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Summary of	Ecodan Zubadan 8/11 AA	Reg. No.	037-0058-20
Certificate Holder			
Name	Mitsubishi Electric Air Conditioning Systems Euro	pe LTD	
Address	Nettlehill Road, Houston Industrial Estate	Zip	EH54 5EQ
City	Livingston	Country	United Kingdom
Certification Body	SZU - Strojirensky zkusebni ustav (Engineering Test Institute, Public Enterprise)		
Name of testing laboratory	RISE Research Institute of Sweden		
Subtype title	Ecodan Zubadan 8/11 AA		
Heat Pump Type	Outdoor Air/Water		
Refrigerant	R410a		
Mass Of Refrigerant	4.6 kg		
Certification Date	09.04.2020		
Testing basis	HP Keymark scheme rules rev. no. 7		



Model: PUHZ-SHW80VAA(-BS) + EHSC-M*C

General Data	
Power supply	1x230V 50Hz

Heating

EN 14511-2		
	Low temperature	Medium temperature
Heat output	8.00 kW	8.00 kW
El input	1.72 kW	2.96 kW
СОР	4.65	2.70
Indoor water flow rate	1.38 m³/h	0.86 m³/h

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



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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	59 dB(A)	59 dB(A)

EN 14825		
	Low temperature	Medium temperature
η_{s}	169 %	133 %
Prated	9.60 kW	9.00 kW
SCOP	4.31	3.40
Tbiv	-7 °C	-7 °C
TOL	-28 °C	-28 °C
Pdh Tj = -7°C	8.50 kW	8.00 kW
COP Tj = -7°C	3.15	2.13
Cdh	0.97	0.98
Pdh Tj = +2°C	5.20 kW	4.90 kW
COP Tj = +2°C	4.10	3.31
Cdh	0.97	0.98
Pdh Tj = +7°C	5.00 kW	5.40 kW
COP Tj = +7°C	5.62	4.66
Cdh	0.97	0.98





g	Therated by the fill RETT	
Pdh Tj = 12°C	5.60 kW	5.30 kW
COP Tj = 12°C	7.53	5.92
Cdh	0.97	0.98
Pdh Tj = Tbiv	8.50 kW	8.00 kW
COP Tj = Tbiv	3.15	2.13
Pdh Tj = TOL	7.50 kW	7.50 kW
COP Tj = TOL	1.44	1.55
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	1.20 kW	1.10 kW
Annual energy consumption Qhe	4487 kWh	5364 kWh



Model: PUHZ-SHW80VAA(-BS) + EHSC-VM*C

General Data	
Power supply	1x230V 50Hz

Heating

EN 14511-2		
	Low temperature	Medium temperature
Heat output	8.00 kW	8.00 kW
El input	1.72 kW	2.96 kW
СОР	4.65	2.70
Indoor water flow rate	1.38 m³/h	0.86 m³/h

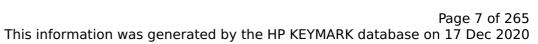
EN 14511-4	
Shutting off the heat transfer medium flow	passed
Complete power supply failure	passed
Defrost test	passed
Starting and operating test	passed





EN 12102-1		
	Low temperature	Medium temperature
Sound power level indoor	40 dB(A)	40 dB(A)
Sound power level outdoor	59 dB(A)	59 dB(A)

EN 14825		
	Low temperature	Medium temperature
η_{s}	169 %	133 %
Prated	9.60 kW	9.00 kW
SCOP	4.31	3.40
Tbiv	-7 °C	-7 °C
TOL	-28 °C	-28 °C
Pdh Tj = -7°C	8.50 kW	8.00 kW
COP Tj = -7°C	3.15	2.13
Cdh	0.97	0.98
Pdh Tj = +2°C	5.20 kW	4.90 kW
COP Tj = +2°C	4.10	3.31
Cdh	0.97	0.98
Pdh Tj = +7°C	5.00 kW	5.40 kW
COP Tj = +7°C	5.62	4.66
Cdh	0.97	0.98





	ANN database on 17 Dec 2020
5.60 kW	5.30 kW
7.53	5.92
0.97	0.98
8.50 kW	8.00 kW
3.15	2.13
7.50 kW	7.50 kW
1.44	1.55
60 °C	60 °C
15 W	15 W
15 W	15 W
15 W	15 W
0 W	o w
electricity	electricity
1.20 kW	1.10 kW
4487 kWh	5364 kWh
	5.60 kW 7.53 0.97 8.50 kW 3.15 7.50 kW 1.44 60 °C 15 W 15 W 0 W electricity 1.20 kW



Model: PUHZ-SHW80VAA(-BS) + EHSC-YM*C

General Data	
Power supply	3x400V 50Hz

Heating

EN 14511-2		
	Low temperature	Medium temperature
Heat output	8.00 kW	8.00 kW
El input	1.72 kW	2.96 kW
СОР	4.65	2.70
Indoor water flow rate	1.38 m³/h	0.86 m³/h

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



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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	59 dB(A)	59 dB(A)

EN 14825		
	Low temperature	Medium temperature
η_{s}	169 %	133 %
Prated	9.60 kW	9.00 kW
SCOP	4.31	3.40
Tbiv	-7 °C	-7 °C
TOL	-28 °C	-28 °C
Pdh Tj = -7°C	8.50 kW	8.00 kW
COP Tj = -7°C	3.15	2.13
Cdh	0.97	0.98
Pdh Tj = +2°C	5.20 kW	4.90 kW
COP Tj = +2°C	4.10	3.31
Cdh	0.97	0.98
Pdh Tj = +7°C	5.00 kW	5.40 kW
COP Tj = +7°C	5.62	4.66
Cdh	0.97	0.98



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Pdh Tj = 12°C	5.60 kW	5.30 kW
COP Tj = 12°C	7.53	5.92
Cdh	0.97	0.98
Pdh Tj = Tbiv	8.50 kW	8.00 kW
COP Tj = Tbiv	3.15	2.13
Pdh Tj = TOL	7.50 kW	7.50 kW
COP Tj = TOL	1.44	1.55
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	1.20 kW	1.10 kW
Annual energy consumption Qhe	4487 kWh	5364 kWh



Model: PUHZ-SHW80VAA(-BS) + EHST20C-M*C

General Data	
Power supply	1x230V 50Hz

Heating

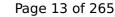
EN 14511-2		
	Low temperature	Medium temperature
Heat output	8.00 kW	8.00 kW
El input	1.72 kW	2.96 kW
СОР	4.65	2.70
Indoor water flow rate	1.38 m³/h	0.86 m³/h

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



EN 12102-1		
	Low temperature	Medium temperature
Sound power level indoor	40 dB(A)	40 dB(A)
Sound power level outdoor	59 dB(A)	59 dB(A)

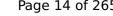
EN 14825		
	Low temperature	Medium temperature
η_{s}	169 %	133 %
Prated	9.60 kW	9.00 kW
SCOP	4.31	3.40
Tbiv	-7 °C	-7 °C
TOL	-28 °C	-28 °C
Pdh Tj = -7°C	8.50 kW	8.00 kW
COP Tj = -7°C	3.15	2.13
Cdh	0.97	0.98
Pdh Tj = +2°C	5.20 kW	4.90 kW
COP Tj = +2°C	4.10	3.31
Cdh	0.97	0.98
Pdh Tj = +7°C	5.00 kW	5.40 kW
COP Tj = +7°C	5.62	4.66
Cdh	0.97	0.98





Pdh Tj = 12°C	5.60 kW	5.30 kW
COP Tj = 12°C	7.53	5.92
Cdh	0.97	0.98
Pdh Tj = Tbiv	8.50 kW	8.00 kW
COP Tj = Tbiv	3.15	2.13
Pdh Tj = TOL	7.50 kW	7.50 kW
COP Tj = TOL	1.44	1.55
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	1.20 kW	1.10 kW
Annual energy consumption Qhe	4487 kWh	5364 kWh

Domestic Hot Water (DHW)





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EN 16147		
Declared load profile	L	
Efficiency ηDHW	103 %	
СОР	2.45	
Heating up time	01:57 h:min	
Standby power input	42.0 W	
Reference hot water temperature	52.5 °C	
Mixed water at 40°C	278	

Model: PUHZ-SHW80VAA(-BS) + EHST20C-VM*C

General Data		
Power supply	1x230V 50Hz	

Heating

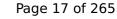
EN 14511-2			
	Low temperature	Medium temperature	
Heat output	8.00 kW	8.00 kW	
El input	1.72 kW	2.96 kW	
СОР	4.65	2.70	
Indoor water flow rate	1.38 m³/h	0.86 m³/h	

EN 14511-4		
Shutting off the heat transfer medium flow	nassod	
Shutting on the heat transfer medium now	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	59 dB(A)	59 dB(A)

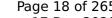
EN 14825			
	Low temperature	Medium temperature	
η_{s}	169 %	133 %	
Prated	9.60 kW	9.00 kW	
SCOP	4.31	3.40	
Tbiv	-7 °C	-7 °C	
TOL	-28 °C	-28 °C	
Pdh Tj = -7°C	8.50 kW	8.00 kW	
COP Tj = -7°C	3.15	2.13	
Cdh	0.97	0.98	
Pdh Tj = +2°C	5.20 kW	4.90 kW	
COP Tj = +2°C	4.10	3.31	
Cdh	0.97	0.98	
Pdh Tj = +7°C	5.00 kW	5.40 kW	
COP Tj = +7°C	5.62	4.66	
Cdh	0.97	0.98	





	1
5.60 kW	5.30 kW
7.53	5.92
0.97	0.98
8.50 kW	8.00 kW
3.15	2.13
7.50 kW	7.50 kW
1.44	1.55
60 °C	60 °C
15 W	15 W
15 W	15 W
15 W	15 W
0 W	o w
electricity	electricity
1.20 kW	1.10 kW
4487 kWh	5364 kWh
	7.53 0.97 8.50 kW 3.15 7.50 kW 1.44 60 °C 15 W 15 W 0 W electricity 1.20 kW

Domestic Hot Water (DHW)





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EN 16147		
Declared load profile	L	
Efficiency ηDHW	103 %	
СОР	2.45	
Heating up time	01:57 h:min	
Standby power input	42.0 W	
Reference hot water temperature	52.5 °C	
Mixed water at 40°C	278	



Model: PUHZ-SHW80VAA(-BS) + EHST20C-YM*C

General Data		
Power supply	3x400V 50Hz	

Heating

EN 14511-2		
	Low temperature	Medium temperature
Heat output	8.00 kW	8.00 kW
El input	1.72 kW	2.96 kW
СОР	4.65	2.70
Indoor water flow rate	1.38 m³/h	0.86 m³/h

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



EN 12102-1		
	Low temperature	Medium temperature
Sound power level indoor	40 dB(A)	40 dB(A)
Sound power level outdoor	59 dB(A)	59 dB(A)

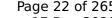
EN 14825		
	Low temperature	Medium temperature
η_{s}	169 %	133 %
Prated	9.60 kW	9.00 kW
SCOP	4.31	3.40
Tbiv	-7 °C	-7 °C
TOL	-28 °C	-28 °C
Pdh Tj = -7°C	8.50 kW	8.00 kW
COP Tj = -7°C	3.15	2.13
Cdh	0.97	0.98
Pdh Tj = +2°C	5.20 kW	4.90 kW
COP Tj = +2°C	4.10	3.31
Cdh	0.97	0.98
Pdh Tj = +7°C	5.00 kW	5.40 kW
COP Tj = +7°C	5.62	4.66
Cdh	0.97	0.98





Pdh Tj = 12°C	5.60 kW	5.30 kW
COP Tj = 12°C	7.53	5.92
Cdh	0.97	0.98
Pdh Tj = Tbiv	8.50 kW	8.00 kW
COP Tj = Tbiv	3.15	2.13
Pdh Tj = TOL	7.50 kW	7.50 kW
COP Tj = TOL	1.44	1.55
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	1.20 kW	1.10 kW
Annual energy consumption Qhe	4487 kWh	5364 kWh

Domestic Hot Water (DHW)





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EN 16147		
Declared load profile	L	
Efficiency ηDHW	103 %	
СОР	2.45	
Heating up time	01:57 h:min	
Standby power input	42.0 W	
Reference hot water temperature	52.5 °C	
Mixed water at 40°C	278	



Model: PUHZ-SHW80VAA(-BS) + ERSC-M*C

General Data	
Power supply 1x230V 50Hz	

Heating

EN 14511-2		
	Low temperature	Medium temperature
Heat output	8.00 kW	8.00 kW
El input	1.72 kW	2.96 kW
СОР	4.65	2.70
Indoor water flow rate	1.38 m³/h	0.86 m³/h

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



EN 12102-1		
	Low temperature	Medium temperature
Sound power level indoor	40 dB(A)	40 dB(A)
Sound power level outdoor	59 dB(A)	59 dB(A)

EN 14825		
	Low temperature	Medium temperature
η_{s}	172 %	135 %
Prated	9.60 kW	9.00 kW
SCOP	4.38	3.45
Tbiv	-7 °C	-7 °C
TOL	-28 °C	-28 °C
Pdh Tj = -7°C	8.50 kW	8.00 kW
COP Tj = -7°C	3.15	2.13
Cdh	0.97	0.98
Pdh Tj = +2°C	5.20 kW	4.90 kW
COP Tj = +2°C	4.10	3.31
Cdh	0.97	0.98
Pdh Tj = +7°C	5.00 kW	5.40 kW
COP Tj = +7°C	5.62	4.66
Cdh	0.97	0.98



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Pdh Tj = 12°C	5.60 kW	5.30 kW
COP Tj = 12°C	7.53	5.92
Cdh	0.97	0.98
Pdh Tj = Tbiv	8.50 kW	8.00 kW
COP Tj = Tbiv	3.15	2.13
Pdh Tj = TOL	7.50 kW	7.50 kW
COP Tj = TOL	1.44	1.55
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	1.20 kW	1.10 kW
Annual energy consumption Qhe	4487 kWh	5364 kWh



Model: PUHZ-SHW80VAA(-BS) + ERSC-VM*C

General Data	
Power supply 1x230V 50Hz	

Heating

EN 14511-2			
	Low temperature	Medium temperature	
Heat output	8.00 kW	8.00 kW	
El input	1.72 kW	2.96 kW	
СОР	4.65	2.70	
Indoor water flow rate	1.38 m³/h	0.86 m³/h	

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



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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	59 dB(A)	59 dB(A)

EN 14825		
	Low temperature	Medium temperature
η_{s}	172 %	135 %
Prated	9.60 kW	9.00 kW
SCOP	4.38	3.45
Tbiv	-7 °C	-7 °C
TOL	-28 °C	-28 °C
Pdh Tj = -7°C	8.50 kW	8.00 kW
COP Tj = -7°C	3.15	2.13
Cdh	0.97	0.98
Pdh Tj = +2°C	5.20 kW	4.90 kW
COP Tj = +2°C	4.10	3.31
Cdh	0.97	0.98
Pdh Tj = +7°C	5.00 kW	5.40 kW
COP Tj = +7°C	5.62	4.66
Cdh	0.97	0.98



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Pdh Tj = 12°C	5.60 kW	5.30 kW
COP Tj = 12°C	7.53	5.92
Cdh	0.97	0.98
Pdh Tj = Tbiv	8.50 kW	8.00 kW
COP Tj = Tbiv	3.15	2.13
Pdh Tj = TOL	7.50 kW	7.50 kW
COP Tj = TOL	1.44	1.55
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	1.20 kW	1.10 kW
Annual energy consumption Qhe	4487 kWh	5364 kWh

Model: PUHZ-SHW80VAA(-BS) + ERST20C-M*C

General Data	
Power supply	1x230V 50Hz

Heating

EN 14511-2			
	Low temperature	Medium temperature	
Heat output	8.00 kW	8.00 kW	
El input	1.72 kW	2.96 kW	
СОР	4.65	2.70	
Indoor water flow rate	1.38 m³/h	0.86 m³/h	

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



EN 12102-1		
	Low temperature	Medium temperature
Sound power level indoor	40 dB(A)	40 dB(A)
Sound power level outdoor	59 dB(A)	59 dB(A)

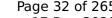
EN 14825		
	Low temperature	Medium temperature
η_{s}	172 %	135 %
Prated	9.60 kW	9.00 kW
SCOP	4.38	3.45
Tbiv	-7 °C	-7 °C
TOL	-28 °C	-28 °C
Pdh Tj = -7°C	8.50 kW	8.00 kW
COP Tj = -7°C	3.15	2.13
Cdh	0.97	0.98
Pdh Tj = +2°C	5.20 kW	4.90 kW
COP Tj = +2°C	4.10	3.31
Cdh	0.97	0.98
Pdh Tj = +7°C	5.00 kW	5.40 kW
COP Tj = +7°C	5.62	4.66
Cdh	0.97	0.98



CEN heat pump KEYMARK
RETPARK

Pdh Tj = 12°C	5.60 kW	5.30 kW
COP Tj = 12°C	7.53	5.92
Cdh	0.97	0.98
Pdh Tj = Tbiv	8.50 kW	8.00 kW
COP Tj = Tbiv	3.15	2.13
Pdh Tj = TOL	7.50 kW	7.50 kW
COP Tj = TOL	1.44	1.55
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	1.20 kW	1.10 kW
Annual energy consumption Qhe	4487 kWh	5364 kWh

Domestic Hot Water (DHW)





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EN 16147		
Declared load profile	L	
Efficiency ηDHW	103 %	
СОР	2.45	
Heating up time	01:57 h:min	
Standby power input	42.0 W	
Reference hot water temperature	52.5 °C	
Mixed water at 40°C	278	



