

Subtype Mono Series 12 14 16kW

Certificate Holder	Wamsler Bioenergy GmbH
Address	Adalperostrasse 86
ZIP	85737
City	Ilsmaning
Country	DE
Certification Body	BRE Global Limited
Subtype title	Mono Series 12 14 16kW
Registration number	041-K075-06
Heat Pump Type	Outdoor Air/Water
Refrigerant	R32
Mass of Refrigerant	1.8 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 HPM3P12KWEWA**

Model name	HPM3P12KWEWA
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	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	12.2 kW	12 kW
El input	2.49 kW	4 kW
COP	4.9	3

**EN 12102-1 | Average Climate**

	Low temperature	Medium temperature
Sound power level outdoor	70 dB(A)	70 dB(A)

**EN 14825 | Average Climate**

	Low temperature	Medium temperature
$\eta_s$	200.2 %	141.6 %
Prated	12.3 kW	12.5 kW
SCOP	5.08	3.62
Tbiv	-7 °C	-7 °C
TOL	-10 °C	-10 °C
Pdh Tj = -7°C	10.85 kW	11.06 kW
COP Tj = -7°C	3.11	2.15
Cdh Tj = -7 °C	0.9	0.9
Pdh Tj = +2°C	6.79 kW	6.91 kW
COP Tj = +2°C	4.86	3.59
Cdh Tj = +2 °C	0.9	0.9
Pdh Tj = +7°C	4.79 kW	4.64 kW

COP Tj = +7°C	6.98	5.07
Cdh Tj = +7 °C	0.9	0.9
Pdh Tj = 12°C	3.73 kW	2.15 kW
COP Tj = 12°C	9.02	4.52
Cdh Tj = +12 °C	0.9	0.9
Pdh Tj = Tbiv	10.85 kW	11.06 kW
COP Tj = Tbiv	3.11	2.15
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	12.3 kW	10.97 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.8	1.98
WTOL	65 °C	65 °C
Poff	6 W	6 W
PTO	18 W	18 W
PSB	6 W	6 W
PCK	0 W	0 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	0 kW	1.53 kW
Annual energy consumption Qhe	5003 kWh	7148 kWh

**EN 12102-1 | Colder Climate**

	Low temperature	Medium temperature
Sound power level outdoor	70 dB(A)	70 dB(A)

**EN 14825 | Colder Climate**

	Low temperature	Medium temperature
ηs	168.8 %	126 %
Prated	12.5 kW	11.3 kW
SCOP	4.3	3.23
Tbiv	-15 °C	-15 °C
TOL	-22 °C	-22 °C
Pdh Tj = -7°C	8.08 kW	7.09 kW
COP Tj = -7°C	3.64	2.75
Cdh Tj = -7 °C	0.9	0.9
Pdh Tj = +2°C	4.93 kW	4.44 kW
COP Tj = +2°C	5.34	3.88
Cdh Tj = +2 °C	0.9	0.9
Pdh Tj = +7°C	3.17 kW	3 kW
COP Tj = +7°C	5.28	4.88
Cdh Tj = +7 °C	0.9	0.9
Pdh Tj = 12°C	3.69 kW	3.6 kW
COP Tj = 12°C	9.34	6.61
Cdh Tj = +12 °C	0.9	0.9
Pdh Tj = Tbiv	10.17 kW	9.21 kW
COP Tj = Tbiv	2.66	1.92

Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	8.72 kW	7 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.08	1.38
WTOL	65 °C	65 °C
Poff	6 W	6 W
PTO	18 W	18 W
PSB	6 W	6 W
PCK	0 W	0 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	3.78 kW	4.3 kW
Annual energy consumption Qhe	7153 kWh	8628 kWh
Pdh Tj = -15°C (if TOL)	10.17	9.21
COP Tj = -15°C (if TOL Cdh Tj = -15 °C	2.66	1.92
	0.9	0.9

**EN 12102-1 | Warmer Climate**

	Low temperature	Medium temperature
Sound power level outdoor	70 dB(A)	70 dB(A)

**EN 14825 | Warmer Climate**

	Low temperature	Medium temperature
ηs	262.5 %	179 %
Prated	12.1 kW	12 kW
SCOP	6.64	4.55
Tbiv	7 °C	7 °C
TOL	2 °C	2 °C
Pdh Tj = +2°C	12.1 kW	12 kW
COP Tj = +2°C	3.53	2.39
Cdh Tj = +2 °C	0.9	0.9
Pdh Tj = +7°C	7.78 kW	7.73 kW
COP Tj = +7°C	5.82	3.86
Cdh Tj = +7 °C	0.9	0.9
Pdh Tj = 12°C	3.64 kW	3.59 kW
COP Tj = 12°C	8.31	5.88
Cdh Tj = +12 °C	0.9	0.9
Pdh Tj = Tbiv	7.78 kW	7.73 kW
COP Tj = Tbiv	5.82	3.86
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	12.1 kW	12 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	3.53	2.39
WTOL	65 °C	65 °C
Poff	6 W	6 W
PTO	18 W	18 W
PSB	6 W	6 W

