

Subtype FHA-Monoblock 5-7kW

Certificate Holder	WOLF GmbH
Address	Industriestr. 1
ZIP	84048
City	Mainburg
Country	DE
Certification Body	DIN CERTCO Gesellschaft für Konformitätsbewertung mbH
Subtype title	FHA-Monoblock 5-7kW
Registration number	011-1W0557
Heat Pump Type	Outdoor Air/Water
Refrigerant	R32
Mass of Refrigerant	1.4 kg
Certification Date	17.10.2022
Testing basis	European KEYMARK Scheme for Heat Pumps Rev. 10 (as of 2022-06)

Model FHA-05/06-230V-M2 FS-B2

Model name	FHA-05/06-230V-M2 FS-B2
Application	Heating (medium temp)
Units	Indoor, 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	6.17 kW	5.66 kW
El input	1.25 kW	1.98 kW
COP	4.94	2.87

EN 14511-2 | Cooling

	+7°C/+12°C	+18°C/+23°C
El input	1.11 kW	1.59 kW
Cooling capacity	3.71	6.87
EER	3.33	4.31

EN 12102-1 | Average Climate

	Low temperature	Medium temperature
Sound power level indoor	30 dB(A)	30 dB(A)
Sound power level outdoor	59 dB(A)	59 dB(A)

EN 14825 | Average Climate

	Low temperature	Medium temperature
ηs	184 %	120 %
Prated	4.01 kW	3.24 kW
SCOP	4.68	3.08
Tbiv	-10 °C	-10 °C

TOL	-10 °C	-10 °C
Pdh Tj = -7°C	3.73 kW	2.85 kW
COP Tj = -7°C	2.99	1.72
Cdh Tj = -7 °C	0.900	0.900
Pdh Tj = +2°C	2.64 kW	3.27 kW
COP Tj = +2°C	4.90	3.08
Cdh Tj = +2 °C	0.982	0.991
Pdh Tj = +7°C	3.11 kW	3.63 kW
COP Tj = +7°C	6.08	4.22
Cdh Tj = +7 °C	0.981	0.986
Pdh Tj = 12°C	3.51 kW	3.51 kW
COP Tj = 12°C	5.15	5.71
Cdh Tj = +12 °C	0.985	0.984
Pdh Tj = Tbiv	4.01 kW	3.24 kW
COP Tj = Tbiv	2.63	1.60
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	4.01 kW	3.24 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.63	1.60
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	0.900	0.900
WTOL	65 °C	65 °C
Poff	9 W	9 W
PTO	10 W	10 W
PSB	16 W	16 W
PCK	0 W	0 W
Supplementary Heater: Type of energy input	n/a	n/a
Supplementary Heater: PSUP	0.00 kW	0.00 kW
Annual energy consumption Qhe	1770 kWh	2176 kWh

EN 12102-1 | Warmer Climate

	Low temperature	Medium temperature
Sound power level indoor	30 dB(A)	30 dB(A)
Sound power level outdoor	59 dB(A)	59 dB(A)

EN 14825 | Warmer Climate

	Low temperature	Medium temperature
ηs	206 %	159 %
Prated	4.54 kW	4.15 kW
SCOP	5.21	4.05
Tbiv	2 °C	2 °C
TOL	2 °C	2 °C
Pdh Tj = +2°C	4.54 kW	4.15 kW
COP Tj = +2°C	3.71	2.18
Cdh Tj = +2 °C	0.900	0.900
Pdh Tj = +7°C	3.13 kW	3.77 kW

COP Tj = +7°C	6.04	3.39
Cdh Tj = +7 °C	0.900	0.991
Pdh Tj = 12°C	3.48 kW	4.19 kW
COP Tj = 12°C	5.06	5.51
Cdh Tj = +12 °C	0.986	0.987
Pdh Tj = Tbiv	4.54 kW	4.15 kW
COP Tj = Tbiv	3.71	2.18
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	4.54 kW	4.15 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	3.71	2.18
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	0.900	0.900
WTOL	65 °C	65 °C
Poff	9 W	9 W
PTO	10 W	10 W
PSB	16 W	16 W
PCK	0 W	0 W
Supplementary Heater: Type of energy input	n/a	n/a
Supplementary Heater: PSUP	0.00 kW	0.00 kW
Annual energy consumption Qhe	1164 kWh	1366 kWh

