

Subtype Mono Series 22 30kW

Certificate Holder	Wamsler Bioenergy GmbH
Address	Adalperostrasse 86
ZIP	85737
City	Ismaning
Country	DE
Certification Body	BRE Global Limited
Subtype title	Mono Series 22 30kW
Registration number	041-K075-04
Heat Pump Type	Outdoor Air/Water
Refrigerant	R32
Mass of Refrigerant	5 kg
Certification Date	16.11.2023
Testing basis	Heat Pump Keymark Scheme Rules Rev 12

Model HPM3P22KWDWA

Model name	HPM3P22KWDWA
Application	Heating (medium temp)
Units	Outdoor
Climate zone (for heating)	Warmer Climate, Colder Climate
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	22.30 kW	22.10 kW
El input	5.13 kW	8.33 kW
COP	4.35	2.65

EN 12102-1 | Average Climate

	Low temperature	Medium temperature
Sound power level outdoor	73 dB(A)	73 dB(A)

EN 14825 | Average Climate

	Low temperature	Medium temperature
η_s	178 %	126 %
Prated	22.31 kW	22.43 kW
SCOP	4.53	3.22
Tbiv	-7 °C	-7 °C
TOL	-10 °C	-10 °C
Pdh Tj = -7°C	19.72 kW	19.82 kW
COP Tj = -7°C	2.74	1.74
Cdh Tj = -7 °C	0.90	0.90
Pdh Tj = +2°C	12.03 kW	11.89 kW
COP Tj = +2°C	4.41	3.32
Cdh Tj = +2 °C	0.90	0.90
Pdh Tj = +7°C	8.00 kW	7.97 kW

COP Tj = +7°C	6.29	4.66
Cdh Tj = +7 °C	0.90	0.90
Pdh Tj = 12°C	3.79 kW	3.60 kW
COP Tj = 12°C	7.14	5.32
Cdh Tj = +12 °C	0.90	0.90
Pdh Tj = Tbiv	19.72 kW	19.82 kW
COP Tj = Tbiv	2.74	1.74
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	20.33 kW	13.81 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.35	1.08
WTOL	60 °C	60 °C
Poff	18 W	18 W
PTO	96 W	96 W
PSB	18 W	18 W
PCK	0 W	0 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	1.97 kW	8.60 kW
Annual energy consumption Qhe	10180 kWh	14390 kWh

EN 12102-1 | Colder Climate

	Low temperature	Medium temperature
Sound power level outdoor	73 dB(A)	73 dB(A)

EN 14825 | Colder Climate

	Low temperature	Medium temperature
ηs	146 %	102 %
Prated	21.40 kW	22.36 kW
SCOP	3.72	2.62
Tbiv	-15 °C	-7 °C
TOL	-22 °C	-15 °C
Pdh Tj = -7°C	13.30 kW	13.53 kW
COP Tj = -7°C	3.12	2.07
Cdh Tj = -7 °C	0.90	0.90
Pdh Tj = +2°C	8.25 kW	8.61 kW
COP Tj = +2°C	4.42	3.70
Cdh Tj = +2 °C	0.90	0.90
Pdh Tj = +7°C	5.45 kW	5.21 kW
COP Tj = +7°C	5.87	4.49
Cdh Tj = +7 °C	0.90	0.90
Pdh Tj = 12°C	3.98 kW	3.74 kW
COP Tj = 12°C	7.19	5.76
Cdh Tj = +12 °C	0.90	0.90
Pdh Tj = Tbiv	17.46 kW	13.53 kW
COP Tj = Tbiv	2.36	2.07

Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	13.27 kW	13.78 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	1.69	1.24
WTOL	60 °C	60 °C
Poff	20 W	20 W
PTO	96 W	96 W
PSB	18 W	18 W
PCK	0 W	0 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	8.13 kW	22.36 kW
Annual energy consumption Qhe	14179 kWh	21067 kWh
Pdh Tj = -15°C (if TOL	17.46	13.78
COP Tj = -15°C (if TOL	2.36	1.24
Cdh Tj = -15 °C	0.90	0.90

EN 12102-1 | Warmer Climate

	Low temperature	Medium temperature
Sound power level outdoor	73 dB(A)	73 dB(A)

EN 14825 | Warmer Climate

	Low temperature	Medium temperature
ηs	234 %	161 %
Prated	21.90 kW	22.01 kW
SCOP	5.85	4.09
Tbiv	7 °C	7 °C
TOL	2 °C	2 °C
Pdh Tj = +2°C	21.81 kW	22.01 kW
COP Tj = +2°C	3.31	2.12
Cdh Tj = +2 °C	0.900	0.900
Pdh Tj = +7°C	14.08 kW	14.15 kW
COP Tj = +7°C	5.20	3.50
Cdh Tj = +7 °C	0.900	0.900
Pdh Tj = 12°C	6.44 kW	6.38 kW
COP Tj = 12°C	7.50	5.34
Cdh Tj = +12 °C	0.900	0.900
Pdh Tj = Tbiv	14.08 kW	14.15 kW
COP Tj = Tbiv	5.20	3.50
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	21.81 kW	22.01 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	3.31	2.12
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh		
WTOL	60 °C	60 °C
Poff	18 W	18 W

