

Subtype Ecodan Zubadan 14-200D Packaged

Certificate Holder	Mitsubishi Electric Air Conditioning Systems Europe LTD
Address	Nettlehill Road, Houston Industrial Estate
ZIP	EH54 5EQ
City	Livingston
Country	GB
Certification Body	SZU - Strojirensky zkusebni ustav (Engineering Test Institute, Public Enterprise)
Subtype title	Ecodan Zubadan 14-200D Packaged
Registration number	037-0035-20
Heat Pump Type	Outdoor Air/Water
Refrigerant	R32
Mass of Refrigerant	3.3 kg
Certification Date	19.12.2023
Testing basis	HP Keymark scheme rules rev. no. 6
Testing laboratory	SZU Brno, CZ

Model PUZ-HWM140VHA(-BS) + EHPT20X-M*D

Model name	PUZ-HWM140VHA(-BS) + EHPT20X-M*D
Application	Heating + DHW + low temp
Units	Indoor, Outdoor
Climate zone (for heating)	Warmer Climate
Heat Source	Outdoor Air
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 16147 | Average Climate**

Declared load profile	L
Efficiency η_{DHW}	130 %
COP	3.07
Heating up time	01:46 h:min
Standby power input	38 W
Reference hot water temperature	52.5 °C
Mixed water at 40°C	278 l

EN 16147 | Warmer Climate

Declared load profile	L
Efficiency η_{DHW}	152 %
COP	3.58
Heating up time	01:34 h:min
Standby power input	35 W
Reference hot water temperature	52.5 °C
Mixed water at 40°C	278 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	14 kW	14 kW
El input	3.14 kW	5.24 kW
COP	4.46	2.67

EN 12102-1 | Average Climate

	Low temperature	Medium temperature
Sound power level indoor	40 dB(A)	40 dB(A)
Sound power level outdoor	67 dB(A)	67 dB(A)

EN 14825 | Average Climate

	Low temperature	Medium temperature
η_S	176 %	132 %
P _{rated}	14 kW	14 kW
SCOP	4.47	3.37
T _{biv}	-7 °C	-7 °C
T _{OL}	-28 °C	-28 °C
P _{dh T_j} = -7°C	12.4 kW	12.4 kW
COP T _j = -7°C	2.55	1.98
C _{dh T_j} = -7 °C	1	1
P _{dh T_j} = +2°C	7.5 kW	7.5 kW
COP T _j = +2°C	4.4	3.25
C _{dh T_j} = +2 °C	0.99	0.99
P _{dh T_j} = +7°C	4.9 kW	5.1 kW
COP T _j = +7°C	6.28	4.64
C _{dh T_j} = +7 °C	0.98	0.99
P _{dh T_j} = 12°C	5.7 kW	5.2 kW
COP T _j = 12°C	7.43	6.24
C _{dh T_j} = +12 °C	0.98	0.98
P _{dh T_j} = T _{biv}	12.4 kW	12.4 kW
COP T _j = T _{biv}	2.55	1.98
P _{dh T_j} = T _{OL} or P _{dh T_j} = T _{designh} if T _{OL} < T _{designh}	13.9 kW	13.9 kW
COP T _j = T _{OL} or COP T _j = T _{designh} if T _{OL} < T _{designh}	2.4	1.75
WT _{OL}	60 °C	60 °C
P _{off}	15 W	15 W
PTO	15 W	15 W
PSB	15 W	15 W
PCK	0 W	0 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	0.1 kW	0.1 kW
Annual energy consumption Q _{he}	6470 kWh	8589 kWh

EN 12102-1 | Warmer Climate

	Low temperature	Medium temperature
Sound power level indoor	40 dB(A)	40 dB(A)
Sound power level outdoor	67 dB(A)	67 dB(A)

EN 14825 | Warmer Climate

	Low temperature	Medium temperature
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η_s	227 %	160 %
Prated	14 kW	14 kW
SCOP	5.75	4.07
Tbiv	2 °C	2 °C
TOL	-28 °C	-28 °C
Pdh Tj = +2°C	14 kW	14 kW
COP Tj = +2°C	3.15	1.94
Cdh Tj = +2 °C	1	1
Pdh Tj = +7°C	9 kW	9 kW
COP Tj = +7°C	5.1	3.25
Cdh Tj = +7 °C	0.99	1
Pdh Tj = 12°C	5.5 kW	5.2 kW
COP Tj = 12°C	7.43	5.91
Cdh Tj = +12 °C	0.98	0.98
Pdh Tj = Tbiv	14 kW	14 kW
COP Tj = Tbiv	3.15	1.94
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	14 kW	14 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	3.15	1.94
WTOL	60 °C	60 °C
Poff	15 W	15 W
PTO	15 W	15 W
PSB	15 W	15 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	3252 kWh	4593 kWh

Model PUZ-HWM140VHA(-BS) + EHPT20X-*M*D

Model name	PUZ-HWM140VHA(-BS) + EHPT20X-*M*D
Application	Heating + DHW + low temp
Units	Indoor, Outdoor
Climate zone (for heating)	Warmer Climate
Heat Source	Outdoor Air
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 16147 | Average Climate**

Declared load profile	L
Efficiency η_{DHW}	130 %
COP	3.07
Heating up time	01:46 h:min
Standby power input	38 W
Reference hot water temperature	52.5 °C
Mixed water at 40°C	278 l

EN 16147 | Warmer Climate

Declared load profile	L
Efficiency η_{DHW}	152 %
COP	3.58
Heating up time	01:34 h:min
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Mixed water at 40°C	278 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	14 kW	14 kW
El input	3.14 kW	5.24 kW
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EN 12102-1 | Average Climate

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EN 14825 | Average Climate

	Low temperature	Medium temperature
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P _{dh T_j} = -7°C	12.4 kW	12.4 kW
COP T _j = -7°C	2.55	1.98
C _{dh T_j} = -7 °C	1	1
P _{dh T_j} = +2°C	7.5 kW	7.5 kW
COP T _j = +2°C	4.4	3.25
C _{dh T_j} = +2 °C	0.99	0.99
P _{dh T_j} = +7°C	4.9 kW	5.1 kW
COP T _j = +7°C	6.28	4.64
C _{dh T_j} = +7 °C	0.98	0.99
P _{dh T_j} = 12°C	5.7 kW	5.2 kW
COP T _j = 12°C	7.43	6.24
C _{dh T_j} = +12 °C	0.98	0.98
P _{dh T_j} = T _{biv}	12.4 kW	12.4 kW
COP T _j = T _{biv}	2.55	1.98
P _{dh T_j} = T _{OL} or P _{dh T_j} = T _{designh} if T _{OL} < T _{designh}	13.9 kW	13.9 kW
COP T _j = T _{OL} or COP T _j = T _{designh} if T _{OL} < T _{designh}	2.4	1.75
WT _{OL}	60 °C	60 °C
P _{off}	15 W	15 W
PTO	15 W	15 W
PSB	15 W	15 W
PCK	0 W	0 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	0.1 kW	0.1 kW
Annual energy consumption Q _{he}	6470 kWh	8589 kWh

EN 12102-1 | Warmer Climate

	Low temperature	Medium temperature
Sound power level indoor	40 dB(A)	40 dB(A)
Sound power level outdoor	67 dB(A)	67 dB(A)

EN 14825 | Warmer Climate

	Low temperature	Medium temperature
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Cdh Tj = +2 °C	1	1
Pdh Tj = +7°C	9 kW	9 kW
COP Tj = +7°C	5.1	3.25
Cdh Tj = +7 °C	0.99	1
Pdh Tj = 12°C	5.5 kW	5.2 kW
COP Tj = 12°C	7.43	5.91
Cdh Tj = +12 °C	0.98	0.98
Pdh Tj = Tbiv	14 kW	14 kW
COP Tj = Tbiv	3.15	1.94
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	14 kW	14 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	3.15	1.94
WTOL	60 °C	60 °C
Poff	15 W	15 W
PTO	15 W	15 W
PSB	15 W	15 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	3252 kWh	4593 kWh

Model PUZ-HWM140VHA(-BS) + EHPX-M*D

Model name	PUZ-HWM140VHA(-BS) + EHPX-M*D
Application	Heating (medium temp)
Units	Indoor, Outdoor
Climate zone (for heating)	Warmer Climate
Heat Source	Outdoor Air
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 kW	14 kW
El input	3.14 kW	5.24 kW
COP	4.46	2.67

EN 12102-1 | Average Climate

	Low temperature	Medium temperature
Sound power level indoor	40 dB(A)	40 dB(A)
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EN 14825 | Average Climate

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η_s	176 %	132 %
Prated	14 kW	14 kW
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TOL	-28 °C	-28 °C
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COP Tj = -7°C	2.55	1.98
Cdh Tj = -7 °C	1	1
Pdh Tj = +2°C	7.5 kW	7.5 kW
COP Tj = +2°C	4.4	3.25
Cdh Tj = +2 °C	0.99	0.99

Pdh Tj = +7°C	4.9 kW	5.1 kW
COP Tj = +7°C	6.28	4.64
Cdh Tj = +7 °C	0.98	0.99
Pdh Tj = 12°C	5.7 kW	5.2 kW
COP Tj = 12°C	7.43	6.24
Cdh Tj = +12 °C	0.98	0.98
Pdh Tj = Tbiv	12.4 kW	12.4 kW
COP Tj = Tbiv	2.55	1.98
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	13.9 kW	13.9 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.4	1.75
WTOL	60 °C	60 °C
Poff	15 W	15 W
PTO	15 W	15 W
PSB	15 W	15 W
PCK	0 W	0 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	0.1 kW	0.1 kW
Annual energy consumption Qhe	6470 kWh	8589 kWh

EN 12102-1 | Warmer Climate

	Low temperature	Medium temperature
Sound power level indoor	40 dB(A)	40 dB(A)
Sound power level outdoor	67 dB(A)	67 dB(A)

EN 14825 | Warmer Climate

	Low temperature	Medium temperature
ηs	227 %	160 %
Prated	14 kW	14 kW
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Pdh Tj = +2°C	14 kW	14 kW
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Cdh Tj = +2 °C	1	1
Pdh Tj = +7°C	9 kW	9 kW
COP Tj = +7°C	5.1	3.25
Cdh Tj = +7 °C	0.99	1
Pdh Tj = 12°C	5.5 kW	5.2 kW
COP Tj = 12°C	7.43	5.91
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Pdh Tj = Tbiv	14 kW	14 kW
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Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	14 kW	14 kW

COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	3.15	1.94
WTOL	60 °C	60 °C
Poff	15 W	15 W
PTO	15 W	15 W
PSB	15 W	15 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	3252 kWh	4593 kWh

Model PUZ-HWM140VHA(-BS) + EHPX-*M*D

Model name	PUZ-HWM140VHA(-BS) + EHPX-*M*D
Application	Heating (medium temp)
Units	Indoor, Outdoor
Climate zone (for heating)	Warmer Climate
Heat Source	Outdoor Air
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 kW	14 kW
El input	3.14 kW	5.24 kW
COP	4.46	2.67

EN 12102-1 | Average Climate

	Low temperature	Medium temperature
Sound power level indoor	40 dB(A)	40 dB(A)
Sound power level outdoor	67 dB(A)	67 dB(A)

EN 14825 | Average Climate

	Low temperature	Medium temperature
η_s	176 %	132 %
Prated	14 kW	14 kW
SCOP	4.47	3.37
Tbiv	-7 °C	-7 °C
TOL	-28 °C	-28 °C
Pdh Tj = -7°C	12.4 kW	12.4 kW
COP Tj = -7°C	2.55	1.98
Cdh Tj = -7 °C	1	1
Pdh Tj = +2°C	7.5 kW	7.5 kW
COP Tj = +2°C	4.4	3.25
Cdh Tj = +2 °C	0.99	0.99

Pdh Tj = +7°C	4.9 kW	5.1 kW
COP Tj = +7°C	6.28	4.64
Cdh Tj = +7 °C	0.98	0.99
Pdh Tj = 12°C	5.7 kW	5.2 kW
COP Tj = 12°C	7.43	6.24
Cdh Tj = +12 °C	0.98	0.98
Pdh Tj = Tbiv	12.4 kW	12.4 kW
COP Tj = Tbiv	2.55	1.98
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	13.9 kW	13.9 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.4	1.75
WTOL	60 °C	60 °C
Poff	15 W	15 W
PTO	15 W	15 W
PSB	15 W	15 W
PCK	0 W	0 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	0.1 kW	0.1 kW
Annual energy consumption Qhe	6470 kWh	8589 kWh

EN 12102-1 | Warmer Climate

	Low temperature	Medium temperature
Sound power level indoor	40 dB(A)	40 dB(A)
Sound power level outdoor	67 dB(A)	67 dB(A)

EN 14825 | Warmer Climate

	Low temperature	Medium temperature
ηs	227 %	160 %
Prated	14 kW	14 kW
SCOP	5.75	4.07
Tbiv	2 °C	2 °C
TOL	-28 °C	-28 °C
Pdh Tj = +2°C	14 kW	14 kW
COP Tj = +2°C	3.15	1.94
Cdh Tj = +2 °C	1	1
Pdh Tj = +7°C	9 kW	9 kW
COP Tj = +7°C	5.1	3.25
Cdh Tj = +7 °C	0.99	1
Pdh Tj = 12°C	5.5 kW	5.2 kW
COP Tj = 12°C	7.43	5.91
Cdh Tj = +12 °C	0.98	0.98
Pdh Tj = Tbiv	14 kW	14 kW
COP Tj = Tbiv	3.15	1.94
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	14 kW	14 kW

COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	3.15	1.94
WTOL	60 °C	60 °C
Poff	15 W	15 W
PTO	15 W	15 W
PSB	15 W	15 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	3252 kWh	4593 kWh

Model PUZ-HWM140VHA(-BS) + ERPT20X-M*D

Model name	PUZ-HWM140VHA(-BS) + ERPT20X-M*D
Application	Heating + DHW + low temp
Units	Indoor, Outdoor
Climate zone (for heating)	Warmer Climate
Heat Source	Outdoor Air
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 16147 | Average Climate**

Declared load profile	L
Efficiency η_{DHW}	130 %
COP	3.07
Heating up time	01:46 h:min
Standby power input	38 W
Reference hot water temperature	52.5 °C
Mixed water at 40°C	278 l

EN 16147 | Warmer Climate

Declared load profile	L
Efficiency η_{DHW}	152 %
COP	3.58
Heating up time	01:34 h:min
Standby power input	35 W
Reference hot water temperature	52.5 °C
Mixed water at 40°C	278 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	14 kW	14 kW
El input	3.14 kW	5.24 kW
COP	4.46	2.67

EN 12102-1 | Average Climate

	Low temperature	Medium temperature
Sound power level indoor	40 dB(A)	40 dB(A)
Sound power level outdoor	67 dB(A)	67 dB(A)

EN 14825 | Average Climate

	Low temperature	Medium temperature
η_S	178 %	133 %
P _{rated}	14 kW	14 kW
SCOP	4.51	3.39
T _{biv}	-7 °C	-7 °C
T _{OL}	-28 °C	-28 °C
P _{dh T_j} = -7°C	12.4 kW	12.4 kW
COP T _j = -7°C	2.55	1.98
C _{dh T_j} = -7 °C	1	1
P _{dh T_j} = +2°C	7.5 kW	7.5 kW
COP T _j = +2°C	4.4	3.25
C _{dh T_j} = +2 °C	0.99	0.99
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COP T _j = T _{OL} or COP T _j = T _{designh} if T _{OL} < T _{designh}	2.4	1.75
WT _{OL}	60 °C	60 °C
P _{off}	15 W	15 W
PTO	15 W	15 W
PSB	15 W	15 W
PCK	0 W	0 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	0.1 kW	0.1 kW
Annual energy consumption Q _{he}	6407 kWh	8534 kWh

EN 12102-1 | Warmer Climate

	Low temperature	Medium temperature
Sound power level indoor	40 dB(A)	40 dB(A)
Sound power level outdoor	67 dB(A)	67 dB(A)

EN 14825 | Warmer Climate

	Low temperature	Medium temperature
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ηs	232 %	162 %
Prated	14 kW	14 kW
SCOP	5.87	4.13
Tbiv	2 °C	2 °C
TOL	-28 °C	-28 °C
Pdh Tj = +2°C	14 kW	14 kW
COP Tj = +2°C	3.15	1.94
Cdh Tj = +2 °C	1	1
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PCK	0 W	0 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	0 kW	0 kW
Annual energy consumption Qhe	3186 kWh	4527 kWh

Model PUZ-HWM140VHA(-BS) + ERPT20X-*M*D

Model name	PUZ-HWM140VHA(-BS) + ERPT20X-*M*D
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Units	Indoor, Outdoor
Climate zone (for heating)	Warmer Climate
Heat Source	Outdoor Air
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 16147 | Average Climate**

Declared load profile	L
Efficiency η_{DHW}	130 %
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Shutting off the heat transfer medium flow passed

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Starting and operating test	passed

EN 14511-2 | Heating

	Low temperature	Medium temperature
Heat output	14 kW	14 kW
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EN 12102-1 | Average Climate

	Low temperature	Medium temperature
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EN 14825 | Average Climate

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P _{dh T_j} = -7°C	12.4 kW	12.4 kW
COP T _j = -7°C	2.55	1.98
C _{dh T_j} = -7 °C	1	1
P _{dh T_j} = +2°C	7.5 kW	7.5 kW
COP T _j = +2°C	4.4	3.25
C _{dh T_j} = +2 °C	0.99	0.99
P _{dh T_j} = +7°C	4.9 kW	5.1 kW
COP T _j = +7°C	6.28	4.64
C _{dh T_j} = +7 °C	0.98	0.99
P _{dh T_j} = 12°C	5.7 kW	5.2 kW
COP T _j = 12°C	7.43	6.24
C _{dh T_j} = +12 °C	0.98	0.98
P _{dh T_j} = T _{biv}	12.4 kW	12.4 kW
COP T _j = T _{biv}	2.55	1.98
P _{dh T_j} = T _{OL} or P _{dh T_j} = T _{designh} if T _{OL} < T _{designh}	13.9 kW	13.9 kW
COP T _j = T _{OL} or COP T _j = T _{designh} if T _{OL} < T _{designh}	2.4	1.75
WT _{OL}	60 °C	60 °C
P _{off}	15 W	15 W
PTO	15 W	15 W
PSB	15 W	15 W
PCK	0 W	0 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	0.1 kW	0.1 kW
Annual energy consumption Q _{he}	6407 kWh	8534 kWh

EN 12102-1 | Warmer Climate

	Low temperature	Medium temperature
Sound power level indoor	40 dB(A)	40 dB(A)
Sound power level outdoor	67 dB(A)	67 dB(A)

EN 14825 | Warmer Climate

	Low temperature	Medium temperature
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η_s	232 %	162 %
Prated	14 kW	14 kW
SCOP	5.87	4.13
Tbiv	2 °C	2 °C
TOL	-28 °C	-28 °C
Pdh Tj = +2°C	14 kW	14 kW
COP Tj = +2°C	3.15	1.94
Cdh Tj = +2 °C	1	1
Pdh Tj = +7°C	9 kW	9 kW
COP Tj = +7°C	5.1	3.25
Cdh Tj = +7 °C	0.99	1
Pdh Tj = 12°C	5.5 kW	5.2 kW
COP Tj = 12°C	7.43	5.91
Cdh Tj = +12 °C	0.98	0.98
Pdh Tj = Tbiv	14 kW	14 kW
COP Tj = Tbiv	3.15	1.94
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	14 kW	14 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	3.15	1.94
WTOL	60 °C	60 °C
Poff	15 W	15 W
PTO	15 W	15 W
PSB	15 W	15 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	3186 kWh	4527 kWh

Model PUZ-HWM140VHA(-BS)

Model name	PUZ-HWM140VHA(-BS)
Application	Heating (medium temp)
Units	Outdoor
Climate zone (for heating)	Warmer Climate
Heat Source	Outdoor Air
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 kW	14 kW
El input	3.14 kW	5.24 kW
COP	4.46	2.67

EN 12102-1 | Average Climate

	Low temperature	Medium temperature
Sound power level indoor	40 dB(A)	40 dB(A)
Sound power level outdoor	67 dB(A)	67 dB(A)

EN 14825 | Average Climate

	Low temperature	Medium temperature
η_s	178 %	133 %
Prated	14 kW	14 kW
SCOP	4.51	3.39
Tbiv	-7 °C	-7 °C
TOL	-28 °C	-28 °C
Pdh Tj = -7°C	12.4 kW	12.4 kW
COP Tj = -7°C	2.55	1.98
Cdh Tj = -7 °C	1	1
Pdh Tj = +2°C	7.5 kW	7.5 kW
COP Tj = +2°C	4.4	3.25
Cdh Tj = +2 °C	0.99	0.99

