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#### This information was generated by the HP KEYMARK database on 22 Jun 2022

#### <u>Login</u>

Summary of	Ecodan Zubadan 14-200D Packaged	Reg. No.	037-0035-20		
Certificate Holder	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 14-200D 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) + EHPT20X-M\*D

Configure model			
Model name	PUZ-HWM140VHA(-BS) + EHPT20X-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	
СОР	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



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	
$\eta_{s}$	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
РТО	15 W	15 W
PSB	15 W	15 W
PCK	0 W	o 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





	· · · · · · · · · · · · · · · · · · ·	NK database on 22 Juli 202.
$\eta_{s}$	176 %	132 %
Prated	14 kW	14 kW
SCOP	4.47	3.37
Tbiv	-7 °C	-7 °C
TOL	-28 °C	-28 °C
Pdh Tj = $-7^{\circ}$ C	12.4 kW	12.4 kW
$COP Tj = -7^{\circ}C$	2.55	1.98
Cdh Tj = -7 °C	1	1
Pdh Tj = $+2$ °C	7.5 kW	7.5 kW
$COPTj = +2^{\circ}C$	4.4	3.25
Cdh Tj = +2 °C	0.99	0.99
Pdh Tj = $+7^{\circ}$ C	4.9 kW	5.1 kW
$COPTj = +7^{\circ}C$	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
РТО	15 W	15 W
PSB	15 W	15 W
PCK	o w	o 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	L	
Efficiency ηDHW	152 %	
СОР	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	

# Average Climate



EN 16147		
Declared load profile	L	
Efficiency ηDHW	130 %	
СОР	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	

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

Configure model		
Model name	PUZ-HWM140VHA(-BS) + EHPT20X-*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	
СОР	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



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
$\eta_{s}$	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
РТО	15 W	15 W
PSB	15 W	15 W
PCK	o 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

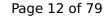
# EN 12102-1 Low temperature Medium temperature Sound power level indoor 40 dB(A) 40 dB(A) Sound power level outdoor 67 dB(A) 67 dB(A)

EN 14825		
	Low temperature	Medium temperature





	· · · · · · · · · · · · · · · · · · ·	NK database on 22 Juli 202.
$\eta_{s}$	176 %	132 %
Prated	14 kW	14 kW
SCOP	4.47	3.37
Tbiv	-7 °C	-7 °C
TOL	-28 °C	-28 °C
Pdh Tj = $-7^{\circ}$ C	12.4 kW	12.4 kW
$COP Tj = -7^{\circ}C$	2.55	1.98
Cdh Tj = -7 °C	1	1
Pdh Tj = $+2$ °C	7.5 kW	7.5 kW
$COPTj = +2^{\circ}C$	4.4	3.25
Cdh Tj = +2 °C	0.99	0.99
Pdh Tj = $+7^{\circ}$ C	4.9 kW	5.1 kW
$COPTj = +7^{\circ}C$	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
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This information was generat	ed by the HP KEYMAR	K database on 22 Jun 2022

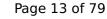
WTOL	60 °C	60 °C
Poff	15 W	15 W
PTO	15 W	15 W
PSB	15 W	15 W
PCK	0 W	0 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	0.1 kW	0.1 kW
Annual energy consumption Qhe	6470 kWh	8589 kWh

### Domestic Hot Water (DHW)

#### Warmer Climate

EN 16147	
Declared load profile	L
Efficiency ηDHW	152 %
СОР	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

# Average Climate





EN 16147	
Declared load profile	L
Efficiency ηDHW	130 %
СОР	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



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

Configure model		
Model name PUZ-HWM140VHA(-BS) + EHPX-M*D		
Application	Heating (medium 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	
СОР	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



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
$\eta_{s}$	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
РТО	15 W	15 W
PSB	15 W	15 W
PCK	0 W	o 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

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

EN 12102-1

Sound power level outdoor	67 dB(A)	67 dB(A)

