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

#### **Login**

Summary of	Ecodan Zubadan 8/11/14	Reg. No.	037-0059-20
Certificate Holder	Certificate Holder		
Name	Mitsubishi Electric Air Conditioning Systems Europe LTD		
Address	Nettlehill Road, Houston Industrial Estate	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 8/11/14		
Heat Pump Type	Outdoor Air/Water		
Refrigerant	R410A		
Mass of Refrigerant	5.5 kg		
Certification Date	09.04.2020		
Testing basis	HP Keymark scheme rules rev. no. 7		



# Model: PUHZ-SHW80VHA(-BS) + EHST20C-M\*C

Configure model		
Model name   PUHZ-SHW80VHA(-BS) + EHST20C-M*C		
Application	Heating + DHW + low temp	
Units Indoor + Outdoor		
Climate Zone	n/a	
Reversibility No		
Cooling mode application (optional) n/a		

General Data		
Power supply	1x230V 50Hz	

#### Heating

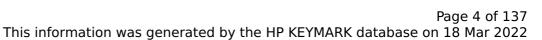
EN 14511-2		
Low temperature Medium temperature		
Heat output	8 kW	8 kW
El input	1.72 kW	2.83 kW
СОР	4.65	2.82

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	69 dB(A)	69 dB(A)

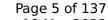
EN 14825		
	Low temperature	Medium temperature
$\eta_{s}$	171 %	131 %
Prated	9.6 kW	9 kW
SCOP	4.36	3.35
Tbiv	-7 °C	-7 °C
TOL	-28 °C	-28 °C
Pdh Tj = $-7^{\circ}$ C	8.5 kW	8 kW
$COP Tj = -7^{\circ}C$	2.91	2.04
Cdh Tj = -7 °C	0.98	0.98
Pdh Tj = $+2^{\circ}$ C	5.2 kW	4.9 kW
COP Tj = +2°C	4.26	3.22
Cdh Tj = +2 °C	0.98	0.98
Pdh Tj = +7°C	4.4 kW	4.1 kW
$COP Tj = +7^{\circ}C$	5.65	4.59
Cdh Tj = +7 °C	0.98	0.98



Pdh Tj = 12°C	7.4 kW	7.1 kW
COP Tj = 12°C	7.59	6.72
Cdh Tj = +12 °C	0.98	0.98
Pdh Tj = Tbiv	8.5 kW	8 kW
COP Tj = Tbiv	2.91	2.04
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	8.01 kW	7.59 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.7	1.97
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	1.59 kW	1.41 kW
Annual energy consumption Qhe	4553 kWh	5548 kWh

#### Domestic Hot Water (DHW)

CEN heat pump KEYMARK





EN 16147		
Declared load profile	L	
Efficiency ηDHW	103 %	
СОР	2.48	
Heating up time	01:46 h:min	
Standby power input	36 W	
Reference hot water temperature	52.5 °C	
Mixed water at 40°C	292 I	



# Model: PUHZ-SHW80VHA(-BS) + EHST20C-\*M\*C

Configure model		
Model name   PUHZ-SHW80VHA(-BS) + EHST20C-*M*C		
Application	Heating + DHW + low temp	
Units	Indoor + Outdoor	
Climate Zone	n/a	
Reversibility No		
Cooling mode application (optional) n/a		

General Data		
Power supply	1x230V 50Hz	

#### Heating

EN 14511-2		
Low temperature Medium temperature		
Heat output	8 kW	8 kW
El input	1.72 kW	2.83 kW
СОР	4.65	2.82

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



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EN 12102-1		
	Low temperature	Medium temperature
Sound power level indoor	40 dB(A)	40 dB(A)
Sound power level outdoor	69 dB(A)	69 dB(A)

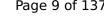
EN 14825		
	Low temperature	Medium temperature
$\eta_{s}$	171 %	131 %
Prated	9.6 kW	9 kW
SCOP	4.36	3.35
Tbiv	-7 °C	-7 °C
TOL	-28 °C	-28 °C
Pdh Tj = -7°C	8.5 kW	8 kW
COP Tj = -7°C	2.91	2.04
Cdh Tj = -7 °C	0.98	0.98
Pdh Tj = +2°C	5.2 kW	4.9 kW
COP Tj = +2°C	4.26	3.22
Cdh Tj = +2 °C	0.98	0.98
Pdh Tj = +7°C	4.4 kW	4.1 kW
COP Tj = +7°C	5.65	4.59
Cdh Tj = +7 °C	0.98	0.98





Pdh Tj = 12°C	7.4 kW	7.1 kW
COP Tj = 12°C	7.59	6.72
Cdh Tj = +12 °C	0.98	0.98
Pdh Tj = Tbiv	8.5 kW	8 kW
COP Tj = Tbiv	2.91	2.04
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	8.01 kW	7.59 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.7	1.97
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	1.59 kW	1.41 kW
Annual energy consumption Qhe	4553 kWh	5548 kWh

Domestic Hot Water (DHW)





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EN 16147		
Declared load profile	L	
Efficiency ηDHW	103 %	
СОР	2.48	
Heating up time	01:46 h:min	
Standby power input	36 W	
Reference hot water temperature	52.5 °C	
Mixed water at 40°C	292 I	



# Model: PUHZ-SHW80VHA(-BS) + ERST20C-M\*C

Configure model		
Model name PUHZ-SHW80VHA(-BS) + ERST20C-M*C		
Application Heating + DHW + low temp		
Units Indoor + Outdoor		
Climate Zone n/a		
Reversibility Yes		
Cooling mode application (optional) n/a		

General Data		
Power supply 1x230V 50Hz		

#### Heating

EN 14511-2			
Low temperature Medium temperature			
Heat output	8 kW	8 kW	
El input	1.72 kW	2.83 kW	
СОР	4.65	2.82	

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



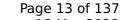
EN 12102-1		
	Low temperature	Medium temperature
Sound power level indoor	40 dB(A)	40 dB(A)
Sound power level outdoor	69 dB(A)	69 dB(A)

EN 14825		
	Low temperature	Medium temperature
$\eta_{s}$	174 %	133 %
Prated	9.6 kW	9 kW
SCOP	4.44	3.4
Tbiv	-7 °C	-7 °C
TOL	-28 °C	-28 °C
Pdh Tj = $-7^{\circ}$ C	8.5 kW	8 kW
$COP Tj = -7^{\circ}C$	2.91	2.04
Cdh Tj = -7 °C	0.98	0.98
Pdh Tj = $+2$ °C	5.2 kW	4.9 kW
COP Tj = +2°C	4.31	3.25
Cdh Tj = +2 °C	0.98	0.98
Pdh Tj = $+7^{\circ}$ C	4.4 kW	4.1 kW
COP Tj = +7°C	5.65	4.59
Cdh Tj = +7 °C	0.98	0.98

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Pdh Tj = 12°C	7.4 kW	7.1 kW
COP Tj = 12°C	7.59	6.72
Cdh Tj = +12 °C	0.98	0.98
Pdh Tj = Tbiv	8.5 kW	8 kW
COP Tj = Tbiv	2.91	2.04
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	8.01 kW	7.59 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.7	1.97
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	1.59 kW	1.41 kW
Annual energy consumption Qhe	4472 kWh	5467 kWh

Domestic Hot Water (DHW)





EN 16147		
Declared load profile	L	
Efficiency ηDHW	103 %	
СОР	2.48	
Heating up time	01:46 h:min	
Standby power input	36 W	
Reference hot water temperature	52.5 °C	
Mixed water at 40°C	292 I	



# Model: PUHZ-SHW80VHA(-BS) + ERST20C-\*M\*C

Configure model		
Model name PUHZ-SHW80VHA(-BS) + ERST20C-*M*C		
Application Heating + DHW + low temp		
Units	Indoor + Outdoor	
Climate Zone	n/a	
Reversibility Yes		
Cooling mode application (optional)	n/a	

General Data			
Power supply 1x230V 50Hz			

#### Heating

EN 14511-2			
Low temperature Medium temperature			
Heat output	8 kW	8 kW	
El input	1.72 kW	2.83 kW	
СОР	4.65	2.82	

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



EN 12102-1		
	Low temperature	Medium temperature
Sound power level indoor	40 dB(A)	40 dB(A)
Sound power level outdoor	69 dB(A)	69 dB(A)

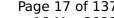
EN 14825		
	Low temperature	Medium temperature
$\eta_{s}$	174 %	133 %
Prated	9.6 kW	9 kW
SCOP	4.44	3.4
Tbiv	-7 °C	-7 °C
TOL	-28 °C	-28 °C
Pdh Tj = -7°C	8.5 kW	8 kW
COP Tj = -7°C	2.91	2.04
Cdh Tj = -7 °C	0.98	0.98
Pdh Tj = +2°C	5.2 kW	4.9 kW
COP Tj = +2°C	4.31	3.25
Cdh Tj = +2 °C	0.98	0.98
Pdh Tj = +7°C	4.4 kW	4.1 kW
COP Tj = +7°C	5.65	4.59
Cdh Tj = +7 °C	0.98	0.98

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

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Pdh Tj = 12°C	7.4 kW	7.1 kW
COP Tj = 12°C	7.59	6.72
Cdh Tj = +12 °C	0.98	0.98
Pdh Tj = Tbiv	8.5 kW	8 kW
COP Tj = Tbiv	2.91	2.04
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	8.01 kW	7.59 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.7	1.97
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	1.59 kW	1.41 kW
Annual energy consumption Qhe	4472 kWh	5467 kWh

Domestic Hot Water (DHW)





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EN 16147		
Declared load profile	L	
Efficiency ηDHW	103 %	
СОР	2.48	
Heating up time	01:46 h:min	
Standby power input	36 W	
Reference hot water temperature	52.5 °C	
Mixed water at 40°C	292 I	



