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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	

# 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
$\eta_{S}$	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°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
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
Annual energy consumption Qhe	6470 kWh	8589 kWh

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

# Domestic Hot Water (DHW)

### **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	





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	



# 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		

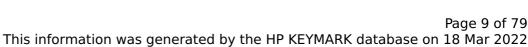
General Data		
Power supply	1x230V 50Hz	

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

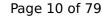
# Average Climate



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)

CEN heat pump KEYMARK

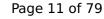
EN 14825		
	Low temperature	Medium temperature
$\eta_{s}$	176 %	132 %
Prated	14 kW	14 kW
SCOP	4.47	3.37
Tbiv	-7 °C	-7 °C
TOL	-28 °C	-28 °C
Pdh Tj = -7°C	12.4 kW	12.4 kW
COP Tj = -7°C	2.55	1.98
Cdh Tj = -7 °C	1	1
Pdh Tj = +2°C	7.5 kW	7.5 kW
COP Tj = +2°C	4.4	3.25
Cdh Tj = +2 °C	0.99	0.99
Pdh Tj = +7°C	4.9 kW	5.1 kW
$COP Tj = +7^{\circ}C$	6.28	4.64
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

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
$COPTj = +2^{\circ}C$	3.15	1.94
Cdh Tj = +2 °C	1	1
Pdh Tj = $+7^{\circ}$ C	9 kW	9 kW
$COPTj = +7^{\circ}C$	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



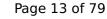


Poff	15 W	15 W
РТО	15 W	15 W
PSB	15 W	15 W
PCK	o w	o w
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	0 kW	0 kW
Annual energy consumption Qhe	3252 kWh	4593 kWh

# Domestic Hot Water (DHW)

# 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	





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



# 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

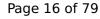
EN 14511-4	
Shutting off the heat transfer medium flow	passed
Complete power supply failure	passed
Defrost test	passed
Starting and operating test	passed

# 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)

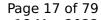
EN 14825		
	Low temperature	Medium temperature
$\eta_{S}$	176 %	132 %
Prated	14 kW	14 kW
SCOP	4.47	3.37
Tbiv	-7 °C	-7 °C
TOL	-28 °C	-28 °C
Pdh Tj = -7°C	12.4 kW	12.4 kW
COP Tj = -7°C	2.55	1.98
Cdh Tj = -7 °C	1	1
Pdh Tj = $+2$ °C	7.5 kW	7.5 kW
COP Tj = +2°C	4.4	3.25
Cdh Tj = +2 °C	0.99	0.99
Pdh Tj = +7°C	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
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

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



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#### This information was generated by the HP KEYMARK database on 18 Mar 2022

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

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	

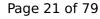
EN 14511-4	
Shutting off the heat transfer medium flow	passed
Complete power supply failure	passed
Defrost test	passed
Starting and operating test	passed

# 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)

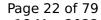
EN 14825		
Low temperature	Medium temperature	
176 %	132 %	
14 kW	14 kW	
4.47	3.37	
-7 °C	-7 °C	
-28 °C	-28 °C	
12.4 kW	12.4 kW	
2.55	1.98	
1	1	
7.5 kW	7.5 kW	
4.4	3.25	
0.99	0.99	
4.9 kW	5.1 kW	
6.28	4.64	
0.98	0.99	
	Low temperature  176 %  14 kW  4.47  -7 °C  -28 °C  12.4 kW  2.55  1  7.5 kW  4.4  0.99  4.9 kW  6.28	





Time intermitation was general	<u>, , , , , , , , , , , , , , , , , , , </u>	
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

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



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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

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

# 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
$\eta_{s}$	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°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	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		
	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
$COPTj = +7^{\circ}C$	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	o w	o w
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	0 kW	0 kW
Annual energy consumption Qhe	3186 kWh	4527 kWh

# Domestic Hot Water (DHW)

### **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





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



# 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 t		Medium temperature
Heat output	14 kW	14 kW
El input	3.14 kW	5.24 kW
СОР	4.46	2.67

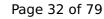
EN 14511-4	
Shutting off the heat transfer medium flow	passed
Complete power supply failure	passed
Defrost test	passed
Starting and operating test	passed

# 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)

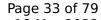
EN 14825		
	Low temperature	Medium temperature
$\eta_{s}$	178 %	133 %
Prated	14 kW	14 kW
SCOP	4.51	3.39
Tbiv	-7 °C	-7 °C
TOL	-28 °C	-28 °C
Pdh Tj = -7°C	12.4 kW	12.4 kW
COP Tj = -7°C	2.55	1.98
Cdh Tj = -7 °C	1	1
Pdh Tj = +2°C	7.5 kW	7.5 kW
COP Tj = +2°C	4.4	3.25
Cdh Tj = +2 °C	0.99	0.99
Pdh Tj = +7°C	4.9 kW	5.1 kW
COP Tj = +7°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	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

