

This information was generated by the HP KEYMARK database on 17 Dec 2020

Summary of	Ecodan Power Inverter 11-300D Packaged AA	Reg. No.	037-0037-20
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)		
Name of testing laboratory	Universität Stuttgart, IGE, Prüfstelle HLK		
Subtype title	Ecodan Power Inverter 11-300D Packaged AA		
Heat Pump Type	Outdoor Air/Water		
Refrigerant	R32		
Mass Of Refrigerant	3 kg		
Certification Date	27.07.2020		
Testing basis	HP Keymark scheme rules rev. no. 6		

## Model: PUZ-WM112VAA(-BS) + EHPT30X-M\*D

### General Data

Power supply	1x230V 50Hz
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## Heating

### EN 14511-2

	Low temperature	Medium temperature
Heat output	11.20 kW	10.00 kW
El input	2.38 kW	3.33 kW
COP	4.70	3.00
Indoor water flow rate	1.93 m <sup>3</sup> /h	1.07 m <sup>3</sup> /h

### EN 14511-4

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

## Average Climate

This information was generated by the HP KEYMARK database on 17 Dec 2020

### EN 12102-1

	Low temperature	Medium temperature
Sound power level indoor	40 dB(A)	40 dB(A)
Sound power level outdoor	60 dB(A)	60 dB(A)

### EN 14825

	Low temperature	Medium temperature
$\eta_s$	191 %	134 %
Prated	10.00 kW	10.00 kW
SCOP	4.86	3.43
Tbiv	-7 °C	-7 °C
TOL	-25 °C	-25 °C
Pdh Tj = -7°C	8.80 kW	8.80 kW
COP Tj = -7°C	3.31	2.23
Cdh	0.99	1.00
Pdh Tj = +2°C	5.70 kW	5.40 kW
COP Tj = +2°C	4.79	3.34
Cdh	0.99	0.99
Pdh Tj = +7°C	4.90 kW	5.20 kW
COP Tj = +7°C	6.68	4.61
Cdh	0.98	0.99

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Pdh Tj = 12°C	4.60 kW	4.70 kW
COP Tj = 12°C	9.10	6.35
Cdh	0.97	0.98
Pdh Tj = Tbiv	8.90 kW	8.80 kW
COP Tj = Tbiv	3.32	2.21
Pdh Tj = TOL	8.70 kW	8.70 kW
COP Tj = TOL	1.60	1.60
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	1.15 kW	1.22 kW
Annual energy consumption Qhe	4145 kWh	5905 kWh

## Warmer Climate

<b>EN 12102-1</b>		
	<b>Low temperature</b>	<b>Medium temperature</b>
Sound power level indoor	40 dB(A)	40 dB(A)
Sound power level outdoor	60 dB(A)	60 dB(A)

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**EN 14825**

	Low temperature	Medium temperature
$\eta_s$	215 %	134 %
Prated	10.00 kW	10.00 kW
SCOP	5.46	3.87
Tbiv	2 °C	2 °C
TOL	-25 °C	-25 °C
Pdh Tj = +2°C	10.00 kW	10.00 kW
COP Tj = +2°C	3.30	1.90
Cdh	1.00	1.00
Pdh Tj = +7°C	6.40 kW	6.40 kW
COP Tj = +7°C	4.73	3.15
Cdh	0.99	0.99
Pdh Tj = 12°C	4.70 kW	4.40 kW
COP Tj = 12°C	7.12	5.66
Cdh	0.98	0.98
Pdh Tj = Tbiv	10.00 kW	10.00 kW
COP Tj = Tbiv	3.31	1.81
Pdh Tj = TOL	8.70 kW	8.70 kW
COP Tj = TOL	1.53	1.53
WTOL	60 °C	60 °C

This information was generated by the HP KEYMARK database on 17 Dec 2020

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	0.00 kW	0.00 kW
Annual energy consumption Q <sub>he</sub>	2394 kWh	3401 kWh

## Domestic Hot Water (DHW)

### Average Climate

<b>EN 16147</b>	
Declared load profile	XL
Efficiency $\eta_{DHW}$	120 %
COP	2.91
Heating up time	3:10 h:min
Standby power input	40.0 W
Reference hot water temperature	52.5 °C
Mixed water at 40°C	417 l