# Model: PUHZ-SHW80VHA(-BS) + EHSC-M\*C

Configure model		
Model name PUHZ-SHW80VHA(-BS) + EHSC-M*C		
Application	Heating (medium temp)	
Units	Indoor + Outdoor	
Climate Zone n/a		
Reversibility No		
Cooling mode application (optional)	n/a	

General Data			
Power supply 1x230V 50Hz			

#### Heating

EN 14511-2			
Low temperature Medium temperature			
Heat output	8 kW	8 kW	
El input	1.72 kW	2.83 kW	
СОР	4.65	2.82	

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	69 dB(A)	69 dB(A)

EN 14825		
	Low temperature	Medium temperature
$\eta_{S}$	171 %	131 %
Prated	9.6 kW	9 kW
SCOP	4.36	3.35
Tbiv	-7 °C	-7 °C
TOL	-28 °C	-28 °C
Pdh Tj = -7°C	8.5 kW	8 kW
COP Tj = -7°C	2.91	2.04
Cdh Tj = -7 °C	0.98	0.98
Pdh Tj = $+2$ °C	5.2 kW	4.9 kW
$COP Tj = +2^{\circ}C$	4.26	3.22
Cdh Tj = +2 °C	0.98	0.98
Pdh Tj = +7°C	4.4 kW	4.1 kW
$COP Tj = +7^{\circ}C$	5.65	4.59
Cdh Tj = +7 °C	0.98	0.98



# $$\operatorname{\textit{Page}}\xspace$ 20 of 137 This information was generated by the HP KEYMARK database on 18 Mar 2022

Pdh Tj = 12°C	7.4 kW	7.1 kW
COP Tj = 12°C	7.59	6.72
Cdh Tj = +12 °C	0.98	0.98
Pdh Tj = Tbiv	8.5 kW	8 kW
COP Tj = Tbiv	2.91	2.04
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	8.01 kW	7.59 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.7	1.97
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	1.59 kW	1.41 kW
Annual energy consumption Qhe	4553 kWh	5548 kWh



# Model: PUHZ-SHW80VHA(-BS) + EHSC-\*M\*C

Configure model	
Model name	PUHZ-SHW80VHA(-BS) + EHSC-*M*C
Application	Heating (medium temp)
Units	Indoor + Outdoor
Climate Zone	n/a
Reversibility	No
Cooling mode application (optional)	n/a

General Data		
Power supply 1x230V 50Hz		

#### Heating

EN 14511-2		
	Low temperature	Medium temperature
Heat output	8 kW	8 kW
El input	1.72 kW	2.83 kW
СОР	4.65	2.82

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



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	EN 12102-1	
	Low temperature	Medium temperature
Sound power level indoor	40 dB(A)	40 dB(A)
Sound power level outdoor	69 dB(A)	69 dB(A)

EN 14825		
	Low temperature	Medium temperature
$\eta_{S}$	171 %	131 %
Prated	9.6 kW	9 kW
SCOP	4.36	3.35
Tbiv	-7 °C	-7 °C
TOL	-28 °C	-28 °C
Pdh Tj = -7°C	8.5 kW	8 kW
COP Tj = -7°C	2.91	2.04
Cdh Tj = -7 °C	0.98	0.98
Pdh Tj = $+2$ °C	5.2 kW	4.9 kW
$COP Tj = +2^{\circ}C$	4.26	3.22
Cdh Tj = +2 °C	0.98	0.98
Pdh Tj = +7°C	4.4 kW	4.1 kW
$COP Tj = +7^{\circ}C$	5.65	4.59
Cdh Tj = +7 °C	0.98	0.98



# $$\operatorname{\textit{Page}}\xspace$ 23 of 137 This information was generated by the HP KEYMARK database on 18 Mar 2022

Pdh Tj = 12°C	7.4 kW	7.1 kW
COP Tj = 12°C	7.59	6.72
Cdh Tj = +12 °C	0.98	0.98
Pdh Tj = Tbiv	8.5 kW	8 kW
COP Tj = Tbiv	2.91	2.04
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	8.01 kW	7.59 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.7	1.97
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	1.59 kW	1.41 kW
Annual energy consumption Qhe	4553 kWh	5548 kWh



# Model: PUHZ-SHW80VHA(-BS) + ERSC-M\*C

Configure model	
Model name	PUHZ-SHW80VHA(-BS) + ERSC-M*C
Application	Heating (medium temp)
Units	Indoor + Outdoor
Climate Zone	n/a
Reversibility	Yes
Cooling mode application (optional)	n/a

General Data		
Power supply	1x230V 50Hz	

#### Heating

EN 14511-2		
	Low temperature	Medium temperature
Heat output	8 kW	8 kW
El input	1.72 kW	2.83 kW
СОР	4.65	2.82

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



EN 12102-1		
	Low temperature	Medium temperature
Sound power level indoor	40 dB(A)	40 dB(A)
Sound power level outdoor	69 dB(A)	69 dB(A)

EN 14825		
	Low temperature	Medium temperature
$\eta_{s}$	174 %	133 %
Prated	9.6 kW	9 kW
SCOP	4.44	3.4
Tbiv	-7 °C	-7 °C
TOL	-28 °C	-28 °C
Pdh Tj = -7°C	8.5 kW	8 kW
COP Tj = -7°C	2.91	2.04
Cdh Tj = -7 °C	0.98	0.98
Pdh Tj = +2°C	5.2 kW	4.9 kW
COP Tj = +2°C	4.31	3.25
Cdh Tj = +2 °C	0.98	0.98
Pdh Tj = +7°C	4.4 kW	4.1 kW
COP Tj = +7°C	5.65	4.59
Cdh Tj = +7 °C	0.98	0.98



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

	T T T T T T T T T T T T T T T T T T T	
Pdh Tj = 12°C	7.4 kW	7.1 kW
COP Tj = 12°C	7.59	6.72
Cdh Tj = +12 °C	0.98	0.98
Pdh Tj = Tbiv	8.5 kW	8 kW
COP Tj = Tbiv	2.91	2.04
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	8.01 kW	7.59 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.7	1.97
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	1.59 kW	1.41 kW
Annual energy consumption Qhe	4472 kWh	5467 kWh



# Model: PUHZ-SHW80VHA(-BS) + ERSC-\*M\*C

Configure model		
Model name PUHZ-SHW80VHA(-BS) + ERSC-*M*C		
Application	Heating (medium temp)	
Units Indoor + Outdoor		
Climate Zone	n/a	
Reversibility	Yes	
Cooling mode application (optional) n/a		

General Data		
Power supply	1x230V 50Hz	

#### Heating

EN 14511-2		
	Low temperature	Medium temperature
Heat output	8 kW	8 kW
El input	1.72 kW	2.83 kW
СОР	4.65	2.82

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	69 dB(A)	69 dB(A)

EN 14825		
	Low temperature	Medium temperature
$\eta_{s}$	174 %	133 %
Prated	9.6 kW	9 kW
SCOP	4.44	3.4
Tbiv	-7 °C	-7 °C
TOL	-28 °C	-28 °C
Pdh Tj = $-7$ °C	8.5 kW	8 kW
COP Tj = -7°C	2.91	2.04
Cdh Tj = -7 °C	0.98	0.98
Pdh Tj = +2°C	5.2 kW	4.9 kW
COP Tj = +2°C	4.31	3.25
Cdh Tj = +2 °C	0.98	0.98
Pdh Tj = +7°C	4.4 kW	4.1 kW
$COP Tj = +7^{\circ}C$	5.65	4.59
Cdh Tj = +7 °C	0.98	0.98
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Pdh Tj = 12°C	7.4 kW	7.1 kW
COP Tj = 12°C	7.59	6.72
Cdh Tj = +12 °C	0.98	0.98
Pdh Tj = Tbiv	8.5 kW	8 kW
COP Tj = Tbiv	2.91	2.04
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	8.01 kW	7.59 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.7	1.97
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	1.59 kW	1.41 kW
Annual energy consumption Qhe	4472 kWh	5467 kWh



# Model: PUHZ-SHW112VHA(-BS) + EHST20C-M\*C

Configure model		
Model name PUHZ-SHW112VHA(-BS) + EHST20C-M*C		
Application	Heating + DHW + low temp	
Units	Indoor + Outdoor	
Climate Zone	n/a	
Reversibility	No	
Cooling mode application (optional)	n/a	

General Data		
Power supply 1x230V 50Hz		

#### Heating

EN 14511-2		
Low temperature Medium temperature		
Heat output	11.2 kW	11.2 kW
El input	2.51 kW	4.19 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	70 dB(A)	70 dB(A)

EN 14825		
	Low temperature	Medium temperature
$\eta_{s}$	167 %	128 %
Prated	13.9 kW	12.7 kW
SCOP	4.24	3.28
Tbiv	-7 °C	-7 °C
TOL	-28 °C	-28 °C
Pdh Tj = -7°C	12.3 kW	11.2 kW
COP Tj = -7°C	2.85	1.96
Cdh Tj = -7 °C	0.98	0.98
Pdh Tj = $+2^{\circ}$ C	7.5 kW	6.8 kW
COP Tj = +2°C	4.01	3.1
Cdh Tj = +2 °C	0.98	0.98
Pdh Tj = $+7^{\circ}$ C	4.8 kW	4.4 kW
COP Tj = +7°C	5.68	4.61
Cdh Tj = +7 °C	0.98	0.98

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7998 kWh

This information was generated by the HP KEYMARK database on 18 Mar 202		
Pdh Tj = 12°C	7.3 kW	7 kW
COP Tj = 12°C	7.51	6.66
Cdh Tj = +12 °C	0.98	0.98
Pdh Tj = Tbiv	12.3 kW	11.2 kW
COP Tj = Tbiv	2.85	1.96
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	11.6 kW	10.7 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.65	1.9
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	2.3 kW	2 kW

Domestic Hot Water (DHW)