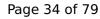
EN 12102-1		
	Low temperature	Medium temperature
Sound power level indoor	40 dB(A)	40 dB(A)
Sound power level outdoor	67 dB(A)	67 dB(A)





#### 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 = $+7^{\circ}$ C	9 kW	9 kW
$COPTj = +7^{\circ}C$	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	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

# Domestic Hot Water (DHW)

# 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	





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	



# 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	

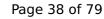
EN 14511-4	
Shutting off the heat transfer medium flow	passed
Complete power supply failure	passed
Defrost test	passed
Starting and operating test	passed

# **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)

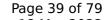
EN 14825		
	Low temperature	Medium temperature
$\eta_{s}$	178 %	133 %
Prated	14 kW	14 kW
SCOP	4.51	3.39
Tbiv	-7 °C	-7 °C
TOL	-28 °C	-28 °C
Pdh Tj = -7°C	12.4 kW	12.4 kW
COP Tj = -7°C	2.55	1.98
Cdh Tj = -7 °C	1	1
Pdh Tj = +2°C	7.5 kW	7.5 kW
COP Tj = +2°C	4.4	3.25
Cdh Tj = +2 °C	0.99	0.99
Pdh Tj = +7°C	4.9 kW	5.1 kW
COP Tj = +7°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	6407 kWh	8534 kWh

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
$COP Tj = +2^{\circ}C$	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



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#### This information was generated by the HP KEYMARK database on 18 Mar 2022

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	3186 kWh	4527 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	naccod
Shutting off the heat transfer medium flow	passed
Complete power supply failure	passed
Defrost test	passed
Starting and operating test	passed

### 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
$\eta_{s}$	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°C	6.26	4.64
Cdh Tj = +7 °C	0.98	0.99





ssas general	· · · · · · · · · · · · · · · · · · ·	
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

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

### Domestic Hot Water (DHW)

### 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





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

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

### 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)

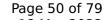
75 % 4 kW 46	Medium temperature  131 %  14 kW  3.36
1 kW 46	14 kW
46	
	3.36
°C	
C	-7 °C
8 °C	-28 °C
2.4 kW	12.4 kW
55	1.98
	1
5 kW	7.5 kW
42	3.26
99	0.99
9 kW	5.1 kW
	4.64
26	4.04
9	5 kW F2 P9 P kW





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	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

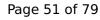
EN 12102-1		
	Low temperature	Medium temperature
Sound power level indoor	40 dB(A)	40 dB(A)
Sound power level outdoor	67 dB(A)	67 dB(A)





#### 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
$COP Tj = +2^{\circ}C$	3.15	1.94
Cdh Tj = +2 °C	1	1
Pdh Tj = +7°C	9 kW	9 kW
$COP Tj = +7^{\circ}C$	5.12	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



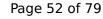


Poff	22 W	22 W
РТО	22 W	22 W
PSB	22 W	22 W
PCK	o w	0 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	0 kW	0 kW
Annual energy consumption Qhe	3288 kWh	4628 kWh

### Domestic Hot Water (DHW)

### 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





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



## 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

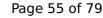
EN 14511-4	
Shutting off the heat transfer medium flow	passed
Complete power supply failure	passed
Defrost test	passed
Starting and operating test	passed

### 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)

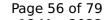
EN 14825		
	Low temperature	Medium temperature
$\eta_{s}$	175 %	131 %
Prated	14 kW	14 kW
SCOP	4.46	3.36
Tbiv	-7 °C	-7 °C
TOL	-28 °C	-28 °C
Pdh Tj = -7°C	12.4 kW	12.4 kW
COP Tj = $-7$ °C	2.55	1.98
Cdh Tj = -7 °C	1	1
Pdh Tj = $+2$ °C	7.5 kW	7.5 kW
COP Tj = +2°C	4.42	3.26
Cdh Tj = +2 °C	0.99	0.99
Pdh Tj = +7°C	4.9 kW	5.1 kW
COP Tj = +7°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	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		
	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



# $$\operatorname{\textit{Page}}\xspace$ 57 of 79 This information was generated by the HP KEYMARK database on 18 Mar 2022

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

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		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

### 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)

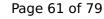
EN 14825		
	Low temperature	Medium temperature
$\eta_{s}$	175 %	131 %
Prated	14 kW	14 kW
SCOP	4.46	3.36
Tbiv	-7 °C	-7 °C
TOL	-28 °C	-28 °C
Pdh Tj = -7°C	12.4 kW	12.4 kW
COP Tj = -7°C	2.55	1.98
Cdh Tj = -7 °C	1	1
Pdh Tj = $+2$ °C	7.5 kW	7.5 kW
COP Tj = +2°C	4.42	3.26
Cdh Tj = +2 °C	0.99	0.99
Pdh Tj = +7°C	4.9 kW	5.1 kW
COP Tj = +7°C	6.26	4.64
Cdh Tj = +7 °C	0.98	0.99