Pdh Tj = +7°C	4.9 kW	5.1 kW
COP Tj = +7°C	6.28	4.64
Cdh Tj = +7 °C	0.98	0.99
Pdh Tj = 12°C	5.7 kW	5.2 kW
COP Tj = 12°C	7.43	6.24
Cdh Tj = +12 °C	0.98	0.98
Pdh Tj = Tbiv	12.4 kW	12.4 kW
COP Tj = Tbiv	2.55	1.98
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	13.9 kW	13.9 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.4	1.75
WTOL	60 °C	60 °C
Poff	15 W	15 W
PTO	15 W	15 W
PSB	15 W	15 W
PCK	0 W	0 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	0.1 kW	0.1 kW
Annual energy consumption Qhe	6407 kWh	8534 kWh

EN 12102-1 | Warmer Climate

	Low temperature	Medium temperature
Sound power level indoor	40 dB(A)	40 dB(A)
Sound power level outdoor	67 dB(A)	67 dB(A)

EN 14825 | Warmer Climate

	Low temperature	Medium temperature
ηs	232 %	162 %
Prated	14 kW	14 kW
SCOP	5.87	4.13
Tbiv	2 °C	2 °C
TOL	-28 °C	-28 °C
Pdh Tj = +2°C	14 kW	14 kW
COP Tj = +2°C	3.15	1.94
Cdh Tj = +2 °C	1	1
Pdh Tj = +7°C	9 kW	9 kW
COP Tj = +7°C	5.1	3.25
Cdh Tj = +7 °C	0.99	1
Pdh Tj = 12°C	5.5 kW	5.2 kW
COP Tj = 12°C	7.43	5.91
Cdh Tj = +12 °C	0.98	0.98
Pdh Tj = Tbiv	14 kW	14 kW
COP Tj = Tbiv	3.15	1.94
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	14 kW	14 kW

COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	3.15	1.94
WTOL	60 °C	60 °C
Poff	15 W	15 W
PTO	15 W	15 W
PSB	15 W	15 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	3186 kWh	4527 kWh

Model PUZ-HWM140YHA(-BS) + EHPT20X-M*D

Model name	PUZ-HWM140YHA(-BS) + EHPT20X-M*D
Application	Heating + DHW + low temp
Units	Indoor, Outdoor
Climate zone (for heating)	Warmer Climate
Heat Source	Outdoor Air
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 16147 | Average Climate**

Declared load profile	L
Efficiency η_{DHW}	130 %
COP	3.07
Heating up time	01:46 h:min
Standby power input	38 W
Reference hot water temperature	52.5 °C
Mixed water at 40°C	278 l

EN 16147 | Warmer Climate

Declared load profile	L
Efficiency η_{DHW}	152 %
COP	3.58
Heating up time	01:34 h:min
Standby power input	35 W
Reference hot water temperature	52.5 °C
Mixed water at 40°C	278 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	14 kW	14 kW
El input	3.14 kW	5.24 kW
COP	4.46	2.67

EN 12102-1 | Average Climate

	Low temperature	Medium temperature
Sound power level indoor	40 dB(A)	40 dB(A)
Sound power level outdoor	67 dB(A)	67 dB(A)

EN 14825 | Average Climate

	Low temperature	Medium temperature
η_S	175 %	131 %
P _{rated}	14 kW	14 kW
SCOP	4.46	3.36
T _{biv}	-7 °C	-7 °C
T _{OL}	-28 °C	-28 °C
P _{dh T_j} = -7°C	12.4 kW	12.4 kW
COP T _j = -7°C	2.55	1.98
Cd _h T _j = -7 °C	1	1
P _{dh T_j} = +2°C	7.5 kW	7.5 kW
COP T _j = +2°C	4.42	3.26
Cd _h T _j = +2 °C	0.99	0.99
P _{dh T_j} = +7°C	4.9 kW	5.1 kW
COP T _j = +7°C	6.26	4.64
Cd _h T _j = +7 °C	0.98	0.99
P _{dh T_j} = 12°C	5.7 kW	5.2 kW
COP T _j = 12°C	7.43	6.24
Cd _h T _j = +12 °C	0.98	0.98
P _{dh T_j} = T _{biv}	12.4 kW	12.4 kW
COP T _j = T _{biv}	2.55	1.98
P _{dh T_j} = T _{OL} or P _{dh T_j} = T _{designh} if T _{OL} < T _{designh}	13.9 kW	13.9 kW
COP T _j = T _{OL} or COP T _j = T _{designh} if T _{OL} < T _{designh}	2.4	1.75
WT _{OL}	60 °C	60 °C
P _{off}	22 W	22 W
PTO	22 W	22 W
PSB	22 W	22 W
PCK	0 W	0 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	0.1 kW	0.1 kW
Annual energy consumption Q _{he}	6492 kWh	8608 kWh

EN 12102-1 | Warmer Climate

	Low temperature	Medium temperature
Sound power level indoor	40 dB(A)	40 dB(A)
Sound power level outdoor	67 dB(A)	67 dB(A)

EN 14825 | Warmer Climate

	Low temperature	Medium temperature
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η_s	225 %	159 %
Prated	14 kW	14 kW
SCOP	5.69	4.04
Tbiv	2 °C	2 °C
TOL	-28 °C	-28 °C
Pdh Tj = +2°C	14 kW	14 kW
COP Tj = +2°C	3.15	1.94
Cdh Tj = +2 °C	1	1
Pdh Tj = +7°C	9 kW	9 kW
COP Tj = +7°C	5.12	3.26
Cdh Tj = +7 °C	0.99	1
Pdh Tj = 12°C	5.5 kW	5.2 kW
COP Tj = 12°C	7.43	5.91
Cdh Tj = +12 °C	0.98	0.98
Pdh Tj = Tbiv	14 kW	14 kW
COP Tj = Tbiv	3.15	1.94
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	14 kW	14 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	3.15	1.94
WTOL	60 °C	60 °C
Poff	22 W	22 W
PTO	22 W	22 W
PSB	22 W	22 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	3288 kWh	4628 kWh

Model PUZ-HWM140YHA(-BS) + EHPT20X-*M*D

Model name	PUZ-HWM140YHA(-BS) + EHPT20X-*M*D
Application	Heating + DHW + low temp
Units	Indoor, Outdoor
Climate zone (for heating)	Warmer Climate
Heat Source	Outdoor Air
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 16147 | Average Climate**

Declared load profile	L
Efficiency η_{DHW}	130 %
COP	3.07
Heating up time	01:46 h:min
Standby power input	38 W
Reference hot water temperature	52.5 °C
Mixed water at 40°C	278 l

EN 16147 | Warmer Climate

Declared load profile	L
Efficiency η_{DHW}	152 %
COP	3.58
Heating up time	01:34 h:min
Standby power input	35 W
Reference hot water temperature	52.5 °C
Mixed water at 40°C	278 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	14 kW	14 kW
El input	3.14 kW	5.24 kW
COP	4.46	2.67

EN 12102-1 | Average Climate

	Low temperature	Medium temperature
Sound power level indoor	40 dB(A)	40 dB(A)
Sound power level outdoor	67 dB(A)	67 dB(A)

EN 14825 | Average Climate

	Low temperature	Medium temperature
η_S	175 %	131 %
P _{rated}	14 kW	14 kW
SCOP	4.46	3.36
T _{biv}	-7 °C	-7 °C
T _{OL}	-28 °C	-28 °C
P _{dh T_j} = -7°C	12.4 kW	12.4 kW
COP T _j = -7°C	2.55	1.98
Cd _h T _j = -7 °C	1	1
P _{dh T_j} = +2°C	7.5 kW	7.5 kW
COP T _j = +2°C	4.42	3.26
Cd _h T _j = +2 °C	0.99	0.99
P _{dh T_j} = +7°C	4.9 kW	5.1 kW
COP T _j = +7°C	6.26	4.64
Cd _h T _j = +7 °C	0.98	0.99
P _{dh T_j} = 12°C	5.7 kW	5.2 kW
COP T _j = 12°C	7.43	6.24
Cd _h T _j = +12 °C	0.98	0.98
P _{dh T_j} = T _{biv}	12.4 kW	12.4 kW
COP T _j = T _{biv}	2.55	1.98
P _{dh T_j} = T _{OL} or P _{dh T_j} = T _{designh} if T _{OL} < T _{designh}	13.9 kW	13.9 kW
COP T _j = T _{OL} or COP T _j = T _{designh} if T _{OL} < T _{designh}	2.4	1.75
WT _{OL}	60 °C	60 °C
P _{off}	22 W	22 W
PTO	22 W	22 W
PSB	22 W	22 W
PCK	0 W	0 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	0.1 kW	0.1 kW
Annual energy consumption Q _{he}	6492 kWh	8608 kWh

EN 12102-1 | Warmer Climate

	Low temperature	Medium temperature
Sound power level indoor	40 dB(A)	40 dB(A)
Sound power level outdoor	67 dB(A)	67 dB(A)

EN 14825 | Warmer Climate

	Low temperature	Medium temperature
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η_s	225 %	159 %
Prated	14 kW	14 kW
SCOP	5.69	4.04
Tbiv	2 °C	2 °C
TOL	-28 °C	-28 °C
Pdh Tj = +2°C	14 kW	14 kW
COP Tj = +2°C	3.15	1.94
Cdh Tj = +2 °C	1	1
Pdh Tj = +7°C	9 kW	9 kW
COP Tj = +7°C	5.12	3.26
Cdh Tj = +7 °C	0.99	1
Pdh Tj = 12°C	5.5 kW	5.2 kW
COP Tj = 12°C	7.43	5.91
Cdh Tj = +12 °C	0.98	0.98
Pdh Tj = Tbiv	14 kW	14 kW
COP Tj = Tbiv	3.15	1.94
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	14 kW	14 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	3.15	1.94
WTOL	60 °C	60 °C
Poff	22 W	22 W
PTO	22 W	22 W
PSB	22 W	22 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	3288 kWh	4628 kWh

Model PUZ-HWM140YHA(-BS) + EHPX-M*D

Model name	PUZ-HWM140YHA(-BS) + EHPX-M*D
Application	Heating (medium temp)
Units	Indoor, Outdoor
Climate zone (for heating)	Warmer Climate
Heat Source	Outdoor Air
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	14 kW	14 kW
El input	3.14 kW	5.24 kW
COP	4.46	2.67