Annual energy consumption Qhe

Average Climate

6771 kWh





# $$\operatorname{\textit{Page}}\ 33$$ of 137 This information was generated by the HP KEYMARK database on 18 Mar 2022

EN 16147	
Declared load profile	L
Efficiency ηDHW	103 %
СОР	2.48
Heating up time	01:46 h:min
Standby power input	36 W
Reference hot water temperature	52.5 °C
Mixed water at 40°C	292 I



# Model: PUHZ-SHW112VHA(-BS) + EHST20C-\*M\*C

Configure model		
Model name PUHZ-SHW112VHA(-BS) + EHST20C-*M*C		
Application	Heating + DHW + low temp	
Units	Indoor + Outdoor	
Climate Zone n/a		
Reversibility	No	
Cooling mode application (optional)	n/a	

General Data		
Power supply 1x230V 50Hz		

#### Heating

EN 14511-2		
Low temperature Medium temperature		
Heat output	11.2 kW	11.2 kW
El input	2.51 kW	4.19 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	



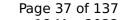
EN 12102-1				
	Low temperature	Medium temperature		
Sound power level indoor	40 dB(A)	40 dB(A)		
Sound power level outdoor	70 dB(A)	70 dB(A)		

EN 14825			
	Low temperature	Medium temperature	
$\eta_{s}$	167 %	128 %	
Prated	13.9 kW	12.7 kW	
SCOP	4.24	3.28	
Tbiv	-7 °C	-7 °C	
TOL	-28 °C	-28 °C	
Pdh Tj = -7°C	12.3 kW	11.2 kW	
COP Tj = -7°C	2.85	1.96	
Cdh Tj = -7 °C	0.98	0.98	
Pdh Tj = $+2^{\circ}$ C	7.5 kW	6.8 kW	
COP Tj = +2°C	4.01	3.1	
Cdh Tj = +2 °C	0.98	0.98	
Pdh Tj = $+7^{\circ}$ C	4.8 kW	4.4 kW	
COP Tj = +7°C	5.68	4.61	
Cdh Tj = +7 °C	0.98	0.98	

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

Pdh Tj = 12°C	7.3 kW	7 kW
COP Tj = 12°C	7.51	6.66
Cdh Tj = +12 °C	0.98	0.98
Pdh Tj = Tbiv	12.3 kW	11.2 kW
COP Tj = Tbiv	2.85	1.96
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	11.6 kW	10.7 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.65	1.9
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	2.3 kW	2 kW
Annual energy consumption Qhe	6771 kWh	7998 kWh

Domestic Hot Water (DHW)





EN 16147		
Declared load profile	L	
Efficiency ηDHW	103 %	
СОР	2.48	
Heating up time	01:46 h:min	
Standby power input	36 W	
Reference hot water temperature	52.5 °C	
Mixed water at 40°C	292 I	



# Model: PUHZ-SHW112VHA(-BS) + ERST20C-M\*C

Configure model		
Model name PUHZ-SHW112VHA(-BS) + ERST20C-M*C		
Application Heating + DHW + low temp		
Units Indoor + Outdoor		
Climate Zone n/a		
Reversibility	Yes	
Cooling mode application (optional)	n/a	

General Data			
Power supply 1x230V 50Hz			

#### Heating

EN 14511-2			
Low temperature Medium temperature			
Heat output	11.2 kW	11.2 kW	
El input	2.51 kW	4.19 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	70 dB(A)	70 dB(A)

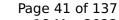
EN 14825		
	Low temperature	Medium temperature
$\eta_{s}$	169 %	130 %
Prated	13.9 kW	12.7 kW
SCOP	4.29	3.31
Tbiv	-7 °C	-7 °C
TOL	-28 °C	-28 °C
Pdh Tj = -7°C	12.3 kW	11.2 kW
COP Tj = -7°C	2.85	1.96
Cdh Tj = -7 °C	0.98	0.98
Pdh Tj = $+2$ °C	7.5 kW	6.8 kW
COP Tj = +2°C	4.04	3.12
Cdh Tj = +2 °C	0.98	0.98
Pdh Tj = +7°C	4.8 kW	4.4 kW
COP Tj = +7°C	5.68	4.61
Cdh Tj = +7 °C	0.98	0.98



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This information was genera	ated by the HP KEYMAI	RK database on 18 Mar 2022
Pdh Tj = 12°C	7.3 kW	7 kW
COP Tj = 12°C	7.51	6.66
Cdh Tj = +12 °C	0.98	0.98
Pdh Tj = Tbiv	12.3 kW	11.2 kW
COP Tj = Tbiv	2.85	1.96
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	11.6 kW	10.7 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.65	1.9
WTOL	60 °C	60 °C
Poff	15 W	15 W
РТО	15 W	15 W
PSB	15 W	15 W
РСК	o w	o w
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	2.3 kW	2 kW
Annual energy consumption Qhe	6691 kWh	7917 kWh

Domestic Hot Water (DHW)





EN 16147		
Declared load profile	L	
Efficiency ηDHW	103 %	
СОР	2.48	
Heating up time	01:46 h:min	
Standby power input	36 W	
Reference hot water temperature	52.5 °C	
Mixed water at 40°C	292 I	



# Model: PUHZ-SHW112VHA(-BS) + ERST20C-\*M\*C

Configure model		
Model name PUHZ-SHW112VHA(-BS) + ERST20C-*M*C		
Application Heating + DHW + low temp		
Units Indoor + Outdoor		
Climate Zone n/a		
Reversibility Yes		
Cooling mode application (optional)	n/a	

General Data			
Power supply 1x230V 50Hz			

#### Heating

EN 14511-2			
Low temperature Medium temperature			
Heat output	11.2 kW	11.2 kW	
El input	2.51 kW	4.19 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	70 dB(A)	70 dB(A)

EN 14825		
	Low temperature	Medium temperature
$\eta_{s}$	169 %	130 %
Prated	13.9 kW	12.7 kW
SCOP	4.29	3.31
Tbiv	-7 °C	-7 °C
TOL	-28 °C	-28 °C
Pdh Tj = -7°C	12.3 kW	11.2 kW
COP Tj = -7°C	2.85	1.96
Cdh Tj = -7 °C	0.98	0.98
Pdh Tj = $+2$ °C	7.5 kW	6.8 kW
COP Tj = +2°C	4.04	3.12
Cdh Tj = +2 °C	0.98	0.98
Pdh Tj = +7°C	4.8 kW	4.4 kW
COP Tj = +7°C	5.68	4.61
Cdh Tj = +7 °C	0.98	0.98

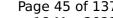


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#### This information was generated by the HP KEYMARK database on 18 Mar 2022

Pdh Tj = 12°C	7.3 kW	7 kW
COP Tj = 12°C	7.51	6.66
Cdh Tj = +12 °C	0.98	0.98
Pdh Tj = Tbiv	12.3 kW	11.2 kW
COP Tj = Tbiv	2.85	1.96
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	11.6 kW	10.7 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.65	1.9
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	2.3 kW	2 kW
Annual energy consumption Qhe	6691 kWh	7917 kWh

Domestic Hot Water (DHW)





# $$\operatorname{\textit{Page}}$$ 45 of 137 This information was generated by the HP KEYMARK database on 18 Mar 2022

EN 16147		
Declared load profile	L	
Efficiency ηDHW	103 %	
СОР	2.48	
Heating up time	01:46 h:min	
Standby power input	36 W	
Reference hot water temperature	52.5 °C	
Mixed water at 40°C	292 I	



# Model: PUHZ-SHW112VHA(-BS) + EHSC-M\*C

Configure model		
Model name	PUHZ-SHW112VHA(-BS) + EHSC-M*C	
Application	Heating (medium temp)	
Units	Indoor + Outdoor	
Climate Zone	n/a	
Reversibility	No	
Cooling mode application (optional)	n/a	

General Data		
Power supply 1x230V 50Hz		

#### Heating

EN 14511-2			
	Low temperature	Medium temperature	
Heat output	11.2 kW	11.2 kW	
El input	2.51 kW	4.19 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	70 dB(A)	70 dB(A)

Low temperature  167 %  13.9 kW  4.24  -7 °C  -28 °C	Medium temperature  128 %  12.7 kW  3.28  -7 °C
13.9 kW 4.24 -7 °C	12.7 kW 3.28
4.24 -7 °C	3.28
-7 °C	
	-7 °C
-28 °C	
	-28 °C
12.3 kW	11.2 kW
2.85	1.96
0.98	0.98
7.5 kW	6.8 kW
4.01	3.1
0.98	0.98
4.8 kW	4.4 kW
5.68	4.61
0.98	0.98
	12.3 kW 2.85 0.98 7.5 kW 4.01 0.98 4.8 kW 5.68



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

Pdh Tj = 12°C	7.3 kW	7 kW
COP Tj = 12°C	7.51	6.66
Cdh Tj = +12 °C	0.98	0.98
Pdh Tj = Tbiv	12.3 kW	11.2 kW
COP Tj = Tbiv	2.85	1.96
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	11.6 kW	10.7 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.65	1.9
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	2.3 kW	2 kW
Annual energy consumption Qhe	6771 kWh	7998 kWh



# Model: PUHZ-SHW112VHA(-BS) + EHSC-\*M\*C

Configure model		
Model name   PUHZ-SHW112VHA(-BS) + EHSC-*M*C		
Application Heating (medium temp)		
Units Indoor + Outdoor		
Climate Zone n/a		
Reversibility No		
Cooling mode application (optional) n/a		

General Data		
Power supply 1x230V 50Hz		

#### Heating

EN 14511-2			
Low temperature Medium temperature			
Heat output	11.2 kW	11.2 kW	
El input	2.51 kW	4.19 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	70 dB(A)	70 dB(A)

