Login

Summary of	Ecodan Zubadan 14-300D Packaged	Reg. No.	037-0038-20
Certificate Holder			
Name	Mitsubishi Electric Air Conditioning Systems Europe LTD		
Address	Nettlehill Road, Houston Industrial Estate	Zip	EH54 5EQ
City	Livingston	Country	United Kingdom
Certification Body	SZU - Strojirensky zkusebni ustav (Engineering Test Institute, Public Enterprise)		
Subtype title	Ecodan Zubadan 14-300D Packaged		
Heat Pump Type	Outdoor Air/Water		
Refrigerant	R32		
Mass of Refrigerant	3.3 kg		
Certification Date	27.07.2020		
Testing basis	HP Keymark scheme rules rev. no. 6		

Model: PUZ-HWM140VHA(-BS) + EHPT30X-*M*D

Configure model	
Model name	PUZ-HWM140VHA(-BS) + EHPT30X-*M*D
Application	Heating + DHW + low temp
Units	Indoor + Outdoor
Climate Zone	Warmer Climate
Reversibility	No
Cooling mode application (optional)	n/a

General Data	
Power supply	3x400V 50Hz

Heating

EN 14511-2		
	Low temperature	**Medium temperature**
Heat output	14 kW	14 kW
El input	3.14 kW	5.24 kW
COP	4.46	2.67

EN 14511-4	
Shutting off the heat transfer medium flow	passed
Complete power supply failure	passed
Defrost test	passed
Starting and operating test	passed

Warmer Climate

EN 12102-1		
	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		
	Low temperature	**Medium temperature**
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

Average Climate

EN 12102-1		
	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		
	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

Domestic Hot Water (DHW)

Warmer Climate

EN 16147	
Declared load profile	XL
Efficiency ηDHW	125 %
COP	3.02
Heating up time	02:21 h:min
Standby power input	41 W
Reference hot water temperature	52.5 °C
Mixed water at 40°C	417 l

Average Climate

EN 16147

Declared load profile	XL
Efficiency ηDHW	118 %
COP	2.83
Heating up time	02:26 h:min
Standby power input	51 W
Reference hot water temperature	52.5 °C
Mixed water at 40°C	417 l

Model: PUZ-HWM140VHA(-BS) + EHPT30X-M*D

Configure model	
Model name	PUZ-HWM140VHA(-BS) + EHPT30X-M*D
Application	Heating + DHW + low temp
Units	Indoor + Outdoor
Climate Zone	Warmer Climate
Reversibility	No
Cooling mode application (optional)	n/a

General Data	
Power supply	1x230V 50Hz

Heating

EN 14511-2		
	Low temperature	**Medium temperature**
Heat output	14 kW	14 kW
El input	3.14 kW	5.24 kW
COP	4.46	2.67

EN 14511-4	
Shutting off the heat transfer medium flow	passed
Complete power supply failure	passed
Defrost test	passed
Starting and operating test	passed

Warmer Climate

EN 12102-1		
	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		
	Low temperature	**Medium temperature**
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

Average Climate

EN 12102-1		
	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		
	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

Domestic Hot Water (DHW)

Warmer Climate

EN 16147	
Declared load profile	XL
Efficiency ηDHW	125 %
COP	3.02
Heating up time	02:21 h:min
Standby power input	41 W
Reference hot water temperature	52.5 °C
Mixed water at 40°C	417 l

Average Climate

EN 16147

Declared load profile	XL
Efficiency ηDHW	118 %
COP	2.83
Heating up time	02:26 h:min
Standby power input	51 W
Reference hot water temperature	52.5 °C
Mixed water at 40°C	417 l

Model: PUZ-HWM140VHA(-BS) + ERPT30X-*M*D

Configure model	
Model name	PUZ-HWM140VHA(-BS) + ERPT30X-*M*D
Application	Heating + DHW + low temp
Units	Indoor + Outdoor
Climate Zone	Warmer Climate
Reversibility	Yes
Cooling mode application (optional)	n/a

General Data	
Power supply	1x230V 50Hz

Heating

EN 14511-2		
	Low temperature	**Medium temperature**
Heat output	14 kW	14 kW
El input	3.14 kW	5.24 kW
COP	4.46	2.67

EN 14511-4	
Shutting off the heat transfer medium flow	passed
Complete power supply failure	passed
Defrost test	passed
Starting and operating test	passed

Warmer Climate

EN 12102-1		
	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		
	Low temperature	**Medium temperature**
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

Average Climate

EN 12102-1		
	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		
	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

Domestic Hot Water (DHW)

Warmer Climate

EN 16147	
Declared load profile	XL
Efficiency ηDHW	125 %
COP	3.02
Heating up time	02:21 h:min
Standby power input	41 W
Reference hot water temperature	52.5 °C
Mixed water at 40°C	417 l