EN 14825		
	Low temperature	Medium temperature





	· · · · · · · · · · · · · · · · · · ·	NK database on 22 Juli 202.
$\eta_{s}$	176 %	132 %
Prated	14 kW	14 kW
SCOP	4.47	3.37
Tbiv	-7 °C	-7 °C
TOL	-28 °C	-28 °C
Pdh Tj = $-7^{\circ}$ C	12.4 kW	12.4 kW
$COP Tj = -7^{\circ}C$	2.55	1.98
Cdh Tj = -7 °C	1	1
Pdh Tj = $+2$ °C	7.5 kW	7.5 kW
$COPTj = +2^{\circ}C$	4.4	3.25
Cdh Tj = +2 °C	0.99	0.99
Pdh Tj = $+7^{\circ}$ C	4.9 kW	5.1 kW
$COPTj = +7^{\circ}C$	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
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#### This information was generated by the HP KEYMARK database on 22 Jun 2022

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



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

Configure model		
Model name PUZ-HWM140VHA(-BS) + EHPX-*M*D		
Application	Heating (medium 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	
СОР	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	





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
$\eta_{s}$	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
РТО	15 W	15 W
PSB	15 W	15 W
PCK	0 W	o 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





This information was gener	ated by the HE KETMA	ink database on 22 juli 202
$\eta_{s}$	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
$COP Tj = -7^{\circ}C$	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
$COPTj = +7^{\circ}C$	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
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#### This information was generated by the HP KEYMARK database on 22 Jun 2022

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

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

Configure model		
Model name PUZ-HWM140VHA(-BS) + ERPT20X-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	
СОР	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	



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
$\eta_{s}$	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
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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	o 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

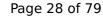
	Low temperature	Medium temperature
Sound power level indoor	40 dB(A)	40 dB(A)
Sound power level outdoor	67 dB(A)	67 dB(A)

Low temperature	Medium temperature





This information was gener	acea by the in item.	int database on 22 juil 202
$\eta_{S}$	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
$COP Tj = +7^{\circ}C$	6.28	4.64
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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





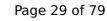
WTOL	60 °C	60 °C
Poff	15 W	15 W
PTO	15 W	15 W
PSB	15 W	15 W
PCK	0 W	0 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	0.1 kW	0.1 kW
Annual energy consumption Qhe	6407 kWh	8534 kWh

#### Domestic Hot Water (DHW)

#### Warmer Climate

EN 16147	
Declared load profile	L
Efficiency ηDHW	152 %
СОР	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

# Average Climate





EN 16147	
Declared load profile	L
Efficiency ηDHW	130 %
СОР	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



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

Configure model		
Model name PUZ-HWM140VHA(-BS) + ERPT20X-*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
СОР	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



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
$\eta_{s}$	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
$COP Tj = +7^{\circ}C$	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



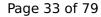


Pdh Tj = Tbiv	14 kW	14 kW
COP Tj = Tbiv	3.15	1.94
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	14 kW	14 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	3.15	1.94
WTOL	60 °C	60 °C
Poff	15 W	15 W
РТО	15 W	15 W
PSB	15 W	15 W
PCK	0 W	0 W
Supplementary Heater: Type of energy input	Electricity	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





This information was generated by the HP KEYMARK database on 22 Jun 202			
$\eta_{s}$	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 = $+7^{\circ}$ C	4.9 kW	5.1 kW	
$COPTj = +7^{\circ}C$	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	





This information was generated by the fir NETH with database on 22 juni		
WTOL	60 °C	60 °C
Poff	15 W	15 W
РТО	15 W	15 W
PSB	15 W	15 W
PCK	o w	0 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	0.1 kW	0.1 kW

6407 kWh

8534 kWh

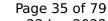
#### Domestic Hot Water (DHW)

Annual energy consumption Qhe

#### Warmer Climate

EN 16147		
Declared load profile	L	
Efficiency ηDHW	152 %	
СОР	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	

# Average Climate





EN 16147		
Declared load profile	L	
Efficiency ηDHW	130 %	
СОР	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	



# Model: PUZ-HWM140VHA(-BS)

Configure model		
Model name	PUZ-HWM140VHA(-BS)	
Application	Heating (medium temp)	
Units	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
СОР	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



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
$\eta_{s}$	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	o 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





