2.25 0.900 8.87 kW 3.80 0.900 3.94 kW
EN 12102-1 Warmer Climate Sound power level outdoor EN 14825 Warmer Climate	Low temperature 60 dB(A) Low temperature 246 % 13.10 kW 6.22 7 °C 2 °C 12.97 kW 3.35 0.900 8.42 kW 5.31 0.900 4.29 kW 8.23	Medium temperature 176 % 13.80 kW 4.47 7 °C 2 °C 13.67 kW 2.25 0.900 8.87 kW 3.80 0.900 3.94 kW 5.88
EN 12102-1 Warmer Climate Sound power level outdoor EN 14825 Warmer Climate	Low temperature 60 dB(A) Low temperature 246 % 13.10 kW 6.22 7 °C 2 °C 12.97 kW 3.35 0.900 8.42 kW 5.31 0.900 4.29 kW 8.23 0.900	Medium temperature 176 % 13.80 kW 4.47 7 °C 2 °C 13.67 kW 2.25 0.900 8.87 kW 3.80 0.900 3.94 kW 5.88 0.900
EN 12102-1 Warmer Climate Sound power level outdoor EN 14825 Warmer Climate	Low temperature 60 dB(A) Low temperature 246 % 13.10 kW 6.22 7 °C 2 °C 12.97 kW 3.35 0.900 8.42 kW 5.31 0.900 4.29 kW 8.23 0.900 8.42 kW	Medium temperature 176 % 13.80 kW 4.47 7 °C 2 °C 13.67 kW 2.25 0.900 8.87 kW 3.80 0.900 3.94 kW 5.88 0.900 8.87 kW
EN 12102-1 Warmer Climate Sound power level outdoor EN 14825 Warmer Climate ns Prated SCOP Tbiv TOL Pdh Tj = +2°C COP Tj = +2°C Cdh Tj = +2°C Cdh Tj = +7°C COP Tj = +7°C COP Tj = +7°C COP Tj = +7°C Cdh Tj = +12°C Cdh Tj = 12°C COP Tj = 12°C	Low temperature 60 dB(A) Low temperature 246 % 13.10 kW 6.22 7 °C 2 °C 12.97 kW 3.35 0.900 8.42 kW 5.31 0.900 4.29 kW 8.23 0.900	60 dB(A) Medium temperature 176 % 13.80 kW 4.47 7 °C 2 °C 13.67 kW 2.25 0.900 8.87 kW 3.80 0.900 3.94 kW 5.88 0.900



COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	3.35	2.25
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	0.900	0.900
WTOL	75 °C	75 °C
Poff	2 W	2 W
PTO	30 W	30 W
PSB	2 W	2 W
PCK	0 W	0 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	0.13 kW	0.13 kW
Annual energy consumption Qhe	2812 kWh	4118 kWh