EN 12102-1 | Average Climate

	Low temperature	Medium temperature
Sound power level indoor	40 dB(A)	40 dB(A)
Sound power level outdoor	67 dB(A)	67 dB(A)

EN 14825 | Average Climate

	Low temperature	Medium temperature
η_s	175 %	131 %
Prated	14 kW	14 kW
SCOP	4.46	3.36
Tbiv	-7 °C	-7 °C
TOL	-28 °C	-28 °C
Pdh Tj = -7°C	12.4 kW	12.4 kW
COP Tj = -7°C	2.55	1.98
Cdh Tj = -7 °C	1	1
Pdh Tj = +2°C	7.5 kW	7.5 kW
COP Tj = +2°C	4.42	3.26
Cdh Tj = +2 °C	0.99	0.99

Pdh Tj = +7°C	4.9 kW	5.1 kW
COP Tj = +7°C	6.26	4.64
Cdh Tj = +7 °C	0.98	0.99
Pdh Tj = 12°C	5.7 kW	5.2 kW
COP Tj = 12°C	7.43	6.24
Cdh Tj = +12 °C	0.98	0.98
Pdh Tj = Tbiv	12.4 kW	12.4 kW
COP Tj = Tbiv	2.55	1.98
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	13.9 kW	13.9 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.4	1.75
WTOL	60 °C	60 °C
Poff	22 W	22 W
PTO	22 W	22 W
PSB	22 W	22 W
PCK	0 W	0 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	0.1 kW	0.1 kW
Annual energy consumption Qhe	6492 kWh	8608 kWh

EN 12102-1 | Warmer Climate

	Low temperature	Medium temperature
Sound power level indoor	40 dB(A)	40 dB(A)
Sound power level outdoor	67 dB(A)	67 dB(A)

EN 14825 | Warmer Climate

	Low temperature	Medium temperature
ηs	225 %	159 %
Prated	14 kW	14 kW
SCOP	5.69	4.04
Tbiv	2 °C	2 °C
TOL	-28 °C	-28 °C
Pdh Tj = +2°C	14 kW	14 kW
COP Tj = +2°C	3.15	1.94
Cdh Tj = +2 °C	1	1
Pdh Tj = +7°C	9 kW	9 kW
COP Tj = +7°C	5.12	3.26
Cdh Tj = +7 °C	0.99	1
Pdh Tj = 12°C	5.5 kW	5.2 kW
COP Tj = 12°C	7.43	5.91
Cdh Tj = +12 °C	0.98	0.98
Pdh Tj = Tbiv	14 kW	14 kW
COP Tj = Tbiv	3.15	1.94
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	14 kW	14 kW

COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	3.15	1.94
WTOL	60 °C	60 °C
Poff	22 W	22 W
PTO	22 W	22 W
PSB	22 W	22 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	3288 kWh	4628 kWh

Model PUZ-HWM140YHA(-BS) + EHPX-*M*D

Model name	PUZ-HWM140YHA(-BS) + EHPX-*M*D
Application	Heating (medium temp)
Units	Indoor, Outdoor
Climate zone (for heating)	Warmer Climate
Heat Source	Outdoor Air
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	14 kW	14 kW
El input	3.14 kW	5.24 kW
COP	4.46	2.67

EN 12102-1 | Average Climate

	Low temperature	Medium temperature
Sound power level indoor	40 dB(A)	40 dB(A)
Sound power level outdoor	67 dB(A)	67 dB(A)

EN 14825 | Average Climate

	Low temperature	Medium temperature
η_s	175 %	131 %
Prated	14 kW	14 kW
SCOP	4.46	3.36
Tbiv	-7 °C	-7 °C
TOL	-28 °C	-28 °C
Pdh Tj = -7°C	12.4 kW	12.4 kW
COP Tj = -7°C	2.55	1.98
Cdh Tj = -7 °C	1	1
Pdh Tj = +2°C	7.5 kW	7.5 kW
COP Tj = +2°C	4.42	3.26
Cdh Tj = +2 °C	0.99	0.99

Pdh Tj = +7°C	4.9 kW	5.1 kW
COP Tj = +7°C	6.26	4.64
Cdh Tj = +7 °C	0.98	0.99
Pdh Tj = 12°C	5.7 kW	5.2 kW
COP Tj = 12°C	7.43	6.24
Cdh Tj = +12 °C	0.98	0.98
Pdh Tj = Tbiv	12.4 kW	12.4 kW
COP Tj = Tbiv	2.55	1.98
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	13.9 kW	13.9 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.4	1.75
WTOL	60 °C	60 °C
Poff	22 W	22 W
PTO	22 W	22 W
PSB	22 W	22 W
PCK	0 W	0 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	0.1 kW	0.1 kW
Annual energy consumption Qhe	6492 kWh	8608 kWh

EN 12102-1 | Warmer Climate

	Low temperature	Medium temperature
Sound power level indoor	40 dB(A)	40 dB(A)
Sound power level outdoor	67 dB(A)	67 dB(A)

EN 14825 | Warmer Climate

	Low temperature	Medium temperature
ηs	225 %	159 %
Prated	14 kW	14 kW
SCOP	5.69	4.04
Tbiv	2 °C	2 °C
TOL	-28 °C	-28 °C
Pdh Tj = +2°C	14 kW	14 kW
COP Tj = +2°C	3.15	1.94
Cdh Tj = +2 °C	1	1
Pdh Tj = +7°C	9 kW	9 kW
COP Tj = +7°C	5.12	3.26
Cdh Tj = +7 °C	0.99	1
Pdh Tj = 12°C	5.5 kW	5.2 kW
COP Tj = 12°C	7.43	5.91
Cdh Tj = +12 °C	0.98	0.98
Pdh Tj = Tbiv	14 kW	14 kW
COP Tj = Tbiv	3.15	1.94
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	14 kW	14 kW

COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	3.15	1.94
WTOL	60 °C	60 °C
Poff	22 W	22 W
PTO	22 W	22 W
PSB	22 W	22 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	3288 kWh	4628 kWh

Model PUZ-HWM140YHA(-BS) + ERPT20X-M*D

Model name	PUZ-HWM140YHA(-BS) + ERPT20X-M*D
Application	Heating + DHW + low temp
Units	Indoor, Outdoor
Climate zone (for heating)	Warmer Climate
Heat Source	Outdoor Air
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 16147 | Average Climate**

Declared load profile	L
Efficiency η_{DHW}	130 %
COP	3.07
Heating up time	01:46 h:min
Standby power input	38 W
Reference hot water temperature	52.5 °C
Mixed water at 40°C	278 l

EN 16147 | Warmer Climate

Declared load profile	L
Efficiency η_{DHW}	152 %
COP	3.58
Heating up time	01:34 h:min
Standby power input	35 W
Reference hot water temperature	52.5 °C
Mixed water at 40°C	278 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	14 kW	14 kW
El input	3.14 kW	5.24 kW
COP	4.46	2.67

EN 12102-1 | Average Climate

	Low temperature	Medium temperature
Sound power level indoor	40 dB(A)	40 dB(A)
Sound power level outdoor	67 dB(A)	67 dB(A)

EN 14825 | Average Climate

	Low temperature	Medium temperature
η_S	177 %	133 %
P _{rated}	14 kW	14 kW
SCOP	4.51	3.39
T _{biv}	-7 °C	-7 °C
T _{OL}	-28 °C	-28 °C
P _{dh T_j} = -7°C	12.4 kW	12.4 kW
COP T _j = -7°C	2.55	1.98
C _{dh T_j} = -7 °C	1	1
P _{dh T_j} = +2°C	7.5 kW	7.5 kW
COP T _j = +2°C	4.42	3.26
C _{dh T_j} = +2 °C	0.99	0.99
P _{dh T_j} = +7°C	4.9 kW	5.1 kW
COP T _j = +7°C	6.26	4.64
C _{dh T_j} = +7 °C	0.98	0.99
P _{dh T_j} = 12°C	5.7 kW	5.2 kW
COP T _j = 12°C	7.43	6.24
C _{dh T_j} = +12 °C	0.98	0.98
P _{dh T_j} = T _{biv}	12.4 kW	12.4 kW
COP T _j = T _{biv}	2.55	1.98
P _{dh T_j} = T _{OL} or P _{dh T_j} = T _{designh} if T _{OL} < T _{designh}	13.9 kW	13.9 kW
COP T _j = T _{OL} or COP T _j = T _{designh} if T _{OL} < T _{designh}	2.4	1.75
WT _{OL}	60 °C	60 °C
P _{off}	22 W	22 W
PTO	22 W	22 W
PSB	22 W	22 W
PCK	0 W	0 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	0.1 kW	0.1 kW
Annual energy consumption Q _{he}	6412 kWh	8528 kWh

EN 12102-1 | Warmer Climate

	Low temperature	Medium temperature
Sound power level indoor	40 dB(A)	40 dB(A)
Sound power level outdoor	67 dB(A)	67 dB(A)

EN 14825 | Warmer Climate

	Low temperature	Medium temperature
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ηs	231 %	162 %
Prated	14 kW	14 kW
SCOP	5.86	4.13
Tbiv	2 °C	2 °C
TOL	-28 °C	-28 °C
Pdh Tj = +2°C	14 kW	14 kW
COP Tj = +2°C	3.15	1.94
Cdh Tj = +2 °C	1	1
Pdh Tj = +7°C	9 kW	9 kW
COP Tj = +7°C	5.12	3.26
Cdh Tj = +7 °C	0.99	1
Pdh Tj = 12°C	5.5 kW	5.2 kW
COP Tj = 12°C	7.43	5.91
Cdh Tj = +12 °C	0.98	0.98
Pdh Tj = Tbiv	14 kW	14 kW
COP Tj = Tbiv	3.15	1.94
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	14 kW	14 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	3.15	1.94
WTOL	60 °C	60 °C
Poff	22 W	22 W
PTO	22 W	22 W
PSB	22 W	22 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	3191 kWh	4531 kWh

Model PUZ-HWM140YHA(-BS) + ERPT20X-*M*D

Model name	PUZ-HWM140YHA(-BS) + ERPT20X-*M*D
Application	Heating + DHW + low temp
Units	Indoor, Outdoor
Climate zone (for heating)	Warmer Climate
Heat Source	Outdoor Air
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 16147 | Average Climate**