This information was gener	ated by the HE KETMA	ink database on 22 juli 2022
$\eta_{s}$	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
$COPTj = -7^{\circ}C$	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 = $+7^{\circ}$ C	4.9 kW	5.1 kW
$COPTj = +7^{\circ}C$	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
	1	1



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#### This information was generated by the HP KEYMARK database on 22 Jun 2022

WTOL	60 °C	60 °C
Poff	15 W	15 W
PTO	15 W	15 W
PSB	15 W	15 W
PCK	o w	o 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

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

Configure model		
Model name PUZ-HWM140YHA(-BS) + EHPT20X-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	
СОР	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
$\eta_{s}$	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 = $+7^{\circ}$ 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





This information was gener	acea by the in Reinn	in in a dead doc on EE jan EoE
$\eta_{S}$	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
$COP Tj = +7^{\circ}C$	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
РТО	22 W	22 W
PSB	22 W	22 W
PCK	o w	o 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	L	
Efficiency ηDHW	152 %	
СОР	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	

# Average Climate





EN 16147		
Declared load profile	L	
Efficiency ηDHW	130 %	
СОР	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	

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

Configure model		
Model name   PUZ-HWM140YHA(-BS) + EHPT20X-*M*D		
Application	Heating + DHW + low temp	
Units	Indoor + Outdoor	
Climate Zone	Warmer Climate	
Reversibility	ersibility 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
СОР	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
$\eta_{s}$	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	o 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)

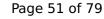
Sound power level outdoor	67 dB(A)	67 dB(A)

EN 14825		
	Low temperature	Medium temperature





This information was gener	ated by the HP KEYMA	RK database on 22 Jun 202
$\eta_{s}$	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 = $+7^{\circ}$ C	4.9 kW	5.1 kW
$COP Tj = +7^{\circ}C$	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
	+	





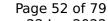
WTOL	60 °C	60 °C
Poff	22 W	22 W
PTO	22 W	22 W
PSB	22 W	22 W
PCK	o w	0 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	0.1 kW	0.1 kW
Annual energy consumption Qhe	6492 kWh	8608 kWh

# Domestic Hot Water (DHW)

#### Warmer Climate

EN 16147	
Declared load profile	L
Efficiency ηDHW	152 %
СОР	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

# Average Climate





EN 16147		
Declared load profile	L	
Efficiency ηDHW	130 %	
СОР	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	



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

Configure model		
Model name	PUZ-HWM140YHA(-BS) + EHPX-M*D	
Application	Heating (medium 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
СОР	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
$\eta_{s}$	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	o 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





	· · · · · <b>,</b> · · · · · · · · · · · · · · · · · · ·	NK database on 22 jun 2022
$\eta_s$	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 = $+7^{\circ}$ C	4.9 kW	5.1 kW
$COPTj = +7^{\circ}C$	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



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#### This information was generated by the HP KEYMARK database on 22 Jun 2022

WTOL	60 °C	60 °C
Poff	22 W	22 W
РТО	22 W	22 W
PSB	22 W	22 W
PCK	o w	o 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

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

Configure model		
Model name PUZ-HWM140YHA(-BS) + EHPX-*M*D		
Application	Heating (medium 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
СОР	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
$\eta_{s}$	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
РТО	22 W	22 W
PSB	22 W	22 W
PCK	0 W	o 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





This information was generated	T THE TIP KETMA	TRE database on 22 juli 202.
$\eta_{s}$	175 %	131 %
Prated	14 kW	14 kW
SCOP	4.46	3.36
Tbiv	-7 °C	-7 °C
TOL	-28 °C	-28 °C
Pdh Tj = $-7^{\circ}$ C	12.4 kW	12.4 kW
$COP Tj = -7^{\circ}C$	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 = $+7^{\circ}$ C	4.9 kW	5.1 kW
$COPTj = +7^{\circ}C$	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
	1	



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#### This information was generated by the HP KEYMARK database on 22 Jun 2022

60 °C	60 °C
22 W	22 W
22 W	22 W
22 W	22 W
o w	o w
Electricity	Electricity
0.1 kW	0.1 kW
6492 kWh	8608 kWh
_	22 W 22 W 22 W 0 W Electricity 0.1 kW