### Warmer Climate

This information was generated by the HP KEYMARK database on 17 Dec 2020

<b>EN 16147</b>	
Declared load profile	XL
Efficiency $\eta_{DHW}$	135 %
COP	3.24
Heating up time	3:42 h:min
Standby power input	39.0 W
Reference hot water temperature	52.5 °C
Mixed water at 40°C	417 l

# Model: PUZ-WM112VAA(-BS) + EHPT30X-YM\*D

## General Data

Power supply	3x400V 50Hz
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## Heating

### EN 14511-2

	Low temperature	Medium temperature
Heat output	11.20 kW	10.00 kW
El input	2.38 kW	3.33 kW
COP	4.70	3.00
Indoor water flow rate	1.93 m <sup>3</sup> /h	1.07 m <sup>3</sup> /h

### EN 14511-4

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

## Average Climate



This information was generated by the HP KEYMARK database on 17 Dec 2020

### EN 12102-1

	Low temperature	Medium temperature
Sound power level indoor	40 dB(A)	40 dB(A)
Sound power level outdoor	60 dB(A)	60 dB(A)

### EN 14825

	Low temperature	Medium temperature
$\eta_s$	191 %	134 %
Prated	10.00 kW	10.00 kW
SCOP	4.86	3.43
Tbiv	-7 °C	-7 °C
TOL	-25 °C	-25 °C
Pdh Tj = -7°C	8.80 kW	8.80 kW
COP Tj = -7°C	3.31	2.23
Cdh	0.99	1.00
Pdh Tj = +2°C	5.70 kW	5.40 kW
COP Tj = +2°C	4.79	3.34
Cdh	0.99	0.99
Pdh Tj = +7°C	4.90 kW	5.20 kW
COP Tj = +7°C	6.68	4.61
Cdh	0.98	0.99

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Pdh Tj = 12°C	4.60 kW	4.70 kW
COP Tj = 12°C	9.10	6.35
Cdh	0.97	0.98
Pdh Tj = Tbiv	8.90 kW	8.80 kW
COP Tj = Tbiv	3.32	2.21
Pdh Tj = TOL	8.70 kW	8.70 kW
COP Tj = TOL	1.60	1.60
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	1.15 kW	1.22 kW
Annual energy consumption Qhe	4145 kWh	5905 kWh

## Warmer Climate

<b>EN 12102-1</b>		
	<b>Low temperature</b>	<b>Medium temperature</b>
Sound power level indoor	40 dB(A)	40 dB(A)
Sound power level outdoor	60 dB(A)	60 dB(A)

This information was generated by the HP KEYMARK database on 17 Dec 2020

**EN 14825**

	Low temperature	Medium temperature
$\eta_s$	215 %	134 %
Prated	10.00 kW	10.00 kW
SCOP	5.46	3.87
Tbiv	2 °C	2 °C
TOL	-25 °C	-25 °C
Pdh Tj = +2°C	10.00 kW	10.00 kW
COP Tj = +2°C	3.30	1.90
Cdh	1.00	1.00
Pdh Tj = +7°C	6.40 kW	6.40 kW
COP Tj = +7°C	4.73	3.15
Cdh	0.99	0.99
Pdh Tj = 12°C	4.70 kW	4.40 kW
COP Tj = 12°C	7.12	5.66
Cdh	0.98	0.98
Pdh Tj = Tbiv	10.00 kW	10.00 kW
COP Tj = Tbiv	3.31	1.81
Pdh Tj = TOL	8.70 kW	8.70 kW
COP Tj = TOL	1.53	1.53
WTOL	60 °C	60 °C

This information was generated by the HP KEYMARK database on 17 Dec 2020

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	0.00 kW	0.00 kW
Annual energy consumption Q <sub>he</sub>	2394 kWh	3401 kWh

## Domestic Hot Water (DHW)

### Average Climate

<b>EN 16147</b>	
Declared load profile	XL
Efficiency $\eta_{DHW}$	120 %
COP	2.91
Heating up time	3:10 h:min
Standby power input	40.0 W
Reference hot water temperature	52.5 °C
Mixed water at 40°C	417 l