Model: PUHZ-SHW80VAA(-BS) + ERST20C-VM*C

General Data	
Power supply	1x230V 50Hz

Heating

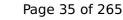
EN 14511-2			
	Low temperature	Medium temperature	
Heat output	8.00 kW	8.00 kW	
El input	1.72 kW	2.96 kW	
СОР	4.65	2.70	
Indoor water flow rate	1.38 m³/h	0.86 m³/h	

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



EN 12102-1		
	Low temperature	Medium temperature
Sound power level indoor	40 dB(A)	40 dB(A)
Sound power level outdoor	59 dB(A)	59 dB(A)

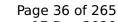
EN 14825		
	Low temperature	Medium temperature
η_{s}	172 %	135 %
Prated	9.60 kW	9.00 kW
SCOP	4.38	3.45
Tbiv	-7 °C	-7 °C
TOL	-28 °C	-28 °C
Pdh Tj = -7°C	8.50 kW	8.00 kW
COP Tj = -7°C	3.15	2.13
Cdh	0.97	0.98
Pdh Tj = +2°C	5.20 kW	4.90 kW
COP Tj = +2°C	4.10	3.31
Cdh	0.97	0.98
Pdh Tj = +7°C	5.00 kW	5.40 kW
COP Tj = +7°C	5.62	4.66
Cdh	0.97	0.98





Pdh Tj = 12°C	5.60 kW	5.30 kW
COP Tj = 12°C	7.53	5.92
Cdh	0.97	0.98
Pdh Tj = Tbiv	8.50 kW	8.00 kW
COP Tj = Tbiv	3.15	2.13
Pdh Tj = TOL	7.50 kW	7.50 kW
COP Tj = TOL	1.44	1.55
WTOL	60 °C	60 °C
Poff	15 W	15 W
РТО	15 W	15 W
PSB	15 W	15 W
PCK	0 W	0 W
Supplementary Heater: Type of energy input	electricity	electricity
Supplementary Heater: PSUP	1.20 kW	1.10 kW
Annual energy consumption Qhe	4487 kWh	5364 kWh

Domestic Hot Water (DHW)





EN 16147		
Declared load profile	L	
Efficiency ηDHW	103 %	
СОР	2.45	
Heating up time	01:57 h:min	
Standby power input	42.0 W	
Reference hot water temperature	52.5 °C	
Mixed water at 40°C	278	



Model: PUHZ-SHW112VAA(-BS) + EHSC-M*C

General Data		
Power supply 1x230V 50Hz		

Heating

EN 14511-2			
	Low temperature	Medium temperature	
Heat output	11.20 kW	11.20 kW	
El input	2.51 kW	4.13 kW	
СОР	4.46	2.71	
Indoor water flow rate	1.93 m³/h	1.20 m³/h	

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



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

EN 14825		
	Low temperature	Medium temperature
η_{s}	171 %	135 %
Prated	13.90 kW	12.70 kW
SCOP	4.34	3.46
Tbiv	-7 °C	-7 °C
TOL	-28 °C	-28 °C
Pdh Tj = -7°C	12.30 kW	11.20 kW
COP Tj = -7°C	3.15	2.12
Cdh	0.97	0.98
Pdh Tj = +2°C	7.50 kW	6.80 kW
COP Tj = +2°C	4.12	3.34
Cdh	0.97	0.98
Pdh Tj = +7°C	5.00 kW	4.70 kW
COP Tj = +7°C	5.56	4.79
Cdh	0.97	0.98



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

Pdh Tj = 12°C	5.60 kW	5.30 kW
COP Tj = 12°C	7.45	6.12
Cdh	0.97	0.98
Pdh Tj = Tbiv	12.30 kW	11.20 kW
COP Tj = Tbiv	3.18	2.12
Pdh Tj = TOL	9.00 kW	9.00 kW
COP Tj = TOL	1.40	1.50
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	2.10 kW	1.80 kW
Annual energy consumption Qhe	6476 kWh	7449 kWh



Model: PUHZ-SHW112VAA(-BS) + EHSC-VM*C

General Data		
Power supply 1x230V 50Hz		

Heating

EN 14511-2			
	Low temperature	Medium temperature	
Heat output	11.20 kW	11.20 kW	
El input	2.51 kW	4.13 kW	
СОР	4.46	2.71	
Indoor water flow rate	1.93 m³/h	1.20 m³/h	

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



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

EN 14825		
	Low temperature	Medium temperature
η_{s}	171 %	135 %
Prated	13.90 kW	12.70 kW
SCOP	4.34	3.46
Tbiv	-7 °C	-7 °C
TOL	-28 °C	-28 °C
Pdh Tj = -7°C	12.30 kW	11.20 kW
COP Tj = -7°C	3.15	2.12
Cdh	0.97	0.98
Pdh Tj = +2°C	7.50 kW	6.80 kW
COP Tj = +2°C	4.12	3.34
Cdh	0.97	0.98
Pdh Tj = +7°C	5.00 kW	4.70 kW
COP Tj = +7°C	5.56	4.79
Cdh	0.97	0.98



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

Pdh Tj = 12°C	5.60 kW	5.30 kW
COP Tj = 12°C	7.45	6.12
Cdh	0.97	0.98
Pdh Tj = Tbiv	12.30 kW	11.20 kW
COP Tj = Tbiv	3.18	2.12
Pdh Tj = TOL	9.00 kW	9.00 kW
COP Tj = TOL	1.40	1.50
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	2.10 kW	1.80 kW
Annual energy consumption Qhe	6476 kWh	7449 kWh

Model: PUHZ-SHW112VAA(-BS) + EHSC-YM*C

General Data		
Power supply 3x400V 50Hz		

Heating

EN 14511-2			
	Low temperature	Medium temperature	
Heat output	11.20 kW	11.20 kW	
El input	2.51 kW	4.13 kW	
СОР	4.46	2.71	
Indoor water flow rate	1.93 m³/h	1.20 m³/h	

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



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

EN 14825		
	Low temperature	Medium temperature
η_{s}	171 %	135 %
Prated	13.90 kW	12.70 kW
SCOP	4.34	3.46
Tbiv	-7 °C	-7 °C
TOL	-28 °C	-28 °C
Pdh Tj = -7°C	12.30 kW	11.20 kW
COP Tj = -7°C	3.15	2.12
Cdh	0.97	0.98
Pdh Tj = +2°C	7.50 kW	6.80 kW
COP Tj = +2°C	4.12	3.34
Cdh	0.97	0.98
Pdh Tj = +7°C	5.00 kW	4.70 kW
COP Tj = +7°C	5.56	4.79
Cdh	0.97	0.98



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

Pdh Tj = 12°C	5.60 kW	5.30 kW
COP Tj = 12°C	7.45	6.12
Cdh	0.97	0.98
Pdh Tj = Tbiv	12.30 kW	11.20 kW
COP Tj = Tbiv	3.18	2.12
Pdh Tj = TOL	9.00 kW	9.00 kW
COP Tj = TOL	1.40	1.50
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	2.10 kW	1.80 kW
Annual energy consumption Qhe	6476 kWh	7449 kWh



Model: PUHZ-SHW112VAA(-BS) + EHST20C-M*C

General Data		
Power supply 1x230V 50Hz		

Heating

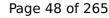
EN 14511-2			
	Low temperature	Medium temperature	
Heat output	11.20 kW	11.20 kW	
El input	2.51 kW	4.13 kW	
СОР	4.46	2.71	
Indoor water flow rate	1.93 m³/h	1.20 m³/h	

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



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

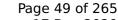
EN 14825		
	Low temperature	Medium temperature
η_{s}	171 %	135 %
Prated	13.90 kW	12.70 kW
SCOP	4.34	3.46
Tbiv	-7 °C	-7 °C
TOL	-28 °C	-28 °C
Pdh Tj = -7°C	12.30 kW	11.20 kW
COP Tj = -7°C	3.15	2.12
Cdh	0.97	0.98
Pdh Tj = +2°C	7.50 kW	6.80 kW
COP Tj = +2°C	4.12	3.34
Cdh	0.97	0.98
Pdh Tj = +7°C	5.00 kW	4.70 kW
COP Tj = +7°C	5.56	4.79
Cdh	0.97	0.98





Pdh Tj = 12°C	5.60 kW	5.30 kW
COP Tj = 12°C	7.45	6.12
Cdh	0.97	0.98
Pdh Tj = Tbiv	12.30 kW	11.20 kW
COP Tj = Tbiv	3.18	2.12
Pdh Tj = TOL	9.00 kW	9.00 kW
COP Tj = TOL	1.40	1.50
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	2.10 kW	1.80 kW
Annual energy consumption Qhe	6476 kWh	7449 kWh

Domestic Hot Water (DHW)





EN 16147	
Declared load profile	L
Efficiency ηDHW	103 %
СОР	2.45
Heating up time	01:57 h:min
Standby power input	42.0 W
Reference hot water temperature	52.5 °C
Mixed water at 40°C	278



Model: PUHZ-SHW112VAA(-BS) + EHST20C-VM*C

General Data		
Power supply	1x230V 50Hz	

Heating

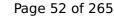
EN 14511-2			
Low temperature Medium temperature			
Heat output	11.20 kW	11.20 kW	
El input	2.51 kW	4.13 kW	
СОР	4.46	2.71	
Indoor water flow rate	1.93 m³/h	1.20 m³/h	

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



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

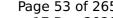
EN 14825		
	Low temperature	Medium temperature
η_{s}	171 %	135 %
Prated	13.90 kW	12.70 kW
SCOP	4.34	3.46
Tbiv	-7 °C	-7 °C
TOL	-28 °C	-28 °C
Pdh Tj = -7°C	12.30 kW	11.20 kW
COP Tj = -7°C	3.15	2.12
Cdh	0.97	0.98
Pdh Tj = +2°C	7.50 kW	6.80 kW
COP Tj = +2°C	4.12	3.34
Cdh	0.97	0.98
Pdh Tj = +7°C	5.00 kW	4.70 kW
COP Tj = +7°C	5.56	4.79
Cdh	0.97	0.98





Pdh Tj = 12°C	5.60 kW	5.30 kW
COP Tj = 12°C	7.45	6.12
Cdh	0.97	0.98
Pdh Tj = Tbiv	12.30 kW	11.20 kW
COP Tj = Tbiv	3.18	2.12
Pdh Tj = TOL	9.00 kW	9.00 kW
COP Tj = TOL	1.40	1.50
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	2.10 kW	1.80 kW
Annual energy consumption Qhe	6476 kWh	7449 kWh

Domestic Hot Water (DHW)





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EN 16147	
Declared load profile	L
Efficiency ηDHW	103 %
СОР	2.45
Heating up time	01:57 h:min
Standby power input	42.0 W
Reference hot water temperature	52.5 °C
Mixed water at 40°C	278



Model: PUHZ-SHW112VAA(-BS) + EHST20C-YM*C

General Data	
Power supply 3x400V 50Hz	

Heating

EN 14511-2			
Low temperature Medium temperature			
Heat output	11.20 kW	11.20 kW	
El input	2.51 kW	4.13 kW	
СОР	4.46	2.71	
Indoor water flow rate	1.93 m³/h	1.20 m³/h	

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



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

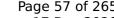
EN 14825		
	Low temperature	Medium temperature
η_{s}	171 %	135 %
Prated	13.90 kW	12.70 kW
SCOP	4.34	3.46
Tbiv	-7 °C	-7 °C
TOL	-28 °C	-28 °C
Pdh Tj = -7°C	12.30 kW	11.20 kW
COP Tj = -7°C	3.15	2.12
Cdh	0.97	0.98
Pdh Tj = +2°C	7.50 kW	6.80 kW
COP Tj = +2°C	4.12	3.34
Cdh	0.97	0.98
Pdh Tj = +7°C	5.00 kW	4.70 kW
COP Tj = +7°C	5.56	4.79
Cdh	0.97	0.98





Pdh Tj = 12°C	5.60 kW	5.30 kW
COP Tj = 12°C	7.45	6.12
Cdh	0.97	0.98
Pdh Tj = Tbiv	12.30 kW	11.20 kW
COP Tj = Tbiv	3.18	2.12
Pdh Tj = TOL	9.00 kW	9.00 kW
COP Tj = TOL	1.40	1.50
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	2.10 kW	1.80 kW
Annual energy consumption Qhe	6476 kWh	7449 kWh

Domestic Hot Water (DHW)





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EN 16147		
Declared load profile	L	
Efficiency ηDHW	103 %	
СОР	2.45	
Heating up time	01:57 h:min	
Standby power input	42.0 W	
Reference hot water temperature	52.5 °C	
Mixed water at 40°C	278	



Model: PUHZ-SHW112VAA(-BS) + ERSC-M*C

General Data		
Power supply	1x230V 50Hz	

Heating

EN 14511-2		
	Low temperature	Medium temperature
Heat output	11.20 kW	11.20 kW
El input	2.51 kW	4.13 kW
СОР	4.46	2.71
Indoor water flow rate	1.93 m³/h	1.20 m³/h

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



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

EN 14825		
	Low temperature	Medium temperature
η_{s}	173 %	137 %
Prated	13.90 kW	12.70 kW
SCOP	4.39	3.50
Tbiv	-7 °C	-7 °C
TOL	-28 °C	-28 °C
Pdh Tj = -7°C	12.30 kW	11.20 kW
COP Tj = -7°C	3.15	2.12
Cdh	0.97	0.98
Pdh Tj = +2°C	7.50 kW	6.80 kW
COP Tj = +2°C	4.12	3.34
Cdh	0.97	0.98
Pdh Tj = +7°C	5.00 kW	4.70 kW
COP Tj = +7°C	5.56	4.79
Cdh	0.97	0.98



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5.60 kW	5.30 kW
7.45	6.12
0.97	0.98
12.30 kW	11.20 kW
3.18	2.12
9.00 kW	9.00 kW
1.40	1.50
60 °C	60 °C
15 W	15 W
15 W	15 W
15 W	15 W
0 W	0 W
electricity	electricity
2.10 kW	1.80 kW
6476 kWh	7449 kWh
	7.45 0.97 12.30 kW 3.18 9.00 kW 1.40 60 °C 15 W 15 W 0 W electricity 2.10 kW



Model: PUHZ-SHW112VAA(-BS) + ERSC-VM*C

General Data		
Power supply	1x230V 50Hz	

Heating

EN 14511-2		
	Low temperature	Medium temperature
Heat output	11.20 kW	11.20 kW
El input	2.51 kW	4.13 kW
СОР	4.46	2.71
Indoor water flow rate	1.93 m³/h	1.20 m³/h

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



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

EN 14825		
	Low temperature	Medium temperature
η_{s}	173 %	137 %
Prated	13.90 kW	12.70 kW
SCOP	4.39	3.50
Tbiv	-7 °C	-7 °C
TOL	-28 °C	-28 °C
Pdh Tj = -7°C	12.30 kW	11.20 kW
COP Tj = -7°C	3.15	2.12
Cdh	0.97	0.98
Pdh Tj = +2°C	7.50 kW	6.80 kW
COP Tj = +2°C	4.12	3.34
Cdh	0.97	0.98
Pdh Tj = +7°C	5.00 kW	4.70 kW
COP Tj = +7°C	5.56	4.79
Cdh	0.97	0.98



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Pdh Tj = 12°C	5.60 kW	5.30 kW
COP Tj = 12°C	7.45	6.12
Cdh	0.97	0.98
Pdh Tj = Tbiv	12.30 kW	11.20 kW
COP Tj = Tbiv	3.18	2.12
Pdh Tj = TOL	9.00 kW	9.00 kW
COP Tj = TOL	1.40	1.50
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	2.10 kW	1.80 kW
Annual energy consumption Qhe	6476 kWh	7449 kWh



Model: PUHZ-SHW112VAA(-BS) + ERST20C-M*C

General Data	
Power supply 1x230V 50Hz	

Heating

EN 14511-2		
	Low temperature	Medium temperature
Heat output	11.20 kW	11.20 kW
El input	2.51 kW	4.13 kW
СОР	4.46	2.71
Indoor water flow rate	1.93 m³/h	1.20 m³/h

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



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

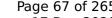
EN 14825		
	Low temperature	Medium temperature
η_{s}	173 %	137 %
Prated	13.90 kW	12.70 kW
SCOP	4.39	3.50
Tbiv	-7 °C	-7 °C
TOL	-28 °C	-28 °C
Pdh Tj = -7°C	12.30 kW	11.20 kW
COP Tj = -7°C	3.15	2.12
Cdh	0.97	0.98
Pdh Tj = +2°C	7.50 kW	6.80 kW
COP Tj = +2°C	4.12	3.34
Cdh	0.97	0.98
Pdh Tj = +7°C	5.00 kW	4.70 kW
COP Tj = +7°C	5.56	4.79
Cdh	0.97	0.98





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Pdh Tj = 12°C	5.60 kW	5.30 kW
COP Tj = 12°C	7.45	6.12
Cdh	0.97	0.98
Pdh Tj = Tbiv	12.30 kW	11.20 kW
COP Tj = Tbiv	3.18	2.12
Pdh Tj = TOL	9.00 kW	9.00 kW
COP Tj = TOL	1.40	1.50
WTOL	60 °C	60 °C
Poff	15 W	15 W
РТО	15 W	15 W
PSB	15 W	15 W
PCK	0 W	0 W
Supplementary Heater: Type of energy input	electricity	electricity
Supplementary Heater: PSUP	2.10 kW	1.80 kW
Annual energy consumption Qhe	6476 kWh	7449 kWh