Average Climate

EN 16147

Declared load profile	XL
Efficiency ηDHW	118 %
COP	2.83
Heating up time	02:26 h:min
Standby power input	51 W
Reference hot water temperature	52.5 °C
Mixed water at 40°C	417 l

Model: PUZ-HWM140YHA(-BS) + EHPT30X-*M*D

Configure model	
Model name	PUZ-HWM140YHA(-BS) + EHPT30X-*M*D
Application	Heating + DHW + low temp
Units	Indoor + Outdoor
Climate Zone	Warmer Climate
Reversibility	No
Cooling mode application (optional)	n/a

General Data	
Power supply	3x400V 50Hz

Heating

EN 14511-2		
	Low temperature	**Medium temperature**
Heat output	14 kW	14 kW
El input	3.14 kW	5.24 kW
COP	4.46	2.67

EN 14511-4	
Shutting off the heat transfer medium flow	passed
Complete power supply failure	passed
Defrost test	passed
Starting and operating test	passed

Warmer Climate

EN 12102-1		
	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		
	Low temperature	**Medium temperature**
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

Average Climate

EN 12102-1		
	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		
	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

Domestic Hot Water (DHW)

Warmer Climate

EN 16147	
Declared load profile	XL
Efficiency ηDHW	125 %
COP	3.02
Heating up time	02:21 h:min
Standby power input	41 W
Reference hot water temperature	52.5 °C
Mixed water at 40°C	417 l

Average Climate

EN 16147

Declared load profile	XL
Efficiency ηDHW	118 %
COP	2.83
Heating up time	02:26 h:min
Standby power input	51 W
Reference hot water temperature	52.5 °C
Mixed water at 40°C	417 l

Model: PUZ-HWM140YHA(-BS) + EHPT30X-M*D

Configure model	
Model name	PUZ-HWM140YHA(-BS) + EHPT30X-M*D
Application	Heating + DHW + low temp
Units	Indoor + Outdoor
Climate Zone	Warmer Climate
Reversibility	No
Cooling mode application (optional)	n/a

General Data	
Power supply	3x400V 50Hz

Heating

EN 14511-2		
	Low temperature	**Medium temperature**
Heat output	14 kW	14 kW
El input	3.14 kW	5.24 kW
COP	4.46	2.67

EN 14511-4	
Shutting off the heat transfer medium flow	passed
Complete power supply failure	passed
Defrost test	passed
Starting and operating test	passed

Warmer Climate

EN 12102-1		
	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		
	Low temperature	**Medium temperature**
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	3.14	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

Average Climate

EN 12102-1		
	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		
	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

Domestic Hot Water (DHW)

Warmer Climate

EN 16147	
Declared load profile	XL
Efficiency ηDHW	125 %
COP	3.02
Heating up time	02:21 h:min
Standby power input	41 W
Reference hot water temperature	52.5 °C
Mixed water at 40°C	417 l

Average Climate

EN 16147

Declared load profile	XL
Efficiency ηDHW	118 %
COP	2.83
Heating up time	02:26 h:min
Standby power input	51 W
Reference hot water temperature	52.5 °C
Mixed water at 40°C	417 l

Model: PUZ-HWM140YHA(-BS) + ERPT30X-*M*D

Configure model	
Model name	PUZ-HWM140YHA(-BS) + ERPT30X-*M*D
Application	Heating + DHW + low temp
Units	Indoor + Outdoor
Climate Zone	Warmer Climate
Reversibility	Yes
Cooling mode application (optional)	n/a

General Data	
Power supply	3x400V 50Hz

Heating

EN 14511-2		
	Low temperature	**Medium temperature**
Heat output	14 kW	14 kW
El input	3.14 kW	5.24 kW
COP	4.46	2.67

EN 14511-4	
Shutting off the heat transfer medium flow	passed
Complete power supply failure	passed
Defrost test	passed
Starting and operating test	passed

Warmer Climate

EN 12102-1		
	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		
	Low temperature	**Medium temperature**
η_s	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

Average Climate

EN 12102-1		
	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		
	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

Domestic Hot Water (DHW)

Warmer Climate

EN 16147	
Declared load profile	XL
Efficiency ηDHW	125 %
COP	3.02
Heating up time	02:21 h:min
Standby power input	41 W
Reference hot water temperature	52.5 °C
Mixed water at 40°C	417 l

Average Climate

EN 16147

Declared load profile	XL
Efficiency ηDHW	118 %
COP	2.83
Heating up time	02:26 h:min
Standby power input	51 W
Reference hot water temperature	52.5 °C
Mixed water at 40°C	417 l