### Warmer Climate

This information was generated by the HP KEYMARK database on 17 Dec 2020

<b>EN 16147</b>	
Declared load profile	XL
Efficiency $\eta_{DHW}$	135 %
COP	3.24
Heating up time	3:42 h:min
Standby power input	39.0 W
Reference hot water temperature	52.5 °C
Mixed water at 40°C	417 l

# Model: PUZ-WM112VAA(-BS) + ERPT30X-VM\*D

## General Data

Power supply	1x230V 50Hz
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## Heating

### EN 14511-2

	Low temperature	Medium temperature
Heat output	11.20 kW	10.00 kW
El input	2.38 kW	3.33 kW
COP	4.70	3.00
Indoor water flow rate	1.93 m <sup>3</sup> /h	1.07 m <sup>3</sup> /h

### EN 14511-4

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

## Average Climate

This information was generated by the HP KEYMARK database on 17 Dec 2020

### EN 12102-1

	Low temperature	Medium temperature
Sound power level indoor	40 dB(A)	40 dB(A)
Sound power level outdoor	60 dB(A)	60 dB(A)

### EN 14825

	Low temperature	Medium temperature
$\eta_s$	195 %	136 %
Prated	10.00 kW	10.00 kW
SCOP	4.95	3.48
Tbiv	-7 °C	-7 °C
TOL	-25 °C	-25 °C
Pdh Tj = -7°C	8.80 kW	8.80 kW
COP Tj = -7°C	3.31	2.23
Cdh	0.99	1.00
Pdh Tj = +2°C	5.70 kW	5.40 kW
COP Tj = +2°C	4.79	3.34
Cdh	0.99	0.99
Pdh Tj = +7°C	4.90 kW	5.20 kW
COP Tj = +7°C	6.68	4.61
Cdh	0.98	0.99

This information was generated by the HP KEYMARK database on 17 Dec 2020

Pdh Tj = 12°C	4.60 kW	4.70 kW
COP Tj = 12°C	9.10	6.35
Cdh	0.97	0.98
Pdh Tj = Tbiv	8.90 kW	8.80 kW
COP Tj = Tbiv	3.32	2.21
Pdh Tj = TOL	8.70 kW	8.70 kW
COP Tj = TOL	1.60	1.60
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	1.15 kW	1.22 kW
Annual energy consumption Qhe	4145 kWh	5905 kWh

## Warmer Climate

<b>EN 12102-1</b>		
	<b>Low temperature</b>	<b>Medium temperature</b>
Sound power level indoor	40 dB(A)	40 dB(A)
Sound power level outdoor	60 dB(A)	60 dB(A)



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**EN 14825**

	Low temperature	Medium temperature
$\eta_s$	220 %	136 %
Prated	10.00 kW	10.00 kW
SCOP	5.58	3.93
Tbiv	2 °C	2 °C
TOL	-25 °C	-25 °C
Pdh Tj = +2°C	10.00 kW	10.00 kW
COP Tj = +2°C	3.30	1.90
Cdh	1.00	1.00
Pdh Tj = +7°C	6.40 kW	6.40 kW
COP Tj = +7°C	4.73	3.15
Cdh	0.99	0.99
Pdh Tj = 12°C	4.70 kW	4.40 kW
COP Tj = 12°C	7.12	5.66
Cdh	0.98	0.98
Pdh Tj = Tbiv	10.00 kW	10.00 kW
COP Tj = Tbiv	3.31	1.81
Pdh Tj = TOL	8.70 kW	8.70 kW
COP Tj = TOL	1.53	1.53
WTOL	60 °C	60 °C

This information was generated by the HP KEYMARK database on 17 Dec 2020

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	0.00 kW	0.00 kW
Annual energy consumption Q <sub>he</sub>	2394 kWh	3401 kWh

## Domestic Hot Water (DHW)

### Average Climate

<b>EN 16147</b>	
Declared load profile	XL
Efficiency $\eta_{DHW}$	120 %
COP	2.91
Heating up time	3:10 h:min
Standby power input	40.0 W
Reference hot water temperature	52.5 °C
Mixed water at 40°C	417 l

### Warmer Climate

This information was generated by the HP KEYMARK database on 17 Dec 2020

<b>EN 16147</b>	
Declared load profile	XL
Efficiency $\eta_{DHW}$	135 %
COP	3.24
Heating up time	3:42 h:min
Standby power input	39.0 W
Reference hot water temperature	52.5 °C
Mixed water at 40°C	417 l