Domestic Hot Water (DHW)





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EN 16147	
Declared load profile	L
Efficiency ηDHW	103 %
СОР	2.45
Heating up time	01:57 h:min
Standby power input	42.0 W
Reference hot water temperature	52.5 °C
Mixed water at 40°C	278



Model: PUHZ-SHW112VAA(-BS) + ERST20C-VM*C

General Data	
Power supply	1x230V 50Hz

Heating

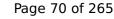
EN 14511-2		
	Low temperature	Medium temperature
Heat output	11.20 kW	11.20 kW
El input	2.51 kW	4.13 kW
СОР	4.46	2.71
Indoor water flow rate	1.93 m³/h	1.20 m³/h

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



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

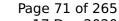
EN 14825		
	Low temperature	Medium temperature
η_{s}	173 %	137 %
Prated	13.90 kW	12.70 kW
SCOP	4.39	3.50
Tbiv	-7 °C	-7 °C
TOL	-28 °C	-28 °C
Pdh Tj = -7°C	12.30 kW	11.20 kW
COP Tj = -7°C	3.15	2.12
Cdh	0.97	0.98
Pdh Tj = +2°C	7.50 kW	6.80 kW
COP Tj = +2°C	4.12	3.34
Cdh	0.97	0.98
Pdh Tj = +7°C	5.00 kW	4.70 kW
COP Tj = +7°C	5.56	4.79
Cdh	0.97	0.98





Pdh Tj = 12°C	5.60 kW	5.30 kW
COP Tj = 12°C	7.45	6.12
Cdh	0.97	0.98
Pdh Tj = Tbiv	12.30 kW	11.20 kW
COP Tj = Tbiv	3.18	2.12
Pdh Tj = TOL	9.00 kW	9.00 kW
COP Tj = TOL	1.40	1.50
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	2.10 kW	1.80 kW
Annual energy consumption Qhe	6476 kWh	7449 kWh

Domestic Hot Water (DHW)





EN 16147		
Declared load profile	L	
Efficiency ηDHW	103 %	
СОР	2.45	
Heating up time	01:57 h:min	
Standby power input	42.0 W	
Reference hot water temperature	52.5 °C	
Mixed water at 40°C	278	



Model: PUHZ-SHW80YAA(-BS) + EHSC-M*C

General Data	
Power supply	3x400V 50Hz

Heating

EN 14511-2		
	Low temperature	Medium temperature
Heat output	8.00 kW	8.00 kW
El input	1.72 kW	2.96 kW
СОР	4.65	2.70
Indoor water flow rate	1.38 m³/h	0.86 m³/h

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



EN 12102-1		
	Low temperature	Medium temperature
Sound power level indoor	40 dB(A)	40 dB(A)
Sound power level outdoor	59 dB(A)	59 dB(A)

EN 14825		
	Low temperature	Medium temperature
η_{s}	169 %	132 %
Prated	9.60 kW	9.00 kW
SCOP	4.26	3.36
Tbiv	-7 °C	-7 °C
TOL	-28 °C	-28 °C
Pdh Tj = -7°C	8.50 kW	8.00 kW
COP Tj = -7°C	3.15	2.13
Cdh	0.97	0.98
Pdh Tj = +2°C	5.20 kW	4.90 kW
COP Tj = +2°C	4.10	3.31
Cdh	0.97	0.98
Pdh Tj = +7°C	5.00 kW	5.40 kW
COP Tj = +7°C	5.62	4.66
Cdh	0.97	0.98



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Pdh Tj = 12°C	5.60 kW	5.30 kW
COP Tj = 12°C	7.53	5.92
Cdh	0.97	0.98
Pdh Tj = Tbiv	8.50 kW	8.00 kW
COP Tj = Tbiv	3.15	2.13
Pdh Tj = TOL	7.50 kW	7.50 kW
COP Tj = TOL	1.44	1.55
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	1.20 kW	1.10 kW
Annual energy consumption Qhe	4500 kWh	5377 kWh



Model: PUHZ-SHW80YAA(-BS) + EHSC-VM*C

General Data	
Power supply	3x400V 50Hz

Heating

EN 14511-2		
	Low temperature	Medium temperature
Heat output	8.00 kW	8.00 kW
El input	1.72 kW	2.96 kW
СОР	4.65	2.70
Indoor water flow rate	1.38 m³/h	0.86 m³/h

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



EN 12102-1		
	Low temperature	Medium temperature
Sound power level indoor	40 dB(A)	40 dB(A)
Sound power level outdoor	59 dB(A)	59 dB(A)

EN 14825		
	Low temperature	Medium temperature
η_{s}	169 %	132 %
Prated	9.60 kW	9.00 kW
SCOP	4.26	3.36
Tbiv	-7 °C	-7 °C
TOL	-28 °C	-28 °C
Pdh Tj = -7°C	8.50 kW	8.00 kW
COP Tj = -7°C	3.15	2.13
Cdh	0.97	0.98
Pdh Tj = +2°C	5.20 kW	4.90 kW
COP Tj = +2°C	4.10	3.31
Cdh	0.97	0.98
Pdh Tj = +7°C	5.00 kW	5.40 kW
COP Tj = +7°C	5.62	4.66
Cdh	0.97	0.98



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	· · · · · · · · · · · · · · · · · · ·	
Pdh Tj = 12°C	5.60 kW	5.30 kW
COP Tj = 12°C	7.53	5.92
Cdh	0.97	0.98
Pdh Tj = Tbiv	8.50 kW	8.00 kW
COP Tj = Tbiv	3.15	2.13
Pdh Tj = TOL	7.50 kW	7.50 kW
COP Tj = TOL	1.44	1.55
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	1.20 kW	1.10 kW
Annual energy consumption Qhe	4500 kWh	5377 kWh



Model: PUHZ-SHW80YAA(-BS) + EHSC-YM*C

General Data	
Power supply	3x400V 50Hz

Heating

EN 14511-2		
	Low temperature	Medium temperature
Heat output	8.00 kW	8.00 kW
El input	1.72 kW	2.96 kW
СОР	4.65	2.70
Indoor water flow rate	1.38 m³/h	0.86 m³/h

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



EN 12102-1		
	Low temperature	Medium temperature
Sound power level indoor	40 dB(A)	40 dB(A)
Sound power level outdoor	59 dB(A)	59 dB(A)

EN 14825		
	Low temperature	Medium temperature
η_{s}	169 %	132 %
Prated	9.60 kW	9.00 kW
SCOP	4.26	3.36
Tbiv	-7 °C	-7 °C
TOL	-28 °C	-28 °C
Pdh Tj = -7°C	8.50 kW	8.00 kW
COP Tj = -7°C	3.15	2.13
Cdh	0.97	0.98
Pdh Tj = +2°C	5.20 kW	4.90 kW
COP Tj = +2°C	4.10	3.31
Cdh	0.97	0.98
Pdh Tj = +7°C	5.00 kW	5.40 kW
COP Tj = +7°C	5.62	4.66
Cdh	0.97	0.98



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5.60 kW	5.30 kW
7.53	5.92
0.97	0.98
8.50 kW	8.00 kW
3.15	2.13
7.50 kW	7.50 kW
1.44	1.55
60 °C	60 °C
22 W	22 W
22 W	22 W
22 W	22 W
0 W	0 W
electricity	electricity
1.20 kW	1.10 kW
4500 kWh	5377 kWh
	7.53 0.97 8.50 kW 3.15 7.50 kW 1.44 60 °C 22 W 22 W 0 W electricity 1.20 kW



Model: PUHZ-SHW80YAA(-BS) + EHST20C-M*C

General Data	
Power supply 3x400V 50Hz	

Heating

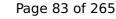
EN 14511-2		
	Low temperature	Medium temperature
Heat output	8.00 kW	8.00 kW
El input	1.72 kW	2.96 kW
СОР	4.65	2.70
Indoor water flow rate	1.38 m³/h	0.86 m³/h

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



EN 12102-1		
	Low temperature	Medium temperature
Sound power level indoor	40 dB(A)	40 dB(A)
Sound power level outdoor	59 dB(A)	59 dB(A)

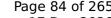
EN 14825		
	Low temperature	Medium temperature
η_{s}	169 %	132 %
Prated	9.60 kW	9.00 kW
SCOP	4.26	3.36
Tbiv	-7 °C	-7 °C
TOL	-28 °C	-28 °C
Pdh Tj = -7°C	8.50 kW	8.00 kW
COP Tj = -7°C	3.15	2.13
Cdh	0.97	0.98
Pdh Tj = +2°C	5.20 kW	4.90 kW
COP Tj = +2°C	4.10	3.31
Cdh	0.97	0.98
Pdh Tj = +7°C	5.00 kW	5.40 kW
COP Tj = +7°C	5.62	4.66
Cdh	0.97	0.98





Pdh Tj = 12°C	5.60 kW	5.30 kW
COP Tj = 12°C	7.53	5.92
Cdh	0.97	0.98
Pdh Tj = Tbiv	8.50 kW	8.00 kW
COP Tj = Tbiv	3.15	2.13
Pdh Tj = TOL	7.50 kW	7.50 kW
COP Tj = TOL	1.44	1.55
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	1.20 kW	1.10 kW
Annual energy consumption Qhe	4500 kWh	5377 kWh

Domestic Hot Water (DHW)





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EN 16147	
Declared load profile	L
Efficiency ηDHW	103 %
СОР	2.45
Heating up time	01:57 h:min
Standby power input	46.0 W
Reference hot water temperature	52.5 °C
Mixed water at 40°C	278



Model: PUHZ-SHW80YAA(-BS) + EHST20C-VM*C

General Data	
Power supply 3x400V 50Hz	

Heating

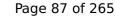
EN 14511-2		
	Low temperature	Medium temperature
Heat output	8.00 kW	8.00 kW
El input	1.72 kW	2.96 kW
СОР	4.65	2.70
Indoor water flow rate	1.38 m³/h	0.86 m³/h

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



EN 12102-1		
	Low temperature	Medium temperature
Sound power level indoor	40 dB(A)	40 dB(A)
Sound power level outdoor	59 dB(A)	59 dB(A)

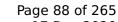
EN 14825		
	Low temperature	Medium temperature
η_{s}	169 %	132 %
Prated	9.60 kW	9.00 kW
SCOP	4.26	3.36
Tbiv	-7 °C	-7 °C
TOL	-28 °C	-28 °C
Pdh Tj = -7°C	8.50 kW	8.00 kW
COP Tj = -7°C	3.15	2.13
Cdh	0.97	0.98
Pdh Tj = +2°C	5.20 kW	4.90 kW
COP Tj = +2°C	4.10	3.31
Cdh	0.97	0.98
Pdh Tj = +7°C	5.00 kW	5.40 kW
COP Tj = +7°C	5.62	4.66
Cdh	0.97	0.98





Pdh Tj = 12°C	5.60 kW	5.30 kW
COP Tj = 12°C	7.53	5.92
Cdh	0.97	0.98
Pdh Tj = Tbiv	8.50 kW	8.00 kW
COP Tj = Tbiv	3.15	2.13
Pdh Tj = TOL	7.50 kW	7.50 kW
COP Tj = TOL	1.44	1.55
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	1.20 kW	1.10 kW
Annual energy consumption Qhe	4500 kWh	5377 kWh

Domestic Hot Water (DHW)





EN 16147	
Declared load profile	L
Efficiency ηDHW	103 %
СОР	2.45
Heating up time	01:57 h:min
Standby power input	46.0 W
Reference hot water temperature	52.5 °C
Mixed water at 40°C	278

Model: PUHZ-SHW80YAA(-BS) + EHST20C-YM*C

General Data	
Power supply 3x400V 50Hz	

Heating

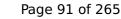
EN 14511-2			
	Low temperature	Medium temperature	
Heat output	8.00 kW	8.00 kW	
El input	1.72 kW	2.96 kW	
СОР	4.65	2.70	
Indoor water flow rate	1.38 m³/h	0.86 m³/h	

EN 14511-4		
Shutting off the heat transfer medium flow	passed	
	pussed	
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	59 dB(A)	59 dB(A)

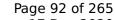
EN 14825		
	Low temperature	Medium temperature
η_{s}	169 %	132 %
Prated	9.60 kW	9.00 kW
SCOP	4.26	3.36
Tbiv	-7 °C	-7 °C
TOL	-28 °C	-28 °C
Pdh Tj = -7°C	8.50 kW	8.00 kW
COP Tj = -7°C	3.15	2.13
Cdh	0.97	0.98
Pdh Tj = +2°C	5.20 kW	4.90 kW
COP Tj = +2°C	4.10	3.31
Cdh	0.97	0.98
Pdh Tj = +7°C	5.00 kW	5.40 kW
COP Tj = +7°C	5.62	4.66
Cdh	0.97	0.98





Pdh Tj = 12°C	5.60 kW	5.30 kW
COP Tj = 12°C	7.53	5.92
Cdh	0.97	0.98
Pdh Tj = Tbiv	8.50 kW	8.00 kW
COP Tj = Tbiv	3.15	2.13
Pdh Tj = TOL	7.50 kW	7.50 kW
COP Tj = TOL	1.44	1.55
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	1.20 kW	1.10 kW
Annual energy consumption Qhe	4500 kWh	5377 kWh

Domestic Hot Water (DHW)





EN 16147	
Declared load profile	L
Efficiency ηDHW	103 %
СОР	2.45
Heating up time	01:57 h:min
Standby power input	46.0 W
Reference hot water temperature	52.5 °C
Mixed water at 40°C	278



Model: PUHZ-SHW80YAA(-BS) + ERSC-M*C

General Data	
Power supply 3x400V 50Hz	

Heating

EN 14511-2		
	Low temperature Medium temperature	
Heat output	8.00 kW	8.00 kW
El input	1.72 kW	2.96 kW
СОР	4.65	2.70
Indoor water flow rate	1.38 m³/h	0.86 m³/h

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



EN 12102-1		
	Low temperature	Medium temperature
Sound power level indoor	40 dB(A)	40 dB(A)
Sound power level outdoor	59 dB(A)	59 dB(A)

EN 14825		
	Low temperature	Medium temperature
η_{s}	172 %	134 %
Prated	9.60 kW	9.00 kW
SCOP	4.37	3.44
Tbiv	-7 °C	-7 °C
TOL	-28 °C	-28 °C
Pdh Tj = -7°C	8.50 kW	8.00 kW
COP Tj = -7°C	3.15	2.13
Cdh	0.96	0.97
Pdh Tj = +2°C	5.20 kW	4.90 kW
COP Tj = +2°C	4.10	3.31
Cdh	0.96	0.97
Pdh Tj = +7°C	5.00 kW	5.40 kW
COP Tj = +7°C	5.62	4.66
Cdh	0.96	0.97



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

Pdh Tj = 12°C	5.60 kW	5.30 kW
COP Tj = 12°C	7.53	5.92
Cdh	0.96	0.97
Pdh Tj = Tbiv	8.50 kW	8.00 kW
COP Tj = Tbiv	3.15	2.13
Pdh Tj = TOL	7.50 kW	7.50 kW
COP Tj = TOL	1.44	1.55
WTOL	60 °C	60 °C
Poff	22 W	22 W
РТО	22 W	22 W
PSB	22 W	22 W
PCK	0 W	o w
Supplementary Heater: Type of energy input	electricity	electricity
Supplementary Heater: PSUP	1.20 kW	1.10 kW
Annual energy consumption Qhe	4500 kWh	5377 kWh



Model: PUHZ-SHW80YAA(-BS) + ERSC-VM*C

General Data	
Power supply 3x400V 50Hz	

Heating

EN 14511-2		
	Low temperature	Medium temperature
Heat output	8.00 kW	8.00 kW
El input	1.72 kW	2.96 kW
СОР	4.65	2.70
Indoor water flow rate	1.38 m³/h	0.86 m³/h

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



EN 12102-1		
	Low temperature	Medium temperature
Sound power level indoor	40 dB(A)	40 dB(A)
Sound power level outdoor	59 dB(A)	59 dB(A)

EN 14825		
	Low temperature	Medium temperature
η_{s}	172 %	134 %
Prated	9.60 kW	9.00 kW
SCOP	4.37	3.44
Tbiv	-7 °C	-7 °C
TOL	-28 °C	-28 °C
Pdh Tj = -7°C	8.50 kW	8.00 kW
COP Tj = -7°C	3.15	2.13
Cdh	0.96	0.97
Pdh Tj = +2°C	5.20 kW	4.90 kW
COP Tj = +2°C	4.10	3.31
Cdh	0.96	0.97
Pdh Tj = +7°C	5.00 kW	5.40 kW
COP Tj = +7°C	5.62	4.66
Cdh	0.96	0.97



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

5.60 kW	5.30 kW
7.53	5.92
0.96	0.97
8.50 kW	8.00 kW
3.15	2.13
7.50 kW	7.50 kW
1.44	1.55
60 °C	60 °C
22 W	22 W
22 W	22 W
22 W	22 W
0 W	0 W
electricity	electricity
1.20 kW	1.10 kW
4500 kWh	5377 kWh
	7.53 0.96 8.50 kW 3.15 7.50 kW 1.44 60 °C 22 W 22 W 22 W 0 W electricity 1.20 kW

Model: PUHZ-SHW80YAA(-BS) + ERST20C-M*C

General Data	
Power supply	3x400V 50Hz

Heating

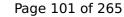
EN 14511-2		
	Low temperature	Medium temperature
Heat output	8.00 kW	8.00 kW
El input	1.72 kW	2.96 kW
СОР	4.65	2.70
Indoor water flow rate	1.38 m³/h	0.86 m³/h