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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

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



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#### This information was generated by the HP KEYMARK database on 18 Mar 2022

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

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	

### 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
$\eta_{S}$	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°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
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
Annual energy consumption Qhe	6412 kWh	8528 kWh

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
$COPTj = +7^{\circ}C$	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	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

### Domestic Hot Water (DHW)

### 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	





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	



## 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	
eversibility 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

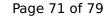
### Average Climate





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)

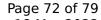
EN 14825		
	Low temperature	Medium temperature
$\eta_{s}$	177 %	133 %
Prated	14 kW	14 kW
SCOP	4.51	3.39
Tbiv	-7 °C	-7 °C
TOL	-28 °C	-28 °C
Pdh Tj = -7°C	12.4 kW	12.4 kW
COP Tj = -7°C	2.55	1.98
Cdh Tj = -7 °C	1	1
Pdh Tj = +2°C	7.5 kW	7.5 kW
COP Tj = +2°C	4.42	3.26
Cdh Tj = +2 °C	0.99	0.99
Pdh Tj = +7°C	4.9 kW	5.1 kW
COP Tj = +7°C	6.26	4.64
Cdh Tj = +7 °C	0.98	0.99





- The The The True True	
5.7 kW	5.2 kW
7.43	6.24
0.98	0.98
12.4 kW	12.4 kW
2.55	1.98
13.9 kW	13.9 kW
2.4	1.75
60 °C	60 °C
22 W	22 W
22 W	22 W
22 W	22 W
o w	0 W
Electricity	Electricity
0.1 kW	0.1 kW
6412 kWh	8528 kWh
	5.7 kW 7.43 0.98 12.4 kW 2.55 13.9 kW 2.4 60 °C 22 W 22 W 22 W 0 W Electricity 0.1 kW

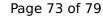
EN 12102-1		
	Low temperature	Medium temperature
Sound power level indoor	40 dB(A)	40 dB(A)
Sound power level outdoor	67 dB(A)	67 dB(A)





#### 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
$COPTj = +7^{\circ}C$	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



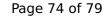


Poff	22 W	22 W
РТО	22 W	22 W
PSB	22 W	22 W
PCK	0 W	0 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	0 kW	0 kW
Annual energy consumption Qhe	3191 kWh	4531 kWh

### Domestic Hot Water (DHW)

### 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	





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	



## Model: PUZ-HWM140YHA(-BS)

Configure model		
Model name PUZ-HWM140YHA(-BS)		
Application	Heating (medium temp)	
Units	Outdoor	
Climate Zone	Warmer Climate	
Reversibility	No	
Cooling mode application (optional)	n/a	

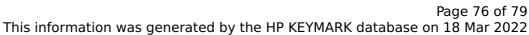
General Data		
Power supply 3x400V 50Hz		

### 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	

### **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)

CEN heat pump KEYMARK

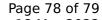
EN 14825		
	Low temperature	Medium temperature
$\eta_{S}$	177 %	133 %
Prated	14 kW	14 kW
SCOP	4.51	3.39
Tbiv	-7 °C	-7 °C
TOL	-28 °C	-28 °C
Pdh Tj = -7°C	12.4 kW	12.4 kW
COP Tj = -7°C	2.55	1.98
Cdh Tj = -7 °C	1	1
Pdh Tj = +2°C	7.5 kW	7.5 kW
COP Tj = +2°C	4.42	3.26
Cdh Tj = +2 °C	0.99	0.99
Pdh Tj = +7°C	4.9 kW	5.1 kW
$COP Tj = +7^{\circ}C$	6.26	4.64
Cdh Tj = +7 °C	0.98	0.99





- The The The True True	
5.7 kW	5.2 kW
7.43	6.24
0.98	0.98
12.4 kW	12.4 kW
2.55	1.98
13.9 kW	13.9 kW
2.4	1.75
60 °C	60 °C
22 W	22 W
22 W	22 W
22 W	22 W
o w	0 W
Electricity	Electricity
0.1 kW	0.1 kW
6412 kWh	8528 kWh
	5.7 kW 7.43 0.98 12.4 kW 2.55 13.9 kW 2.4 60 °C 22 W 22 W 22 W 0 W Electricity 0.1 kW

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
$COPTj = +7^{\circ}C$	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



# $$\operatorname{\textit{Page}}\ 79$$ of 79 This information was generated by the HP KEYMARK database on 18 Mar 2022

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