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Login

Summary of	Ecodan Zubadan 23	Reg. No.	037-0057-20	
Certificate Holder				
Name	Mitsubishi Electric Air Conditioning Systems Europe LTD			
Address	Nettlehill Road, Houston Industrial Estate Zip EH54 5EQ			
City	Livingston Country United King		United Kingdom	
Certification Body	SZU - Strojirensky zkusebni ustav (Engineering Test Institute, Public Enterprise)			
Subtype title	Ecodan Zubadan 23			
Heat Pump Type	Outdoor Air/Water			
Refrigerant	R410A			
Mass of Refrigerant	7.7 kg			
Certification Date	09.04.2020			
Testing basis	HP Keymark scheme rules rev. no. 7			

Model: PUHZ-SHW230YKA2 + EHSE-*M*C

Configure model			
Model name	PUHZ-SHW230YKA2 + EHSE-*M*C		
Application	Heating (medium temp)		
Units	Indoor + Outdoor		
Climate Zone	n/a		
Reversibility	No		
Cooling mode application (optional)	n/a		

General Data		
Power supply	3x400V 50Hz	

Heating

EN 14511-2			
	Low temperature	Medium temperature	
Heat output	23 kW	23 kW	
El input	6.3 kW	9.31 kW	
СОР	3.65	2.47	

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	45 dB(A)	45 dB(A)
Sound power level outdoor	75 dB(A)	75 dB(A)

EN 14825			
	Low temperature	Medium temperature	
η_{s}	164 %	127 %	
Prated	25 kW	23 kW	
SCOP	4.18	3.25	
Tbiv	-10 °C	-10 °C	
TOL	-25 °C	-25 °C	
Pdh Tj = -7°C	22.1 kW	20.3 kW	
COP Tj = -7°C	3.4	2.1	
Cdh Tj = -7 °C	0.95	0.95	
Pdh Tj = +2°C	13.5 kW	12.4 kW	
COP Tj = +2°C	3.8	3.02	
Cdh Tj = +2 °C	0.95	0.95	
Pdh Tj = +7°C	12 kW	11.2 kW	
COP Tj = +7°C	5.32	4.54	
Cdh Tj = +7 °C	0.95	0.95	





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Pdh Tj = 12°C	14.6 kW	13.7 kW
COP Tj = 12°C	6.68	5.79
Cdh Tj = +12 °C	0.95	0.95
Pdh Tj = Tbiv	25 kW	23 kW
COP Tj = Tbiv	2.19	1.85
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	25 kW	23 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.19	1.85
WTOL	60 °C	60 °C
Poff	22 W	22 W
РТО	22 W	22 W
PSB	22 W	22 W
PCK	o w	o w
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	0 kW	0 kW
Annual energy consumption Qhe	12351 kWh	14615 kWh



Model: PUHZ-SHW230YKA2 + EHSE-M*C

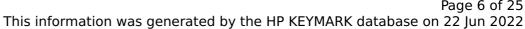
Configure model			
Model name	PUHZ-SHW230YKA2 + EHSE-M*C		
Application	Heating (medium temp)		
Units	Indoor + Outdoor		
Climate Zone	n/a		
Reversibility	No		
Cooling mode application (optional)	n/a		

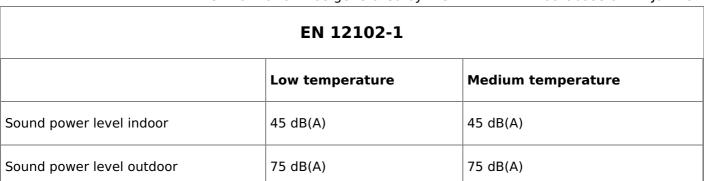
General Data		
Power supply	3x400V 50Hz	

Heating

EN 14511-2			
	Low temperature	Medium temperature	
Heat output	23 kW	23 kW	
El input	6.3 kW	9.31 kW	
СОР	3.65	2.47	