EN 14825		
	Low temperature	Medium temperature
$\eta_{s}$	167 %	128 %
Prated	13.9 kW	12.7 kW
SCOP	4.24	3.28
Tbiv	-7 °C	-7 °C
TOL	-28 °C	-28 °C
Pdh Tj = -7°C	12.3 kW	11.2 kW
COP Tj = -7°C	2.85	1.96
Cdh Tj = -7 °C	0.98	0.98
Pdh Tj = $+2^{\circ}$ C	7.5 kW	6.8 kW
COP Tj = +2°C	4.01	3.1
Cdh Tj = +2 °C	0.98	0.98
Pdh Tj = $+7^{\circ}$ C	4.8 kW	4.4 kW
COP Tj = +7°C	5.68	4.61
Cdh Tj = +7 °C	0.98	0.98



# $$\operatorname{\textit{Page}}\ 51$$ of 137 This information was generated by the HP KEYMARK database on 18 Mar 2022

Pdh Tj = 12°C	7.3 kW	7 kW
COP Tj = 12°C	7.51	6.66
Cdh Tj = +12 °C	0.98	0.98
Pdh Tj = Tbiv	12.3 kW	11.2 kW
COP Tj = Tbiv	2.85	1.96
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	11.6 kW	10.7 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.65	1.9
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	2.3 kW	2 kW
Annual energy consumption Qhe	6771 kWh	7998 kWh



# Model: PUHZ-SHW112VHA(-BS) + ERSC-M\*C

Configure model		
Model name PUHZ-SHW112VHA(-BS) + ERSC-M*C		
Application Heating (medium temp)		
Units Indoor + Outdoor		
Climate Zone n/a		
Reversibility Yes		
Cooling mode application (optional) n/a		

General Data		
Power supply 1x230V 50Hz		

#### Heating

EN 14511-2			
Low temperature Medium temperature			
Heat output	11.2 kW	11.2 kW	
El input	2.51 kW	4.19 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	70 dB(A)	70 dB(A)

EN 14825		
	Low temperature	Medium temperature
$\eta_{s}$	169 %	130 %
Prated	13.9 kW	12.7 kW
SCOP	4.29	3.31
Tbiv	-7 °C	-7 °C
TOL	-28 °C	-28 °C
Pdh Tj = -7°C	12.3 kW	11.2 kW
COP Tj = -7°C	2.85	1.96
Cdh Tj = -7 °C	0.98	0.98
Pdh Tj = $+2$ °C	7.5 kW	6.8 kW
COP Tj = +2°C	4.04	3.12
Cdh Tj = +2 °C	0.98	0.98
Pdh Tj = +7°C	4.8 kW	4.4 kW
COP Tj = +7°C	5.68	4.61
Cdh Tj = +7 °C	0.98	0.98



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	<del></del>	
Pdh Tj = 12°C	7.3 kW	7 kW
COP Tj = 12°C	7.51	6.66
Cdh Tj = +12 °C	0.98	0.98
Pdh Tj = Tbiv	12.3 kW	11.2 kW
COP Tj = Tbiv	2.85	1.96
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	11.6 kW	10.7 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.65	1.9
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	2.3 kW	2 kW
Annual energy consumption Qhe	6691 kWh	7917 kWh



# Model: PUHZ-SHW112VHA(-BS) + ERSC-\*M\*C

Configure model		
Model name PUHZ-SHW112VHA(-BS) + ERSC-*M*C		
Application	Heating (medium temp)	
Units	Indoor + Outdoor	
Climate Zone	n/a	
Reversibility	Yes	
Cooling mode application (optional)	n/a	

General Data		
Power supply 1x230V 50Hz		

#### Heating

EN 14511-2		
Low temperature Medium temperature		
Heat output	11.2 kW	11.2 kW
El input	2.51 kW	4.19 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	70 dB(A)	70 dB(A)

EN 14825		
	Low temperature	Medium temperature
$\eta_{s}$	169 %	130 %
Prated	13.9 kW	12.7 kW
SCOP	4.29	3.31
Tbiv	-7 °C	-7 °C
TOL	-28 °C	-28 °C
Pdh Tj = -7°C	12.3 kW	11.2 kW
COP Tj = -7°C	2.85	1.96
Cdh Tj = -7 °C	0.98	0.98
Pdh Tj = $+2$ °C	7.5 kW	6.8 kW
COP Tj = +2°C	4.04	3.12
Cdh Tj = +2 °C	0.98	0.98
Pdh Tj = +7°C	4.8 kW	4.4 kW
COP Tj = +7°C	5.68	4.61
Cdh Tj = +7 °C	0.98	0.98



# $$\operatorname{\textit{Page}}\xspace$ 57 of 137 This information was generated by the HP KEYMARK database on 18 Mar 2022

Pdh Tj = 12°C	7.3 kW	7 kW
COP Tj = 12°C	7.51	6.66
Cdh Tj = +12 °C	0.98	0.98
Pdh Tj = Tbiv	12.3 kW	11.2 kW
COP Tj = Tbiv	2.85	1.96
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	11.6 kW	10.7 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.65	1.9
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	2.3 kW	2 kW
Annual energy consumption Qhe	6691 kWh	7917 kWh



# Model: PUHZ-SHW112YHA(-BS) + EHST20C-M\*C

Configure model		
Model name PUHZ-SHW112YHA(-BS) + EHST20C-M*C		
Application	Heating + DHW + low temp	
Units	Indoor + Outdoor	
Climate Zone	n/a	
Reversibility	No	
Cooling mode application (optional)	n/a	

General Data		
Power supply 3x400V 50Hz		

#### Heating

EN 14511-2		
Low temperature Medium temperature		
Heat output	11.2 kW	11.2 kW
El input	2.51 kW	4.19 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



EN 12102-1		
	Low temperature	Medium temperature
Sound power level indoor	40 dB(A)	40 dB(A)
Sound power level outdoor	70 dB(A)	70 dB(A)

EN 14825		
	Low temperature	Medium temperature
$\eta_{s}$	167 %	128 %
Prated	13.9 kW	12.7 kW
SCOP	4.24	3.28
Tbiv	-7 °C	-7 °C
TOL	-28 °C	-28 °C
Pdh Tj = -7°C	12.3 kW	11.2 kW
COP Tj = -7°C	2.85	1.96
Cdh Tj = -7 °C	0.99	0.99
Pdh Tj = +2°C	7.5 kW	6.8 kW
COP Tj = +2°C	4.04	3.12
Cdh Tj = +2 °C	0.99	0.99
Pdh Tj = +7°C	4.8 kW	4.4 kW
COP Tj = +7°C	5.72	4.65
Cdh Tj = +7 °C	0.99	0.99

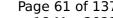


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#### This information was generated by the HP KEYMARK database on 18 Mar 2022

Pdh Tj = 12°C	7.3 kW	7 kW
COP Tj = 12°C	7.51	6.66
Cdh Tj = +12 °C	0.99	0.99
Pdh Tj = Tbiv	12.3 kW	11.2 kW
COP Tj = Tbiv	2.85	1.96
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	11.6 kW	10.7 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.65	1.9
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	2.3 kW	2 kW
Annual energy consumption Qhe	6770 kWh	7992 kWh

Domestic Hot Water (DHW)





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EN 16147		
Declared load profile	L	
Efficiency ηDHW	103 %	
СОР	2.48	
Heating up time	01:46 h:min	
Standby power input	36 W	
Reference hot water temperature	52.5 °C	
Mixed water at 40°C	292 I	



# Model: PUHZ-SHW112YHA(-BS) + EHST20C-\*M\*C

Configure model		
Model name PUHZ-SHW112YHA(-BS) + EHST20C-*M*C		
Application Heating + DHW + low temp		
Units Indoor + Outdoor		
Climate Zone n/a		
Reversibility No		
Cooling mode application (optional) n/a		

General Data		
Power supply 3x400V 50Hz		

#### Heating

EN 14511-2			
Low temperature Medium temperature			
Heat output	11.2 kW	11.2 kW	
El input	2.51 kW	4.19 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	70 dB(A)	70 dB(A)

EN 14825		
	Low temperature	Medium temperature
$\eta_{s}$	167 %	128 %
Prated	13.9 kW	12.7 kW
SCOP	4.24	3.28
Tbiv	-7 °C	-7 °C
TOL	-28 °C	-28 °C
Pdh Tj = -7°C	12.3 kW	11.2 kW
COP Tj = -7°C	2.85	1.96
Cdh Tj = -7 °C	0.99	0.99
Pdh Tj = +2°C	7.5 kW	6.8 kW
COP Tj = +2°C	4.04	3.12
Cdh Tj = +2 °C	0.99	0.99
Pdh Tj = +7°C	4.8 kW	4.4 kW
COP Tj = +7°C	5.72	4.65
Cdh Tj = +7 °C	0.99	0.99

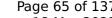


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#### This information was generated by the HP KEYMARK database on 18 Mar 2022

Pdh Tj = 12°C	7.3 kW	7 kW
COP Tj = 12°C	7.51	6.66
Cdh Tj = +12 °C	0.99	0.99
Pdh Tj = Tbiv	12.3 kW	11.2 kW
COP Tj = Tbiv	2.85	1.96
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	11.6 kW	10.7 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.65	1.9
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	2.3 kW	2 kW
Annual energy consumption Qhe	6770 kWh	7992 kWh

Domestic Hot Water (DHW)





 $$\operatorname{\textit{Page}}\xspace$  65 of 137 This information was generated by the HP KEYMARK database on 18 Mar 2022

EN 16147		
Declared load profile	L	
Efficiency ηDHW	103 %	
СОР	2.48	
Heating up time	01:46 h:min	
Standby power input	36 W	
Reference hot water temperature	52.5 °C	
Mixed water at 40°C	292 I	