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



EN 12102-1		
	Low temperature	Medium temperature
Sound power level indoor	40 dB(A)	40 dB(A)
Sound power level outdoor	59 dB(A)	59 dB(A)

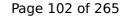
EN 14825		
	Low temperature	Medium temperature
η_{s}	172 %	134 %
Prated	9.60 kW	9.00 kW
SCOP	4.37	3.44
Tbiv	-7 °C	-7 °C
TOL	-28 °C	-28 °C
Pdh Tj = -7°C	8.50 kW	8.00 kW
COP Tj = -7°C	3.15	2.13
Cdh	0.96	0.97
Pdh Tj = +2°C	5.20 kW	4.90 kW
COP Tj = +2°C	4.10	3.31
Cdh	0.96	0.97
Pdh Tj = +7°C	5.00 kW	5.40 kW
COP Tj = +7°C	5.62	4.66
Cdh	0.96	0.97





Pdh Tj = 12°C	5.60 kW	5.30 kW
COP Tj = 12°C	7.53	5.92
Cdh	0.96	0.97
Pdh Tj = Tbiv	8.50 kW	8.00 kW
COP Tj = Tbiv	3.15	2.13
Pdh Tj = TOL	7.50 kW	7.50 kW
COP Tj = TOL	1.44	1.55
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	1.20 kW	1.10 kW
Annual energy consumption Qhe	4500 kWh	5377 kWh

Domestic Hot Water (DHW)





EN 16147	
Declared load profile	L
Efficiency ηDHW	103 %
СОР	2.45
Heating up time	01:57 h:min
Standby power input	46.0 W
Reference hot water temperature	52.5 °C
Mixed water at 40°C	278

Model: PUHZ-SHW80YAA(-BS) + ERST20C-VM*C

General Data	
Power supply	3x400V 50Hz

Heating

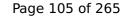
EN 14511-2		
	Low temperature	Medium temperature
Heat output	8.00 kW	8.00 kW
El input	1.72 kW	2.96 kW
СОР	4.65	2.70
Indoor water flow rate	1.38 m³/h	0.86 m³/h

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



EN 12102-1		
	Low temperature	Medium temperature
Sound power level indoor	40 dB(A)	40 dB(A)
Sound power level outdoor	59 dB(A)	59 dB(A)

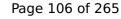
EN 14825		
	Low temperature	Medium temperature
η_{s}	172 %	134 %
Prated	9.60 kW	9.00 kW
SCOP	4.37	3.44
Tbiv	-7 °C	-7 °C
TOL	-28 °C	-28 °C
Pdh Tj = -7°C	8.50 kW	8.00 kW
COP Tj = -7°C	3.15	2.13
Cdh	0.96	0.97
Pdh Tj = +2°C	5.20 kW	4.90 kW
COP Tj = +2°C	4.10	3.31
Cdh	0.96	0.97
Pdh Tj = +7°C	5.00 kW	5.40 kW
COP Tj = +7°C	5.62	4.66
Cdh	0.96	0.97





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Pdh Tj = 12°C	5.60 kW	5.30 kW
COP Tj = 12°C	7.53	5.92
Cdh	0.96	0.97
Pdh Tj = Tbiv	8.50 kW	8.00 kW
COP Tj = Tbiv	3.15	2.13
Pdh Tj = TOL	7.50 kW	7.50 kW
COP Tj = TOL	1.44	1.55
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	1.20 kW	1.10 kW
Annual energy consumption Qhe	4500 kWh	5377 kWh

Domestic Hot Water (DHW)





EN 16147	
Declared load profile	L
Efficiency ηDHW	103 %
СОР	2.45
Heating up time	01:57 h:min
Standby power input	46.0 W
Reference hot water temperature	52.5 °C
Mixed water at 40°C	278



Model: PUHZ-SHW112YAA(-BS) + EHSC-M*C

Gener	al Data
Power supply	3x400V 50Hz

Heating

	EN 14511-2	
	Low temperature	Medium temperature
Heat output	11.20 kW	11.20 kW
El input	2.51 kW	4.13 kW
СОР	4.46	2.71
Indoor water flow rate	1.93 m³/h	1.20 m³/h

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

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

EN 14825		
	Low temperature	Medium temperature
η_{s}	169 %	135 %
Prated	13.90 kW	12.70 kW
SCOP	4.31	3.44
Tbiv	-7 °C	-7 °C
TOL	-28 °C	-28 °C
Pdh Tj = -7°C	12.30 kW	11.20 kW
COP Tj = -7°C	3.15	2.12
Cdh	0.96	0.97
Pdh Tj = +2°C	7.50 kW	6.80 kW
COP Tj = +2°C	4.12	3.34
Cdh	0.96	0.97
Pdh Tj = +7°C	5.00 kW	4.70 kW
COP Tj = +7°C	5.56	4.79
Cdh	0.96	0.97



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

Pdh Tj = 12°C	5.60 kW	5.30 kW
COP Tj = 12°C	7.45	6.12
Cdh	0.96	0.97
Pdh Tj = Tbiv	12.30 kW	11.20 kW
COP Tj = Tbiv	3.18	2.12
Pdh Tj = TOL	9.00 kW	9.00 kW
COP Tj = TOL	1.40	1.50
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	2.10 kW	1.80 kW
Annual energy consumption Qhe	6484 kWh	7457 kWh



Model: PUHZ-SHW112YAA(-BS) + EHSC-VM*C

General Data	
Power supply	3x400V 50Hz

Heating

EN 14511-2		
	Low temperature	Medium temperature
Heat output	11.20 kW	11.20 kW
El input	2.51 kW	4.13 kW
СОР	4.46	2.71
Indoor water flow rate	1.93 m³/h	1.20 m³/h

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



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

EN 14825		
	Low temperature	Medium temperature
η_{s}	169 %	135 %
Prated	13.90 kW	12.70 kW
SCOP	4.31	3.44
Tbiv	-7 °C	-7 °C
TOL	-28 °C	-28 °C
Pdh Tj = -7°C	12.30 kW	11.20 kW
COP Tj = -7°C	3.15	2.12
Cdh	0.96	0.97
Pdh Tj = +2°C	7.50 kW	6.80 kW
COP Tj = +2°C	4.12	3.34
Cdh	0.96	0.97
Pdh Tj = +7°C	5.00 kW	4.70 kW
COP Tj = +7°C	5.56	4.79
Cdh	0.96	0.97



$$\operatorname{\textit{Page}}\ 112$ of 265$$ This information was generated by the HP KEYMARK database on 17 Dec 2020

Pdh Tj = 12°C	5.60 kW	5.30 kW
COP Tj = 12°C	7.45	6.12
Cdh	0.96	0.97
Pdh Tj = Tbiv	12.30 kW	11.20 kW
COP Tj = Tbiv	3.18	2.12
Pdh Tj = TOL	9.00 kW	9.00 kW
COP Tj = TOL	1.40	1.50
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	2.10 kW	1.80 kW
Annual energy consumption Qhe	6484 kWh	7457 kWh



Model: PUHZ-SHW112YAA(-BS) + EHSC-YM*C

General Data	
Power supply	3x400V 50Hz

Heating

EN 14511-2		
	Low temperature	Medium temperature
Heat output	11.20 kW	11.20 kW
El input	2.51 kW	4.13 kW
СОР	4.46	2.71
Indoor water flow rate	1.93 m³/h	1.20 m³/h

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



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

EN 14825		
	Low temperature	Medium temperature
η_{s}	169 %	135 %
Prated	13.90 kW	12.70 kW
SCOP	4.31	3.44
Tbiv	-7 °C	-7 °C
TOL	-28 °C	-28 °C
Pdh Tj = -7°C	12.30 kW	11.20 kW
COP Tj = -7°C	3.15	2.12
Cdh	0.96	0.97
Pdh Tj = +2°C	7.50 kW	6.80 kW
COP Tj = +2°C	4.12	3.34
Cdh	0.96	0.97
Pdh Tj = +7°C	5.00 kW	4.70 kW
COP Tj = +7°C	5.56	4.79
Cdh	0.96	0.97



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5.60 kW	5.30 kW
7.45	6.12
0.96	0.97
12.30 kW	11.20 kW
3.18	2.12
9.00 kW	9.00 kW
1.40	1.50
60 °C	60 °C
22 W	22 W
22 W	22 W
22 W	22 W
0 W	0 W
electricity	electricity
2.10 kW	1.80 kW
6484 kWh	7457 kWh
	7.45 0.96 12.30 kW 3.18 9.00 kW 1.40 60 °C 22 W 22 W 22 W 0 W electricity 2.10 kW



Model: PUHZ-SHW112YAA(-BS) + EHST20C-M*C

General Data		
Power supply	3x400V 50Hz	

Heating

EN 14511-2			
	Low temperature	Medium temperature	
Heat output	11.20 kW	11.20 kW	
El input	2.51 kW	4.13 kW	
СОР	4.46	2.71	
Indoor water flow rate	1.93 m³/h	1.20 m³/h	

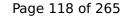
EN 14511-4		
Shutting off the heat transfer medium flow	passed	
Complete power supply failure	passed	
Defrost test	passed	
Starting and operating test	passed	



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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	60 dB(A)	60 dB(A)

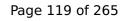
EN 14825		
	Low temperature	Medium temperature
η_{s}	169 %	135 %
Prated	13.90 kW	12.70 kW
SCOP	4.31	3.44
Tbiv	-7 °C	-7 °C
TOL	-28 °C	-28 °C
Pdh Tj = -7°C	12.30 kW	11.20 kW
COP Tj = -7°C	3.15	2.12
Cdh	0.96	0.97
Pdh Tj = +2°C	7.50 kW	6.80 kW
COP Tj = +2°C	4.12	3.34
Cdh	0.96	0.97
Pdh Tj = +7°C	5.00 kW	4.70 kW
COP Tj = +7°C	5.56	4.79
Cdh	0.96	0.97





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Pdh Tj = 12°C	5.60 kW	5.30 kW
COP Tj = 12°C	7.45	6.12
Cdh	0.96	0.97
Pdh Tj = Tbiv	12.30 kW	11.20 kW
COP Tj = Tbiv	3.18	2.12
Pdh Tj = TOL	9.00 kW	9.00 kW
COP Tj = TOL	1.40	1.50
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	2.10 kW	1.80 kW
Annual energy consumption Qhe	6484 kWh	7457 kWh

Domestic Hot Water (DHW)





EN 16147		
Declared load profile	L	
Efficiency ηDHW	103 %	
СОР	2.45	
Heating up time	01:57 h:min	
Standby power input	46.0 W	
Reference hot water temperature	52.5 °C	
Mixed water at 40°C	278	



Model: PUHZ-SHW112YAA(-BS) + EHST20C-VM*C

General Data		
Power supply	3x400V 50Hz	

Heating

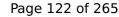
EN 14511-2			
Low temperature Medium temperature			
Heat output	11.20 kW	11.20 kW	
El input	2.51 kW	4.13 kW	
СОР	4.46	2.71	
Indoor water flow rate	1.93 m³/h	1.20 m³/h	

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



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

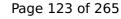
EN 14825		
	Low temperature	Medium temperature
η_{s}	169 %	135 %
Prated	13.90 kW	12.70 kW
SCOP	4.31	3.44
Tbiv	-7 °C	-7 °C
TOL	-28 °C	-28 °C
Pdh Tj = -7°C	12.30 kW	11.20 kW
COP Tj = -7°C	3.15	2.12
Cdh	0.96	0.97
Pdh Tj = +2°C	7.50 kW	6.80 kW
COP Tj = +2°C	4.12	3.34
Cdh	0.96	0.97
Pdh Tj = +7°C	5.00 kW	4.70 kW
COP Tj = +7°C	5.56	4.79
Cdh	0.96	0.97





Pdh Tj = 12°C	5.60 kW	5.30 kW
COP Tj = 12°C	7.45	6.12
Cdh	0.96	0.97
Pdh Tj = Tbiv	12.30 kW	11.20 kW
COP Tj = Tbiv	3.18	2.12
Pdh Tj = TOL	9.00 kW	9.00 kW
COP Tj = TOL	1.40	1.50
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	2.10 kW	1.80 kW
Annual energy consumption Qhe	6484 kWh	7457 kWh

Domestic Hot Water (DHW)





EN 16147	
Declared load profile	L
Efficiency ηDHW	103 %
СОР	2.45
Heating up time	01:57 h:min
Standby power input	46.0 W
Reference hot water temperature	52.5 °C
Mixed water at 40°C	278

Model: PUHZ-SHW112YAA(-BS) + EHST20C-YM*C

General Data	
Power supply 3x400V 50Hz	

Heating

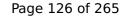
EN 14511-2		
	Low temperature	Medium temperature
Heat output	11.20 kW	11.20 kW
El input	2.51 kW	4.13 kW
СОР	4.46	2.71
Indoor water flow rate	1.93 m³/h	1.20 m³/h

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



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

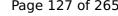
EN 14825		
	Low temperature	Medium temperature
η_{s}	169 %	135 %
Prated	13.90 kW	12.70 kW
SCOP	4.31	3.44
Tbiv	-7 °C	-7 °C
TOL	-28 °C	-28 °C
Pdh Tj = -7°C	12.30 kW	11.20 kW
COP Tj = -7°C	3.15	2.12
Cdh	0.96	0.97
Pdh Tj = +2°C	7.50 kW	6.80 kW
COP Tj = +2°C	4.12	3.34
Cdh	0.96	0.97
Pdh Tj = +7°C	5.00 kW	4.70 kW
COP Tj = +7°C	5.56	4.79
Cdh	0.96	0.97





Pdh Tj = 12°C	5.60 kW	5.30 kW
COP Tj = 12°C	7.45	6.12
Cdh	0.96	0.97
Pdh Tj = Tbiv	12.30 kW	11.20 kW
COP Tj = Tbiv	3.18	2.12
Pdh Tj = TOL	9.00 kW	9.00 kW
COP Tj = TOL	1.40	1.50
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	2.10 kW	1.80 kW
Annual energy consumption Qhe	6484 kWh	7457 kWh

Domestic Hot Water (DHW)





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EN 16147	
Declared load profile	L
Efficiency ηDHW	103 %
СОР	2.45
Heating up time	01:57 h:min
Standby power input	46.0 W
Reference hot water temperature	52.5 °C
Mixed water at 40°C	278



Model: PUHZ-SHW112YAA(-BS) + ERSC-M*C

General Data	
Power supply 3x400V 50Hz	

Heating

EN 14511-2		
	Low temperature	Medium temperature
Heat output	11.20 kW	11.20 kW
El input	2.51 kW	4.13 kW
СОР	4.46	2.71
Indoor water flow rate	1.93 m³/h	1.20 m³/h

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



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

EN 14825		
	Low temperature	Medium temperature
η_{s}	173 %	137 %
Prated	13.90 kW	12.70 kW
SCOP	4.39	3.49
Tbiv	-7 °C	-7 °C
TOL	-28 °C	-28 °C
Pdh Tj = -7°C	12.30 kW	11.20 kW
COP Tj = -7°C	3.15	2.12
Cdh	0.96	0.97
Pdh Tj = +2°C	7.50 kW	6.80 kW
COP Tj = +2°C	4.12	3.34
Cdh	0.96	0.97
Pdh Tj = +7°C	5.00 kW	4.70 kW
COP Tj = +7°C	5.56	4.79
Cdh	0.96	0.97



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Pdh Tj = 12°C	5.60 kW	5.30 kW
COP Tj = 12°C	7.45	6.12
Cdh	0.96	0.97
Pdh Tj = Tbiv	12.30 kW	11.20 kW
COP Tj = Tbiv	3.18	2.12
Pdh Tj = TOL	9.00 kW	9.00 kW
COP Tj = TOL	1.40	1.50
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	2.10 kW	1.80 kW
Annual energy consumption Qhe	6484 kWh	7457 kWh



Model: PUHZ-SHW112YAA(-BS) + ERSC-VM*C

General Data		
Power supply 3x400V 50Hz		

Heating

EN 14511-2		
	Low temperature	Medium temperature
Heat output	11.20 kW	11.20 kW
El input	2.51 kW	4.13 kW
СОР	4.46	2.71
Indoor water flow rate	1.93 m³/h	1.20 m³/h

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



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

EN 14825		
	Low temperature	Medium temperature
η_{s}	173 %	137 %
Prated	13.90 kW	12.70 kW
SCOP	4.39	3.49
Tbiv	-7 °C	-7 °C
TOL	-28 °C	-28 °C
Pdh Tj = -7°C	12.30 kW	11.20 kW
COP Tj = -7°C	3.15	2.12
Cdh	0.96	0.97
Pdh Tj = +2°C	7.50 kW	6.80 kW
COP Tj = +2°C	4.12	3.34
Cdh	0.96	0.97
Pdh Tj = +7°C	5.00 kW	4.70 kW
COP Tj = +7°C	5.56	4.79
Cdh	0.96	0.97



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5.60 kW	5.30 kW
7.45	6.12
0.96	0.97
12.30 kW	11.20 kW
3.18	2.12
9.00 kW	9.00 kW
1.40	1.50
60 °C	60 °C
22 W	22 W
22 W	22 W
22 W	22 W
0 W	0 W
electricity	electricity
2.10 kW	1.80 kW
6484 kWh	7457 kWh
	7.45 0.96 12.30 kW 3.18 9.00 kW 1.40 60 °C 22 W 22 W 22 W 0 W electricity 2.10 kW