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





CEN heat pump

EN 14825		
	Low temperature	Medium temperature
η_{S}	164 %	127 %
Prated	25 kW	23 kW
SCOP	4.18	3.25
Tbiv	-10 °C	-10 °C
TOL	-25 °C	-25 °C
Pdh Tj = -7°C	22.1 kW	20.3 kW
$COP Tj = -7^{\circ}C$	3.4	2.1
Cdh Tj = -7 °C	0.95	0.95
Pdh Tj = +2°C	13.5 kW	12.4 kW
COP Tj = +2°C	3.8	3.02
Cdh Tj = +2 °C	0.95	0.95
Pdh Tj = $+7^{\circ}$ C	12 kW	11.2 kW
$COP Tj = +7^{\circ}C$	5.32	4.54
Cdh Tj = +7 °C	0.95	0.95
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Pdh Tj = 12°C	14.6 kW	13.7 kW
COP Tj = 12°C	6.68	5.79
Cdh Tj = +12 °C	0.95	0.95
Pdh Tj = Tbiv	25 kW	23 kW
COP Tj = Tbiv	2.19	1.85
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	25 kW	23 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.19	1.85
WTOL	60 °C	60 °C
Poff	22 W	22 W
РТО	22 W	22 W
PSB	22 W	22 W
PCK	o w	o w
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	0 kW	0 kW
Annual energy consumption Qhe	12351 kWh	14615 kWh

Model: PUHZ-SHW230YKA2 + ERSE-*M*C

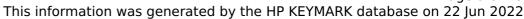
Configure model		
Model name	PUHZ-SHW230YKA2 + ERSE-*M*C	
Application	Heating (medium temp)	
Units	Indoor + Outdoor	
Climate Zone	n/a	
Reversibility	Yes	
Cooling mode application (optional)	n/a	

General Data		
Power supply 3x400V 50Hz		

Heating

EN 14511-2		
Low temperature Medium temperature		
Heat output	23 kW	23 kW
El input	6.3 kW	9.31 kW
СОР	3.65	2.47

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	45 dB(A)	45 dB(A)
Sound power level outdoor	75 dB(A)	75 dB(A)

EN 14825		
	Low temperature	Medium temperature
η_{s}	165 %	128 %
Prated	25 kW	23 kW
SCOP	4.21	3.28
Tbiv	-10 °C	-10 °C
TOL	-25 °C	-25 °C
Pdh Tj = -7°C	22.1 kW	20.3 kW
COP Tj = -7°C	3.4	2.1
Cdh Tj = -7 °C	0.95	0.95
Pdh Tj = +2°C	13.5 kW	12.4 kW
COP Tj = +2°C	3.8	3.04
Cdh Tj = +2 °C	0.95	0.95
Pdh Tj = +7°C	12 kW	11.2 kW
COP Tj = +7°C	5.32	4.54
Cdh Tj = +7 °C	0.95	0.95
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This intermediation was general		
Pdh Tj = 12°C	14.6 kW	13.7 kW
COP Tj = 12°C	6.68	5.79
Cdh Tj = +12 °C	0.95	0.95
Pdh Tj = Tbiv	25 kW	23 kW
COP Tj = Tbiv	2.19	1.85
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	25 kW	23 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.19	1.85
WTOL	60 °C	60 °C
Poff	22 W	22 W
РТО	22 W	22 W
PSB	22 W	22 W
PCK	o w	o w
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	0 kW	0 kW
Annual energy consumption Qhe	12270 kWh	14485 kWh



Model: PUHZ-SHW230YKA2 + ERSE-M*C

Configure model		
Model name	PUHZ-SHW230YKA2 + ERSE-M*C	
Application	Heating (medium temp)	
Units	Indoor + Outdoor	
Climate Zone	n/a	
Reversibility	Yes	
Cooling mode application (optional)	n/a	

General Data		
Power supply 3x400V 50Hz		

Heating

EN 14511-2		
Low temperature Medium temperature		
Heat output	23 kW	23 kW
El input	6.3 kW	9.31 kW
СОР	3.65	2.47

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	45 dB(A)	45 dB(A)
Sound power level outdoor	75 dB(A)	75 dB(A)

EN 14825		
	Low temperature	Medium temperature
η_{s}	165 %	128 %
Prated	25 kW	23 kW
SCOP	4.21	3.28
Tbiv	-10 °C	-10 °C
TOL	-25 °C	-25 °C
Pdh Tj = -7°C	22.1 kW	20.3 kW
COP Tj = -7°C	3.4	2.1
Cdh Tj = -7 °C	0.95	0.95
Pdh Tj = +2°C	13.5 kW	12.4 kW
COP Tj = +2°C	3.8	3.04
Cdh Tj = +2 °C	0.95	0.95
Pdh Tj = +7°C	12 kW	11.2 kW
COP Tj = +7°C	5.32	4.54
Cdh Tj = +7 °C	0.95	0.95