# Model: PUHZ-SHW112YHA(-BS) + ERST20C-M\*C

Configure model		
Model name PUHZ-SHW112YHA(-BS) + ERST20C-M*C		
Application Heating + DHW + low temp		
Units Indoor + Outdoor		
limate Zone n/a		
Reversibility Yes		
Cooling mode application (optional)	n/a	

General Data		
Power supply 3x400V 50Hz		

#### Heating

EN 14511-2			
Low temperature Medium temperature			
Heat output	11.2 kW	11.2 kW	
El input	2.51 kW	4.19 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	70 dB(A)	70 dB(A)

EN 14825		
	Low temperature	Medium temperature
$\eta_{s}$	169 %	130 %
Prated	13.9 kW	12.7 kW
SCOP	4.29	3.31
Tbiv	-7 °C	-7 °C
TOL	-28 °C	-28 °C
Pdh Tj = -7°C	12.3 kW	11.2 kW
COP Tj = -7°C	2.85	1.96
Cdh Tj = -7 °C	0.99	0.99
Pdh Tj = +2°C	7.5 kW	6.8 kW
COP Tj = +2°C	4.04	3.12
Cdh Tj = +2 °C	0.99	0.99
Pdh Tj = +7°C	4.8 kW	4.4 kW
COP Tj = +7°C	5.72	4.63
Cdh Tj = +7 °C	0.99	0.99

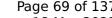


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#### This information was generated by the HP KEYMARK database on 18 Mar 2022

Pdh Tj = 12°C	7.3 kW	7 kW
COP Tj = 12°C	7.51	6.66
Cdh Tj = +12 °C	0.99	0.99
Pdh Tj = Tbiv	12.3 kW	11.2 kW
COP Tj = Tbiv	2.85	1.96
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	11.6 kW	10.7 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.65	1.9
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	2.3 kW	2 kW
Annual energy consumption Qhe	6689 kWh	7918 kWh

Domestic Hot Water (DHW)





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EN 16147		
Declared load profile	L	
Efficiency ηDHW	103 %	
СОР	2.48	
Heating up time	01:46 h:min	
Standby power input	36 W	
Reference hot water temperature	52.5 °C	
Mixed water at 40°C	292 I	



# Model: PUHZ-SHW112YHA(-BS) + ERST20C-\*M\*C

Configure model		
Model name PUHZ-SHW112YHA(-BS) + ERST20C-*M*C		
pplication Heating + DHW + low temp		
Units	Indoor + Outdoor	
Climate Zone	Zone n/a	
Reversibility	Yes	
Cooling mode application (optional)	n/a	

General Data		
Power supply 3x400V 50Hz		

#### Heating

EN 14511-2			
Low temperature Medium temperature			
Heat output	11.2 kW	11.2 kW	
El input	2.51 kW	4.19 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	70 dB(A)	70 dB(A)		

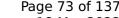
EN 14825				
	Low temperature	Medium temperature		
$\eta_{s}$	169 %	130 %		
Prated	13.9 kW	12.7 kW		
SCOP	4.29	3.31		
Tbiv	-7 °C	-7 °C		
TOL	-28 °C	-28 °C		
Pdh Tj = -7°C	12.3 kW	11.2 kW		
COP Tj = -7°C	2.85	1.96		
Cdh Tj = -7 °C	0.99	0.99		
Pdh Tj = +2°C	7.5 kW	6.8 kW		
COP Tj = +2°C	4.04	3.12		
Cdh Tj = +2 °C	0.99	0.99		
Pdh Tj = +7°C	4.8 kW	4.4 kW		
COP Tj = +7°C	5.72	4.63		
Cdh Tj = +7 °C	0.99	0.99		

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

Pdh Tj = 12°C	7.3 kW	7 kW
COP Tj = 12°C	7.51	6.66
Cdh Tj = +12 °C	0.99	0.99
Pdh Tj = Tbiv	12.3 kW	11.2 kW
COP Tj = Tbiv	2.85	1.96
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	11.6 kW	10.7 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.65	1.9
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	2.3 kW	2 kW
Annual energy consumption Qhe	6689 kWh	7918 kWh

Domestic Hot Water (DHW)





# $$\operatorname{\textit{Page}}\xspace$ 73 of 137 This information was generated by the HP KEYMARK database on 18 Mar 2022

EN 16147		
Declared load profile	L	
Efficiency ηDHW	103 %	
СОР	2.48	
Heating up time	01:46 h:min	
Standby power input	36 W	
Reference hot water temperature	52.5 °C	
Mixed water at 40°C	292 I	



## Model: PUHZ-SHW112YHA(-BS) + EHSC-M\*C

Configure model		
Model name	PUHZ-SHW112YHA(-BS) + EHSC-M*C	
Application	Heating (medium temp)	
Units	Indoor + Outdoor	
Climate Zone	n/a	
Reversibility	No	
Cooling mode application (optional)	n/a	

General Data		
Power supply	3x400V 50Hz	

#### Heating

EN 14511-2		
	Low temperature	Medium temperature
Heat output	11.2 kW	11.2 kW
El input	2.51 kW	4.19 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	70 dB(A)	70 dB(A)

EN 14825		
	Low temperature	Medium temperature
$\eta_{s}$	167 %	128 %
Prated	13.9 kW	12.7 kW
SCOP	4.24	3.28
Tbiv	-7 °C	-7 °C
TOL	-28 °C	-28 °C
Pdh Tj = -7°C	12.3 kW	11.2 kW
COP Tj = -7°C	2.85	1.96
Cdh Tj = -7 °C	0.99	0.99
Pdh Tj = +2°C	7.5 kW	6.8 kW
COP Tj = +2°C	4.04	3.12
Cdh Tj = +2 °C	0.99	0.99
Pdh Tj = +7°C	4.8 kW	4.4 kW
COP Tj = +7°C	5.72	4.65
Cdh Tj = +7 °C	0.99	0.99



# $$\operatorname{\textit{Page}}\ 76$$ of 137 This information was generated by the HP KEYMARK database on 18 Mar 2022

Pdh Tj = 12°C	7.3 kW	7 kW
COP Tj = 12°C	7.51	6.66
Cdh Tj = +12 °C	0.99	0.99
Pdh Tj = Tbiv	12.3 kW	11.2 kW
COP Tj = Tbiv	2.85	1.96
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	11.6 kW	10.7 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.65	1.9
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	2.3 kW	2 kW
Annual energy consumption Qhe	6770 kWh	7992 kWh



## Model: PUHZ-SHW112YHA(-BS) + EHSC-\*M\*C

Configure model		
Model name	PUHZ-SHW112YHA(-BS) + EHSC-*M*C	
Application	Heating (medium temp)	
Units	Indoor + Outdoor	
Climate Zone	n/a	
Reversibility	No	
Cooling mode application (optional)	n/a	

General Data		
Power supply	3x400V 50Hz	

#### Heating

EN 14511-2		
	Low temperature	Medium temperature
Heat output	11.2 kW	11.2 kW
El input	2.51 kW	4.19 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	70 dB(A)	70 dB(A)

EN 14825		
	Low temperature	Medium temperature
$\eta_{s}$	167 %	128 %
Prated	13.9 kW	12.7 kW
SCOP	4.24	3.28
Tbiv	-7 °C	-7 °C
TOL	-28 °C	-28 °C
Pdh Tj = -7°C	12.3 kW	11.2 kW
COP Tj = -7°C	2.85	1.96
Cdh Tj = -7 °C	0.99	0.99
Pdh Tj = +2°C	7.5 kW	6.8 kW
COP Tj = +2°C	4.04	3.12
Cdh Tj = +2 °C	0.99	0.99
Pdh Tj = +7°C	4.8 kW	4.4 kW
COP Tj = +7°C	5.72	4.65
Cdh Tj = +7 °C	0.99	0.99



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

Pdh Tj = 12°C	7.3 kW	7 kW
COP Tj = 12°C	7.51	6.66
Cdh Tj = +12 °C	0.99	0.99
Pdh Tj = Tbiv	12.3 kW	11.2 kW
COP Tj = Tbiv	2.85	1.96
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	11.6 kW	10.7 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.65	1.9
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	2.3 kW	2 kW
Annual energy consumption Qhe	6770 kWh	7992 kWh



## Model: PUHZ-SHW112YHA(-BS) + ERSC-M\*C

Configure model		
Model name	PUHZ-SHW112YHA(-BS) + ERSC-M*C	
Application	Heating (medium temp)	
Units	Indoor + Outdoor	
Climate Zone	n/a	
Reversibility	Yes	
Cooling mode application (optional)	n/a	

General Data		
Power supply	3x400V 50Hz	

#### Heating

EN 14511-2		
	Low temperature	Medium temperature
Heat output	11.2 kW	11.2 kW
El input	2.51 kW	4.19 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	70 dB(A)	70 dB(A)

EN 14825		
	Low temperature	Medium temperature
$\eta_{s}$	169 %	130 %
Prated	13.9 kW	12.7 kW
SCOP	4.29	3.31
Tbiv	-7 °C	-7 °C
TOL	-28 °C	-28 °C
Pdh Tj = -7°C	12.3 kW	11.2 kW
COP Tj = -7°C	2.85	1.96
Cdh Tj = -7 °C	0.99	0.99
Pdh Tj = $+2$ °C	7.5 kW	6.8 kW
COP Tj = +2°C	4.04	3.12
Cdh Tj = +2 °C	0.99	0.99
Pdh Tj = +7°C	4.8 kW	4.4 kW
COP Tj = +7°C	5.72	4.63
Cdh Tj = +7 °C	0.99	0.99



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

Pdh Tj = 12°C	7.3 kW	7 kW
COP Tj = 12°C	7.51	6.66
Cdh Tj = +12 °C	0.99	0.99
Pdh Tj = Tbiv	12.3 kW	11.2 kW
COP Tj = Tbiv	2.85	1.96
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	11.6 kW	10.7 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.65	1.9
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	2.3 kW	2 kW
Annual energy consumption Qhe	6689 kWh	7918 kWh