Model: PUHZ-SHW112YAA(-BS) + ERST20C-M*C

General Data		
Power supply 3x400V 50Hz		

Heating

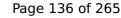
EN 14511-2		
	Low temperature	Medium temperature
Heat output	11.20 kW	11.20 kW
El input	2.51 kW	4.13 kW
СОР	4.46	2.71
Indoor water flow rate	1.93 m³/h	1.20 m³/h

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



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

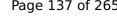
EN 14825		
	Low temperature	Medium temperature
η_{s}	173 %	137 %
Prated	13.90 kW	12.70 kW
SCOP	4.39	3.49
Tbiv	-7 °C	-7 °C
TOL	-28 °C	-28 °C
Pdh Tj = -7°C	12.30 kW	11.20 kW
COP Tj = -7°C	3.15	2.12
Cdh	0.96	0.97
Pdh Tj = +2°C	7.50 kW	6.80 kW
COP Tj = +2°C	4.12	3.34
Cdh	0.96	0.97
Pdh Tj = +7°C	5.00 kW	4.70 kW
COP Tj = +7°C	5.56	4.79
Cdh	0.96	0.97





Pdh Tj = 12°C	5.60 kW	5.30 kW
COP Tj = 12°C	7.45	6.12
Cdh	0.96	0.97
Pdh Tj = Tbiv	12.30 kW	11.20 kW
COP Tj = Tbiv	3.18	2.12
Pdh Tj = TOL	9.00 kW	9.00 kW
COP Tj = TOL	1.40	1.50
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	2.10 kW	1.80 kW
Annual energy consumption Qhe	6484 kWh	7457 kWh

Domestic Hot Water (DHW)





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EN 16147	
Declared load profile	L
Efficiency ηDHW	103 %
СОР	2.45
Heating up time	01:57 h:min
Standby power input	46.0 W
Reference hot water temperature	52.5 °C
Mixed water at 40°C	278

Model: PUHZ-SHW112YAA(-BS) + ERST20C-VM*C

General Data	
Power supply 3x400V 50Hz	

Heating

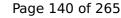
EN 14511-2			
	Low temperature	Medium temperature	
Heat output	11.20 kW	11.20 kW	
El input	2.51 kW	4.13 kW	
СОР	4.46	2.71	
Indoor water flow rate	1.93 m³/h	1.20 m³/h	

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



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

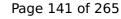
EN 14825		
	Low temperature	Medium temperature
η_{s}	173 %	137 %
Prated	13.90 kW	12.70 kW
SCOP	4.39	3.49
Tbiv	-7 °C	-7 °C
TOL	-28 °C	-28 °C
Pdh Tj = -7°C	12.30 kW	11.20 kW
COP Tj = -7°C	3.15	2.12
Cdh	0.96	0.97
Pdh Tj = +2°C	7.50 kW	6.80 kW
COP Tj = +2°C	4.12	3.34
Cdh	0.96	0.97
Pdh Tj = +7°C	5.00 kW	4.70 kW
COP Tj = +7°C	5.56	4.79
Cdh	0.96	0.97





Pdh Tj = 12°C	5.60 kW	5.30 kW
COP Tj = 12°C	7.45	6.12
Cdh	0.96	0.97
Pdh Tj = Tbiv	12.30 kW	11.20 kW
COP Tj = Tbiv	3.18	2.12
Pdh Tj = TOL	9.00 kW	9.00 kW
COP Tj = TOL	1.40	1.50
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	2.10 kW	1.80 kW
Annual energy consumption Qhe	6484 kWh	7457 kWh

Domestic Hot Water (DHW)





EN 16147	
Declared load profile	L
Efficiency ηDHW	103 %
СОР	2.45
Heating up time	01:57 h:min
Standby power input	46.0 W
Reference hot water temperature	52.5 °C
Mixed water at 40°C	278

Model: PUHZ-SHW80VAA(-BS) + EHST20C-M*D

General Data	
Power supply	1x230V 50Hz

Heating

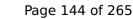
EN 14511-2				
	Low temperature	Medium temperature		
Heat output	8.00 kW	8.00 kW		
El input	1.72 kW	2.96 kW		
СОР	4.65	2.70		
Indoor water flow rate	1.37 m³/h	0.86 m³/h		

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



EN 12102-1			
	Low temperature	Medium temperature	
Sound power level indoor	40 dB(A)	40 dB(A)	
Sound power level outdoor	59 dB(A)	59 dB(A)	

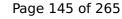
EN 14825			
	Low temperature	Medium temperature	
η_{s}	169 %	133 %	
Prated	9.60 kW	9.00 kW	
SCOP	4.31	3.40	
Tbiv	-7 °C	-7 °C	
TOL	-28 °C	-28 °C	
Pdh Tj = -7°C	8.50 kW	8.00 kW	
COP Tj = -7°C	3.15	2.13	
Cdh	0.99	1.00	
Pdh Tj = +2°C	5.20 kW	4.90 kW	
COP Tj = +2°C	4.10	3.31	
Cdh	0.99	0.99	
Pdh Tj = +7°C	5.00 kW	5.40 kW	
COP Tj = +7°C	5.62	4.66	
Cdh	0.98	0.99	





Pdh Tj = 12°C	5.60 kW	5.30 kW
COP Tj = 12°C	7.53	5.92
Cdh	0.98	0.98
Pdh Tj = Tbiv	8.50 kW	8.00 kW
COP Tj = Tbiv	3.15	2.13
Pdh Tj = TOL	7.50 kW	7.50 kW
COP Tj = TOL	1.44	1.55
WTOL	60 °C	60 °C
Poff	15 W	15 W
РТО	15 W	15 W
PSB	15 W	15 W
PCK	0 W	0 W
Supplementary Heater: Type of energy input	electricity	electricity
Supplementary Heater: PSUP	1.24 kW	1.07 kW
Annual energy consumption Qhe	4487 kWh	5364 kWh

Domestic Hot Water (DHW)





EN 16147		
Declared load profile	L	
Efficiency ηDHW	145 %	
СОР	3.41	
Heating up time	1:58 h:min	
Standby power input	35.0 W	
Reference hot water temperature	52.5 °C	
Mixed water at 40°C	278	

Model: PUHZ-SHW80VAA(-BS) + EHST20C-VM*D

General Data		
Power supply	1x230V 50Hz	

Heating

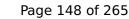
EN 14511-2		
	Low temperature	Medium temperature
Heat output	8.00 kW	8.00 kW
El input	1.72 kW	2.96 kW
СОР	4.65	2.70
Indoor water flow rate	1.37 m³/h	0.86 m³/h

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



EN 12102-1		
	Low temperature	Medium temperature
Sound power level indoor	40 dB(A)	40 dB(A)
Sound power level outdoor	59 dB(A)	59 dB(A)

EN 14825		
	Low temperature	Medium temperature
η_{s}	169 %	133 %
Prated	9.60 kW	9.00 kW
SCOP	4.31	3.40
Tbiv	-7 °C	-7 °C
TOL	-28 °C	-28 °C
Pdh Tj = -7°C	8.50 kW	8.00 kW
COP Tj = -7°C	3.15	2.13
Cdh	0.99	1.00
Pdh Tj = +2°C	5.20 kW	4.90 kW
COP Tj = +2°C	4.10	3.31
Cdh	0.99	0.99
Pdh Tj = +7°C	5.00 kW	5.40 kW
COP Tj = +7°C	5.62	4.66
Cdh	0.98	0.99





	· · · · · · · · · · · · · · · · · · ·	
Pdh Tj = 12°C	5.60 kW	5.30 kW
COP Tj = 12°C	7.53	5.92
Cdh	0.98	0.98
Pdh Tj = Tbiv	8.50 kW	8.00 kW
COP Tj = Tbiv	3.15	2.13
Pdh Tj = TOL	7.50 kW	7.50 kW
COP Tj = TOL	1.44	1.55
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	1.24 kW	1.07 kW
Annual energy consumption Qhe	4487 kWh	5364 kWh

Domestic Hot Water (DHW)





EN 16147		
Declared load profile	L	
Efficiency ηDHW	145 %	
СОР	3.41	
Heating up time	1:58 h:min	
Standby power input	35.0 W	
Reference hot water temperature	52.5 °C	
Mixed water at 40°C	278	



Model: PUHZ-SHW80VAA(-BS) + EHST20C-YM*D

General Data		
Power supply 3x400V 50Hz		

Heating

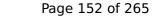
EN 14511-2			
Low temperature Medium temperature		Medium temperature	
Heat output	8.00 kW	8.00 kW	
El input	1.72 kW	2.96 kW	
СОР	4.65	2.70	
Indoor water flow rate	1.37 m³/h	0.86 m³/h	

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



EN 12102-1		
	Low temperature	Medium temperature
Sound power level indoor	40 dB(A)	40 dB(A)
Sound power level outdoor	59 dB(A)	59 dB(A)

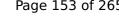
EN 14825		
	Low temperature	Medium temperature
η_{s}	169 %	133 %
Prated	9.60 kW	9.00 kW
SCOP	4.31	3.40
Tbiv	-7 °C	-7 °C
TOL	-28 °C	-28 °C
Pdh Tj = -7°C	8.50 kW	8.00 kW
COP Tj = -7°C	3.15	2.13
Cdh	0.99	1.00
Pdh Tj = +2°C	5.20 kW	4.90 kW
COP Tj = +2°C	4.10	3.31
Cdh	0.99	0.99
Pdh Tj = +7°C	5.00 kW	5.40 kW
COP Tj = +7°C	5.62	4.66
Cdh	0.98	0.99





	· · · · · · · · · · · · · · · · · · ·	
Pdh Tj = 12°C	5.60 kW	5.30 kW
COP Tj = 12°C	7.53	5.92
Cdh	0.98	0.98
Pdh Tj = Tbiv	8.50 kW	8.00 kW
COP Tj = Tbiv	3.15	2.13
Pdh Tj = TOL	7.50 kW	7.50 kW
COP Tj = TOL	1.44	1.55
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	1.24 kW	1.07 kW
Annual energy consumption Qhe	4487 kWh	5364 kWh

Domestic Hot Water (DHW)





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EN 16147		
Declared load profile	L	
Efficiency ηDHW	145 %	
СОР	3.41	
Heating up time	1:58 h:min	
Standby power input	35.0 W	
Reference hot water temperature	52.5 °C	
Mixed water at 40°C	278	



Model: PUHZ-SHW80VAA(-BS) + EHSC-M*D

General Data	
Power supply	1x230V 50Hz

Heating

EN 14511-2		
	Low temperature	Medium temperature
Heat output	8.00 kW	8.00 kW
El input	1.72 kW	2.96 kW
СОР	4.65	2.70
Indoor water flow rate	1.37 m³/h	0.86 m³/h

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



EN 12102-1		
	Low temperature	Medium temperature
Sound power level indoor	40 dB(A)	40 dB(A)
Sound power level outdoor	59 dB(A)	59 dB(A)

EN 14825		
	Low temperature	Medium temperature
η_{s}	169 %	133 %
Prated	9.60 kW	9.00 kW
SCOP	4.31	3.40
Tbiv	-7 °C	-7 °C
TOL	-28 °C	-28 °C
Pdh Tj = -7°C	8.50 kW	8.00 kW
COP Tj = -7°C	3.15	2.13
Cdh	0.99	1.00
Pdh Tj = +2°C	5.20 kW	4.90 kW
COP Tj = +2°C	4.10	3.31
Cdh	0.99	0.99
Pdh Tj = +7°C	5.00 kW	5.40 kW
COP Tj = +7°C	5.62	4.66
Cdh	0.98	0.99



$$\operatorname{\textit{Page}}\ 156$$ of 265 This information was generated by the HP KEYMARK database on 17 Dec 2020

Pdh Tj = 12°C	5.60 kW	5.30 kW
COP Tj = 12°C	7.53	5.92
Cdh	0.98	0.98
Pdh Tj = Tbiv	8.50 kW	8.00 kW
COP Tj = Tbiv	3.15	2.13
Pdh Tj = TOL	7.50 kW	7.50 kW
COP Tj = TOL	1.44	1.55
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	1.24 kW	1.07 kW
Annual energy consumption Qhe	4487 kWh	5364 kWh



Model: PUHZ-SHW80VAA(-BS) + EHSC-VM*D

General Data	
Power supply	1x230V 50Hz

Heating

EN 14511-2			
	Low temperature	Medium temperature	
Heat output	8.00 kW	8.00 kW	
El input	1.72 kW	2.96 kW	
СОР	4.65	2.70	
Indoor water flow rate	1.37 m³/h	0.86 m³/h	

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



EN 12102-1		
	Low temperature	Medium temperature
Sound power level indoor	40 dB(A)	40 dB(A)
Sound power level outdoor	59 dB(A)	59 dB(A)

EN 14825		
	Low temperature	Medium temperature
η_{s}	169 %	133 %
Prated	9.60 kW	9.00 kW
SCOP	4.31	3.40
Tbiv	-7 °C	-7 °C
TOL	-28 °C	-28 °C
Pdh Tj = -7°C	8.50 kW	8.00 kW
COP Tj = -7°C	3.15	2.13
Cdh	0.99	1.00
Pdh Tj = +2°C	5.20 kW	4.90 kW
COP Tj = +2°C	4.10	3.31
Cdh	0.99	0.99
Pdh Tj = +7°C	5.00 kW	5.40 kW
COP Tj = +7°C	5.62	4.66
Cdh	0.98	0.99



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Pdh Tj = 12°C	5.60 kW	5.30 kW
COP Tj = 12°C	7.53	5.92
Cdh	0.98	0.98
Pdh Tj = Tbiv	8.50 kW	8.00 kW
COP Tj = Tbiv	3.15	2.13
Pdh Tj = TOL	7.50 kW	7.50 kW
COP Tj = TOL	1.44	1.55
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	1.24 kW	1.07 kW
Annual energy consumption Qhe	4487 kWh	5364 kWh

Model: PUHZ-SHW80VAA(-BS) + EHSC-YM*D

General Data	
Power supply	3x400V 50Hz

Heating

EN 14511-2		
	Low temperature	Medium temperature
Heat output	8.00 kW	8.00 kW
El input	1.72 kW	2.96 kW
СОР	4.65	2.70
Indoor water flow rate	1.37 m³/h	0.86 m³/h

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



EN 12102-1		
	Low temperature	Medium temperature
Sound power level indoor	40 dB(A)	40 dB(A)
Sound power level outdoor	59 dB(A)	59 dB(A)

EN 14825		
	Low temperature	Medium temperature
η_{s}	169 %	133 %
Prated	9.60 kW	9.00 kW
SCOP	4.31	3.40
Tbiv	-7 °C	-7 °C
TOL	-28 °C	-28 °C
Pdh Tj = -7°C	8.50 kW	8.00 kW
COP Tj = -7°C	3.15	2.13
Cdh	0.99	1.00
Pdh Tj = +2°C	5.20 kW	4.90 kW
COP Tj = +2°C	4.10	3.31
Cdh	0.99	0.99
Pdh Tj = +7°C	5.00 kW	5.40 kW
COP Tj = +7°C	5.62	4.66
Cdh	0.98	0.99



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Pdh Tj = 12°C	5.60 kW	5.30 kW
COP Tj = 12°C	7.53	5.92
Cdh	0.98	0.98
Pdh Tj = Tbiv	8.50 kW	8.00 kW
COP Tj = Tbiv	3.15	2.13
Pdh Tj = TOL	7.50 kW	7.50 kW
COP Tj = TOL	1.44	1.55
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	1.24 kW	1.07 kW
Annual energy consumption Qhe	4487 kWh	5364 kWh

Model: PUHZ-SHW80VAA(-BS) + ERST20C-VM*D

General Data	
Power supply	1x230V 50Hz

Heating

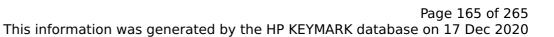
EN 14511-2		
	Low temperature	Medium temperature
Heat output	8.00 kW	8.00 kW
El input	1.72 kW	2.96 kW
СОР	4.65	2.70
Indoor water flow rate	1.37 m³/h	0.86 m³/h

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



EN 12102-1		
	Low temperature	Medium temperature
Sound power level indoor	40 dB(A)	40 dB(A)
Sound power level outdoor	59 dB(A)	59 dB(A)

EN 14825		
	Low temperature	Medium temperature
η_{s}	172 %	135 %
Prated	9.60 kW	9.00 kW
SCOP	4.38	3.45
Tbiv	-7 °C	-7 °C
TOL	-28 °C	-28 °C
Pdh Tj = -7°C	8.50 kW	8.00 kW
COP Tj = -7°C	3.15	2.13
Cdh	0.99	1.00
Pdh Tj = +2°C	5.20 kW	4.90 kW
COP Tj = +2°C	4.10	3.31
Cdh	0.99	0.99
Pdh Tj = +7°C	5.00 kW	5.40 kW
COP Tj = +7°C	5.62	4.66
Cdh	0.98	0.99



1.07 kW

5364 kWh



	enerated by the fir RETI	ATTR database on 17 Dec 202
Pdh Tj = 12°C	5.60 kW	5.30 kW
COP Tj = 12°C	7.53	5.92
Cdh	0.98	0.98
Pdh Tj = Tbiv	8.50 kW	8.00 kW
COP Tj = Tbiv	3.15	2.13
Pdh Tj = TOL	7.50 kW	7.50 kW
COP Tj = TOL	1.44	1.55
WTOL	60 °C	60 °C
Poff	15 W	15 W
РТО	15 W	15 W
PSB	15 W	15 W
PCK	0 W	0 W
Supplementary Heater: Type of energy input	electricity	electricity