# Model: PUZ-WM112YAA(-BS) + EHPT30X-M\*D

## General Data

Power supply	3x400V 50Hz
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## Heating

### EN 14511-2

	Low temperature	Medium temperature
Heat output	11.20 kW	10.00 kW
El input	2.38 kW	3.33 kW
COP	4.70	3.00
Indoor water flow rate	1.93 m <sup>3</sup> /h	1.07 m <sup>3</sup> /h

### EN 14511-4

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

## Average Climate

This information was generated by the HP KEYMARK database on 17 Dec 2020

### EN 12102-1

	Low temperature	Medium temperature
Sound power level indoor	40 dB(A)	40 dB(A)
Sound power level outdoor	60 dB(A)	60 dB(A)

### EN 14825

	Low temperature	Medium temperature
$\eta_s$	189 %	133 %
Prated	10.00 kW	10.00 kW
SCOP	4.81	3.41
Tbiv	-7 °C	-7 °C
TOL	-25 °C	-25 °C
Pdh Tj = -7°C	8.80 kW	8.80 kW
COP Tj = -7°C	3.31	2.23
Cdh	0.99	0.99
Pdh Tj = +2°C	5.70 kW	5.40 kW
COP Tj = +2°C	4.79	3.34
Cdh	0.99	0.99
Pdh Tj = +7°C	4.90 kW	5.20 kW
COP Tj = +7°C	6.68	4.61
Cdh	0.98	0.98

This information was generated by the HP KEYMARK database on 17 Dec 2020

Pdh Tj = 12°C	4.60 kW	4.70 kW
COP Tj = 12°C	9.10	6.35
Cdh	0.97	0.97
Pdh Tj = Tbiv	8.90 kW	8.80 kW
COP Tj = Tbiv	3.32	2.21
Pdh Tj = TOL	8.70 kW	8.70 kW
COP Tj = TOL	1.60	1.60
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	1.15 kW	1.22 kW
Annual energy consumption Qhe	4145 kWh	5905 kWh

## Warmer Climate

<b>EN 12102-1</b>		
	<b>Low temperature</b>	<b>Medium temperature</b>
Sound power level indoor	40 dB(A)	40 dB(A)
Sound power level outdoor	60 dB(A)	60 dB(A)

This information was generated by the HP KEYMARK database on 17 Dec 2020

**EN 14825**

	Low temperature	Medium temperature
$\eta_s$	213 %	133 %
Prated	10.00 kW	10.00 kW
SCOP	5.41	3.84
Tbiv	2 °C	2 °C
TOL	-25 °C	-25 °C
Pdh Tj = +2°C	10.00 kW	10.00 kW
COP Tj = +2°C	3.30	1.90
Cdh	1.00	1.00
Pdh Tj = +7°C	6.40 kW	6.40 kW
COP Tj = +7°C	4.73	3.15
Cdh	0.99	0.99
Pdh Tj = 12°C	4.70 kW	4.40 kW
COP Tj = 12°C	7.12	5.66
Cdh	0.98	0.98
Pdh Tj = Tbiv	10.00 kW	10.00 kW
COP Tj = Tbiv	3.31	1.81
Pdh Tj = TOL	8.70 kW	8.70 kW
COP Tj = TOL	1.53	1.53
WTOL	60 °C	60 °C

This information was generated by the HP KEYMARK database on 17 Dec 2020

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	0.00 kW	0.00 kW
Annual energy consumption Q <sub>he</sub>	2394 kWh	3401 kWh

## Domestic Hot Water (DHW)

### Average Climate

<b>EN 16147</b>	
Declared load profile	XL
Efficiency $\eta_{DHW}$	120 %
COP	2.91
Heating up time	3:10 h:min
Standby power input	40.0 W
Reference hot water temperature	52.5 °C
Mixed water at 40°C	417 l

### Warmer Climate



This information was generated by the HP KEYMARK database on 17 Dec 2020

<b>EN 16147</b>	
Declared load profile	XL
Efficiency $\eta_{DHW}$	135 %
COP	3.24
Heating up time	3:42 h:min
Standby power input	39.0 W
Reference hot water temperature	52.5 °C
Mixed water at 40°C	417 l