EN 14825 | Cooling

	+7°C/+12°C	+18°C/+23°C
Pdesignc	3.71 kW	6.90 kW
SEER	3.99	5.65
Pdc Tj = 35°C	3.71 kW	6.90 kW
EER Tj = 35°C	3.33	4.31
Pdc Tj = 30°C	2.82 kW	5.16 kW
EER Tj = 30°C	3.93	6.68
Cdc Tj = 30 °C	0.900	0.900
Pdc Tj = 25°C	2.12 kW	3.29 kW
EER Tj = 25°C	4.14	6.17
Cdc Tj = 25 °C	0.981	0.250
Pdc Tj = 20°C	2.42 kW	3.09 kW
EER Tj = 20°C	5.31	6.65
Cdc Tj = 20 °C	0.978	0.979
Poff	9 W	9 W
PTO	10 W	10 W
PSB	16 W	16 W
PCK	0 W	0 W
Annual energy consumption Qce	887 kWh	1164 kWh

Model FHA-05/06-230V-M2 FS-e6-B2

Model name	FHA-05/06-230V-M2 FS-e6-B2
Application	Heating (medium temp)
Units	Indoor, Outdoor
Climate zone (for heating)	Colder, Warmer, Warmer Climate, Colder 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	6.17 kW	5.66 kW
El input	1.25 kW	1.98 kW
COP	4.94	2.87

EN 14511-2 | Cooling

	+7°C/+12°C	+18°C/+23°C
El input	1.11 kW	1.59 kW
Cooling capacity	3.71	6.87
EER	3.33	4.31

EN 12102-1 | Average Climate

	Low temperature	Medium temperature
Sound power level indoor	30 dB(A)	30 dB(A)
Sound power level outdoor	59 dB(A)	59 dB(A)

EN 14825 | Average Climate

	Low temperature	Medium temperature
ηs	181 %	127 %
Prated	5.01 kW	4.41 kW
SCOP	4.59	3.24
Tbiv	-7 °C	-7 °C

TOL	-10 °C	-10 °C
Pdh Tj = -7°C	4.44 kW	3.91 kW
COP Tj = -7°C	2.92	1.92
Cdh Tj = -7 °C	0.900	0.900
Pdh Tj = +2°C	2.66 kW	2.93 kW
COP Tj = +2°C	4.98	3.17
Cdh Tj = +2 °C	0.900	0.989
Pdh Tj = +7°C	3.06 kW	3.74 kW
COP Tj = +7°C	5.53	4.43
Cdh Tj = +7 °C	0.982	0.988
Pdh Tj = 12°C	3.49 kW	3.60 kW
COP Tj = 12°C	5.15	6.25
Cdh Tj = +12 °C	0.985	0.983
Pdh Tj = Tbiv	4.44 kW	3.91 kW
COP Tj = Tbiv	2.92	1.92
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	4.01 kW	3.24 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.63	1.60
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	0.900	0.900
WTOL	65 °C	65 °C
Poff	9 W	9 W
PTO	10 W	10 W
PSB	16 W	16 W
PCK	0 W	0 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	1.00 kW	1.17 kW
Annual energy consumption Qhe	2257 kWh	2812 kWh

EN 12102-1 | Colder Climate

	Low temperature	Medium temperature
Sound power level indoor	30 dB(A)	30 dB(A)
Sound power level outdoor	59 dB(A)	59 dB(A)

EN 14825 | Colder Climate

	Low temperature	Medium temperature
ηs	157 %	101 %
Prated	3.85 kW	3.20 kW
SCOP	4.00	2.59
Tbiv	-15 °C	-15 °C
TOL	-22 °C	-18 °C
Pdh Tj = -7°C	2.35 kW	2.93 kW
COP Tj = -7°C	3.58	2.15
Cdh Tj = -7 °C	0.900	0.993
Pdh Tj = +2°C	2.64 kW	2.99 kW

COP Tj = +2°C	4.89	3.34
Cdh Tj = +2 °C	0.982	0.989
Pdh Tj = +7°C	3.13 kW	2.85 kW
COP Tj = +7°C	6.15	4.38
Cdh Tj = +7 °C	0.981	0.985
Pdh Tj = 12°C	3.48 kW	3.45 kW
COP Tj = 12°C	5.10	4.99
Cdh Tj = +12 °C	0.985	0.986
Pdh Tj = Tbiv	3.14 kW	2.61 kW
COP Tj = Tbiv	2.30	1.37
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	2.86 kW	2.23 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	1.92	1.22
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	0.900	0.900
WTOL	65 °C	65 °C
Poff	9 W	9 W
PTO	10 W	10 W
PSB	16 W	16 W
PCK	0 W	0 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	0.99 kW	3.20 kW
Annual energy consumption Qhe	2376 kWh	3042 kWh
Pdh Tj = -15°C (if TOL	3.14	2.61
COP Tj = -15°C (if TOL	2.30	1.37
Cdh Tj = -15 °C	0.900	0.900