## Model: PUHZ-SHW112YHA(-BS) + ERSC-\*M\*C

Configure model		
Model name	PUHZ-SHW112YHA(-BS) + ERSC-*M*C	
Application	Heating (medium temp)	
Units	Indoor + Outdoor	
Climate Zone	n/a	
Reversibility	Yes	
Cooling mode application (optional)	n/a	

General Data		
Power supply	3x400V 50Hz	

#### Heating

EN 14511-2				
Low temperature Medium temperature				
Heat output	11.2 kW	11.2 kW		
El input	2.51 kW	4.19 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	70 dB(A)	70 dB(A)	

EN 14825		
	Low temperature	Medium temperature
$\eta_{s}$	169 %	130 %
Prated	13.9 kW	12.7 kW
SCOP	4.29	3.31
Tbiv	-7 °C	-7 °C
TOL	-28 °C	-28 °C
Pdh Tj = -7°C	12.3 kW	11.2 kW
COP Tj = $-7$ °C	2.85	1.96
Cdh Tj = -7 °C	0.99	0.99
Pdh Tj = $+2$ °C	7.5 kW	6.8 kW
$COP Tj = +2^{\circ}C$	4.04	3.12
Cdh Tj = +2 °C	0.99	0.99
Pdh Tj = +7°C	4.8 kW	4.4 kW
$COP Tj = +7^{\circ}C$	5.72	4.63
Cdh Tj = +7 °C	0.99	0.99



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

Pdh Tj = 12°C	7.3 kW	7 kW
COP Tj = 12°C	7.51	6.66
Cdh Tj = +12 °C	0.99	0.99
Pdh Tj = Tbiv	12.3 kW	11.2 kW
COP Tj = Tbiv	2.85	1.96
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	11.6 kW	10.7 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.65	1.9
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	2.3 kW	2 kW
Annual energy consumption Qhe	6689 kWh	7918 kWh



## Model: PUHZ-SHW140YHA(-BS) + EHST20C-M\*C

Configure model		
Model name	PUHZ-SHW140YHA(-BS) + EHST20C-M*C	
Application	Heating + DHW + low temp	
Units Indoor + Outdoor		
Climate Zone n/a		
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	3.32 kW	5.62 kW		
СОР	4.22	2.49		

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	



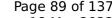
EN 12102-1			
	Low temperature	Medium temperature	
Sound power level indoor	40 dB(A)	40 dB(A)	
Sound power level outdoor	70 dB(A)	70 dB(A)	

EN 14825		
	Low temperature	Medium temperature
$\eta_{s}$	163 %	127 %
Prated	17 kW	15.8 kW
SCOP	4.16	3.25
Tbiv	-7 °C	-7 °C
TOL	-28 °C	-28 °C
Pdh Tj = -7°C	15 kW	14 kW
COP Tj = -7°C	2.59	1.84
Cdh Tj = -7 °C	0.99	0.99
Pdh Tj = $+2$ °C	9.1 kW	8.5 kW
COP Tj = +2°C	4.01	3.1
Cdh Tj = +2 °C	0.99	0.99
Pdh Tj = $+7^{\circ}$ C	5.9 kW	5.5 kW
COP Tj = +7°C	5.71	4.67
Cdh Tj = +7 °C	0.99	0.99

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Pdh Tj = 12°C	7.3 kW	7 kW
COP Tj = 12°C	7.47	6.62
Cdh Tj = +12 °C	0.99	0.99
Pdh Tj = Tbiv	15 kW	14 kW
COP Tj = Tbiv	2.59	1.84
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	14.1 kW	13.9 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.42	1.83
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	2.9 kW	1.9 kW
Annual energy consumption Qhe	8446 kWh	10054 kWh

Domestic Hot Water (DHW)





# $$\operatorname{\textit{Page}}$$ 89 of 137 This information was generated by the HP KEYMARK database on 18 Mar 2022

EN 16147		
Declared load profile	L	
Efficiency ηDHW	103 %	
СОР	2.48	
Heating up time	01:46 h:min	
Standby power input	36 W	
Reference hot water temperature	52.5 °C	
Mixed water at 40°C	292 I	



## Model: PUHZ-SHW140YHA(-BS) + EHST20C-\*M\*C

Configure model		
Model name   PUHZ-SHW140YHA(-BS) + EHST20C-*M*C		
Application Heating + DHW + low temp		
Units	Indoor + Outdoor	
Climate Zone n/a		
Reversibility No		
Cooling mode application (optional)	n/a	

General Data			
Power supply	Power supply 3x400V 50Hz		

#### Heating

EN 14511-2			
Low temperature Medium temperature			
Heat output	14 kW	14 kW	
El input	3.32 kW	5.62 kW	
СОР	4.22	2.49	

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



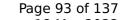
EN 12102-1		
	Low temperature	Medium temperature
Sound power level indoor	40 dB(A)	40 dB(A)
Sound power level outdoor	70 dB(A)	70 dB(A)

EN 14825		
	Low temperature	Medium temperature
$\eta_{s}$	163 %	127 %
Prated	17 kW	15.8 kW
SCOP	4.16	3.25
Tbiv	-7 °C	-7 °C
TOL	-28 °C	-28 °C
Pdh Tj = -7°C	15 kW	14 kW
COP Tj = -7°C	2.59	1.84
Cdh Tj = -7 °C	0.99	0.99
Pdh Tj = +2°C	9.1 kW	8.5 kW
COP Tj = +2°C	4.01	3.1
Cdh Tj = +2 °C	0.99	0.99
Pdh Tj = +7°C	5.9 kW	5.5 kW
COP Tj = +7°C	5.71	4.67
Cdh Tj = +7 °C	0.99	0.99

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Pdh Tj = 12°C	7.3 kW	7 kW
- Tull 1) = 12 C	7.5 KW	/ NVV
COP Tj = 12°C	7.47	6.62
Cdh Tj = +12 °C	0.99	0.99
Pdh Tj = Tbiv	15 kW	14 kW
COP Tj = Tbiv	2.59	1.84
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	14.1 kW	13.9 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.42	1.83
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	2.9 kW	1.9 kW
Annual energy consumption Qhe	8446 kWh	10054 kWh

Domestic Hot Water (DHW)





EN 16147		
Declared load profile	L	
Efficiency ηDHW	103 %	
СОР	2.48	
Heating up time	01:46 h:min	
Standby power input	36 W	
Reference hot water temperature	52.5 °C	
Mixed water at 40°C	292 I	



## Model: PUHZ-SHW140YHA(-BS) + ERST20C-M\*C

Configure model		
Model name   PUHZ-SHW140YHA(-BS) + ERST20C-M*C		
Application Heating + DHW + low temp		
Units Indoor + Outdoor		
Climate Zone n/a		
Reversibility Yes		
Cooling mode application (optional)	n/a	

General Data			
Power supply	Power supply 3x400V 50Hz		

#### Heating

EN 14511-2			
Low temperature Medium temperature			
Heat output	14 kW	14 kW	
El input	3.32 kW	5.62 kW	
СОР	4.22	2.49	

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	70 dB(A)	70 dB(A)

EN 14825		
	Low temperature	Medium temperature
$\eta_{s}$	165 %	128 %
Prated	17 kW	15.8 kW
SCOP	4.21	3.27
Tbiv	-7 °C	-7 °C
TOL	-28 °C	-28 °C
Pdh Tj = -7°C	15 kW	14 kW
COP Tj = -7°C	2.59	1.84
Cdh Tj = -7 °C	0.99	0.99
Pdh Tj = +2°C	9.1 kW	8.5 kW
COP Tj = +2°C	4.03	3.1
Cdh Tj = +2 °C	0.99	0.99
Pdh Tj = +7°C	5.9 kW	5.5 kW
COP Tj = +7°C	5.71	4.67
Cdh Tj = +7 °C	0.99	0.99

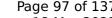


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This information was	generated by the	e HP KEYMARK	database	on 18 Mar 2022	

Pdh Tj = 12°C	7.3 kW	7 kW
COP Tj = 12°C	7.47	6.62
Cdh Tj = +12 °C	0.99	0.99
Pdh Tj = Tbiv	15 kW	14 kW
COP Tj = Tbiv	2.59	1.84
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	14.1 kW	13.9 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.42	1.83
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	2.9 kW	1.9 kW
Annual energy consumption Qhe	8344 kWh	9973 kWh

Domestic Hot Water (DHW)





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EN 16147		
Declared load profile	L	
Efficiency ηDHW	103 %	
СОР	2.48	
Heating up time	01:46 h:min	
Standby power input	36 W	
Reference hot water temperature	52.5 °C	
Mixed water at 40°C	292 I	



## Model: PUHZ-SHW140YHA(-BS) + ERST20C-\*M\*C

Configure model			
Model name	PUHZ-SHW140YHA(-BS) + ERST20C-*M*C		
Application	Heating + DHW + low temp		
Units	Indoor + Outdoor		
Climate Zone	n/a		
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	3.32 kW	5.62 kW	
СОР	4.22	2.49	

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	70 dB(A)	70 dB(A)

EN 14825		
	Low temperature	Medium temperature
$\eta_{s}$	165 %	128 %
Prated	17 kW	15.8 kW
SCOP	4.21	3.27
Tbiv	-7 °C	-7 °C
TOL	-28 °C	-28 °C
Pdh Tj = $-7^{\circ}$ C	15 kW	14 kW
$COP Tj = -7^{\circ}C$	2.59	1.84
Cdh Tj = -7 °C	0.99	0.99
Pdh Tj = $+2$ °C	9.1 kW	8.5 kW
COP Tj = +2°C	4.03	3.1
Cdh Tj = +2 °C	0.99	0.99
Pdh Tj = $+7^{\circ}$ C	5.9 kW	5.5 kW
$COP Tj = +7^{\circ}C$	5.71	4.67
Cdh Tj = +7 °C	0.99	0.99
Cdh Tj = +7 °C	0.99	0.99