# Model: PUZ-WM112YAA(-BS) + EHPT30X-YM\*D

## General Data

Power supply	3x400V 50Hz
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## Heating

### EN 14511-2

	Low temperature	Medium temperature
Heat output	11.20 kW	10.00 kW
El input	2.38 kW	3.33 kW
COP	4.70	3.00
Indoor water flow rate	1.93 m <sup>3</sup> /h	1.07 m <sup>3</sup> /h

### EN 14511-4

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

## Average Climate

This information was generated by the HP KEYMARK database on 17 Dec 2020

### EN 12102-1

	Low temperature	Medium temperature
Sound power level indoor	40 dB(A)	40 dB(A)
Sound power level outdoor	60 dB(A)	60 dB(A)

### EN 14825

	Low temperature	Medium temperature
$\eta_s$	189 %	133 %
Prated	10.00 kW	10.00 kW
SCOP	4.81	3.41
Tbiv	-7 °C	-7 °C
TOL	-25 °C	-25 °C
Pdh Tj = -7°C	8.80 kW	8.80 kW
COP Tj = -7°C	3.31	2.23
Cdh	0.99	0.99
Pdh Tj = +2°C	5.70 kW	5.40 kW
COP Tj = +2°C	4.79	3.34
Cdh	0.99	0.99
Pdh Tj = +7°C	4.90 kW	5.20 kW
COP Tj = +7°C	6.68	4.61
Cdh	0.98	0.98

This information was generated by the HP KEYMARK database on 17 Dec 2020

Pdh Tj = 12°C	4.60 kW	4.70 kW
COP Tj = 12°C	9.10	6.35
Cdh	0.97	0.97
Pdh Tj = Tbiv	8.90 kW	8.80 kW
COP Tj = Tbiv	3.32	2.21
Pdh Tj = TOL	8.70 kW	8.70 kW
COP Tj = TOL	1.60	1.60
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	1.15 kW	1.22 kW
Annual energy consumption Qhe	4145 kWh	5905 kWh

## Warmer Climate

<b>EN 12102-1</b>		
	<b>Low temperature</b>	<b>Medium temperature</b>
Sound power level indoor	40 dB(A)	40 dB(A)
Sound power level outdoor	60 dB(A)	60 dB(A)

This information was generated by the HP KEYMARK database on 17 Dec 2020

**EN 14825**

	Low temperature	Medium temperature
$\eta_s$	213 %	133 %
Prated	10.00 kW	10.00 kW
SCOP	5.41	3.84
Tbiv	2 °C	2 °C
TOL	-25 °C	-25 °C
Pdh Tj = +2°C	10.00 kW	10.00 kW
COP Tj = +2°C	3.30	1.90
Cdh	1.00	1.00
Pdh Tj = +7°C	6.40 kW	6.40 kW
COP Tj = +7°C	4.73	3.15
Cdh	0.99	0.99
Pdh Tj = 12°C	4.70 kW	4.40 kW
COP Tj = 12°C	7.12	5.66
Cdh	0.98	0.98
Pdh Tj = Tbiv	10.00 kW	10.00 kW
COP Tj = Tbiv	3.31	1.81
Pdh Tj = TOL	8.70 kW	8.70 kW
COP Tj = TOL	1.53	1.53
WTOL	60 °C	60 °C

This information was generated by the HP KEYMARK database on 17 Dec 2020

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	0.00 kW	0.00 kW
Annual energy consumption Qhe	2394 kWh	3401 kWh

## Domestic Hot Water (DHW)

### Average Climate

<b>EN 16147</b>	
Declared load profile	XL
Efficiency $\eta_{DHW}$	120 %
COP	2.91
Heating up time	3:10 h:min
Standby power input	40.0 W
Reference hot water temperature	52.5 °C
Mixed water at 40°C	417 l

### Warmer Climate

This information was generated by the HP KEYMARK database on 17 Dec 2020

<b>EN 16147</b>	
Declared load profile	XL
Efficiency $\eta_{DHW}$	135 %
COP	3.24
Heating up time	3:42 h:min
Standby power input	39.0 W
Reference hot water temperature	52.5 °C
Mixed water at 40°C	417 l

