

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
Testing laboratory	TÜV SÜD Certification and Testing Co., Ltd. Guangzhou Branch, CN

**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
$\eta_s$	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 Qhe	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
$\eta_s$	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 Qhe	7540 kWh	9580 kWh