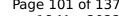


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#### This information was generated by the HP KEYMARK database on 18 Mar 2022

Pdh Tj = 12°C	7.3 kW	7 kW
COP Tj = 12°C	7.47	6.62
Cdh Tj = +12 °C	0.99	0.99
Pdh Tj = Tbiv	15 kW	14 kW
COP Tj = Tbiv	2.59	1.84
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	14.1 kW	13.9 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.42	1.83
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	2.9 kW	1.9 kW
Annual energy consumption Qhe	8344 kWh	9973 kWh

Domestic Hot Water (DHW)





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EN 16147	
Declared load profile	L
Efficiency ηDHW	103 %
СОР	2.48
Heating up time	01:46 h:min
Standby power input	36 W
Reference hot water temperature	52.5 °C
Mixed water at 40°C	292 I



## Model: PUHZ-SHW140YHA(-BS) + EHSC-M\*C

Configure model		
Model name   PUHZ-SHW140YHA(-BS) + EHSC-M*C		
Application	Heating (medium temp)	
Units	Indoor + Outdoor	
Climate Zone	n/a	
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	3.32 kW	5.62 kW
СОР	4.22	2.49

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	70 dB(A)	70 dB(A)

EN 14825		
	Low temperature	Medium temperature
$\eta_{s}$	163 %	127 %
Prated	17 kW	15.8 kW
SCOP	4.16	3.25
Tbiv	-7 °C	-7 °C
TOL	-28 °C	-28 °C
Pdh Tj = -7°C	15 kW	14 kW
COP Tj = -7°C	2.59	1.84
Cdh Tj = -7 °C	0.99	0.99
Pdh Tj = +2°C	9.1 kW	8.5 kW
COP Tj = +2°C	4.01	3.1
Cdh Tj = +2 °C	0.99	0.99
Pdh Tj = +7°C	5.9 kW	5.5 kW
COP Tj = +7°C	5.71	4.67
Cdh Tj = +7 °C	0.99	0.99



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

Pdh Tj = 12°C	7.3 kW	7 kW
COP Tj = 12°C	7.47	6.62
Cdh Tj = +12 °C	0.99	0.99
Pdh Tj = Tbiv	15 kW	14 kW
COP Tj = Tbiv	2.59	1.84
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	14.1 kW	13.9 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.42	1.83
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	2.9 kW	1.9 kW
Annual energy consumption Qhe	8446 kWh	10054 kWh



## Model: PUHZ-SHW140YHA(-BS) + EHSC-\*M\*C

Configure model		
Model name PUHZ-SHW140YHA(-BS) + EHSC-*M*C		
Application	Heating (medium temp)	
Units	Indoor + Outdoor	
Climate Zone	n/a	
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	3.32 kW	5.62 kW
СОР	4.22	2.49

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	70 dB(A)	70 dB(A)

EN 14825		
	Low temperature	Medium temperature
$\eta_{s}$	163 %	127 %
Prated	17 kW	15.8 kW
SCOP	4.16	3.25
Tbiv	-7 °C	-7 °C
TOL	-28 °C	-28 °C
Pdh Tj = -7°C	15 kW	14 kW
COP Tj = -7°C	2.59	1.84
Cdh Tj = -7 °C	0.99	0.99
Pdh Tj = +2°C	9.1 kW	8.5 kW
COP Tj = +2°C	4.01	3.1
Cdh Tj = +2 °C	0.99	0.99
Pdh Tj = +7°C	5.9 kW	5.5 kW
COP Tj = +7°C	5.71	4.67
Cdh Tj = +7 °C	0.99	0.99



# $$\operatorname{\textit{Page}}\xspace$ 107 of 137 This information was generated by the HP KEYMARK database on 18 Mar 2022

Pdh Tj = 12°C	7.3 kW	7 kW
COP Tj = 12°C	7.47	6.62
Cdh Tj = +12 °C	0.99	0.99
Pdh Tj = Tbiv	15 kW	14 kW
COP Tj = Tbiv	2.59	1.84
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	14.1 kW	13.9 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.42	1.83
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	2.9 kW	1.9 kW
Annual energy consumption Qhe	8446 kWh	10054 kWh



## Model: PUHZ-SHW140YHA(-BS) + ERSC-M\*C

Configure model		
Model name	PUHZ-SHW140YHA(-BS) + ERSC-M*C	
Application	Heating (medium temp)	
Units	Indoor + Outdoor	
Climate Zone	n/a	
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	3.32 kW	5.62 kW
СОР	4.22	2.49

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	70 dB(A)	70 dB(A)

EN 14825		
	Low temperature	Medium temperature
$\eta_{s}$	165 %	128 %
Prated	17 kW	15.8 kW
SCOP	4.21	3.27
Tbiv	-7 °C	-7 °C
TOL	-28 °C	-28 °C
Pdh Tj = -7°C	15 kW	14 kW
COP Tj = -7°C	2.59	1.84
Cdh Tj = -7 °C	0.99	0.99
Pdh Tj = $+2$ °C	9.1 kW	8.5 kW
COP Tj = +2°C	4.03	3.1
Cdh Tj = +2 °C	0.99	0.99
Pdh Tj = +7°C	5.9 kW	5.5 kW
COP Tj = +7°C	5.71	4.67
Cdh Tj = +7 °C	0.99	0.99



# $$\operatorname{\textit{Page}}\ 110$$ of 137 This information was generated by the HP KEYMARK database on 18 Mar 2022

Pdh Tj = 12°C	7.3 kW	7 kW
COP Tj = 12°C	7.47	6.62
Cdh Tj = +12 °C	0.99	0.99
Pdh Tj = Tbiv	15 kW	14 kW
COP Tj = Tbiv	2.59	1.84
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	14.1 kW	13.9 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.42	1.83
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	2.9 kW	1.9 kW
Annual energy consumption Qhe	8344 kWh	9973 kWh



## Model: PUHZ-SHW140YHA(-BS) + ERSC-\*M\*C

Configure model		
Model name	PUHZ-SHW140YHA(-BS) + ERSC-*M*C	
Application	Heating (medium temp)	
Units	Indoor + Outdoor	
Climate Zone	n/a	
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	3.32 kW	5.62 kW
СОР	4.22	2.49

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	70 dB(A)	70 dB(A)

EN 14825		
	Low temperature	Medium temperature
$\eta_{s}$	165 %	128 %
Prated	17 kW	15.8 kW
SCOP	4.21	3.27
Tbiv	-7 °C	-7 °C
TOL	-28 °C	-28 °C
Pdh Tj = -7°C	15 kW	14 kW
COP Tj = -7°C	2.59	1.84
Cdh Tj = -7 °C	0.99	0.99
Pdh Tj = +2°C	9.1 kW	8.5 kW
COP Tj = +2°C	4.03	3.1
Cdh Tj = +2 °C	0.99	0.99
Pdh Tj = +7°C	5.9 kW	5.5 kW
COP Tj = +7°C	5.71	4.67
Cdh Tj = +7 °C	0.99	0.99



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Pdh Tj = 12°C	7.3 kW	7 kW
COP Tj = 12°C	7.47	6.62
Cdh Tj = +12 °C	0.99	0.99
Pdh Tj = Tbiv	15 kW	14 kW
COP Tj = Tbiv	2.59	1.84
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	14.1 kW	13.9 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.42	1.83
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	2.9 kW	1.9 kW
Annual energy consumption Qhe	8344 kWh	9973 kWh



## Model: PUHZ-SHW140YHA(-BS) + EHST20C-M\*D

Configure model		
Model name	PUHZ-SHW140YHA(-BS) + EHST20C-M*D	
Application	Heating + DHW + low temp	
Units	Indoor + Outdoor	
Climate Zone	n/a	
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	3.32 kW	5.62 kW
СОР	4.22	2.49

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	70 dB(A)	70 dB(A)

EN 14825		
	Low temperature	Medium temperature
$\eta_{s}$	163 %	127 %
Prated	17 kW	15.8 kW
SCOP	4.16	3.25
Tbiv	-7 °C	-7 °C
TOL	-28 °C	-28 °C
Pdh Tj = -7°C	15 kW	14 kW
COP Tj = -7°C	2.59	1.84
Cdh Tj = -7 °C	0.99	1
Pdh Tj = +2°C	9.1 kW	8.5 kW
COP Tj = +2°C	4.01	3.1
Cdh Tj = +2 °C	0.99	0.99
Pdh Tj = +7°C	5.9 kW	5.5 kW
COP Tj = +7°C	5.71	4.67
Cdh Tj = +7 °C	0.99	0.98

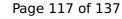


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#### This information was generated by the HP KEYMARK database on 18 Mar 2022

Pdh Tj = 12°C	7.3 kW	7 kW
COP Tj = 12°C	7.47	6.62
Cdh Tj = +12 °C	0.99	0.98
Pdh Tj = Tbiv	15 kW	14 kW
COP Tj = Tbiv	2.59	1.84
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	14.1 kW	13.9 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.42	1.83
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	2.9 kW	1.9 kW
Annual energy consumption Qhe	8446 kWh	10054 kWh

Domestic Hot Water (DHW)





EN 16147	
Declared load profile	L
Efficiency ηDHW	138 %
СОР	3.25
Heating up time	01:32 h:min
Standby power input	35 W
Reference hot water temperature	52.5 °C
Mixed water at 40°C	278



## Model: PUHZ-SHW140YHA(-BS) + EHST20C-\*M\*D

Configure model		
Model name PUHZ-SHW140YHA(-BS) + EHST20C-*M*D		
Application Heating + DHW + low temp		
Units	Indoor + Outdoor	
Climate Zone	n/a	
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	3.32 kW	5.62 kW
СОР	4.22	2.49