Declared load profile	L
Efficiency η_{DHW}	130 %
COP	3.07
Heating up time	01:46 h:min
Standby power input	38 W
Reference hot water temperature	52.5 °C
Mixed water at 40°C	278 l

EN 16147 | Warmer Climate

Declared load profile	L
Efficiency η_{DHW}	152 %
COP	3.58
Heating up time	01:34 h:min
Standby power input	35 W
Reference hot water temperature	52.5 °C
Mixed water at 40°C	278 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	14 kW	14 kW
El input	3.14 kW	5.24 kW
COP	4.46	2.67

EN 12102-1 | Average Climate

	Low temperature	Medium temperature
Sound power level indoor	40 dB(A)	40 dB(A)
Sound power level outdoor	67 dB(A)	67 dB(A)

EN 14825 | Average Climate

	Low temperature	Medium temperature
η_S	177 %	133 %
P _{rated}	14 kW	14 kW
SCOP	4.51	3.39
T _{biv}	-7 °C	-7 °C
T _{OL}	-28 °C	-28 °C
P _{dh T_j} = -7°C	12.4 kW	12.4 kW
COP T _j = -7°C	2.55	1.98
C _{dh T_j} = -7 °C	1	1
P _{dh T_j} = +2°C	7.5 kW	7.5 kW
COP T _j = +2°C	4.42	3.26
C _{dh T_j} = +2 °C	0.99	0.99
P _{dh T_j} = +7°C	4.9 kW	5.1 kW
COP T _j = +7°C	6.26	4.64
C _{dh T_j} = +7 °C	0.98	0.99
P _{dh T_j} = 12°C	5.7 kW	5.2 kW
COP T _j = 12°C	7.43	6.24
C _{dh T_j} = +12 °C	0.98	0.98
P _{dh T_j} = T _{biv}	12.4 kW	12.4 kW
COP T _j = T _{biv}	2.55	1.98
P _{dh T_j} = T _{OL} or P _{dh T_j} = T _{designh} if T _{OL} < T _{designh}	13.9 kW	13.9 kW
COP T _j = T _{OL} or COP T _j = T _{designh} if T _{OL} < T _{designh}	2.4	1.75
WT _{OL}	60 °C	60 °C
P _{off}	22 W	22 W
PTO	22 W	22 W
PSB	22 W	22 W
PCK	0 W	0 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	0.1 kW	0.1 kW
Annual energy consumption Q _{he}	6412 kWh	8528 kWh

EN 12102-1 | Warmer Climate

	Low temperature	Medium temperature
Sound power level indoor	40 dB(A)	40 dB(A)
Sound power level outdoor	67 dB(A)	67 dB(A)

EN 14825 | Warmer Climate

	Low temperature	Medium temperature
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ηs	231 %	162 %
Prated	14 kW	14 kW
SCOP	5.86	4.13
Tbiv	2 °C	2 °C
TOL	-28 °C	-28 °C
Pdh Tj = +2°C	14 kW	14 kW
COP Tj = +2°C	3.15	1.94
Cdh Tj = +2 °C	1	1
Pdh Tj = +7°C	9 kW	9 kW
COP Tj = +7°C	5.12	3.26
Cdh Tj = +7 °C	0.99	1
Pdh Tj = 12°C	5.5 kW	5.2 kW
COP Tj = 12°C	7.43	5.91
Cdh Tj = +12 °C	0.98	0.98
Pdh Tj = Tbiv	14 kW	14 kW
COP Tj = Tbiv	3.15	1.94
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	14 kW	14 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	3.15	1.94
WTOL	60 °C	60 °C
Poff	22 W	22 W
PTO	22 W	22 W
PSB	22 W	22 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	3191 kWh	4531 kWh

Model PUZ-HWM140YHA(-BS)

Model name	PUZ-HWM140YHA(-BS)
Application	Heating (medium temp)
Units	Outdoor
Climate zone (for heating)	Warmer Climate
Heat Source	Outdoor Air
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	14 kW	14 kW
El input	3.14 kW	5.24 kW
COP	4.46	2.67

EN 12102-1 | Average Climate

	Low temperature	Medium temperature
Sound power level indoor	40 dB(A)	40 dB(A)
Sound power level outdoor	67 dB(A)	67 dB(A)

EN 14825 | Average Climate

	Low temperature	Medium temperature
η_s	177 %	133 %
Prated	14 kW	14 kW
SCOP	4.51	3.39
Tbiv	-7 °C	-7 °C
TOL	-28 °C	-28 °C
Pdh Tj = -7°C	12.4 kW	12.4 kW
COP Tj = -7°C	2.55	1.98
Cdh Tj = -7 °C	1	1
Pdh Tj = +2°C	7.5 kW	7.5 kW
COP Tj = +2°C	4.42	3.26
Cdh Tj = +2 °C	0.99	0.99

Pdh Tj = +7°C	4.9 kW	5.1 kW
COP Tj = +7°C	6.26	4.64
Cdh Tj = +7 °C	0.98	0.99
Pdh Tj = 12°C	5.7 kW	5.2 kW
COP Tj = 12°C	7.43	6.24
Cdh Tj = +12 °C	0.98	0.98
Pdh Tj = Tbiv	12.4 kW	12.4 kW
COP Tj = Tbiv	2.55	1.98
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	13.9 kW	13.9 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.4	1.75
WTOL	60 °C	60 °C
Poff	22 W	22 W
PTO	22 W	22 W
PSB	22 W	22 W
PCK	0 W	0 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	0.1 kW	0.1 kW
Annual energy consumption Qhe	6412 kWh	8528 kWh

EN 12102-1 | Warmer Climate

	Low temperature	Medium temperature
Sound power level indoor	40 dB(A)	40 dB(A)
Sound power level outdoor	67 dB(A)	67 dB(A)

EN 14825 | Warmer Climate

	Low temperature	Medium temperature
ηs	231 %	162 %
Prated	14 kW	14 kW
SCOP	5.86	4.13
Tbiv	2 °C	2 °C
TOL	-28 °C	-28 °C
Pdh Tj = +2°C	14 kW	14 kW
COP Tj = +2°C	3.15	1.94
Cdh Tj = +2 °C	1	1
Pdh Tj = +7°C	9 kW	9 kW
COP Tj = +7°C	5.12	3.26
Cdh Tj = +7 °C	0.99	1
Pdh Tj = 12°C	5.5 kW	5.2 kW
COP Tj = 12°C	7.43	5.91
Cdh Tj = +12 °C	0.98	0.98
Pdh Tj = Tbiv	14 kW	14 kW
COP Tj = Tbiv	3.15	1.94
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	14 kW	14 kW

COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	3.15	1.94
WTOL	60 °C	60 °C
Poff	22 W	22 W
PTO	22 W	22 W
PSB	22 W	22 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	3191 kWh	4531 kWh

Model PUZ-HWM140VHA(-BS) + EHPT20X-*M*E

Model name	PUZ-HWM140VHA(-BS) + EHPT20X-*M*E
Application	Heating + DHW + low temp
Units	Indoor, Outdoor
Climate zone (for heating)	Warmer Climate
Heat Source	Outdoor Air
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 16147 | Average Climate**

Declared load profile	L
Efficiency η_{DHW}	133 %
COP	3.17
Heating up time	1:48 h:min
Standby power input	41.7 W
Reference hot water temperature	52.5 °C
Mixed water at 40°C	278 l

EN 16147 | Warmer Climate

Declared load profile	L
Efficiency η_{DHW}	161 %
COP	3.78
Heating up time	1:39 h:min
Standby power input	38.9 W
Reference hot water temperature	52.5 °C
Mixed water at 40°C	278 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	12 kW	12 kW
El input	2.67 kW	4.29 kW
COP	4.5	2.8

EN 12102-1 | Average Climate

	Low temperature	Medium temperature
Sound power level indoor	40 dB(A)	40 dB(A)
Sound power level outdoor	67 dB(A)	67 dB(A)

EN 14825 | Average Climate

	Low temperature	Medium temperature
η_s	176 %	132 %
Prated	14 kW	14 kW
SCOP	4.48	3.37
Tbiv	-7 °C	-7 °C
TOL	-10 °C	-10 °C
Pdh Tj = -7°C	12.38 kW	12.38 kW
COP Tj = -7°C	2.74	1.7
Cdh Tj = -7 °C	0.997	0.998
Pdh Tj = +2°C	7.56 kW	7.56 kW
COP Tj = +2°C	4.5	3.45
Cdh Tj = +2 °C	0.991	0.993
Pdh Tj = +7°C	4.92 kW	4.92 kW
COP Tj = +7°C	5.72	4.65
Cdh Tj = +7 °C	0.983	0.986
Pdh Tj = 12°C	5.55 kW	5.25 kW
COP Tj = 12°C	7.37	6.29
Cdh Tj = +12 °C	0.98	0.982
Pdh Tj = Tbiv	12.38 kW	12.38 kW
COP Tj = Tbiv	2.74	1.7
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	13.9 kW	13.9 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.44	1.49
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	0.997	0.998
WTOL	60 °C	60 °C
Poff	15 W	15 W
PTO	15 W	15 W
PSB	15 W	15 W
PCK	0 W	0 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	0.1 kW	0.1 kW
Annual energy consumption Qhe	6452 kWh	8579 kWh

EN 12102-1 | Warmer Climate

	Low temperature	Medium temperature
Sound power level indoor	40 dB(A)	40 dB(A)
Sound power level outdoor	67 dB(A)	67 dB(A)

EN 14825 | Warmer Climate

	Low temperature	Medium temperature
ηs	228 %	160 %
Prated	14 kW	14 kW
SCOP	5.77	4.08
Tbiv	2 °C	2 °C
TOL	2 °C	2 °C
Pdh Tj = +2°C	14 kW	14 kW
COP Tj = +2°C	3.07	1.83
Cdh Tj = +2 °C	0.997	0.998
Pdh Tj = +7°C	9 kW	9 kW
COP Tj = +7°C	5.15	3.3
Cdh Tj = +7 °C	0.991	0.995
Pdh Tj = 12°C	5.47 kW	5.15 kW
COP Tj = 12°C	7.43	5.91
Cdh Tj = +12 °C	0.98	0.983
Pdh Tj = Tbiv	14 kW	14 kW
COP Tj = Tbiv	3.07	1.83
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	14 kW	14 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	3.07	1.83
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	0.997	0.998
WTOL	60 °C	60 °C
Poff	15 W	15 W
PTO	15 W	15 W
PSB	15 W	15 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	3244 kWh	4584 kWh