EN 12102-1 | Warmer Climate

	Low temperature	Medium temperature
Sound power level indoor	30 dB(A)	30 dB(A)
Sound power level outdoor	59 dB(A)	59 dB(A)

EN 14825 | Warmer Climate

	Low temperature	Medium temperature
ηs	206 %	159 %
Prated	4.54 kW	4.15 kW
SCOP	5.21	4.05
Tbiv	2 °C	2 °C
TOL	2 °C	2 °C
Pdh Tj = +2°C	4.54 kW	4.15 kW
COP Tj = +2°C	3.71	2.18
Cdh Tj = +2 °C	0.900	0.900
Pdh Tj = +7°C	3.13 kW	3.77 kW
COP Tj = +7°C	6.04	3.39
Cdh Tj = +7 °C	0.900	0.991

Pdh Tj = 12°C	3.48 kW	4.19 kW
COP Tj = 12°C	5.06	5.51
Cdh Tj = +12 °C	0.986	0.987
Pdh Tj = Tbiv	4.54 kW	4.15 kW
COP Tj = Tbiv	3.71	2.18
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	4.54 kW	4.15 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	3.71	2.18
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	0.900	0.900
WTOL	65 °C	65 °C
Poff	9 W	9 W
PTO	10 W	10 W
PSB	16 W	16 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	1164 kWh	1366 kWh

EN 14825 | Cooling

	+7°C/+12°C	+18°C/+23°C
Pdesignc	3.71 kW	6.90 kW
SEER	3.99	5.65
Pdc Tj = 35°C	3.71 kW	6.90 kW
EER Tj = 35°C	3.33	4.31
Pdc Tj = 30°C	2.82 kW	5.16 kW
EER Tj = 30°C	3.93	6.68
Cdc Tj = 30 °C	0.900	0.900
Pdc Tj = 25°C	2.12 kW	3.29 kW
EER Tj = 25°C	4.14	6.17
Cdc Tj = 25 °C	0.981	0.250
Pdc Tj = 20°C	2.42 kW	3.09 kW
EER Tj = 20°C	5.31	6.65
Cdc Tj = 20 °C	0.978	0.979
Poff	9 W	9 W
PTO	10 W	10 W
PSB	16 W	16 W
PCK	0 W	0 W
Annual energy consumption Qce	887 kWh	1164 kWh

Model FHA-06/07-230V-M2 FS-B2

Model name	FHA-06/07-230V-M2 FS-B2
Application	Heating (medium temp)
Units	Indoor, 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	7.66 kW	6.88 kW
El input	1.59 kW	2.39 kW
COP	4.81	2.88

EN 14511-2 | Cooling

	+7°C/+12°C	+18°C/+23°C
El input	2.00 kW	1.46 kW
Cooling capacity	5.71	6.42
EER	2.85	4.41

EN 12102-1 | Average Climate

	Low temperature	Medium temperature
Sound power level indoor	30 dB(A)	30 dB(A)
Sound power level outdoor	58 dB(A)	58 dB(A)

EN 14825 | Average Climate

	Low temperature	Medium temperature
ηs	168 %	118 %
Prated	5.14 kW	3.64 kW
SCOP	4.26	3.02
Tbiv	-10 °C	-10 °C

TOL	-10 °C	-10 °C
Pdh Tj = -7°C	4.26 kW	2.95 kW
COP Tj = -7°C	3.02	1.75
Cdh Tj = -7 °C	0.900	0.900
Pdh Tj = +2°C	2.99 kW	3.20 kW
COP Tj = +2°C	4.38	3.05
Cdh Tj = +2 °C	0.900	0.984
Pdh Tj = +7°C	2.91 kW	3.59 kW
COP Tj = +7°C	5.02	4.22
Cdh Tj = +7 °C	0.971	0.980
Pdh Tj = 12°C	3.35 kW	3.31 kW
COP Tj = 12°C	5.42	4.83
Cdh Tj = +12 °C	0.973	0.975
Pdh Tj = Tbiv	5.14 kW	3.64 kW
COP Tj = Tbiv	2.59	1.59
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	5.14 kW	3.64 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.59	1.59
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	0.900	0.900
WTOL	65 °C	65 °C
Poff	7 W	7 W
PTO	17 W	17 W
PSB	12 W	12 W
PCK	0 W	0 W
Supplementary Heater: Type of energy input	n/a	n/a
Supplementary Heater: PSUP	0.00 kW	0.00 kW
Annual energy consumption Qhe	2493 kWh	2485 kWh

EN 12102-1 | Warmer Climate

	Low temperature	Medium temperature
Sound power level indoor	30 dB(A)	30 dB(A)
Sound power level outdoor	58 dB(A)	58 dB(A)