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	70 dB(A)	70 dB(A)

EN 14825		
	Low temperature	Medium temperature
$\eta_{s}$	163 %	127 %
Prated	17 kW	15.8 kW
SCOP	4.16	3.25
Tbiv	-7 °C	-7 °C
TOL	-28 °C	-28 °C
Pdh Tj = -7°C	15 kW	14 kW
COP Tj = -7°C	2.59	1.84
Cdh Tj = -7 °C	0.99	1
Pdh Tj = +2°C	9.1 kW	8.5 kW
COP Tj = +2°C	4.01	3.1
Cdh Tj = +2 °C	0.99	0.99
Pdh Tj = +7°C	5.9 kW	5.5 kW
COP Tj = +7°C	5.71	4.67
Cdh Tj = +7 °C	0.99	0.98

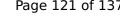


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#### This information was generated by the HP KEYMARK database on 18 Mar 2022

Pdh Tj = 12°C	7.3 kW	7 kW
COP Tj = 12°C	7.47	6.62
Cdh Tj = +12 °C	0.99	0.98
Pdh Tj = Tbiv	15 kW	14 kW
COP Tj = Tbiv	2.59	1.84
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	14.1 kW	13.9 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.42	1.83
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	2.9 kW	1.9 kW
Annual energy consumption Qhe	8446 kWh	10054 kWh

Domestic Hot Water (DHW)





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EN 16147	
Declared load profile	L
Efficiency ηDHW	138 %
СОР	3.25
Heating up time	01:32 h:min
Standby power input	35 W
Reference hot water temperature	52.5 °C
Mixed water at 40°C	278



## Model: PUHZ-SHW140YHA(-BS) + ERST20C-\*M\*D

Configure model		
Model name	PUHZ-SHW140YHA(-BS) + ERST20C-*M*D	
Application	Heating + DHW + low temp	
Units	Indoor + Outdoor	
Climate Zone	n/a	
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	3.32 kW	5.62 kW
СОР	4.22	2.49

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	70 dB(A)	70 dB(A)

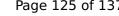
EN 14825		
	Low temperature	Medium temperature
$\eta_{s}$	165 %	128 %
Prated	17 kW	15.8 kW
SCOP	4.21	3.27
Tbiv	-7 °C	-7 °C
TOL	-28 °C	-28 °C
Pdh Tj = -7°C	15 kW	14 kW
COP Tj = -7°C	2.59	1.84
Cdh Tj = -7 °C	0.99	1
Pdh Tj = +2°C	9.1 kW	8.5 kW
COP Tj = +2°C	4.03	3.1
Cdh Tj = +2 °C	0.99	0.99
Pdh Tj = +7°C	5.9 kW	5.5 kW
COP Tj = +7°C	5.71	4.67
Cdh Tj = +7 °C	0.99	0.98

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

Pdh Tj = 12°C	7.3 kW	7 kW
COP Tj = 12°C	7.47	6.62
Cdh Tj = +12 °C	0.99	0.98
Pdh Tj = Tbiv	15 kW	14 kW
COP Tj = Tbiv	2.59	1.84
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	14.1 kW	13.9 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.42	1.83
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	2.9 kW	1.9 kW
Annual energy consumption Qhe	8344 kWh	9973 kWh

Domestic Hot Water (DHW)





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EN 16147	
Declared load profile	L
Efficiency ηDHW	138 %
СОР	3.25
Heating up time	01:32 h:min
Standby power input	35 W
Reference hot water temperature	52.5 °C
Mixed water at 40°C	278



## Model: PUHZ-SHW140YHA(-BS) + EHSC-M\*D

Configure model		
Model name PUHZ-SHW140YHA(-BS) + EHSC-M*D		
Application	Heating (medium temp)	
Units	Indoor + Outdoor	
Climate Zone	n/a	
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	3.32 kW	5.62 kW	
СОР	4.22	2.49	

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



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EN 12102-1		
	Low temperature	Medium temperature
Sound power level indoor	40 dB(A)	40 dB(A)
Sound power level outdoor	70 dB(A)	70 dB(A)

EN 14825		
	Low temperature	Medium temperature
$\eta_{s}$	163 %	127 %
Prated	17 kW	15.8 kW
SCOP	4.16	3.25
Tbiv	-7 °C	-7 °C
TOL	-28 °C	-28 °C
Pdh Tj = -7°C	15 kW	14 kW
COP Tj = -7°C	2.59	1.84
Cdh Tj = -7 °C	0.99	1
Pdh Tj = +2°C	9.1 kW	8.5 kW
COP Tj = +2°C	4.01	3.1
Cdh Tj = +2 °C	0.99	0.99
Pdh Tj = +7°C	5.9 kW	5.5 kW
COP Tj = +7°C	5.71	4.67
Cdh Tj = +7 °C	0.99	0.98



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

Pdh Tj = 12°C	7.3 kW	7 kW
COP Tj = 12°C	7.47	6.62
Cdh Tj = +12 °C	0.99	0.98
Pdh Tj = Tbiv	15 kW	14 kW
COP Tj = Tbiv	2.59	1.84
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	14.1 kW	13.9 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.42	1.83
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	2.9 kW	1.9 kW
Annual energy consumption Qhe	8446 kWh	10054 kWh



## Model: PUHZ-SHW140YHA(-BS) + EHSC-\*M\*D

Configure model		
Model name PUHZ-SHW140YHA(-BS) + EHSC-*M*D		
Application	Heating (medium temp)	
Units	Indoor + Outdoor	
Climate Zone	n/a	
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	3.32 kW	5.62 kW	
СОР	4.22	2.49	

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	70 dB(A)	70 dB(A)

EN 14825		
	Low temperature	Medium temperature
$\eta_{S}$	163 %	127 %
Prated	17 kW	15.8 kW
SCOP	4.16	3.25
Tbiv	-7 °C	-7 °C
TOL	-28 °C	-28 °C
Pdh Tj = -7°C	15 kW	14 kW
COP Tj = -7°C	2.59	1.84
Cdh Tj = -7 °C	0.99	1
Pdh Tj = $+2$ °C	9.1 kW	8.5 kW
COP Tj = +2°C	4.01	3.1
Cdh Tj = +2 °C	0.99	0.99
Pdh Tj = $+7^{\circ}$ C	5.9 kW	5.5 kW
COP Tj = +7°C	5.71	4.67
Cdh Tj = +7 °C	0.99	0.98



# $$\operatorname{\textit{Page}}\ 131$$ of 137 This information was generated by the HP KEYMARK database on 18 Mar 2022

Pdh Tj = 12°C	7.3 kW	7 kW
COP Tj = 12°C	7.47	6.62
Cdh Tj = +12 °C	0.99	0.98
Pdh Tj = Tbiv	15 kW	14 kW
COP Tj = Tbiv	2.59	1.84
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	14.1 kW	13.9 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.42	1.83
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	2.9 kW	1.9 kW
Annual energy consumption Qhe	8446 kWh	10054 kWh



## Model: PUHZ-SHW140YHA(-BS) + ERSC-M\*D

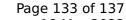
Configure model		
Model name   PUHZ-SHW140YHA(-BS) + ERSC-M*D		
Application Heating (medium temp)		
Units Indoor + Outdoor		
Climate Zone n/a		
Reversibility Yes		
Cooling mode application (optional) n/a		

General Data		
Power supply 3x400V 50Hz		

#### Heating

EN 14511-2			
Low temperature Medium temperature			
Heat output	14 kW	14 kW	
El input	3.32 kW	5.62 kW	
СОР	4.22	2.49	

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





EN 12102-1			
Low temperature Medium temperature			
Sound power level indoor	40 dB(A)	40 dB(A)	
Sound power level outdoor	70 dB(A)	70 dB(A)	

EN 14825		
	Low temperature	Medium temperature
$\eta_{s}$	165 %	128 %
Prated	17 kW	15.8 kW
SCOP	4.21	3.27
Tbiv	-7 °C	-7 °C
TOL	-28 °C	-28 °C
Pdh Tj = -7°C	15 kW	14 kW
COP Tj = -7°C	2.59	1.84
Cdh Tj = -7 °C	0.99	1
Pdh Tj = +2°C	9.1 kW	8.5 kW
COP Tj = +2°C	4.03	3.1
Cdh Tj = +2 °C	0.99	0.99
Pdh Tj = $+7^{\circ}$ C	5.9 kW	5.5 kW
COP Tj = +7°C	5.71	4.67
Cdh Tj = +7 °C	0.99	0.98



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

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COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.42	1.83
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	2.9 kW	1.9 kW
Annual energy consumption Qhe	8344 kWh	9973 kWh



## Model: PUHZ-SHW140YHA(-BS) + ERSC-\*M\*D

Configure model		
Model name   PUHZ-SHW140YHA(-BS) + ERSC-*M*D		
Application Heating (medium temp)		
Units Indoor + Outdoor		
Climate Zone n/a		
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	3.32 kW	5.62 kW		
СОР	4.22	2.49		

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	70 dB(A)	70 dB(A)

EN 14825			
	Low temperature	Medium temperature	
$\eta_{s}$	165 %	128 %	
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Tbiv	-7 °C	-7 °C	
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Pdh Tj = -7°C	15 kW	14 kW	
COP Tj = -7°C	2.59	1.84	
Cdh Tj = -7 °C	0.99	1	
Pdh Tj = +2°C	9.1 kW	8.5 kW	
$COP Tj = +2^{\circ}C$	4.03	3.1	
Cdh Tj = +2 °C	0.99	0.99	
Pdh Tj = +7°C	5.9 kW	5.5 kW	
COP Tj = +7°C	5.71	4.67	
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РТО	22 W	22 W
PSB	22 W	22 W
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Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	2.9 kW	1.9 kW
Annual energy consumption Qhe	8344 kWh	9973 kWh