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Pdh Tj = 12°C	14.6 kW	13.7 kW
COP Tj = 12°C	6.68	5.79
Cdh Tj = +12 °C	0.95	0.95
Pdh Tj = Tbiv	25 kW	23 kW
COP Tj = Tbiv	2.19	1.85
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	25 kW	23 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.19	1.85
WTOL	60 °C	60 °C
Poff	22 W	22 W
РТО	22 W	22 W
PSB	22 W	22 W
PCK	o w	o w
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	0 kW	0 kW
Annual energy consumption Qhe	12270 kWh	14485 kWh



Model: PUHZ-SHW230YKA2(-BS) + EHSE-*M*D

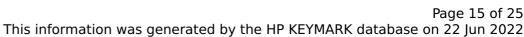
Configure model	
Model name	PUHZ-SHW230YKA2(-BS) + EHSE-*M*D
Application	Heating (medium temp)
Units	Indoor + Outdoor
Climate Zone	n/a
Reversibility No	
Cooling mode application (optional)	n/a

General Data		
Power supply 3x400V 50Hz		

Heating

EN 14511-2		
	Low temperature	Medium temperature
Heat output	23 kW	23 kW
El input	6.3 kW	9.31 kW
СОР	3.65	2.47

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	45 dB(A)	45 dB(A)
Sound power level outdoor	75 dB(A)	75 dB(A)

CEN heat pump KEYMARK

EN 14825		
	Low temperature	Medium temperature
η_{s}	164 %	127 %
Prated	25 kW	23 kW
SCOP	4.18	3.25
Tbiv	-10 °C	-10 °C
TOL	-25 °C	-25 °C
Pdh Tj = -7°C	22.1 kW	20.3 kW
COP Tj = -7°C	3.4	2.1
Cdh Tj = -7 °C	0.98	1
Pdh Tj = +2°C	13.5 kW	12.4 kW
COP Tj = +2°C	3.8	3.02
Cdh Tj = +2 °C	0.95	1
Pdh Tj = +7°C	12 kW	11.2 kW
COP Tj = +7°C	5.32	4.54
Cdh Tj = +7 °C	0.95	0.99



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Pdh Tj = 12°C	14.6 kW	13.7 kW
COP Tj = 12°C	6.68	5.79
Cdh Tj = +12 °C	0.98	0.99
Pdh Tj = Tbiv	25 kW	23 kW
COP Tj = Tbiv	2.19	1.85
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	25 kW	23 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.19	1.85
WTOL	60 °C	60 °C
Poff	22 W	22 W
РТО	22 W	22 W
PSB	22 W	22 W
PCK	o w	o w
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	0 kW	0 kW
Annual energy consumption Qhe	12351 kWh	14615 kWh

Model: PUHZ-SHW230YKA2(-BS) + EHSE-M*D

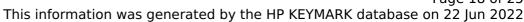
Configure model	
Model name	PUHZ-SHW230YKA2(-BS) + EHSE-M*D
Application	Heating (medium temp)
Units	Indoor + Outdoor
Climate Zone	n/a
Reversibility No	
Cooling mode application (optional)	n/a

General Data		
Power supply	3x400V 50Hz	

Heating

EN 14511-2		
	Low temperature	Medium temperature
Heat output	23 kW	23 kW
El input	6.3 kW	9.31 kW
СОР	3.65	2.47

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	45 dB(A)	45 dB(A)
Sound power level outdoor	75 dB(A)	75 dB(A)

EN 14825		
	Low temperature	Medium temperature
η_{s}	164 %	127 %
Prated	25 kW	23 kW
SCOP	4.18	3.25
Tbiv	-10 °C	-10 °C
TOL	-25 °C	-25 °C
Pdh Tj = -7°C	22.1 kW	20.3 kW
COP Tj = -7°C	3.4	2.1
Cdh Tj = -7 °C	0.98	1
Pdh Tj = +2°C	13.5 kW	12.4 kW
COP Tj = +2°C	3.8	3.02
Cdh Tj = +2 °C	0.95	1
Pdh Tj = +7°C	12 kW	11.2 kW
COP Tj = +7°C	5.32	4.54
Cdh Tj = +7 °C	0.95	0.99
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Pdh Tj = 12°C	14.6 kW	13.7 kW
COP Tj = 12°C	6.68	5.79
Cdh Tj = +12 °C	0.98	0.99
Pdh Tj = Tbiv	25 kW	23 kW
COP Tj = Tbiv	2.19	1.85
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	25 kW	23 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.19	1.85
WTOL	60 °C	60 °C
Poff	22 W	22 W
РТО	22 W	22 W
PSB	22 W	22 W
PCK	o w	o w
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	0 kW	0 kW
Annual energy consumption Qhe	12351 kWh	14615 kWh