EN 14825 | Warmer Climate

	Low temperature	Medium temperature
ηs	191 %	141 %
Prated	5.48 kW	4.80 kW
SCOP	4.86	3.59
Tbiv	2 °C	2 °C
TOL	2 °C	2 °C
Pdh Tj = +2°C	5.48 kW	4.80 kW
COP Tj = +2°C	3.73	2.20
Cdh Tj = +2 °C	0.900	0.900
Pdh Tj = +7°C	3.55 kW	3.78 kW

COP Tj = +7°C	4.88	3.47
Cdh Tj = +7 °C	0.900	0.984
Pdh Tj = 12°C	3.30 kW	3.20 kW
COP Tj = 12°C	5.26	4.15
Cdh Tj = +12 °C	0.973	0.978
Pdh Tj = Tbiv	5.48 kW	4.80 kW
COP Tj = Tbiv	3.73	2.20
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	5.48 kW	4.80 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	3.73	2.20
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	0.900	0.900
WTOL	65 °C	65 °C
Poff	7 W	7 W
PTO	17 W	17 W
PSB	12 W	12 W
PCK	0 W	0 W
Supplementary Heater: Type of energy input	n/a	n/a
Supplementary Heater: PSUP	0.00 kW	0.00 kW
Annual energy consumption Qhe	1508 kWh	1788 kWh

EN 14825 | Cooling

	+7°C/+12°C	+18°C/+23°C
Pdesignc	5.72 kW	6.43 kW
SEER	3.54	5.39
Pdc Tj = 35°C	5.72 kW	6.43 kW
EER Tj = 35°C	2.86	4.42
Pdc Tj = 30°C	4.21 kW	4.66 kW
EER Tj = 30°C	4.27	6.54
Cdc Tj = 30 °C	0.900	0.900
Pdc Tj = 25°C	2.61 kW	3.48 kW
EER Tj = 25°C	4.06	7.20
Cdc Tj = 25 °C	0.250	0.965
Pdc Tj = 20°C	2.36 kW	3.30 kW
EER Tj = 20°C	5.19	7.10
Cdc Tj = 20 °C	0.963	0.963
Poff	7 W	7 W
PTO	17 W	17 W
PSB	12 W	12 W
PCK	0 W	0 W
Annual energy consumption Qce	1542 kWh	1138 kWh

Model FHA-06/07-230V-M2 FS-e6-B2

Model name	FHA-06/07-230V-M2 FS-e6-B2
Application	Heating (medium temp)
Units	Indoor, Outdoor
Climate zone (for heating)	Colder, Warmer, Warmer Climate, Colder 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	7.66 kW	6.88 kW
El input	1.59 kW	2.39 kW
COP	4.81	2.88

EN 14511-2 | Cooling

	+7°C/+12°C	+18°C/+23°C
El input	2.00 kW	1.46 kW
Cooling capacity	5.71	6.42
EER	2.85	4.41

EN 12102-1 | Average Climate

	Low temperature	Medium temperature
Sound power level indoor	30 dB(A)	30 dB(A)
Sound power level outdoor	58 dB(A)	58 dB(A)

EN 14825 | Average Climate

	Low temperature	Medium temperature
η_s	167 %	129 %
Prated	6.32 kW	5.62 kW
SCOP	4.26	3.30
Tbiv	-7 °C	-7 °C

TOL	-10 °C	-10 °C
Pdh Tj = -7°C	5.59 kW	4.97 kW
COP Tj = -7°C	2.83	1.98
Cdh Tj = -7 °C	0.900	0.900
Pdh Tj = +2°C	3.64 kW	2.97 kW
COP Tj = +2°C	4.42	3.32
Cdh Tj = +2 °C	0.900	0.900
Pdh Tj = +7°C	2.96 kW	2.82 kW
COP Tj = +7°C	5.19	4.35
Cdh Tj = +7 °C	0.970	0.974
Pdh Tj = 12°C	3.30 kW	3.39 kW
COP Tj = 12°C	5.35	5.41
Cdh Tj = +12 °C	0.972	0.973
Pdh Tj = Tbiv	5.59 kW	4.97 kW
COP Tj = Tbiv	2.83	1.98
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	5.14 kW	3.64 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.59	1.59
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	0.900	0.900
WTOL	65 °C	65 °C
Poff	7 W	7 W
PTO	17 W	17 W
PSB	12 W	12 W
PCK	0 W	0 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	1.18 kW	1.97 kW
Annual energy consumption Qhe	3067 kWh	3517 kWh

EN 12102-1 | Colder Climate

	Low temperature	Medium temperature
Sound power level indoor	30 dB(A)	30 dB(A)
Sound power level outdoor	58 dB(A)	58 dB(A)