# Model: PUZ-WM112YAA(-BS) + ERPT30X-VM\*D

## General Data

Power supply	3x400V 50Hz
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## Heating

### EN 14511-2

	Low temperature	Medium temperature
Heat output	11.20 kW	10.00 kW
El input	2.38 kW	3.33 kW
COP	4.70	3.00
Indoor water flow rate	1.93 m <sup>3</sup> /h	1.07 m <sup>3</sup> /h

### EN 14511-4

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

## Average Climate



This information was generated by the HP KEYMARK database on 17 Dec 2020

### EN 12102-1

	Low temperature	Medium temperature
Sound power level indoor	40 dB(A)	40 dB(A)
Sound power level outdoor	60 dB(A)	60 dB(A)

### EN 14825

	Low temperature	Medium temperature
$\eta_s$	195 %	136 %
Prated	10.00 kW	10.00 kW
SCOP	4.95	3.48
Tbiv	-7 °C	-7 °C
TOL	-25 °C	-25 °C
Pdh Tj = -7°C	8.80 kW	8.80 kW
COP Tj = -7°C	3.31	2.23
Cdh	0.99	0.99
Pdh Tj = +2°C	5.70 kW	5.40 kW
COP Tj = +2°C	4.79	3.34
Cdh	0.99	0.99
Pdh Tj = +7°C	4.90 kW	5.20 kW
COP Tj = +7°C	6.68	4.61
Cdh	0.98	0.98

This information was generated by the HP KEYMARK database on 17 Dec 2020

Pdh Tj = 12°C	4.60 kW	4.70 kW
COP Tj = 12°C	9.10	6.35
Cdh	0.97	0.97
Pdh Tj = Tbiv	8.90 kW	8.80 kW
COP Tj = Tbiv	3.32	2.21
Pdh Tj = TOL	8.70 kW	8.70 kW
COP Tj = TOL	1.60	1.60
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	1.15 kW	1.22 kW
Annual energy consumption Qhe	4145 kWh	5905 kWh

## Warmer Climate

<b>EN 12102-1</b>		
	<b>Low temperature</b>	<b>Medium temperature</b>
Sound power level indoor	40 dB(A)	40 dB(A)
Sound power level outdoor	60 dB(A)	60 dB(A)

This information was generated by the HP KEYMARK database on 17 Dec 2020

**EN 14825**

	Low temperature	Medium temperature
$\eta_s$	220 %	136 %
Prated	10.00 kW	10.00 kW
SCOP	5.58	3.93
Tbiv	2 °C	2 °C
TOL	-25 °C	-25 °C
Pdh Tj = +2°C	10.00 kW	10.00 kW
COP Tj = +2°C	3.30	1.90
Cdh	1.00	1.00
Pdh Tj = +7°C	6.40 kW	6.40 kW
COP Tj = +7°C	4.73	3.15
Cdh	0.99	0.99
Pdh Tj = 12°C	4.70 kW	4.40 kW
COP Tj = 12°C	7.12	5.66
Cdh	0.98	0.98
Pdh Tj = Tbiv	10.00 kW	10.00 kW
COP Tj = Tbiv	3.31	1.81
Pdh Tj = TOL	8.70 kW	8.70 kW
COP Tj = TOL	1.53	1.53
WTOL	60 °C	60 °C

This information was generated by the HP KEYMARK database on 17 Dec 2020

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	0.00 kW	0.00 kW
Annual energy consumption Q <sub>he</sub>	2394 kWh	3401 kWh

## Domestic Hot Water (DHW)

### Average Climate

<b>EN 16147</b>	
Declared load profile	XL
Efficiency $\eta_{DHW}$	120 %
COP	2.91
Heating up time	3:10 h:min
Standby power input	40.0 W
Reference hot water temperature	52.5 °C
Mixed water at 40°C	417 l

### Warmer Climate

This information was generated by the HP KEYMARK database on 17 Dec 2020

<b>EN 16147</b>	
Declared load profile	XL
Efficiency $\eta_{DHW}$	135 %
COP	3.24
Heating up time	3:42 h:min
Standby power input	39.0 W
Reference hot water temperature	52.5 °C
Mixed water at 40°C	417 l