1.24 kW

4487 kWh

Domestic Hot Water (DHW)

Average Climate

Supplementary Heater: PSUP

Annual energy consumption Qhe





EN 16147	
Declared load profile	L
Efficiency ηDHW	145 %
СОР	3.41
Heating up time	1:58 h:min
Standby power input	35.0 W
Reference hot water temperature	52.5 °C
Mixed water at 40°C	278



Model: PUHZ-SHW80VAA(-BS) + ERSC-M*D

General Data	
Power supply 1x230V 50Hz	

Heating

EN 14511-2			
	Low temperature	Medium temperature	
Heat output	8.00 kW	8.00 kW	
El input	1.72 kW	2.96 kW	
СОР	4.65	2.70	
Indoor water flow rate	1.37 m³/h	0.86 m³/h	

EN 14511-4	
Shutting off the heat transfer medium flow	passed
Complete power supply failure	passed
	<u> </u>
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	59 dB(A)	59 dB(A)

EN 14825		
	Low temperature	Medium temperature
η_{s}	172 %	135 %
Prated	9.60 kW	9.00 kW
SCOP	4.38	3.45
Tbiv	-7 °C	-7 °C
TOL	-28 °C	-28 °C
Pdh Tj = -7°C	8.50 kW	8.00 kW
COP Tj = -7°C	3.15	2.13
Cdh	0.99	1.00
Pdh Tj = +2°C	5.20 kW	4.90 kW
COP Tj = +2°C	4.10	3.31
Cdh	0.99	0.99
Pdh Tj = +7°C	5.00 kW	5.40 kW
COP Tj = +7°C	5.62	4.66
Cdh	0.98	0.99



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5.60 kW	5.30 kW
7.53	5.92
0.98	0.98
8.50 kW	8.00 kW
3.15	2.13
7.50 kW	7.50 kW
1.44	1.55
60 °C	60 °C
15 W	15 W
15 W	15 W
15 W	15 W
0 W	0 W
electricity	electricity
1.24 kW	1.07 kW
4487 kWh	5364 kWh
	7.53 0.98 8.50 kW 3.15 7.50 kW 1.44 60 °C 15 W 15 W 0 W electricity 1.24 kW



Model: PUHZ-SHW80VAA(-BS) + ERSC-VM*D

General Data	
Power supply 1x230V 50Hz	

Heating

EN 14511-2			
	Low temperature	Medium temperature	
Heat output	8.00 kW	8.00 kW	
El input	1.72 kW	2.96 kW	
СОР	4.65	2.70	
Indoor water flow rate	1.37 m³/h	0.86 m³/h	

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



EN 12102-1		
	Low temperature	Medium temperature
Sound power level indoor	40 dB(A)	40 dB(A)
Sound power level outdoor	59 dB(A)	59 dB(A)

EN 14825		
	Low temperature	Medium temperature
η_{s}	172 %	135 %
Prated	9.60 kW	9.00 kW
SCOP	4.38	3.45
Tbiv	-7 °C	-7 °C
TOL	-28 °C	-28 °C
Pdh Tj = -7°C	8.50 kW	8.00 kW
COP Tj = -7°C	3.15	2.13
Cdh	0.99	1.00
Pdh Tj = +2°C	5.20 kW	4.90 kW
COP Tj = +2°C	4.10	3.31
Cdh	0.99	0.99
Pdh Tj = +7°C	5.00 kW	5.40 kW
COP Tj = +7°C	5.62	4.66
Cdh	0.98	0.99



$$\operatorname{\textit{Page}}\xspace$ 172 of 265 This information was generated by the HP KEYMARK database on 17 Dec 2020

Pdh Tj = 12°C	5.60 kW	5.30 kW
COP Tj = 12°C	7.53	5.92
Cdh	0.98	0.98
Pdh Tj = Tbiv	8.50 kW	8.00 kW
COP Tj = Tbiv	3.15	2.13
Pdh Tj = TOL	7.50 kW	7.50 kW
COP Tj = TOL	1.44	1.55
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	1.24 kW	1.07 kW
Annual energy consumption Qhe	4487 kWh	5364 kWh



Model: PUHZ-SHW80YAA(-BS) + EHST20C-M*D

General Data	
Power supply	3x400V 50Hz

Heating

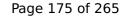
EN 14511-2		
	Low temperature	Medium temperature
Heat output	8.00 kW	8.00 kW
El input	1.72 kW	2.96 kW
СОР	4.65	2.70
Indoor water flow rate	1.37 m³/h	0.86 m³/h

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



EN 12102-1		
	Low temperature	Medium temperature
Sound power level indoor	40 dB(A)	40 dB(A)
Sound power level outdoor	59 dB(A)	59 dB(A)

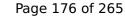
EN 14825		
	Low temperature	Medium temperature
η_{s}	167 %	132 %
Prated	9.60 kW	9.00 kW
SCOP	4.26	3.36
Tbiv	-7 °C	-7 °C
TOL	-28 °C	-28 °C
Pdh Tj = -7°C	8.50 kW	8.00 kW
COP Tj = -7°C	3.15	2.13
Cdh	0.99	0.99
Pdh Tj = +2°C	5.20 kW	4.90 kW
COP Tj = +2°C	4.10	3.31
Cdh	0.98	0.98
Pdh Tj = +7°C	5.00 kW	5.40 kW
COP Tj = +7°C	5.62	4.66
Cdh	0.97	0.98





Pdh Tj = 12°C	5.60 kW	5.30 kW
COP Tj = 12°C	7.53	5.92
Cdh	0.97	0.98
Pdh Tj = Tbiv	8.50 kW	8.00 kW
COP Tj = Tbiv	3.15	2.13
Pdh Tj = TOL	7.50 kW	7.50 kW
COP Tj = TOL	1.44	1.55
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	1.24 kW	1.07 kW
Annual energy consumption Qhe	4500 kWh	5377 kWh

Domestic Hot Water (DHW)





EN 16147	
Declared load profile	L
Efficiency ηDHW	145 %
СОР	3.41
Heating up time	1:58 h:min
Standby power input	35.0 W
Reference hot water temperature	52.5 °C
Mixed water at 40°C	278



Model: PUHZ-SHW80YAA(-BS) + EHST20C-VM*D

General Data	
Power supply	3x400V 50Hz

Heating

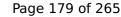
EN 14511-2				
	Low temperature	Medium temperature		
Heat output	8.00 kW	8.00 kW		
El input	1.72 kW	2.96 kW		
СОР	4.65	2.70		
Indoor water flow rate	1.37 m³/h	0.86 m³/h		

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



EN 12102-1			
	Low temperature	Medium temperature	
Sound power level indoor	40 dB(A)	40 dB(A)	
Sound power level outdoor	59 dB(A)	59 dB(A)	

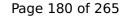
EN 14825		
	Low temperature	Medium temperature
η_{s}	167 %	132 %
Prated	9.60 kW	9.00 kW
SCOP	4.26	3.36
Tbiv	-7 °C	-7 °C
TOL	-28 °C	-28 °C
Pdh Tj = -7°C	8.50 kW	8.00 kW
COP Tj = -7°C	3.15	2.13
Cdh	0.99	0.99
Pdh Tj = +2°C	5.20 kW	4.90 kW
COP Tj = +2°C	4.10	3.31
Cdh	0.98	0.98
Pdh Tj = +7°C	5.00 kW	5.40 kW
COP Tj = +7°C	5.62	4.66
Cdh	0.97	0.98





	· · · · · · · · · · · · · · · · · · ·	
Pdh Tj = 12°C	5.60 kW	5.30 kW
COP Tj = 12°C	7.53	5.92
Cdh	0.97	0.98
Pdh Tj = Tbiv	8.50 kW	8.00 kW
COP Tj = Tbiv	3.15	2.13
Pdh Tj = TOL	7.50 kW	7.50 kW
COP Tj = TOL	1.44	1.55
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	1.24 kW	1.07 kW
Annual energy consumption Qhe	4500 kWh	5377 kWh

Domestic Hot Water (DHW)





EN 16147		
Declared load profile	L	
Efficiency ηDHW	145 %	
СОР	3.41	
Heating up time	1:58 h:min	
Standby power input	35.0 W	
Reference hot water temperature	52.5 °C	
Mixed water at 40°C	278	



Model: PUHZ-SHW80YAA(-BS) + EHST20C-YM*D

General Data	
Power supply	3x400V 50Hz

Heating

EN 14511-2		
	Low temperature	Medium temperature
Heat output	8.00 kW	8.00 kW
El input	1.72 kW	2.96 kW
СОР	4.65	2.70
Indoor water flow rate	1.37 m³/h	0.86 m³/h

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



EN 12102-1		
	Low temperature	Medium temperature
Sound power level indoor	40 dB(A)	40 dB(A)
Sound power level outdoor	59 dB(A)	59 dB(A)

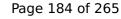
EN 14825		
	Low temperature	Medium temperature
η_{s}	167 %	132 %
Prated	9.60 kW	9.00 kW
SCOP	4.26	3.36
Tbiv	-7 °C	-7 °C
TOL	-28 °C	-28 °C
Pdh Tj = -7°C	8.50 kW	8.00 kW
COP Tj = -7°C	3.15	2.13
Cdh	0.99	0.99
Pdh Tj = +2°C	5.20 kW	4.90 kW
COP Tj = +2°C	4.10	3.31
Cdh	0.98	0.98
Pdh Tj = +7°C	5.00 kW	5.40 kW
COP Tj = +7°C	5.62	4.66
Cdh	0.97	0.98





Pdh Tj = 12°C	5.60 kW	5.30 kW
COP Tj = 12°C	7.53	5.92
Cdh	0.97	0.98
Pdh Tj = Tbiv	8.50 kW	8.00 kW
COP Tj = Tbiv	3.15	2.13
Pdh Tj = TOL	7.50 kW	7.50 kW
COP Tj = TOL	1.44	1.55
WTOL	60 °C	60 °C
Poff	22 W	22 W
РТО	22 W	22 W
PSB	22 W	22 W
PCK	0 W	o w
Supplementary Heater: Type of energy input	electricity	electricity
Supplementary Heater: PSUP	1.24 kW	1.07 kW
Annual energy consumption Qhe	4500 kWh	5377 kWh

Domestic Hot Water (DHW)





EN 16147	
Declared load profile	L
Efficiency ηDHW	145 %
СОР	3.41
Heating up time	1:58 h:min
Standby power input	35.0 W
Reference hot water temperature	52.5 °C
Mixed water at 40°C	278



Model: PUHZ-SHW80YAA(-BS) + EHSC-M*D

General Data	
Power supply	3x400V 50Hz

Heating

EN 14511-2		
	Low temperature	Medium temperature
Heat output	8.00 kW	8.00 kW
El input	1.72 kW	2.96 kW
СОР	4.65	2.70
Indoor water flow rate	1.37 m³/h	0.86 m³/h

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



EN 12102-1		
	Low temperature	Medium temperature
Sound power level indoor	40 dB(A)	40 dB(A)
Sound power level outdoor	59 dB(A)	59 dB(A)

EN 14825		
	Low temperature	Medium temperature
η_{s}	167 %	132 %
Prated	9.60 kW	9.00 kW
SCOP	4.26	3.36
Tbiv	-7 °C	-7 °C
TOL	-28 °C	-28 °C
Pdh Tj = -7°C	8.50 kW	8.00 kW
COP Tj = -7°C	3.15	2.13
Cdh	0.99	0.99
Pdh Tj = +2°C	5.20 kW	4.90 kW
COP Tj = +2°C	4.10	3.31
Cdh	0.98	0.98
Pdh Tj = +7°C	5.00 kW	5.40 kW
COP Tj = +7°C	5.62	4.66
Cdh	0.97	0.98



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Pdh Tj = 12°C	5.60 kW	5.30 kW
COP Tj = 12°C	7.53	5.92
Cdh	0.97	0.98
Pdh Tj = Tbiv	8.50 kW	8.00 kW
COP Tj = Tbiv	3.15	2.13
Pdh Tj = TOL	7.50 kW	7.50 kW
COP Tj = TOL	1.44	1.55
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	1.24 kW	1.07 kW
Annual energy consumption Qhe	4500 kWh	5377 kWh



Model: PUHZ-SHW80YAA(-BS) + EHSC-VM*D

General Data	
Power supply	3x400V 50Hz

Heating

EN 14511-2		
	Low temperature	Medium temperature
Heat output	8.00 kW	8.00 kW
El input	1.72 kW	2.96 kW
СОР	4.65	2.70
Indoor water flow rate	1.37 m³/h	0.86 m³/h

EN 14511-4	
Shutting off the heat transfer medium flow	nassod
Shutting on the heat transfer medium now	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	59 dB(A)	59 dB(A)

EN 14825		
	Low temperature	Medium temperature
η_{s}	167 %	132 %
Prated	9.60 kW	9.00 kW
SCOP	4.26	3.36
Tbiv	-7 °C	-7 °C
TOL	-28 °C	-28 °C
Pdh Tj = -7°C	8.50 kW	8.00 kW
COP Tj = -7°C	3.15	2.13
Cdh	0.99	0.99
Pdh Tj = +2°C	5.20 kW	4.90 kW
COP Tj = +2°C	4.10	3.31
Cdh	0.98	0.98
Pdh Tj = +7°C	5.00 kW	5.40 kW
COP Tj = +7°C	5.62	4.66
Cdh	0.97	0.98



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	· · · · · · · · · · · · · · · · · · ·	
Pdh Tj = 12°C	5.60 kW	5.30 kW
COP Tj = 12°C	7.53	5.92
Cdh	0.97	0.98
Pdh Tj = Tbiv	8.50 kW	8.00 kW
COP Tj = Tbiv	3.15	2.13
Pdh Tj = TOL	7.50 kW	7.50 kW
COP Tj = TOL	1.44	1.55
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	1.24 kW	1.07 kW
Annual energy consumption Qhe	4500 kWh	5377 kWh



Model: PUHZ-SHW80YAA(-BS) + EHSC-YM*D

General Data	
Power supply	3x400V 50Hz

Heating

EN 14511-2		
	Low temperature	Medium temperature
Heat output	8.00 kW	8.00 kW
El input	1.72 kW	2.96 kW
СОР	4.65	2.70
Indoor water flow rate	1.37 m³/h	0.86 m³/h

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



EN 12102-1		
	Low temperature	Medium temperature
Sound power level indoor	40 dB(A)	40 dB(A)
Sound power level outdoor	59 dB(A)	59 dB(A)

EN 14825		
	Low temperature	Medium temperature
η_{s}	167 %	132 %
Prated	9.60 kW	9.00 kW
SCOP	4.26	3.36
Tbiv	-7 °C	-7 °C
TOL	-28 °C	-28 °C
Pdh Tj = -7°C	8.50 kW	8.00 kW
COP Tj = -7°C	3.15	2.13
Cdh	0.99	0.99
Pdh Tj = +2°C	5.20 kW	4.90 kW
COP Tj = +2°C	4.10	3.31
Cdh	0.98	0.98
Pdh Tj = +7°C	5.00 kW	5.40 kW
COP Tj = +7°C	5.62	4.66
Cdh	0.97	0.98



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5.60 kW	5.30 kW
7.53	5.92
0.97	0.98
8.50 kW	8.00 kW
3.15	2.13
7.50 kW	7.50 kW
1.44	1.55
60 °C	60 °C
22 W	22 W
22 W	22 W
22 W	22 W
0 W	0 W
electricity	electricity
1.24 kW	1.07 kW
4500 kWh	5377 kWh
	7.53 0.97 8.50 kW 3.15 7.50 kW 1.44 60 °C 22 W 22 W 0 W electricity 1.24 kW

Model: PUHZ-SHW80YAA(-BS) + ERST20C-VM*D

General Data		
Power supply	3x400V 50Hz	

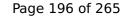
Heating

EN 14511-2		
	Low temperature	Medium temperature
Heat output	8.00 kW	8.00 kW
El input	1.72 kW	2.96 kW
СОР	4.65	2.70
Indoor water flow rate	1.37 m³/h	0.86 m³/h

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

EN 12102-1		
	Low temperature	Medium temperature
Sound power level indoor	40 dB(A)	40 dB(A)
Sound power level outdoor	59 dB(A)	59 dB(A)

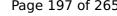
EN 14825		
	Low temperature	Medium temperature
η_{s}	172 %	134 %
Prated	9.60 kW	9.00 kW
SCOP	4.37	3.44
Tbiv	-7 °C	-7 °C
TOL	-28 °C	-28 °C
Pdh Tj = -7°C	8.50 kW	8.00 kW
COP Tj = -7°C	3.15	2.13
Cdh	0.99	0.99
Pdh Tj = +2°C	5.20 kW	4.90 kW
COP Tj = +2°C	4.10	3.31
Cdh	0.98	0.98
Pdh Tj = +7°C	5.00 kW	5.40 kW
COP Tj = +7°C	5.62	4.66
Cdh	0.97	0.98





Pdh Tj = 12°C	5.60 kW	5.30 kW
COP Tj = 12°C	7.53	5.92
Cdh	0.97	0.98
Pdh Tj = Tbiv	8.50 kW	8.00 kW
COP Tj = Tbiv	3.15	2.13
Pdh Tj = TOL	7.50 kW	7.50 kW
COP Tj = TOL	1.44	1.55
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	1.24 kW	1.07 kW
Annual energy consumption Qhe	4500 kWh	5377 kWh