EN 14825 | Colder Climate

	Low temperature	Medium temperature
ηs	156 %	109 %
Prated	5.08 kW	4.96 kW
SCOP	3.99	2.80
Tbiv	-15 °C	-15 °C
TOL	-22 °C	-18 °C
Pdh Tj = -7°C	3.03 kW	3.22 kW
COP Tj = -7°C	3.63	2.37
Cdh Tj = -7 °C	0.900	0.900
Pdh Tj = +2°C	2.59 kW	2.35 kW

COP Tj = +2°C	4.91	3.56
Cdh Tj = +2 °C	0.968	0.974
Pdh Tj = +7°C	2.95 kW	2.80 kW
COP Tj = +7°C	5.18	4.01
Cdh Tj = +7 °C	0.970	0.976
Pdh Tj = 12°C	3.31 kW	3.23 kW
COP Tj = 12°C	5.30	4.20
Cdh Tj = +12 °C	0.973	0.978
Pdh Tj = Tbiv	4.15 kW	4.05 kW
COP Tj = Tbiv	2.54	1.75
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	3.15 kW	3.01 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	1.88	1.36
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	0.900	0.900
WTOL	65 °C	65 °C
Poff	7 W	7 W
PTO	17 W	17 W
PSB	12 W	12 W
PCK	0 W	0 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	1.93 kW	4.96 kW
Annual energy consumption Qhe	3142 kWh	4369 kWh
Pdh Tj = -15°C (if TOL)	4.15	4.05
COP Tj = -15°C (if TOL)	2.54	1.75
Cdh Tj = -15 °C	0.900	0.900

EN 12102-1 | Warmer Climate

	Low temperature	Medium temperature
Sound power level indoor	30 dB(A)	30 dB(A)
Sound power level outdoor	58 dB(A)	58 dB(A)

EN 14825 | Warmer Climate

	Low temperature	Medium temperature
ηs	191 %	141 %
Prated	5.48 kW	4.80 kW
SCOP	4.86	3.59
Tbiv	2 °C	2 °C
TOL	2 °C	2 °C
Pdh Tj = +2°C	5.48 kW	4.80 kW
COP Tj = +2°C	3.73	2.20
Cdh Tj = +2 °C	0.900	0.900
Pdh Tj = +7°C	3.55 kW	3.78 kW
COP Tj = +7°C	4.88	3.47
Cdh Tj = +7 °C	0.900	0.984

Pdh Tj = 12°C	3.30 kW	3.20 kW
COP Tj = 12°C	5.26	4.15
Cdh Tj = +12 °C	0.973	0.978
Pdh Tj = Tbiv	5.48 kW	4.80 kW
COP Tj = Tbiv	3.73	2.20
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	5.48 kW	4.80 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	3.73	2.20
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	0.900	0.900
WTOL	65 °C	65 °C
Poff	7 W	7 W
PTO	17 W	17 W
PSB	12 W	12 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	1508 kWh	1788 kWh

EN 14825 | Cooling

	+7°C/+12°C	+18°C/+23°C
Pdesignc	5.72 kW	6.43 kW
SEER	3.54	5.39
Pdc Tj = 35°C	5.72 kW	6.43 kW
EER Tj = 35°C	2.86	4.42
Pdc Tj = 30°C	4.21 kW	4.66 kW
EER Tj = 30°C	4.27	6.54
Cdc Tj = 30 °C	0.900	0.900
Pdc Tj = 25°C	2.61 kW	3.48 kW
EER Tj = 25°C	4.06	7.20
Cdc Tj = 25 °C	0.250	0.965
Pdc Tj = 20°C	2.36 kW	3.30 kW
EER Tj = 20°C	5.19	7.10
Cdc Tj = 20 °C	0.963	0.963
Poff	7 W	7 W
PTO	17 W	17 W
PSB	12 W	12 W
PCK	0 W	0 W
Annual energy consumption Qce	1542 kWh	1138 kWh

Model FHA-05/06-230V-M2 FS-e6-B2 + CEW-2-200 (FHA-05/06-230V-M2 FC-200-e6-B2;
FHA-05/06-230V-M2 FC-200-R35-e6-B2)

Model name	FHA-05/06-230V-M2 FS-e6-B2 + CEW-2-200 (FHA-05/06-230V-M2 FC-200-e6-B2; FHA-05/06-230V-M2 FC-200-R35-e6-B2)
Application	Heating + DHW + low temp
Units	Indoor, Outdoor
Climate zone (for heating)	Colder, Warmer, Warmer Climate, Colder 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	n/a
Off-peak product	n/a

Outdoor Air/Water

EN 16147 | Average Climate

Declared load profile	L
Efficiency η_{DHW}	110 %
COP	2.63
Heating up time	2:49 h:min
Standby power input	35.1 W
Reference hot water temperature	50.2 °C
Mixed water at 40°C	220 l