Model PUZ-HWM140VHA(-BS) + EHPT20X-MEHEW

Model name	PUZ-HWM140VHA(-BS) + EHPT20X-MEHEW
Application	Heating + DHW + low temp
Units	Indoor, Outdoor
Climate zone (for heating)	Warmer Climate
Heat Source	Outdoor Air
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 16147 | Average Climate**

Declared load profile	L
Efficiency η_{DHW}	133 %
COP	3.17
Heating up time	1:48 h:min
Standby power input	41.7 W
Reference hot water temperature	52.5 °C
Mixed water at 40°C	278 l

EN 16147 | Warmer Climate

Declared load profile	L
Efficiency η_{DHW}	161 %
COP	3.78
Heating up time	1:39 h:min
Standby power input	38.9 W
Reference hot water temperature	52.5 °C
Mixed water at 40°C	278 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	12 kW	12 kW
El input	2.67 kW	4.29 kW
COP	4.5	2.8

EN 12102-1 | Average Climate

	Low temperature	Medium temperature
Sound power level indoor	40 dB(A)	40 dB(A)
Sound power level outdoor	67 dB(A)	67 dB(A)

EN 14825 | Average Climate

	Low temperature	Medium temperature
η_s	176 %	132 %
Prated	14 kW	14 kW
SCOP	4.48	3.37
Tbiv	-7 °C	-7 °C
TOL	-10 °C	-10 °C
Pdh Tj = -7°C	12.38 kW	12.38 kW
COP Tj = -7°C	2.74	1.7
Cdh Tj = -7 °C	0.997	0.998
Pdh Tj = +2°C	7.56 kW	7.56 kW
COP Tj = +2°C	4.5	3.45
Cdh Tj = +2 °C	0.991	0.993
Pdh Tj = +7°C	4.92 kW	4.92 kW
COP Tj = +7°C	5.72	4.65
Cdh Tj = +7 °C	0.983	0.986
Pdh Tj = 12°C	5.55 kW	5.25 kW
COP Tj = 12°C	7.37	6.29
Cdh Tj = +12 °C	0.98	0.982
Pdh Tj = Tbiv	12.38 kW	12.38 kW
COP Tj = Tbiv	2.74	1.7
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	13.9 kW	13.9 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.44	1.49
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	0.997	0.998
WTOL	60 °C	60 °C
Poff	15 W	15 W
PTO	15 W	15 W
PSB	15 W	15 W
PCK	0 W	0 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	0.1 kW	0.1 kW
Annual energy consumption Qhe	6452 kWh	8579 kWh

EN 12102-1 | Warmer Climate

	Low temperature	Medium temperature
Sound power level indoor	40 dB(A)	40 dB(A)
Sound power level outdoor	67 dB(A)	67 dB(A)

EN 14825 | Warmer Climate

	Low temperature	Medium temperature
η_s	228 %	160 %
Prated	14 kW	14 kW
SCOP	5.77	4.08
Tbiv	2 °C	2 °C
TOL	2 °C	2 °C
Pdh Tj = +2°C	14 kW	14 kW
COP Tj = +2°C	3.07	1.83
Cdh Tj = +2 °C	0.997	0.998
Pdh Tj = +7°C	9 kW	9 kW
COP Tj = +7°C	5.15	3.3
Cdh Tj = +7 °C	0.991	0.995
Pdh Tj = 12°C	5.47 kW	5.15 kW
COP Tj = 12°C	7.43	5.91
Cdh Tj = +12 °C	0.98	0.983
Pdh Tj = Tbiv	14 kW	14 kW
COP Tj = Tbiv	3.07	1.83
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	14 kW	14 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	3.07	1.83
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	0.997	0.998
WTOL	60 °C	60 °C
Poff	15 W	15 W
PTO	15 W	15 W
PSB	15 W	15 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	3244 kWh	4584 kWh

Model PUZ-HWM140VHA(-BS) + ERPT20X-*M*E

Model name	PUZ-HWM140VHA(-BS) + ERPT20X-*M*E
Application	Heating + DHW + low temp
Units	Indoor, Outdoor
Climate zone (for heating)	Warmer Climate
Heat Source	Outdoor Air
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 16147 | Average Climate**

Declared load profile	L
Efficiency η_{DHW}	133 %
COP	3.17
Heating up time	1:48 h:min
Standby power input	41.7 W
Reference hot water temperature	52.5 °C
Mixed water at 40°C	278 l

EN 16147 | Warmer Climate

Declared load profile	L
Efficiency η_{DHW}	161 %
COP	3.78
Heating up time	1:39 h:min
Standby power input	38.9 W
Reference hot water temperature	52.5 °C
Mixed water at 40°C	278 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	12 kW	12 kW
El input	2.67 kW	4.29 kW
COP	4.5	2.8

EN 12102-1 | Average Climate

	Low temperature	Medium temperature
Sound power level indoor	40 dB(A)	40 dB(A)
Sound power level outdoor	67 dB(A)	67 dB(A)

EN 14825 | Average Climate

	Low temperature	Medium temperature
η_S	178 %	133 %
P _{rated}	14 kW	14 kW
SCOP	4.52	3.39
T _{biv}	-7 °C	-7 °C
T _{OL}	-10 °C	-10 °C
P _{dh T_j} = -7°C	12.38 kW	12.38 kW
COP T _j = -7°C	2.74	1.7
C _{dh T_j} = -7 °C	0.997	0.998
P _{dh T_j} = +2°C	7.56 kW	7.56 kW
COP T _j = +2°C	4.5	3.45
C _{dh T_j} = +2 °C	0.991	0.993
P _{dh T_j} = +7°C	4.92 kW	4.92 kW
COP T _j = +7°C	5.72	4.65
C _{dh T_j} = +7 °C	0.983	0.986
P _{dh T_j} = 12°C	5.55 kW	5.25 kW
COP T _j = 12°C	7.37	6.29
C _{dh T_j} = +12 °C	0.98	0.982
P _{dh T_j} = T _{biv}	12.38 kW	12.38 kW
COP T _j = T _{biv}	2.74	1.7
P _{dh T_j} = T _{OL} or P _{dh T_j} = T _{designh} if T _{OL} < T _{designh}	13.9 kW	13.9 kW
COP T _j = T _{OL} or COP T _j = T _{designh} if T _{OL} < T _{designh}	2.44	1.49
C _{dh T_j} = T _{OL} or P _{dh T_j} = T _{designh} if T _{OL} < T _{designh}	0.997	0.998
WT _{OL}	60 °C	60 °C
P _{off}	15 W	15 W
PTO	15 W	15 W
PSB	15 W	15 W
PCK	0 W	0 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	0.1 kW	0.1 kW
Annual energy consumption Q _{he}	6396 kWh	8524 kWh

EN 12102-1 | Warmer Climate

	Low temperature	Medium temperature
Sound power level indoor	40 dB(A)	40 dB(A)
Sound power level outdoor	67 dB(A)	67 dB(A)

EN 14825 | Warmer Climate

	Low temperature	Medium temperature
ηs	232 %	163 %
Prated	14 kW	14 kW
SCOP	5.89	4.14
Tbiv	2 °C	2 °C
TOL	2 °C	2 °C
Pdh Tj = +2°C	14 kW	14 kW
COP Tj = +2°C	3.07	1.83
Cdh Tj = +2 °C	0.997	0.998
Pdh Tj = +7°C	9 kW	9 kW
COP Tj = +7°C	5.15	3.3
Cdh Tj = +7 °C	0.991	0.995
Pdh Tj = 12°C	5.47 kW	5.15 kW
COP Tj = 12°C	7.43	5.91
Cdh Tj = +12 °C	0.98	0.983
Pdh Tj = Tbiv	14 kW	14 kW
COP Tj = Tbiv	3.07	1.83
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	14 kW	14 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	3.07	1.83
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	0.997	0.998
WTOL	60 °C	60 °C
Poff	15 W	15 W
PTO	15 W	15 W
PSB	15 W	15 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	3178 kWh	4518 kWh

Model PUZ-HWM140VHA(-BS) + ERPX-M*E

Model name	PUZ-HWM140VHA(-BS) + ERPX-M*E
Application	Heating (medium temp)
Units	Indoor, Outdoor
Climate zone (for heating)	Warmer Climate
Heat Source	Outdoor Air
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 kW	12 kW
El input	2.67 kW	4.29 kW
COP	4.5	2.8

EN 12102-1 | Average Climate

	Low temperature	Medium temperature
Sound power level indoor	40 dB(A)	40 dB(A)
Sound power level outdoor	67 dB(A)	67 dB(A)

EN 14825 | Average Climate

	Low temperature	Medium temperature
η_s	178 %	133 %
Prated	14 kW	14 kW
SCOP	4.52	3.39
Tbiv	-7 °C	-7 °C
TOL	-10 °C	-10 °C
Pdh Tj = -7°C	12.38 kW	12.38 kW
COP Tj = -7°C	2.74	1.7
Cdh Tj = -7 °C	0.997	0.998
Pdh Tj = +2°C	7.56 kW	7.56 kW
COP Tj = +2°C	4.5	3.45

Cdh Tj = +2 °C	0.991	0.993
Pdh Tj = +7°C	4.92 kW	4.92 kW
COP Tj = +7°C	5.72	4.65
Cdh Tj = +7 °C	0.983	0.986
Pdh Tj = 12°C	5.55 kW	5.25 kW
COP Tj = 12°C	7.37	6.29
Cdh Tj = +12 °C	0.98	0.982
Pdh Tj = Tbiv	12.38 kW	12.38 kW
COP Tj = Tbiv	2.74	1.7
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	13.9 kW	13.9 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.44	1.49
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	0.997	0.998
WTOL	60 °C	60 °C
Poff	15 W	15 W
PTO	15 W	15 W
PSB	15 W	15 W
PCK	0 W	0 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	0.1 kW	0.1 kW
Annual energy consumption Qhe	6396 kWh	8524 kWh

EN 12102-1 | Warmer Climate

	Low temperature	Medium temperature
Sound power level indoor	40 dB(A)	40 dB(A)
Sound power level outdoor	67 dB(A)	67 dB(A)