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

Configure model		
Model name	PUZ-HWM140YHA(-BS) + ERPT20X-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
СОР	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
$\eta_{s}$	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 = $+7^{\circ}$ 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
РТО	22 W	22 W
PSB	22 W	22 W
PCK	0 W	o 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)

B(A) 67	dB(A)
	B(A) 67

EN 14825		
	Low temperature	Medium temperature





This information was generated by the HP KEYMARK database on 22 Jun 202				
$\eta_{s}$	177 %	133 %		
Prated	14 kW	14 kW		
SCOP	4.51	3.39		
Tbiv	-7 °C	-7 °C		
TOL	-28 °C	-28 °C		
Pdh Tj = $-7^{\circ}$ C	12.4 kW	12.4 kW		
$COP Tj = -7^{\circ}C$	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 = $+7^{\circ}$ C	4.9 kW	5.1 kW		
$COPTj = +7^{\circ}C$	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		
	1	1		





WTOL	60 °C	60 °C
Poff	22 W	22 W
РТО	22 W	22 W
PSB	22 W	22 W
PCK	o w	o 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	L	
Efficiency ηDHW	152 %	
СОР	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	

# Average Climate





EN 16147		
Declared load profile	L	
Efficiency ηDHW	130 %	
СОР	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	

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

Configure model		
Model name	PUZ-HWM140YHA(-BS) + ERPT20X-*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
СОР	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
$\eta_{s}$	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 = $+7^{\circ}$ 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



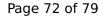


Pdh Tj = Tbiv	14 kW	14 kW
COP Tj = Tbiv	3.15	1.94
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	14 kW	14 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	3.15	1.94
WTOL	60 °C	60 °C
Poff	22 W	22 W
PTO	22 W	22 W
PSB	22 W	22 W
PCK	o w	0 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	0 kW	0 kW
Annual energy consumption Qhe	3191 kWh	4531 kWh

# Average Climate

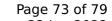
# EN 12102-1 Low temperature Medium temperature Sound power level indoor 40 dB(A) 40 dB(A) Sound power level outdoor 67 dB(A) 67 dB(A)

EN 14825		
	Low temperature	Medium temperature





This information was gener	aced by the fit RETIN	TAK database on 22 juli 202
$\eta_{s}$	177 %	133 %
Prated	14 kW	14 kW
SCOP	4.51	3.39
Tbiv	-7 °C	-7 °C
TOL	-28 °C	-28 °C
Pdh Tj = $-7^{\circ}$ C	12.4 kW	12.4 kW
$COP Tj = -7^{\circ}C$	2.55	1.98
Cdh Tj = -7 °C	1	1
Pdh Tj = $+2$ °C	7.5 kW	7.5 kW
$COP Tj = +2^{\circ}C$	4.42	3.26
Cdh Tj = +2 °C	0.99	0.99
Pdh Tj = +7°C	4.9 kW	5.1 kW
$COPTj = +7^{\circ}C$	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
	1	ı





This information was generated by the HP KEYMARK database on 22 Jun 20		
WTOL	60 °C	60 °C
Poff	22 W	22 W
РТО	22 W	22 W
PSB	22 W	22 W
PCK	o w	0 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	0.1 kW	0.1 kW

6412 kWh

8528 kWh

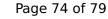
# Domestic Hot Water (DHW)

Annual energy consumption Qhe

#### Warmer Climate

EN 16147		
Declared load profile	L	
Efficiency ηDHW	152 %	
СОР	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	

# Average Climate





EN 16147		
Declared load profile	L	
Efficiency ηDHW	130 %	
СОР	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	



# Model: PUZ-HWM140YHA(-BS)

Configure model		
Model name	PUZ-HWM140YHA(-BS)	
Application	Heating (medium temp)	
Units	Outdoor	
Climate Zone	e Warmer Climate	
Reversibility	ersibility 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	
СОР	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
$\eta_{s}$	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
РТО	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	





		NK database on 22 Juli 202
$\eta_s$	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 = $+7^{\circ}$ C	4.9 kW	5.1 kW
$COPTj = +7^{\circ}C$	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



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#### This information was generated by the HP KEYMARK database on 22 Jun 2022

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