Domestic Hot Water (DHW)





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EN 16147		
Declared load profile	L	
Efficiency ηDHW	145 %	
СОР	3.41	
Heating up time	1:58 h:min	
Standby power input	35.0 W	
Reference hot water temperature	52.5 °C	
Mixed water at 40°C	278	



Model: PUHZ-SHW80YAA(-BS) + ERSC-M*D

General Data		
Power supply	3x400V 50Hz	

Heating

EN 14511-2		
	Low temperature	Medium temperature
Heat output	8.00 kW	8.00 kW
El input	1.72 kW	2.96 kW
СОР	4.65	2.70
Indoor water flow rate	1.37 m³/h	0.86 m³/h

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



EN 12102-1		
	Low temperature	Medium temperature
Sound power level indoor	40 dB(A)	40 dB(A)
Sound power level outdoor	59 dB(A)	59 dB(A)

EN 14825		
	Low temperature	Medium temperature
η_{s}	172 %	134 %
Prated	9.60 kW	9.00 kW
SCOP	4.37	3.44
Tbiv	-7 °C	-7 °C
TOL	-28 °C	-28 °C
Pdh Tj = -7°C	8.50 kW	8.00 kW
COP Tj = -7°C	3.15	2.13
Cdh	0.99	0.99
Pdh Tj = +2°C	5.20 kW	4.90 kW
COP Tj = +2°C	4.10	3.31
Cdh	0.98	0.98
Pdh Tj = +7°C	5.00 kW	5.40 kW
COP Tj = +7°C	5.62	4.66
Cdh	0.97	0.98



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5.60 kW	5.30 kW
7.53	5.92
0.97	0.98
8.50 kW	8.00 kW
3.15	2.13
7.50 kW	7.50 kW
1.44	1.55
60 °C	60 °C
22 W	22 W
22 W	22 W
22 W	22 W
0 W	0 W
electricity	electricity
1.24 kW	1.07 kW
4500 kWh	5377 kWh
	7.53 0.97 8.50 kW 3.15 7.50 kW 1.44 60 °C 22 W 22 W 0 W electricity 1.24 kW



Model: PUHZ-SHW80YAA(-BS) + ERSC-VM*D

General Data	
Power supply 3x400V 50Hz	

Heating

EN 14511-2			
	Low temperature	Medium temperature	
Heat output	8.00 kW	8.00 kW	
El input	1.72 kW	2.96 kW	
СОР	4.65	2.70	
Indoor water flow rate	1.37 m³/h	0.86 m³/h	

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



EN 12102-1		
	Low temperature	Medium temperature
Sound power level indoor	40 dB(A)	40 dB(A)
Sound power level outdoor	59 dB(A)	59 dB(A)

EN 14825		
	Low temperature	Medium temperature
η_{s}	172 %	134 %
Prated	9.60 kW	9.00 kW
SCOP	4.37	3.44
Tbiv	-7 °C	-7 °C
TOL	-28 °C	-28 °C
Pdh Tj = -7°C	8.50 kW	8.00 kW
COP Tj = -7°C	3.15	2.13
Cdh	0.99	0.99
Pdh Tj = +2°C	5.20 kW	4.90 kW
COP Tj = +2°C	4.10	3.31
Cdh	0.98	0.98
Pdh Tj = +7°C	5.00 kW	5.40 kW
COP Tj = +7°C	5.62	4.66
Cdh	0.97	0.98



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Pdh Tj = 12°C	5.60 kW	5.30 kW
COP Tj = 12°C	7.53	5.92
Cdh	0.97	0.98
Pdh Tj = Tbiv	8.50 kW	8.00 kW
COP Tj = Tbiv	3.15	2.13
Pdh Tj = TOL	7.50 kW	7.50 kW
COP Tj = TOL	1.44	1.55
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	1.24 kW	1.07 kW
Annual energy consumption Qhe	4500 kWh	5377 kWh



Model: PUHZ-SHW112VAA(-BS) + EHST20C-M*D

General Data		
Power supply 1x230V 50Hz		

Heating

EN 14511-2		
	Low temperature	Medium temperature
Heat output	11.20 kW	11.20 kW
El input	2.51 kW	4.13 kW
СОР	4.46	2.71
Indoor water flow rate	1.93 m³/h	1.21 m³/h

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



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

EN 14825		
	Low temperature	Medium temperature
η_{s}	171 %	135 %
Prated	13.90 kW	12.70 kW
SCOP	4.34	3.46
Tbiv	-7 °C	-7 °C
TOL	-28 °C	-28 °C
Pdh Tj = -7°C	12.30 kW	11.20 kW
COP Tj = -7°C	3.15	2.12
Cdh	1.00	1.00
Pdh Tj = +2°C	7.50 kW	6.80 kW
COP Tj = +2°C	4.12	3.34
Cdh	0.99	0.99
Pdh Tj = +7°C	5.00 kW	4.70 kW
COP Tj = +7°C	5.56	4.79
Cdh	0.98	0.98





Pdh Tj = 12°C	5.60 kW	5.30 kW
COP Tj = 12°C	7.45	6.12
Cdh	0.98	0.98
Pdh Tj = Tbiv	12.30 kW	11.20 kW
COP Tj = Tbiv	3.18	2.12
Pdh Tj = TOL	9.00 kW	9.00 kW
COP Tj = TOL	1.40	1.50
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	2.07 kW	1.81 kW
Annual energy consumption Qhe	6476 kWh	7449 kWh

Domestic Hot Water (DHW)





EN 16147	
Declared load profile	L
Efficiency ηDHW	145 %
СОР	3.41
Heating up time	1:58 h:min
Standby power input	35.0 W
Reference hot water temperature	52.5 °C
Mixed water at 40°C	278



Model: PUHZ-SHW112VAA(-BS) + EHST20C-VM*D

General Data	
Power supply 1x230V 50Hz	

Heating

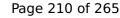
EN 14511-2		
	Low temperature	Medium temperature
Heat output	11.20 kW	11.20 kW
El input	2.51 kW	4.13 kW
СОР	4.46	2.71
Indoor water flow rate	1.93 m³/h	1.21 m³/h

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



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

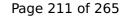
EN 14825		
	Low temperature	Medium temperature
η_{s}	171 %	135 %
Prated	13.90 kW	12.70 kW
SCOP	4.34	3.46
Tbiv	-7 °C	-7 °C
TOL	-28 °C	-28 °C
Pdh Tj = -7°C	12.30 kW	11.20 kW
COP Tj = -7°C	3.15	2.12
Cdh	1.00	1.00
Pdh Tj = +2°C	7.50 kW	6.80 kW
COP Tj = +2°C	4.12	3.34
Cdh	0.99	0.99
Pdh Tj = +7°C	5.00 kW	4.70 kW
COP Tj = +7°C	5.56	4.79
Cdh	0.98	0.98





Pdh Tj = 12°C	5.60 kW	5.30 kW
COP Tj = 12°C	7.45	6.12
Cdh	0.98	0.98
Pdh Tj = Tbiv	12.30 kW	11.20 kW
COP Tj = Tbiv	3.18	2.12
Pdh Tj = TOL	9.00 kW	9.00 kW
COP Tj = TOL	1.40	1.50
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	2.07 kW	1.81 kW
Annual energy consumption Qhe	6476 kWh	7449 kWh

Domestic Hot Water (DHW)





EN 16147	
Declared load profile	L
Efficiency ηDHW	145 %
СОР	3.41
Heating up time	1:58 h:min
Standby power input	35.0 W
Reference hot water temperature	52.5 °C
Mixed water at 40°C	278



Model: PUHZ-SHW112VAA(-BS) + EHST20C-YM*D

General Data	
Power supply	3x400V 50Hz

Heating

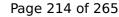
EN 14511-2		
	Low temperature	Medium temperature
Heat output	11.20 kW	11.20 kW
El input	2.51 kW	4.13 kW
СОР	4.46	2.71
Indoor water flow rate	1.93 m³/h	1.21 m³/h

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



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

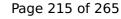
EN 14825		
	Low temperature	Medium temperature
η_{s}	171 %	135 %
Prated	13.90 kW	12.70 kW
SCOP	4.34	3.46
Tbiv	-7 °C	-7 °C
TOL	-28 °C	-28 °C
Pdh Tj = -7°C	12.30 kW	11.20 kW
COP Tj = -7°C	3.15	2.12
Cdh	1.00	1.00
Pdh Tj = +2°C	7.50 kW	6.80 kW
COP Tj = +2°C	4.12	3.34
Cdh	0.99	0.99
Pdh Tj = +7°C	5.00 kW	4.70 kW
COP Tj = +7°C	5.56	4.79
Cdh	0.98	0.98





Pdh Tj = 12°C	5.60 kW	5.30 kW
COP Tj = 12°C	7.45	6.12
Cdh	0.98	0.98
Pdh Tj = Tbiv	12.30 kW	11.20 kW
COP Tj = Tbiv	3.18	2.12
Pdh Tj = TOL	9.00 kW	9.00 kW
COP Tj = TOL	1.40	1.50
WTOL	60 °C	60 °C
Poff	15 W	15 W
РТО	15 W	15 W
PSB	15 W	15 W
PCK	0 W	0 W
Supplementary Heater: Type of energy input	electricity	electricity
Supplementary Heater: PSUP	2.07 kW	1.81 kW
Annual energy consumption Qhe	6476 kWh	7449 kWh

Domestic Hot Water (DHW)





EN 16147		
Declared load profile	L	
Efficiency ηDHW	145 %	
СОР	3.41	
Heating up time	1:58 h:min	
Standby power input	35.0 W	
Reference hot water temperature	52.5 °C	
Mixed water at 40°C	278	



Model: PUHZ-SHW112VAA(-BS) + EHSC-M*D

General Data	
Power supply	1x230V 50Hz

Heating

EN 14511-2		
	Low temperature	Medium temperature
Heat output	11.20 kW	11.20 kW
El input	2.51 kW	4.13 kW
СОР	4.46	2.71
Indoor water flow rate	1.93 m³/h	1.21 m³/h

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



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

EN 14825		
	Low temperature	Medium temperature
η_{s}	171 %	135 %
Prated	13.90 kW	12.70 kW
SCOP	4.34	3.46
Tbiv	-7 °C	-7 °C
TOL	-28 °C	-28 °C
Pdh Tj = -7°C	12.30 kW	11.20 kW
COP Tj = -7°C	3.15	2.12
Cdh	1.00	1.00
Pdh Tj = +2°C	7.50 kW	6.80 kW
COP Tj = +2°C	4.12	3.34
Cdh	0.99	0.99
Pdh Tj = +7°C	5.00 kW	4.70 kW
COP Tj = +7°C	5.56	4.79
Cdh	0.98	0.98



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5.60 kW	5.30 kW
7.45	6.12
0.98	0.98
12.30 kW	11.20 kW
3.18	2.12
9.00 kW	9.00 kW
1.40	1.50
60 °C	60 °C
15 W	15 W
15 W	15 W
15 W	15 W
0 W	0 W
electricity	electricity
2.07 kW	1.81 kW
6476 kWh	7449 kWh
	7.45 0.98 12.30 kW 3.18 9.00 kW 1.40 60 °C 15 W 15 W 0 W electricity 2.07 kW

Model: PUHZ-SHW112VAA(-BS) + EHSC-VM*D

General Data	
Power supply	1x230V 50Hz

Heating

EN 14511-2		
	Low temperature	Medium temperature
Heat output	11.20 kW	11.20 kW
El input	2.51 kW	4.13 kW
СОР	4.46	2.71
Indoor water flow rate	1.93 m³/h	1.21 m³/h

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



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

EN 14825		
	Low temperature	Medium temperature
η_{s}	171 %	135 %
Prated	13.90 kW	12.70 kW
SCOP	4.34	3.46
Tbiv	-7 °C	-7 °C
TOL	-28 °C	-28 °C
Pdh Tj = -7°C	12.30 kW	11.20 kW
COP Tj = -7°C	3.15	2.12
Cdh	1.00	1.00
Pdh Tj = +2°C	7.50 kW	6.80 kW
COP Tj = +2°C	4.12	3.34
Cdh	0.99	0.99
Pdh Tj = +7°C	5.00 kW	4.70 kW
COP Tj = +7°C	5.56	4.79
Cdh	0.98	0.98



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Pdh Tj = 12°C	5.60 kW	5.30 kW
COP Tj = 12°C	7.45	6.12
Cdh	0.98	0.98
Pdh Tj = Tbiv	12.30 kW	11.20 kW
COP Tj = Tbiv	3.18	2.12
Pdh Tj = TOL	9.00 kW	9.00 kW
COP Tj = TOL	1.40	1.50
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	2.07 kW	1.81 kW
Annual energy consumption Qhe	6476 kWh	7449 kWh



Model: PUHZ-SHW112VAA(-BS) + EHSC-YM*D

General Data	
Power supply	3x400V 50Hz

Heating

EN 14511-2			
	Low temperature	Medium temperature	
Heat output	11.20 kW	11.20 kW	
El input	2.51 kW	4.13 kW	
СОР	4.46	2.71	
Indoor water flow rate	1.93 m³/h	1.21 m³/h	

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



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

EN 14825		
	Low temperature	Medium temperature
η_{s}	171 %	135 %
Prated	13.90 kW	12.70 kW
SCOP	4.34	3.46
Tbiv	-7 °C	-7 °C
TOL	-28 °C	-28 °C
Pdh Tj = -7°C	12.30 kW	11.20 kW
COP Tj = -7°C	3.15	2.12
Cdh	1.00	1.00
Pdh Tj = +2°C	7.50 kW	6.80 kW
COP Tj = +2°C	4.12	3.34
Cdh	0.99	0.99
Pdh Tj = +7°C	5.00 kW	4.70 kW
COP Tj = +7°C	5.56	4.79
Cdh	0.98	0.98



$$\operatorname{\textit{Page}}\xspace$ 224 of 265 This information was generated by the HP KEYMARK database on 17 Dec 2020

Pdh Tj = 12°C	5.60 kW	5.30 kW
COP Tj = 12°C	7.45	6.12
Cdh	0.98	0.98
Pdh Tj = Tbiv	12.30 kW	11.20 kW
COP Tj = Tbiv	3.18	2.12
Pdh Tj = TOL	9.00 kW	9.00 kW
COP Tj = TOL	1.40	1.50
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	2.07 kW	1.81 kW
Annual energy consumption Qhe	6476 kWh	7449 kWh



Model: PUHZ-SHW112VAA(-BS) + ERST20C-VM*D

General Data	
Power supply 1x230V 50Hz	

Heating

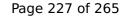
EN 14511-2		
	Low temperature	Medium temperature
Heat output	11.20 kW	11.20 kW
El input	2.51 kW	4.13 kW
СОР	4.46	2.71
Indoor water flow rate	1.93 m³/h	1.21 m³/h

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



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

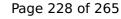
EN 14825		
	Low temperature	Medium temperature
η_{s}	173 %	137 %
Prated	13.90 kW	12.70 kW
SCOP	4.39	3.50
Tbiv	-7 °C	-7 °C
TOL	-28 °C	-28 °C
Pdh Tj = -7°C	12.30 kW	11.20 kW
COP Tj = -7°C	3.15	2.12
Cdh	1.00	1.00
Pdh Tj = +2°C	7.50 kW	6.80 kW
COP Tj = +2°C	4.12	3.34
Cdh	0.99	0.99
Pdh Tj = +7°C	5.00 kW	4.70 kW
COP Tj = +7°C	5.56	4.79
Cdh	0.98	0.98





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Pdh Tj = 12°C	5.60 kW	5.30 kW
COP Tj = 12°C	7.45	6.12
Cdh	0.98	0.98
Pdh Tj = Tbiv	12.30 kW	11.20 kW
COP Tj = Tbiv	3.18	2.12
Pdh Tj = TOL	9.00 kW	9.00 kW
COP Tj = TOL	1.40	1.50
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	2.07 kW	1.81 kW
Annual energy consumption Qhe	6476 kWh	7449 kWh

Domestic Hot Water (DHW)





EN 16147	
Declared load profile	L
Efficiency ηDHW	145 %
СОР	3.41
Heating up time	1:58 h:min
Standby power input	35.0 W
Reference hot water temperature	52.5 °C
Mixed water at 40°C	278

Model: PUHZ-SHW112VAA(-BS) + ERSC-M*D

General Data	
Power supply 1x230V 50Hz	

Heating

EN 14511-2		
	Low temperature	Medium temperature
Heat output	11.20 kW	11.20 kW
El input	2.51 kW	4.13 kW
СОР	4.46	2.71
Indoor water flow rate	1.93 m³/h	1.21 m³/h

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



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

EN 14825		
	Low temperature	Medium temperature
η_{s}	173 %	137 %
Prated	13.90 kW	12.70 kW
SCOP	4.39	3.50
Tbiv	-7 °C	-7 °C
TOL	-28 °C	-28 °C
Pdh Tj = -7°C	12.30 kW	11.20 kW
COP Tj = -7°C	3.15	2.12
Cdh	1.00	1.00
Pdh Tj = +2°C	7.50 kW	6.80 kW
COP Tj = +2°C	4.12	3.34
Cdh	0.99	0.99
Pdh Tj = +7°C	5.00 kW	4.70 kW
COP Tj = +7°C	5.56	4.79
Cdh	0.98	0.98