PTO	96 W	96 W
PSB	18 W	18 W
PCK	0 W	0 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	0.09 kW	0.00 kW
Annual energy consumption Q _{he}	4945 kWh	7180 kWh

Model HPM3P30KWDWA

Model name	HPM3P30KWDWA
Application	Heating (medium temp)
Units	Outdoor
Climate zone (for heating)	Warmer Climate, Colder Climate
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	29.93 kW	29.68 kW
El input	8.02 kW	12.97 kW
COP	3.73	2.29

EN 12102-1 | Average Climate

	Low temperature	Medium temperature
Sound power level outdoor	77 dB(A)	77 dB(A)

EN 14825 | Average Climate

	Low temperature	Medium temperature
η_s	165 %	123 %
Prated	29.18 kW	29.69 kW
SCOP	4.19	3.14
Tbiv	-5 °C	-5 °C
TOL	-10 °C	-10 °C
Pdh Tj = -7°C	21.90 kW	20.11 kW
COP Tj = -7°C	2.54	1.63
Cdh Tj = -7 °C	0.90	0.90
Pdh Tj = +2°C	16.16 kW	16.49 kW
COP Tj = +2°C	4.16	3.09
Cdh Tj = +2 °C	0.90	0.90
Pdh Tj = +7°C	10.64 kW	10.50 kW

COP Tj = +7°C	6.38	4.75
Cdh Tj = +7 °C	0.90	0.90
Pdh Tj = 12°C	4.54 kW	4.64 kW
COP Tj = 12°C	7.72	5.91
Cdh Tj = +12 °C	0.90	0.90
Pdh Tj = Tbiv	23.51 kW	23.97 kW
COP Tj = Tbiv	2.71	2.02
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	20.37 kW	13.82 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.35	1.07
WTOL	60 °C	60 °C
Poff	18 W	18 W
PTO	96 W	96 W
PSB	18 W	18 W
PCK	0 W	0 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	8.75 kW	15.86 kW
Annual energy consumption Qhe	14165 kWh	19316.17 kWh

EN 12102-1 | Colder Climate

	Low temperature	Medium temperature
Sound power level outdoor	77 dB(A)	77 dB(A)

EN 14825 | Colder Climate

	Low temperature	Medium temperature
ηs	138 %	100 %
Prated	29.13 kW	30.41 kW
SCOP	3.52	2.56
Tbiv	-10 °C	-7 °C
TOL	-22 °C	-15 °C
Pdh Tj = -7°C	18.49 kW	18.40 kW
COP Tj = -7°C	3.07	2.10
Cdh Tj = -7 °C	0.90	0.90
Pdh Tj = +2°C	11.88 kW	11.22 kW
COP Tj = +2°C	4.42	3.51
Cdh Tj = +2 °C	0.90	0.90
Pdh Tj = +7°C	7.53 kW	7.42 kW
COP Tj = +7°C	6.15	5.18
Cdh Tj = +7 °C	0.90	0.90
Pdh Tj = 12°C	4.11 kW	3.64 kW
COP Tj = 12°C	6.87	5.73
Cdh Tj = +12 °C	0.90	0.90
Pdh Tj = Tbiv	19.93 kW	18.40 kW
COP Tj = Tbiv	2.44	2.10

Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	13.17 kW	13.06 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	1.67	1.18
WTOL	60 °C	60 °C
Poff	18 W	18 W
PTO	96 W	96 W
PSB	18 W	18 W
PCK	0 W	0 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	15.96 kW	30.41 kW
Annual energy consumption Qhe	20390 kWh	29238 kWh
Pdh Tj = -15°C (if TOL	18.61	13.06
COP Tj = -15°C (if TOL	2.24	1.18
Cdh Tj = -15 °C	0.90	0.90

EN 12102-1 | Warmer Climate

	Low temperature	Medium temperature
Sound power level outdoor	77 dB(A)	77 dB(A)

EN 14825 | Warmer Climate

	Low temperature	Medium temperature
ηs	213 %	163 %
Prated	30.44 kW	29.73 kW
SCOP	5.39	4.15
Tbiv	7 °C	7 °C
TOL	2 °C	2 °C
Pdh Tj = +2°C	26.29 kW	26.41 kW
COP Tj = +2°C	2.94	1.99
Cdh Tj = +2 °C	0.90	0.90
Pdh Tj = +7°C	19.57 kW	19.11 kW
COP Tj = +7°C	4.75	3.37
Cdh Tj = +7 °C	0.90	0.90
Pdh Tj = 12°C	8.90 kW	8.92 kW
COP Tj = 12°C	7.53	6.09
Cdh Tj = +12 °C	0.90	0.90
Pdh Tj = Tbiv	19.57 kW	19.11 kW
COP Tj = Tbiv	4.75	3.37
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	26.29 kW	26.41 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.94	1.99
WTOL	60 °C	60 °C
Poff	18 W	18 W
PTO	96 W	96 W
PSB	18 W	18 W

PCK	0 W	0 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	4.15 kW	3.32 kW
Annual energy consumption Q _{he}	7540 kWh	9580 kWh