EN 14825 | Warmer Climate

	Low temperature	Medium temperature
ηs	232 %	163 %
Prated	14 kW	14 kW
SCOP	5.89	4.14
Tbiv	2 °C	2 °C
TOL	2 °C	2 °C
Pdh Tj = +2°C	14 kW	14 kW
COP Tj = +2°C	3.07	1.83
Cdh Tj = +2 °C	0.997	0.998
Pdh Tj = +7°C	9 kW	9 kW
COP Tj = +7°C	5.15	3.3
Cdh Tj = +7 °C	0.991	0.995
Pdh Tj = 12°C	5.47 kW	5.15 kW
COP Tj = 12°C	7.43	5.91
Cdh Tj = +12 °C	0.98	0.983
Pdh Tj = Tbiv	14 kW	14 kW

COP Tj = Tbiv	3.07	1.83
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	14 kW	14 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	3.07	1.83
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	0.997	0.998
WTOL	60 °C	60 °C
Poff	15 W	15 W
PTO	15 W	15 W
PSB	15 W	15 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	3178 kWh	4518 kWh

Model PUZ-HWM140VHA(-BS) + ERPX-*M*E

Model name	PUZ-HWM140VHA(-BS) + ERPX-*M*E
Application	Heating (medium temp)
Units	Indoor, Outdoor
Climate zone (for heating)	Warmer Climate
Heat Source	Outdoor Air
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 kW	12 kW
El input	2.67 kW	4.29 kW
COP	4.5	2.8

EN 12102-1 | Average Climate

	Low temperature	Medium temperature
Sound power level indoor	40 dB(A)	40 dB(A)
Sound power level outdoor	67 dB(A)	67 dB(A)

EN 14825 | Average Climate

	Low temperature	Medium temperature
η_s	178 %	133 %
Prated	14 kW	14 kW
SCOP	4.52	3.39
Tbiv	-7 °C	-7 °C
TOL	-10 °C	-10 °C
Pdh Tj = -7°C	12.38 kW	12.38 kW
COP Tj = -7°C	2.74	1.7
Cdh Tj = -7 °C	0.997	0.998
Pdh Tj = +2°C	7.56 kW	7.56 kW
COP Tj = +2°C	4.5	3.45

Cdh Tj = +2 °C	0.991	0.993
Pdh Tj = +7°C	4.92 kW	4.92 kW
COP Tj = +7°C	5.72	4.65
Cdh Tj = +7 °C	0.983	0.986
Pdh Tj = 12°C	5.55 kW	5.25 kW
COP Tj = 12°C	7.37	6.29
Cdh Tj = +12 °C	0.98	0.982
Pdh Tj = Tbiv	12.38 kW	12.38 kW
COP Tj = Tbiv	2.74	1.7
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	13.9 kW	13.9 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.44	1.49
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	0.997	0.998
WTOL	60 °C	60 °C
Poff	15 W	15 W
PTO	15 W	15 W
PSB	15 W	15 W
PCK	0 W	0 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	0.1 kW	0.1 kW
Annual energy consumption Qhe	6396 kWh	8524 kWh

EN 12102-1 | Warmer Climate

	Low temperature	Medium temperature
Sound power level indoor	40 dB(A)	40 dB(A)
Sound power level outdoor	67 dB(A)	67 dB(A)

EN 14825 | Warmer Climate

	Low temperature	Medium temperature
ηs	232 %	163 %
Prated	14 kW	14 kW
SCOP	5.89	4.14
Tbiv	2 °C	2 °C
TOL	2 °C	2 °C
Pdh Tj = +2°C	14 kW	14 kW
COP Tj = +2°C	3.07	1.83
Cdh Tj = +2 °C	0.997	0.998
Pdh Tj = +7°C	9 kW	9 kW
COP Tj = +7°C	5.15	3.3
Cdh Tj = +7 °C	0.991	0.995
Pdh Tj = 12°C	5.47 kW	5.15 kW
COP Tj = 12°C	7.43	5.91
Cdh Tj = +12 °C	0.98	0.983
Pdh Tj = Tbiv	14 kW	14 kW

COP Tj = Tbiv	3.07	1.83
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	14 kW	14 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	3.07	1.83
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	0.997	0.998
WTOL	60 °C	60 °C
Poff	15 W	15 W
PTO	15 W	15 W
PSB	15 W	15 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	3178 kWh	4518 kWh

Model PUZ-HWM140YHA(-BS) + EHPT20X-*M*E

Model name	PUZ-HWM140YHA(-BS) + EHPT20X-*M*E
Application	Heating + DHW + low temp
Units	Indoor, Outdoor
Climate zone (for heating)	Warmer Climate
Heat Source	Outdoor Air
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 16147 | Average Climate**

Declared load profile	L
Efficiency η_{DHW}	133 %
COP	3.17
Heating up time	1:48 h:min
Standby power input	41.7 W
Reference hot water temperature	52.5 °C
Mixed water at 40°C	278 l

EN 16147 | Warmer Climate

Declared load profile	L
Efficiency η_{DHW}	161 %
COP	3.78
Heating up time	1:39 h:min
Standby power input	38.9 W
Reference hot water temperature	52.5 °C
Mixed water at 40°C	278 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	12 kW	12 kW
El input	2.67 kW	4.29 kW
COP	4.5	2.8

EN 12102-1 | Average Climate

	Low temperature	Medium temperature
Sound power level indoor	40 dB(A)	40 dB(A)
Sound power level outdoor	67 dB(A)	67 dB(A)

EN 14825 | Average Climate

	Low temperature	Medium temperature
η_S	175 %	131 %
P _{rated}	14 kW	14 kW
SCOP	4.46	3.36
T _{biv}	-7 °C	-7 °C
T _{OL}	-10 °C	-10 °C
P _{dh T_j} = -7°C	12.38 kW	12.38 kW
COP T _j = -7°C	2.74	1.7
C _{dh T_j} = -7 °C	0.995	0.997
P _{dh T_j} = +2°C	7.56 kW	7.56 kW
COP T _j = +2°C	4.5	3.45
C _{dh T_j} = +2 °C	0.987	0.99
P _{dh T_j} = +7°C	4.92 kW	4.92 kW
COP T _j = +7°C	5.72	4.65
C _{dh T_j} = +7 °C	0.974	0.979
P _{dh T_j} = 12°C	5.55 kW	5.25 kW
COP T _j = 12°C	7.37	6.29
C _{dh T_j} = +12 °C	0.971	0.974
P _{dh T_j} = T _{biv}	12.38 kW	12.38 kW
COP T _j = T _{biv}	2.74	1.7
P _{dh T_j} = T _{OL} or P _{dh T_j} = T _{designh} if T _{OL} < T _{designh}	13.9 kW	13.9 kW
COP T _j = T _{OL} or COP T _j = T _{designh} if T _{OL} < T _{designh}	2.44	1.49
C _{dh T_j} = T _{OL} or P _{dh T_j} = T _{designh} if T _{OL} < T _{designh}	0.996	0.998
WT _{OL}	60 °C	60 °C
P _{off}	22 W	22 W
PTO	22 W	22 W
PSB	22 W	22 W
PCK	0 W	0 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	0.1 kW	0.1 kW
Annual energy consumption Q _{he}	6485 kWh	8612 kWh

EN 12102-1 | Warmer Climate

	Low temperature	Medium temperature
Sound power level indoor	40 dB(A)	40 dB(A)
Sound power level outdoor	67 dB(A)	67 dB(A)

EN 14825 | Warmer Climate

	Low temperature	Medium temperature
η_s	225 %	159 %
Prated	14 kW	14 kW
SCOP	5.69	4.04
Tbiv	2 °C	2 °C
TOL	2 °C	2 °C
Pdh Tj = +2°C	14 kW	14 kW
COP Tj = +2°C	3.07	1.83
Cdh Tj = +2 °C	0.995	0.997
Pdh Tj = +7°C	9 kW	9 kW
COP Tj = +7°C	5.15	3.3
Cdh Tj = +7 °C	0.987	0.992
Pdh Tj = 12°C	5.47 kW	5.15 kW
COP Tj = 12°C	7.43	5.91
Cdh Tj = +12 °C	0.97	0.975
Pdh Tj = Tbiv	14 kW	14 kW
COP Tj = Tbiv	3.07	1.83
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	14 kW	14 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	3.07	1.83
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	0.995	0.997
WTOL	60 °C	60 °C
Poff	22 W	22 W
PTO	22 W	22 W
PSB	22 W	22 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	3286 kWh	4625 kWh

Model PUZ-HWM140YHA(-BS) + EHPT20X-MEHEW

Model name	PUZ-HWM140YHA(-BS) + EHPT20X-MEHEW
Application	Heating + DHW + low temp
Units	Indoor, Outdoor
Climate zone (for heating)	Warmer Climate
Heat Source	Outdoor Air
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 16147 | Average Climate**

Declared load profile	L
Efficiency η_{DHW}	133 %
COP	3.17
Heating up time	1:48 h:min
Standby power input	41.7 W
Reference hot water temperature	52.5 °C
Mixed water at 40°C	278 l

EN 16147 | Warmer Climate

Declared load profile	L
Efficiency η_{DHW}	161 %
COP	3.78
Heating up time	1:39 h:min
Standby power input	38.9 W
Reference hot water temperature	52.5 °C
Mixed water at 40°C	278 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	12 kW	12 kW
El input	2.67 kW	4.29 kW
COP	4.5	2.8

EN 12102-1 | Average Climate

	Low temperature	Medium temperature
Sound power level indoor	40 dB(A)	40 dB(A)
Sound power level outdoor	67 dB(A)	67 dB(A)

EN 14825 | Average Climate

	Low temperature	Medium temperature
η_S	175 %	131 %
P _{rated}	14 kW	14 kW
SCOP	4.46	3.36
T _{biv}	-7 °C	-7 °C
T _{OL}	-10 °C	-10 °C
P _{dh T_j} = -7°C	12.38 kW	12.38 kW
COP T _j = -7°C	2.74	1.7
C _{dh T_j} = -7 °C	0.995	0.997
P _{dh T_j} = +2°C	7.56 kW	7.56 kW
COP T _j = +2°C	4.5	3.45
C _{dh T_j} = +2 °C	0.987	0.99
P _{dh T_j} = +7°C	4.92 kW	4.92 kW
COP T _j = +7°C	5.72	4.65
C _{dh T_j} = +7 °C	0.974	0.979
P _{dh T_j} = 12°C	5.55 kW	5.25 kW
COP T _j = 12°C	7.37	6.29
C _{dh T_j} = +12 °C	0.971	0.974
P _{dh T_j} = T _{biv}	12.38 kW	12.38 kW
COP T _j = T _{biv}	2.74	1.7
P _{dh T_j} = T _{OL} or P _{dh T_j} = T _{designh} if T _{OL} < T _{designh}	13.9 kW	13.9 kW
COP T _j = T _{OL} or COP T _j = T _{designh} if T _{OL} < T _{designh}	2.44	1.49
C _{dh T_j} = T _{OL} or P _{dh T_j} = T _{designh} if T _{OL} < T _{designh}	0.996	0.998
WT _{OL}	60 °C	60 °C
P _{off}	22 W	22 W
PTO	22 W	22 W
PSB	22 W	22 W
PCK	0 W	0 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	0.1 kW	0.1 kW
Annual energy consumption Q _{he}	6485 kWh	8612 kWh