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5.60 kW	5.30 kW
7.45	6.12
0.98	0.98
12.30 kW	11.20 kW
3.18	2.12
9.00 kW	9.00 kW
1.40	1.50
60 °C	60 °C
15 W	15 W
15 W	15 W
15 W	15 W
0 W	0 W
electricity	electricity
2.07 kW	1.81 kW
6476 kWh	7449 kWh
	7.45 0.98 12.30 kW 3.18 9.00 kW 1.40 60 °C 15 W 15 W 0 W electricity 2.07 kW



Model: PUHZ-SHW112VAA(-BS) + ERSC-VM*D

General Data		
Power supply	1x230V 50Hz	

Heating

EN 14511-2			
	Low temperature	Medium temperature	
Heat output	11.20 kW	11.20 kW	
El input	2.51 kW	4.13 kW	
СОР	4.46	2.71	
Indoor water flow rate	1.93 m³/h	1.21 m³/h	

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



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

EN 14825		
	Low temperature	Medium temperature
η_{s}	173 %	137 %
Prated	13.90 kW	12.70 kW
SCOP	4.39	3.50
Tbiv	-7 °C	-7 °C
TOL	-28 °C	-28 °C
Pdh Tj = -7°C	12.30 kW	11.20 kW
COP Tj = -7°C	3.15	2.12
Cdh	1.00	1.00
Pdh Tj = +2°C	7.50 kW	6.80 kW
COP Tj = +2°C	4.12	3.34
Cdh	0.99	0.99
Pdh Tj = +7°C	5.00 kW	4.70 kW
COP Tj = +7°C	5.56	4.79
Cdh	0.98	0.98



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5.60 kW	5.30 kW
7.45	6.12
0.98	0.98
12.30 kW	11.20 kW
3.18	2.12
9.00 kW	9.00 kW
1.40	1.50
60 °C	60 °C
15 W	15 W
15 W	15 W
15 W	15 W
0 W	0 W
electricity	electricity
2.07 kW	1.81 kW
6476 kWh	7449 kWh
	7.45 0.98 12.30 kW 3.18 9.00 kW 1.40 60 °C 15 W 15 W 0 W electricity 2.07 kW



Model: PUHZ-SHW112YAA(-BS) + EHST20C-M*D

General Data		
Power supply 3x400V 50Hz		

Heating

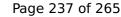
EN 14511-2			
	Low temperature	Medium temperature	
Heat output	11.20 kW	11.20 kW	
El input	2.51 kW	4.13 kW	
СОР	4.46	2.71	
Indoor water flow rate	1.93 m³/h	1.21 m³/h	

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



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

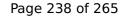
EN 14825		
	Low temperature	Medium temperature
η_{s}	169 %	135 %
Prated	13.90 kW	12.70 kW
SCOP	4.31	3.44
Tbiv	-7 °C	-7 °C
TOL	-28 °C	-28 °C
Pdh Tj = -7°C	12.30 kW	11.20 kW
COP Tj = -7°C	3.15	2.12
Cdh	0.99	1.00
Pdh Tj = +2°C	7.50 kW	6.80 kW
COP Tj = +2°C	4.12	3.34
Cdh	0.99	0.99
Pdh Tj = +7°C	5.00 kW	4.70 kW
COP Tj = +7°C	5.56	4.79
Cdh	0.97	0.98





Pdh Tj = 12°C	5.60 kW	5.30 kW
COP Tj = 12°C	7.45	6.12
Cdh	0.97	0.98
Pdh Tj = Tbiv	12.30 kW	11.20 kW
COP Tj = Tbiv	3.18	2.12
Pdh Tj = TOL	9.00 kW	9.00 kW
COP Tj = TOL	1.40	1.50
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	2.07 kW	1.81 kW
Annual energy consumption Qhe	6484 kWh	7457 kWh

Domestic Hot Water (DHW)





EN 16147	
Declared load profile	L
Efficiency ηDHW	145 %
СОР	3.41
Heating up time	1:58 h:min
Standby power input	35.0 W
Reference hot water temperature	52.5 °C
Mixed water at 40°C	278



Model: PUHZ-SHW112YAA(-BS) + EHST20C-VM*D

General Data		
Power supply	3x400V 50Hz	

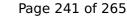
Heating

EN 14511-2			
	Low temperature	Medium temperature	
Heat output	11.20 kW	11.20 kW	
El input	2.51 kW	4.13 kW	
СОР	4.46	2.71	
Indoor water flow rate	1.93 m³/h	1.21 m³/h	

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

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

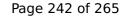
EN 14825		
	Low temperature	Medium temperature
η_{s}	169 %	135 %
Prated	13.90 kW	12.70 kW
SCOP	4.31	3.44
Tbiv	-7 °C	-7 °C
TOL	-28 °C	-28 °C
Pdh Tj = -7°C	12.30 kW	11.20 kW
COP Tj = -7°C	3.15	2.12
Cdh	0.99	1.00
Pdh Tj = +2°C	7.50 kW	6.80 kW
COP Tj = +2°C	4.12	3.34
Cdh	0.99	0.99
Pdh Tj = +7°C	5.00 kW	4.70 kW
COP Tj = +7°C	5.56	4.79
Cdh	0.97	0.98





Pdh Tj = 12°C	5.60 kW	5.30 kW
COP Tj = 12°C	7.45	6.12
Cdh	0.97	0.98
Pdh Tj = Tbiv	12.30 kW	11.20 kW
COP Tj = Tbiv	3.18	2.12
Pdh Tj = TOL	9.00 kW	9.00 kW
COP Tj = TOL	1.40	1.50
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	2.07 kW	1.81 kW
Annual energy consumption Qhe	6484 kWh	7457 kWh

Domestic Hot Water (DHW)





EN 16147	
Declared load profile	L
Efficiency ηDHW	145 %
СОР	3.41
Heating up time	1:58 h:min
Standby power input	35.0 W
Reference hot water temperature	52.5 °C
Mixed water at 40°C	278



Model: PUHZ-SHW112YAA(-BS) + EHST20C-YM*D

General Data	
Power supply	3x400V 50Hz

Heating

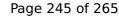
EN 14511-2		
	Low temperature	Medium temperature
Heat output	11.20 kW	11.20 kW
El input	2.51 kW	4.13 kW
СОР	4.46	2.71
Indoor water flow rate	1.93 m³/h	1.21 m³/h

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



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

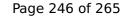
EN 14825		
	Low temperature	Medium temperature
η_{s}	169 %	135 %
Prated	13.90 kW	12.70 kW
SCOP	4.31	3.44
Tbiv	-7 °C	-7 °C
TOL	-28 °C	-28 °C
Pdh Tj = -7°C	12.30 kW	11.20 kW
COP Tj = -7°C	3.15	2.12
Cdh	0.99	1.00
Pdh Tj = +2°C	7.50 kW	6.80 kW
COP Tj = +2°C	4.12	3.34
Cdh	0.99	0.99
Pdh Tj = +7°C	5.00 kW	4.70 kW
COP Tj = +7°C	5.56	4.79
Cdh	0.97	0.98





Pdh Tj = 12°C	5.60 kW	5.30 kW
COP Tj = 12°C	7.45	6.12
Cdh	0.97	0.98
Pdh Tj = Tbiv	12.30 kW	11.20 kW
COP Tj = Tbiv	3.18	2.12
Pdh Tj = TOL	9.00 kW	9.00 kW
COP Tj = TOL	1.40	1.50
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	2.07 kW	1.81 kW
Annual energy consumption Qhe	6484 kWh	7457 kWh

Domestic Hot Water (DHW)





EN 16147	
Declared load profile	L
Efficiency ηDHW	145 %
СОР	3.41
Heating up time	1:58 h:min
Standby power input	35.0 W
Reference hot water temperature	52.5 °C
Mixed water at 40°C	278



Model: PUHZ-SHW112YAA(-BS) + EHSC-M*D

General Data	
Power supply	3x400V 50Hz

Heating

EN 14511-2		
	Low temperature	Medium temperature
Heat output	11.20 kW	11.20 kW
El input	2.51 kW	4.13 kW
СОР	4.46	2.71
Indoor water flow rate	1.93 m³/h	1.21 m³/h

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

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

EN 14825		
	Low temperature	Medium temperature
η_{s}	169 %	135 %
Prated	13.90 kW	12.70 kW
SCOP	4.31	3.44
Tbiv	-7 °C	-7 °C
TOL	-28 °C	-28 °C
Pdh Tj = -7°C	12.30 kW	11.20 kW
COP Tj = -7°C	3.15	2.12
Cdh	0.99	1.00
Pdh Tj = +2°C	7.50 kW	6.80 kW
COP Tj = +2°C	4.12	3.34
Cdh	0.99	0.99
Pdh Tj = +7°C	5.00 kW	4.70 kW
COP Tj = +7°C	5.56	4.79
Cdh	0.97	0.98



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5.60 kW	5.30 kW
7.45	6.12
0.97	0.98
12.30 kW	11.20 kW
3.18	2.12
9.00 kW	9.00 kW
1.40	1.50
60 °C	60 °C
22 W	22 W
22 W	22 W
22 W	22 W
0 W	0 W
electricity	electricity
2.07 kW	1.81 kW
6484 kWh	7457 kWh
	7.45 0.97 12.30 kW 3.18 9.00 kW 1.40 60 °C 22 W 22 W 22 W 0 W electricity 2.07 kW



Model: PUHZ-SHW112YAA(-BS) + EHSC-VM*D

General Data		
Power supply	3x400V 50Hz	

Heating

EN 14511-2				
	Low temperature	Medium temperature		
Heat output	11.20 kW	11.20 kW		
El input	2.51 kW	4.13 kW		
СОР	4.46	2.71		
Indoor water flow rate	1.93 m³/h	1.21 m³/h		

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



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

EN 14825		
	Low temperature	Medium temperature
η_{s}	169 %	135 %
Prated	13.90 kW	12.70 kW
SCOP	4.31	3.44
Tbiv	-7 °C	-7 °C
TOL	-28 °C	-28 °C
Pdh Tj = -7°C	12.30 kW	11.20 kW
COP Tj = -7°C	3.15	2.12
Cdh	0.99	1.00
Pdh Tj = +2°C	7.50 kW	6.80 kW
COP Tj = +2°C	4.12	3.34
Cdh	0.99	0.99
Pdh Tj = +7°C	5.00 kW	4.70 kW
COP Tj = +7°C	5.56	4.79
Cdh	0.97	0.98



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5.60 kW	5.30 kW
7.45	6.12
0.97	0.98
12.30 kW	11.20 kW
3.18	2.12
9.00 kW	9.00 kW
1.40	1.50
60 °C	60 °C
22 W	22 W
22 W	22 W
22 W	22 W
o w	o w
electricity	electricity
2.07 kW	1.81 kW
6484 kWh	7457 kWh
	7.45 0.97 12.30 kW 3.18 9.00 kW 1.40 60 °C 22 W 22 W 22 W 0 W electricity 2.07 kW



Model: PUHZ-SHW112YAA(-BS) + EHSC-YM*D

General Data	
Power supply 3x400V 50Hz	

Heating

EN 14511-2			
	Low temperature	Medium temperature	
Heat output	11.20 kW	11.20 kW	
El input	2.51 kW	4.13 kW	
СОР	4.46	2.71	
Indoor water flow rate	1.93 m³/h	1.21 m³/h	

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



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

EN 14825		
	Low temperature	Medium temperature
η_{s}	169 %	135 %
Prated	13.90 kW	12.70 kW
SCOP	4.31	3.44
Tbiv	-7 °C	-7 °C
TOL	-28 °C	-28 °C
Pdh Tj = -7°C	12.30 kW	11.20 kW
COP Tj = -7°C	3.15	2.12
Cdh	0.99	1.00
Pdh Tj = +2°C	7.50 kW	6.80 kW
COP Tj = +2°C	4.12	3.34
Cdh	0.99	0.99
Pdh Tj = +7°C	5.00 kW	4.70 kW
COP Tj = +7°C	5.56	4.79
Cdh	0.97	0.98



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Pdh Tj = 12°C	5.60 kW	5.30 kW
COP Tj = 12°C	7.45	6.12
Cdh	0.97	0.98
Pdh Tj = Tbiv	12.30 kW	11.20 kW
COP Tj = Tbiv	3.18	2.12
Pdh Tj = TOL	9.00 kW	9.00 kW
COP Tj = TOL	1.40	1.50
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	2.07 kW	1.81 kW
Annual energy consumption Qhe	6484 kWh	7457 kWh



Model: PUHZ-SHW112YAA(-BS) + ERST20C-VM*D

General Data		
Power supply 3x400V 50Hz		

Heating

EN 14511-2		
	Low temperature	Medium temperature
Heat output	11.20 kW	11.20 kW
El input	2.51 kW	4.13 kW
СОР	4.46	2.71
Indoor water flow rate	1.93 m³/h	1.21 m³/h

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



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

EN 14825		
	Low temperature	Medium temperature
η_{s}	173 %	137 %
Prated	13.90 kW	12.70 kW
SCOP	4.39	3.49
Tbiv	-7 °C	-7 °C
TOL	-28 °C	-28 °C
Pdh Tj = -7°C	12.30 kW	11.20 kW
COP Tj = -7°C	3.15	2.12
Cdh	0.99	1.00
Pdh Tj = +2°C	7.50 kW	6.80 kW
COP Tj = +2°C	4.12	3.34
Cdh	0.99	0.99
Pdh Tj = +7°C	5.00 kW	4.70 kW
COP Tj = +7°C	5.56	4.79
Cdh	0.97	0.98





5.60 kW	5.30 kW
7.45	6.12
0.97	0.98
12.30 kW	11.20 kW
3.18	2.12
9.00 kW	9.00 kW
1.40	1.50
60 °C	60 °C
22 W	22 W
22 W	22 W
22 W	22 W
o w	o w
electricity	electricity
2.07 kW	1.81 kW
6484 kWh	7457 kWh
	7.45 0.97 12.30 kW 3.18 9.00 kW 1.40 60 °C 22 W 22 W 22 W 0 W electricity 2.07 kW

Domestic Hot Water (DHW)





EN 16147		
Declared load profile	L	
Efficiency ηDHW	145 %	
СОР	3.41	
Heating up time	1:58 h:min	
Standby power input	35.0 W	
Reference hot water temperature	52.5 °C	
Mixed water at 40°C	278	



Model: PUHZ-SHW112YAA(-BS) + ERSC-M*D

General Data	
Power supply	3x400V 50Hz

Heating

EN 14511-2		
	Low temperature	Medium temperature
Heat output	11.20 kW	11.20 kW
El input	2.51 kW	4.13 kW
СОР	4.46	2.71
Indoor water flow rate	1.93 m³/h	1.21 m³/h

EN 14511-4	
Shutting off the heat transfer medium flow	nassod
Shatting on the heat transfer medium now	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	60 dB(A)	60 dB(A)

EN 14825		
	Low temperature	Medium temperature
η_{s}	173 %	137 %
Prated	13.90 kW	12.70 kW
SCOP	4.39	3.49
Tbiv	-7 °C	-7 °C
TOL	-28 °C	-28 °C
Pdh Tj = -7°C	12.30 kW	11.20 kW
COP Tj = -7°C	3.15	2.12
Cdh	0.99	1.00
Pdh Tj = +2°C	7.50 kW	6.80 kW
COP Tj = +2°C	4.12	3.34
Cdh	0.99	0.99
Pdh Tj = +7°C	5.00 kW	4.70 kW
COP Tj = +7°C	5.56	4.79
Cdh	0.97	0.98



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5.60 kW	5.30 kW
7.45	6.12
0.97	0.98
12.30 kW	11.20 kW
3.18	2.12
9.00 kW	9.00 kW
1.40	1.50
60 °C	60 °C
22 W	22 W
22 W	22 W
22 W	22 W
0 W	0 W
electricity	electricity
2.07 kW	1.81 kW
6484 kWh	7457 kWh
	7.45 0.97 12.30 kW 3.18 9.00 kW 1.40 60 °C 22 W 22 W 22 W 0 W electricity 2.07 kW

Model: PUHZ-SHW112YAA(-BS) + ERSC-VM*D

General Data	
Power supply	3x400V 50Hz

Heating

EN 14511-2		
	Low temperature	Medium temperature
Heat output	11.20 kW	11.20 kW
El input	2.51 kW	4.13 kW
СОР	4.46	2.71
Indoor water flow rate	1.93 m³/h	1.21 m³/h

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



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

EN 14825		
	Low temperature	Medium temperature
η_{s}	173 %	137 %
Prated	13.90 kW	12.70 kW
SCOP	4.39	3.49
Tbiv	-7 °C	-7 °C
TOL	-28 °C	-28 °C
Pdh Tj = -7°C	12.30 kW	11.20 kW
COP Tj = -7°C	3.15	2.12
Cdh	0.99	1.00
Pdh Tj = +2°C	7.50 kW	6.80 kW
COP Tj = +2°C	4.12	3.34
Cdh	0.99	0.99
Pdh Tj = +7°C	5.00 kW	4.70 kW
COP Tj = +7°C	5.56	4.79
Cdh	0.97	0.98



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5.60 kW	5.30 kW
7.45	6.12
0.97	0.98
12.30 kW	11.20 kW
3.18	2.12
9.00 kW	9.00 kW
1.40	1.50
60 °C	60 °C
22 W	22 W
22 W	22 W
22 W	22 W
0 W	0 W
electricity	electricity
2.07 kW	1.81 kW
6484 kWh	7457 kWh
	7.45 0.97 12.30 kW 3.18 9.00 kW 1.40 60 °C 22 W 22 W 22 W 0 W electricity 2.07 kW