Model: PUHZ-SHW230YKA2(-BS) + ERSE-*M*D

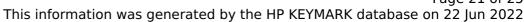
Configure model		
Model name PUHZ-SHW230YKA2(-BS) + ERSE-*M*D		
Application Heating (medium temp)		
Units Indoor + Outdoor		
Climate Zone n/a		
Reversibility Yes		
Cooling mode application (optional) n/a		

General Data		
Power supply	3x400V 50Hz	

Heating

EN 14511-2		
	Low temperature	Medium temperature
Heat output	23 kW	23 kW
El input	6.3 kW	9.31 kW
СОР	3.65	2.47

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	45 dB(A)	45 dB(A)
Sound power level outdoor	75 dB(A)	75 dB(A)

EN 14825		
	Low temperature	Medium temperature
η_{s}	165 %	128 %
Prated	25 kW	23 kW
SCOP	4.21	3.28
Tbiv	-10 °C	-10 °C
TOL	-25 °C	-25 °C
Pdh Tj = -7°C	22.1 kW	20.3 kW
COP Tj = -7°C	3.4	2.1
Cdh Tj = -7 °C	0.98	1
Pdh Tj = +2°C	13.5 kW	12.4 kW
COP Tj = +2°C	3.8	3.04
Cdh Tj = +2 °C	0.95	1
Pdh Tj = +7°C	12 kW	11.2 kW
COP Tj = +7°C	5.32	4.54
Cdh Tj = +7 °C	0.95	0.99





This information was generated by the Hi KETMAKK database on 22 jun 2022			
Pdh Tj = 12°C	14.6 kW	13.7 kW	
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Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	25 kW	23 kW	
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.19	1.85	
WTOL	60 °C	60 °C	
Poff	22 W	22 W	
РТО	22 W	22 W	
PSB	22 W	22 W	
PCK	o w	o w	
Supplementary Heater: Type of energy input	Electricity	Electricity	
Supplementary Heater: PSUP	0 kW	0 kW	
Annual energy consumption Qhe	12270 kWh	14485 kWh	

Model: PUHZ-SHW230YKA2(-BS) + ERSE-M*D

Configure model		
Model name	PUHZ-SHW230YKA2(-BS) + ERSE-M*D	
Application	Heating (medium temp)	
Units	Indoor + Outdoor	
Climate Zone	n/a	
Reversibility	Yes	
Cooling mode application (optional)	n/a	

General Data		
Power supply	3x400V 50Hz	

Heating

EN 14511-2		
	Low temperature	Medium temperature
Heat output	23 kW	23 kW
El input	6.3 kW	9.31 kW
СОР	3.65	2.47

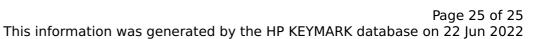
EN 14511-4		
Shutting off the heat transfer medium flow	passed	
Complete power supply failure	passed	
Defrost test	passed	
Starting and operating test	passed	





EN 12102-1		
	Low temperature	Medium temperature
Sound power level indoor	45 dB(A)	45 dB(A)
Sound power level outdoor	75 dB(A)	75 dB(A)

EN 14825		
	Low temperature	Medium temperature
η_{s}	165 %	128 %
Prated	25 kW	23 kW
SCOP	4.21	3.28
Tbiv	-10 °C	-10 °C
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COP Tj = +2°C	3.8	3.04
Cdh Tj = +2 °C	0.95	1
Pdh Tj = +7°C	12 kW	11.2 kW
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Cdh Tj = +7 °C	0.95	0.99





This information was generated by the Hi KETMAKK database on 22 jun 2022			
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Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	25 kW	23 kW	
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.19	1.85	
WTOL	60 °C	60 °C	
Poff	22 W	22 W	
РТО	22 W	22 W	
PSB	22 W	22 W	
PCK	o w	o w	
Supplementary Heater: Type of energy input	Electricity	Electricity	
Supplementary Heater: PSUP	0 kW	0 kW	
Annual energy consumption Qhe	12270 kWh	14485 kWh	