EN 12102-1 | Warmer Climate

	Low temperature	Medium temperature
Sound power level indoor	40 dB(A)	40 dB(A)
Sound power level outdoor	67 dB(A)	67 dB(A)

EN 14825 | Warmer Climate

	Low temperature	Medium temperature
ηs	225 %	159 %
Prated	14 kW	14 kW
SCOP	5.69	4.04
Tbiv	2 °C	2 °C
TOL	2 °C	2 °C
Pdh Tj = +2°C	14 kW	14 kW
COP Tj = +2°C	3.07	1.83
Cdh Tj = +2 °C	0.995	0.997
Pdh Tj = +7°C	9 kW	9 kW
COP Tj = +7°C	5.15	3.3
Cdh Tj = +7 °C	0.987	0.992
Pdh Tj = 12°C	5.47 kW	5.15 kW
COP Tj = 12°C	7.43	5.91
Cdh Tj = +12 °C	0.97	0.975
Pdh Tj = Tbiv	14 kW	14 kW
COP Tj = Tbiv	3.07	1.83
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	14 kW	14 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	3.07	1.83
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	0.995	0.997
WTOL	60 °C	60 °C
Poff	22 W	22 W
PTO	22 W	22 W
PSB	22 W	22 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	3286 kWh	4625 kWh

Model PUZ-HWM140YHA(-BS) + ERPT20X-*M*E

Model name	PUZ-HWM140YHA(-BS) + ERPT20X-*M*E
Application	Heating + DHW + low temp
Units	Indoor, Outdoor
Climate zone (for heating)	Warmer Climate
Heat Source	Outdoor Air
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 16147 | Average Climate**

Declared load profile	L
Efficiency η_{DHW}	133 %
COP	3.17
Heating up time	1:48 h:min
Standby power input	41.7 W
Reference hot water temperature	52.5 °C
Mixed water at 40°C	278 l

EN 16147 | Warmer Climate

Declared load profile	L
Efficiency η_{DHW}	161 %
COP	3.78
Heating up time	1:39 h:min
Standby power input	38.9 W
Reference hot water temperature	52.5 °C
Mixed water at 40°C	278 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	12 kW	12 kW
El input	2.67 kW	4.29 kW
COP	4.5	2.8

EN 12102-1 | Average Climate

	Low temperature	Medium temperature
Sound power level indoor	40 dB(A)	40 dB(A)
Sound power level outdoor	67 dB(A)	67 dB(A)

EN 14825 | Average Climate

	Low temperature	Medium temperature
η_s	178 %	133 %
Prated	14 kW	14 kW
SCOP	4.52	3.39
Tbiv	-7 °C	-7 °C
TOL	-10 °C	-10 °C
Pdh Tj = -7°C	12.38 kW	12.38 kW
COP Tj = -7°C	2.74	1.7
Cdh Tj = -7 °C	0.995	0.997
Pdh Tj = +2°C	7.56 kW	7.56 kW
COP Tj = +2°C	4.5	3.45
Cdh Tj = +2 °C	0.987	0.99
Pdh Tj = +7°C	4.92 kW	4.92 kW
COP Tj = +7°C	5.72	4.65
Cdh Tj = +7 °C	0.974	0.979
Pdh Tj = 12°C	5.55 kW	5.25 kW
COP Tj = 12°C	7.37	6.29
Cdh Tj = +12 °C	0.971	0.974
Pdh Tj = Tbiv	12.38 kW	12.38 kW
COP Tj = Tbiv	2.74	1.7
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	13.9 kW	13.9 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.44	1.49
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	0.996	0.998
WTOL	60 °C	60 °C
Poff	22 W	22 W
PTO	22 W	22 W
PSB	22 W	22 W
PCK	0 W	0 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	0.1 kW	0.1 kW
Annual energy consumption Qhe	6404 kWh	8531 kWh

EN 12102-1 | Warmer Climate

	Low temperature	Medium temperature
Sound power level indoor	40 dB(A)	40 dB(A)
Sound power level outdoor	67 dB(A)	67 dB(A)

EN 14825 | Warmer Climate

	Low temperature	Medium temperature
ηs	232 %	162 %
Prated	14 kW	14 kW
SCOP	5.87	4.13
Tbiv	2 °C	2 °C
TOL	2 °C	2 °C
Pdh Tj = +2°C	14 kW	14 kW
COP Tj = +2°C	3.07	1.83
Cdh Tj = +2 °C	0.995	0.997
Pdh Tj = +7°C	9 kW	9 kW
COP Tj = +7°C	5.15	3.3
Cdh Tj = +7 °C	0.987	0.992
Pdh Tj = 12°C	5.47 kW	5.15 kW
COP Tj = 12°C	7.43	5.91
Cdh Tj = +12 °C	0.97	0.975
Pdh Tj = Tbiv	14 kW	14 kW
COP Tj = Tbiv	3.07	1.83
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	14 kW	14 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	3.07	1.83
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	0.995	0.997
WTOL	60 °C	60 °C
Poff	22 W	22 W
PTO	22 W	22 W
PSB	22 W	22 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	3189 kWh	4528 kWh

Model PUZ-HWM140YHA(-BS) + ERPX-M*E

Model name	PUZ-HWM140YHA(-BS) + ERPX-M*E
Application	Heating (medium temp)
Units	Indoor, Outdoor
Climate zone (for heating)	Warmer Climate
Heat Source	Outdoor Air
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	12 kW	12 kW
El input	2.67 kW	4.29 kW
COP	4.5	2.8

EN 12102-1 | Average Climate

	Low temperature	Medium temperature
Sound power level indoor	40 dB(A)	40 dB(A)
Sound power level outdoor	67 dB(A)	67 dB(A)

EN 14825 | Average Climate

	Low temperature	Medium temperature
η_s	178 %	133 %
Prated	14 kW	14 kW
SCOP	4.52	3.39
Tbiv	-7 °C	-7 °C
TOL	-10 °C	-10 °C
Pdh Tj = -7°C	12.38 kW	12.38 kW
COP Tj = -7°C	2.74	1.7
Cdh Tj = -7 °C	0.995	0.997
Pdh Tj = +2°C	7.56 kW	7.56 kW
COP Tj = +2°C	4.5	3.45

Cdh Tj = +2 °C	0.987	0.99
Pdh Tj = +7°C	4.92 kW	4.92 kW
COP Tj = +7°C	5.72	4.65
Cdh Tj = +7 °C	0.974	0.979
Pdh Tj = 12°C	5.55 kW	5.25 kW
COP Tj = 12°C	7.37	6.29
Cdh Tj = +12 °C	0.971	0.974
Pdh Tj = Tbiv	12.38 kW	12.38 kW
COP Tj = Tbiv	2.74	1.7
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	13.9 kW	13.9 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.44	1.49
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	0.996	0.998
WTOL	60 °C	60 °C
Poff	22 W	22 W
PTO	22 W	22 W
PSB	22 W	22 W
PCK	0 W	0 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	0.1 kW	0.1 kW
Annual energy consumption Qhe	6404 kWh	8531 kWh

EN 12102-1 | Warmer Climate

	Low temperature	Medium temperature
Sound power level indoor	40 dB(A)	40 dB(A)
Sound power level outdoor	67 dB(A)	67 dB(A)

EN 14825 | Warmer Climate

	Low temperature	Medium temperature
ηs	232 %	162 %
Prated	14 kW	14 kW
SCOP	5.87	4.13
Tbiv	2 °C	2 °C
TOL	2 °C	2 °C
Pdh Tj = +2°C	14 kW	14 kW
COP Tj = +2°C	3.07	1.83
Cdh Tj = +2 °C	0.995	0.997
Pdh Tj = +7°C	9 kW	9 kW
COP Tj = +7°C	5.15	3.3
Cdh Tj = +7 °C	0.987	0.992
Pdh Tj = 12°C	5.47 kW	5.15 kW
COP Tj = 12°C	7.43	5.91
Cdh Tj = +12 °C	0.97	0.975
Pdh Tj = Tbiv	14 kW	14 kW

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WTOL	60 °C	60 °C
Poff	22 W	22 W
PTO	22 W	22 W
PSB	22 W	22 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	3189 kWh	4528 kWh

Model PUZ-HWM140YHA(-BS) + ERPX-*M*E

Model name	PUZ-HWM140YHA(-BS) + ERPX-*M*E
Application	Heating (medium temp)
Units	Indoor, Outdoor
Climate zone (for heating)	Warmer Climate
Heat Source	Outdoor Air
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	12 kW	12 kW
El input	2.67 kW	4.29 kW
COP	4.5	2.8

EN 12102-1 | Average Climate

	Low temperature	Medium temperature
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EN 14825 | Average Climate

	Low temperature	Medium temperature
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COP Tj = +2°C	4.5	3.45

Cdh Tj = +2 °C	0.987	0.99
Pdh Tj = +7°C	4.92 kW	4.92 kW
COP Tj = +7°C	5.72	4.65
Cdh Tj = +7 °C	0.974	0.979
Pdh Tj = 12°C	5.55 kW	5.25 kW
COP Tj = 12°C	7.37	6.29
Cdh Tj = +12 °C	0.971	0.974
Pdh Tj = Tbiv	12.38 kW	12.38 kW
COP Tj = Tbiv	2.74	1.7
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PSB	22 W	22 W
PCK	0 W	0 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	0.1 kW	0.1 kW
Annual energy consumption Qhe	6404 kWh	8531 kWh

EN 12102-1 | Warmer Climate

	Low temperature	Medium temperature
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EN 14825 | Warmer Climate

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Pdh Tj = Tbiv	14 kW	14 kW

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PSB	22 W	22 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	3189 kWh	4528 kWh