EN 16147 | Warmer Climate

Declared load profile	L
Efficiency η_{DHW}	134 %
COP	3.18
Heating up time	2:27 h:min
Standby power input	36.4 W
Reference hot water temperature	50.3 °C
Mixed water at 40°C	223 l

EN 14511-4 | Heating

Shutting off the heat transfer medium flow	passed
Complete power supply failure	passed
Defrost test	passed
Starting and operating test	passed

EN 14511-2 | Heating

	Low temperature	Medium temperature
Heat output	6.17 kW	5.66 kW

El input	1.25 kW	1.98 kW
COP	4.94	2.87
EN 14511-2 Cooling		
	+7°C/+12°C	+18°C/+23°C
El input	1.11 kW	1.59 kW
Cooling capacity	3.71	6.87
EER	3.33	4.31
EN 12102-1 Average Climate		
	Low temperature	Medium temperature
Sound power level indoor	30 dB(A)	30 dB(A)
Sound power level outdoor	59 dB(A)	59 dB(A)
EN 14825 Average Climate		
	Low temperature	Medium temperature
ηs	181 %	127 %
Prated	5.01 kW	4.41 kW
SCOP	4.59	3.24
Tbiv	-7 °C	-7 °C
TOL	-10 °C	-10 °C
Pdh Tj = -7°C	4.44 kW	3.91 kW
COP Tj = -7°C	2.92	1.92
Cdh Tj = -7 °C	0.900	0.900
Pdh Tj = +2°C	2.66 kW	2.93 kW
COP Tj = +2°C	4.98	3.17
Cdh Tj = +2 °C	0.900	0.989
Pdh Tj = +7°C	3.06 kW	3.74 kW
COP Tj = +7°C	5.53	4.43
Cdh Tj = +7 °C	0.982	0.988
Pdh Tj = 12°C	3.49 kW	3.60 kW
COP Tj = 12°C	5.15	6.25
Cdh Tj = +12 °C	0.985	0.983
Pdh Tj = Tbiv	4.44 kW	3.91 kW
COP Tj = Tbiv	2.92	1.92
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	4.01 kW	3.24 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.63	1.60
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	0.900	0.900
WTOL	65 °C	65 °C
Poff	9 W	9 W
PTO	10 W	10 W
PSB	16 W	16 W
PCK	0 W	0 W

Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	1.00 kW	1.17 kW
Annual energy consumption Qhe	2257 kWh	2812 kWh
EN 12102-1 Colder Climate		
	Low temperature	Medium temperature
Sound power level indoor	30 dB(A)	30 dB(A)
Sound power level outdoor	59 dB(A)	59 dB(A)
EN 14825 Colder Climate		
	Low temperature	Medium temperature
ηs	157 %	101 %
Prated	3.85 kW	3.20 kW
SCOP	4.00	2.59
Tbiv	-15 °C	-15 °C
TOL	-22 °C	-18 °C
Pdh Tj = -7°C	2.35 kW	2.93 kW
COP Tj = -7°C	3.58	2.15
Cdh Tj = -7 °C	0.900	0.993
Pdh Tj = +2°C	2.64 kW	2.99 kW
COP Tj = +2°C	4.89	3.34
Cdh Tj = +2 °C	0.982	0.989
Pdh Tj = +7°C	3.13 kW	2.85 kW
COP Tj = +7°C	6.15	4.38
Cdh Tj = +7 °C	0.981	0.985
Pdh Tj = 12°C	3.48 kW	3.45 kW
COP Tj = 12°C	5.10	4.99
Cdh Tj = +12 °C	0.985	0.986
Pdh Tj = Tbiv	3.14 kW	2.61 kW
COP Tj = Tbiv	2.30	1.37
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	2.86 kW	2.23 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	1.92	1.22
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	0.900	0.900
WTOL	65 °C	65 °C
Poff	9 W	9 W
PTO	10 W	10 W
PSB	16 W	16 W
PCK	0 W	0 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	0.99 kW	3.20 kW
Annual energy consumption Qhe	2376 kWh	3042 kWh
Pdh Tj = -15°C (if TOL)	3.14	2.61

COP Tj = -15°C (if TOL	2.30	1.37
Cdh Tj = -15 °C	0.900	0.900

EN 12102-1 | Warmer Climate

	Low temperature	Medium temperature
Sound power level indoor	30 dB(A)	30 dB(A)
Sound power level outdoor	59 dB(A)	59 dB(A)