PCK	0 W	0 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	0 kW	0 kW
Annual energy consumption Qhe	2435 kWh	3523 kWh

**Model HPM3P16KWEWA**

Model name	HPM3P16KWEWA
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	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	16.00 kW	16.00 kW
El input	3.56 kW	5.61 kW
COP	4.50	2.85

**EN 12102-1 | Average Climate**

	Low temperature	Medium temperature
Sound power level outdoor	72 dB(A)	72 dB(A)

**EN 14825 | Average Climate**

	Low temperature	Medium temperature
$\eta_s$	190.5 %	140.7 %
Prated	15.20 kW	14.70 kW
SCOP	4.84	3.59
Tbiv	-7 °C	-7 °C
TOL	-10 °C	-10 °C
Pdh Tj = -7°C	13.49 kW	13.03 kW
COP Tj = -7°C	2.87	2.16
Cdh Tj = -7 °C	0.90	0.90
Pdh Tj = +2°C	8.59 kW	8.50 kW
COP Tj = +2°C	4.53	3.55
Cdh Tj = +2 °C	0.90	0.90
Pdh Tj = +7°C	5.55 kW	5.27 kW

COP Tj = +7°C	7.01	5.05
Cdh Tj = +7 °C	0.90	0.90
Pdh Tj = 12°C	3.73 kW	2.15 kW
COP Tj = 12°C	9.02	4.52
Cdh Tj = +12 °C	0.90	0.90
Pdh Tj = Tbiv	13.49 kW	13.03 kW
COP Tj = Tbiv	2.87	2.16
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	14.05 kW	12.07 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.65	1.94
WTOL	65.00 °C	65.00 °C
Poff	6.00 W	6.00 W
PTO	18.00 W	18.00 W
PSB	6.00 W	6.00 W
PCK	0.00 W	0.00 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	1.15 kW	2.63 kW
Annual energy consumption Qhe	6509 kWh	8460 kWh

**EN 12102-1 | Colder Climate**

	Low temperature	Medium temperature
Sound power level outdoor	72 dB(A)	72 dB(A)

**EN 14825 | Colder Climate**

	Low temperature	Medium temperature
ηs	170.9 %	124.3 %
Prated	15.10 kW	13.50 kW
SCOP	4.35	3.18
Tbiv	-15.00 °C	-15.00 °C
TOL	-22.00 °C	-22.00 °C
Pdh Tj = -7°C	9.26 kW	8.43 kW
COP Tj = -7°C	3.59	2.77
Cdh Tj = -7 °C	0.90	0.90
Pdh Tj = +2°C	5.76 kW	5.20 kW
COP Tj = +2°C	5.35	3.74
Cdh Tj = +2 °C	0.90	0.90
Pdh Tj = +7°C	3.76 kW	3.53 kW
COP Tj = +7°C	7.04	5.19
Cdh Tj = +7 °C	0.90	0.90
Pdh Tj = 12°C	3.72 kW	3.61 kW
COP Tj = 12°C	8.78	6.61
Cdh Tj = +12 °C	0.90	0.90
Pdh Tj = Tbiv	12.30 kW	11.03 kW
COP Tj = Tbiv	2.58	1.85

Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	9.43 kW	7.52 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.00	1.30
WTOL	65.00 °C	65.00 °C
Poff	6.00 W	6.00 W
PTO	18.00 W	18.00 W
PSB	6.00 W	6.00 W
PCK	0.00 W	0.00 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	5.67 kW	5.98 kW
Annual energy consumption Qhe	8546 kWh	10473 kWh
Pdh Tj = -15°C (if TOL)	12.30	11.03
COP Tj = -15°C (if TOL	2.58	1.85
Cdh Tj = -15 °C	0.90	0.90

**EN 12102-1 | Warmer Climate**

	Low temperature	Medium temperature
Sound power level outdoor	72 dB(A)	72 dB(A)

**EN 14825 | Warmer Climate**

	Low temperature	Medium temperature
ηs	255.5 %	184 %
Prated	14.20 kW	14.50 kW
SCOP	6.46	4.68
Tbiv	7 °C	7 °C
TOL	2 °C	2 °C
Pdh Tj = +2°C	14.20 kW	13.62 kW
COP Tj = +2°C	3.22	2.35
Cdh Tj = +2 °C	0.90	0.90
Pdh Tj = +7°C	9.15 kW	9.35 kW
COP Tj = +7°C	5.41	3.94
Cdh Tj = +7 °C	0.90	0.90
Pdh Tj = 12°C	4.24 kW	4.26 kW
COP Tj = 12°C	8.56	6.37
Cdh Tj = +12 °C	0.90	0.90
Pdh Tj = Tbiv	9.15 kW	9.35 kW
COP Tj = Tbiv	5.41	3.94
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	14.20 kW	13.62 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	3.22	2.35
WTOL	65.00 °C	65.00 °C
Poff	6.00 W	13.00 W
PTO	18.00 W	20.00 W
PSB	6.00 W	13.00 W

PCK	0.00 W	0.00 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	0.00 kW	0.91 kW
Annual energy consumption Qhe	2935 kWh	4153 kWh