EN 14825 | Warmer Climate

	Low temperature	Medium temperature
ηs	206 %	159 %
Prated	4.54 kW	4.15 kW
SCOP	5.21	4.05
Tbiv	2 °C	2 °C
TOL	2 °C	2 °C
Pdh Tj = +2°C	4.54 kW	4.15 kW
COP Tj = +2°C	3.71	2.18
Cdh Tj = +2 °C	0.900	0.900
Pdh Tj = +7°C	3.13 kW	3.77 kW
COP Tj = +7°C	6.04	3.39
Cdh Tj = +7 °C	0.900	0.991
Pdh Tj = 12°C	3.48 kW	4.19 kW
COP Tj = 12°C	5.06	5.51
Cdh Tj = +12 °C	0.986	0.987
Pdh Tj = Tbiv	4.54 kW	4.15 kW
COP Tj = Tbiv	3.71	2.18
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	4.54 kW	4.15 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	3.71	2.18
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	0.900	0.900
WTOL	65 °C	65 °C
Poff	9 W	9 W
PTO	10 W	10 W
PSB	16 W	16 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	1164 kWh	1366 kWh

EN 14825 | Cooling

	+7°C/+12°C	+18°C/+23°C
Pdesignc	3.71 kW	6.90 kW
SEER	3.99	5.65

Pdc Tj = 35°C	3.71 kW	6.90 kW
EER Tj = 35°C	3.33	4.31
Pdc Tj = 30°C	2.82 kW	5.16 kW
EER Tj = 30°C	3.93	6.68
Cdc Tj = 30 °C	0.900	0.900
Pdc Tj = 25°C	2.12 kW	3.29 kW
EER Tj = 25°C	4.14	6.17
Cdc Tj = 25 °C	0.981	0.250
Pdc Tj = 20°C	2.42 kW	3.09 kW
EER Tj = 20°C	5.31	6.65
Cdc Tj = 20 °C	0.978	0.979
Poff	9 W	9 W
PTO	10 W	10 W
PSB	16 W	16 W
PCK	0 W	0 W
Annual energy consumption Qce	887 kWh	1164 kWh

Model FHA-06/07-230V-M2 FS-e6-B2 + CEW-2-200 (FHA-06/07-230V-M2 FC-200-e6-B2;
FHA-06/07-230V-M2 FC-200-R35-e6-B2)

Model name	FHA-06/07-230V-M2 FS-e6-B2 + CEW-2-200 (FHA-06/07-230V-M2 FC-200-e6-B2; FHA-06/07-230V-M2 FC-200-R35-e6-B2)
Application	Heating + DHW + low temp
Units	Indoor, Outdoor
Climate zone (for heating)	Colder, Warmer, Warmer Climate, Colder 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	n/a
Off-peak product	n/a

Outdoor Air/Water

EN 16147 | Average Climate

Declared load profile	XL
Efficiency η_{DHW}	117 %
COP	2.82
Heating up time	2:21 h:min
Standby power input	41.0 W
Reference hot water temperature	51.0 °C
Mixed water at 40°C	225 l

EN 16147 | Warmer Climate

Declared load profile	XL
Efficiency η_{DHW}	157 %
COP	3.76
Heating up time	2:12 h:min
Standby power input	36.5 W
Reference hot water temperature	51.2 °C
Mixed water at 40°C	225 l

EN 14511-4 | Heating

Shutting off the heat transfer medium flow passed

Complete power supply failure	passed
Defrost test	passed
Starting and operating test	passed

EN 14511-2 | Heating

	Low temperature	Medium temperature
Heat output	7.66 kW	6.88 kW

El input	1.59 kW	2.39 kW
COP	4.81	2.88
EN 14511-2 Cooling		
	+7°C/+12°C	+18°C/+23°C
El input	2.00 kW	1.46 kW
Cooling capacity	5.71	6.42
EER	2.85	4.41
EN 12102-1 Average Climate		
	Low temperature	Medium temperature
Sound power level indoor	30 dB(A)	30 dB(A)
Sound power level outdoor	58 dB(A)	58 dB(A)
EN 14825 Average Climate		
	Low temperature	Medium temperature
ηs	167 %	129 %
Prated	6.32 kW	5.62 kW
SCOP	4.26	3.30
Tbiv	-7 °C	-7 °C
TOL	-10 °C	-10 °C
Pdh Tj = -7°C	5.59 kW	4.97 kW
COP Tj = -7°C	2.83	1.98
Cdh Tj = -7 °C	0.900	0.900
Pdh Tj = +2°C	3.64 kW	2.97 kW
COP Tj = +2°C	4.42	3.32
Cdh Tj = +2 °C	0.900	0.900
Pdh Tj = +7°C	2.96 kW	2.82 kW
COP Tj = +7°C	5.19	4.35
Cdh Tj = +7 °C	0.970	0.974
Pdh Tj = 12°C	3.30 kW	3.39 kW
COP Tj = 12°C	5.35	5.41
Cdh Tj = +12 °C	0.972	0.973
Pdh Tj = Tbiv	5.59 kW	4.97 kW
COP Tj = Tbiv	2.83	1.98
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	5.14 kW	3.64 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.59	1.59
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	0.900	0.900
WTOL	65 °C	65 °C
Poff	7 W	7 W
PTO	17 W	17 W
PSB	12 W	12 W
PCK	0 W	0 W

Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	1.18 kW	1.97 kW
Annual energy consumption Qhe	3067 kWh	3517 kWh
EN 12102-1 Colder Climate		
	Low temperature	Medium temperature
Sound power level indoor	30 dB(A)	30 dB(A)
Sound power level outdoor	58 dB(A)	58 dB(A)
EN 14825 Colder Climate		
	Low temperature	Medium temperature
ηs	156 %	109 %
Prated	5.08 kW	4.96 kW
SCOP	3.99	2.80
Tbiv	-15 °C	-15 °C
TOL	-22 °C	-18 °C
Pdh Tj = -7°C	3.03 kW	3.22 kW
COP Tj = -7°C	3.63	2.37
Cdh Tj = -7 °C	0.900	0.900
Pdh Tj = +2°C	2.59 kW	2.35 kW
COP Tj = +2°C	4.91	3.56
Cdh Tj = +2 °C	0.968	0.974
Pdh Tj = +7°C	2.95 kW	2.80 kW
COP Tj = +7°C	5.18	4.01
Cdh Tj = +7 °C	0.970	0.976
Pdh Tj = 12°C	3.31 kW	3.23 kW
COP Tj = 12°C	5.30	4.20
Cdh Tj = +12 °C	0.973	0.978
Pdh Tj = Tbiv	4.15 kW	4.05 kW
COP Tj = Tbiv	2.54	1.75
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	3.15 kW	3.01 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	1.88	1.36
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	0.900	0.900
WTOL	65 °C	65 °C
Poff	7 W	7 W
PTO	17 W	17 W
PSB	12 W	12 W
PCK	0 W	0 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	1.93 kW	4.96 kW
Annual energy consumption Qhe	3142 kWh	4369 kWh
Pdh Tj = -15°C (if TOL)	4.15	4.05

COP Tj = -15°C (if TOL	2.54	1.75
Cdh Tj = -15 °C	0.900	0.900

EN 12102-1 | Warmer Climate

	Low temperature	Medium temperature
Sound power level indoor	30 dB(A)	30 dB(A)
Sound power level outdoor	58 dB(A)	58 dB(A)

EN 14825 | Warmer Climate

	Low temperature	Medium temperature
ηs	191 %	141 %
Prated	5.48 kW	4.80 kW
SCOP	4.86	3.59
Tbiv	2 °C	2 °C
TOL	2 °C	2 °C
Pdh Tj = +2°C	5.48 kW	4.80 kW
COP Tj = +2°C	3.73	2.20
Cdh Tj = +2 °C	0.900	0.900
Pdh Tj = +7°C	3.55 kW	3.78 kW
COP Tj = +7°C	4.88	3.47
Cdh Tj = +7 °C	0.900	0.984
Pdh Tj = 12°C	3.30 kW	3.20 kW
COP Tj = 12°C	5.26	4.15
Cdh Tj = +12 °C	0.973	0.978
Pdh Tj = Tbiv	5.48 kW	4.80 kW
COP Tj = Tbiv	3.73	2.20
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	5.48 kW	4.80 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	3.73	2.20
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	0.900	0.900
WTOL	65 °C	65 °C
Poff	7 W	7 W
PTO	17 W	17 W
PSB	12 W	12 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	1508 kWh	1788 kWh

EN 14825 | Cooling

	+7°C/+12°C	+18°C/+23°C
Pdesignc	5.72 kW	6.43 kW
SEER	3.54	5.39

Pdc Tj = 35°C	5.72 kW	6.43 kW
EER Tj = 35°C	2.86	4.42
Pdc Tj = 30°C	4.21 kW	4.66 kW
EER Tj = 30°C	4.27	6.54
Cdc Tj = 30 °C	0.900	0.900
Pdc Tj = 25°C	2.61 kW	3.48 kW
EER Tj = 25°C	4.06	7.20
Cdc Tj = 25 °C	0.250	0.965
Pdc Tj = 20°C	2.36 kW	3.30 kW
EER Tj = 20°C	5.19	7.10
Cdc Tj = 20 °C	0.963	0.963
Poff	7 W	7 W
PTO	17 W	17 W
PSB	12 W	12 W
PCK	0 W	0 W
Annual energy consumption Qce	1542 kWh	1138 kWh