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Summary of	Ecodan Zubadan 23	Reg. No.	037-0057-20	
Certificate Holder				
Name	Mitsubishi Electric Air Conditioning Systems Europe	Mitsubishi Electric Air Conditioning Systems Europe LTD		
Address	Nettlehill Road, Houston Industrial Estate Zip EH54 5EQ			
City	Livingston	Country	United Kingdom	
Certification Body	SZU - Strojirensky zkusebni ustav (Engineering Test Institute, Public Enterprise)			
Subtype title	Ecodan Zubadan 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			

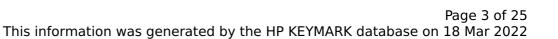
Model: PUHZ-SHW230YKA2 + EHSE-*M*C

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	

Average Climate

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
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

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 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	



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	

Average Climate

EN 14825		
	Low temperature	Medium temperature
η_{s}	164 %	127 %
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WTOL	60 °C	60 °C
Poff	22 W	22 W
РТО	22 W	22 W
PSB	22 W	22 W
PCK	0 W	0 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	0 kW	0 kW
Annual energy consumption Qhe	12351 kWh	14615 kWh



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 14511-2			
Low temperature Medium temperature			
Heat output	23 kW	23 kW	
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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

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	

Average Climate

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
$COP Tj = -7^{\circ}C$	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	3.04
Cdh Tj = +2 °C	0.95	0.95
COP Tj = $+2$ °C Cdh Tj = $+2$ °C		





The time state general		
Pdh Tj = $+7^{\circ}$ C	12 kW	11.2 kW
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Pdh Tj = Tbiv	25 kW	23 kW
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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	0 W	0 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	0 kW	0 kW
Annual energy consumption Qhe	12270 kWh	14485 kWh



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 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



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

Average Climate

EN 14825		
Low temperature	Medium temperature	
165 %	128 %	
25 kW	23 kW	
4.21	3.28	
-10 °C	-10 °C	
-25 °C	-25 °C	
22.1 kW	20.3 kW	
3.4	2.1	
0.95	0.95	
13.5 kW	12.4 kW	
3.8	3.04	
0.95	0.95	
	Low temperature 165 % 25 kW 4.21 -10 °C -25 °C 22.1 kW 3.4 0.95 13.5 kW 3.8	



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The time state general		
Pdh Tj = $+7^{\circ}$ 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 = 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	0 W	0 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	0 kW	0 kW
Annual energy consumption Qhe	12270 kWh	14485 kWh

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EN 12102-1		
	Low temperature	Medium temperature
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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

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	

Average Climate

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
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The time state general		
Pdh Tj = $+7^{\circ}$ C	12 kW	11.2 kW
COP Tj = +7°C	5.32	4.54
Cdh Tj = +7 °C	0.95	0.99
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	0 W	0 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	0 kW	0 kW
Annual energy consumption Qhe	12351 kWh	14615 kWh

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 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

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	

Average Climate

EN 14825		
	Low temperature	Medium temperature
η_{s}	164 %	127 %
Prated	25 kW	23 kW
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Cdh Tj = +2 °C	0.95	1
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	-	
Pdh Tj = $+7$ °C	12 kW	11.2 kW
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WTOL	60 °C	60 °C
Poff	22 W	22 W
РТО	22 W	22 W
PSB	22 W	22 W
PCK	0 W	0 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	0 kW	0 kW
Annual energy consumption Qhe	12351 kWh	14615 kWh



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 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	



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	pility Yes	
Cooling mode application (optional)	n/a	

General Data	
Power supply 3x400V 50Hz	

Average Climate

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
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WTOL	60 °C	60 °C
Poff	22 W	22 W
РТО	22 W	22 W
PSB	22 W	22 W
PCK	o w	0 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	0 kW	0 kW
Annual energy consumption Qhe	12270 kWh	14485 kWh

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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 14511-2		
	Low temperature	Medium temperature
Heat output	23 kW	23 kW
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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	

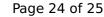
Model: PUHZ-SHW230YKA2(-BS) + ERSE-M*D

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		

Average Climate

EN 14825		
	Low temperature	Medium temperature
η_{s}	165 %	128 %
Prated	25 kW	23 kW
SCOP	4.21	3.28
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РТО	22 W	22 W
PSB	22 W	22 W
PCK	o w	0 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	0 kW	0 kW
Annual energy consumption Qhe	12270 kWh	14485 kWh



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EN 12102-1		
	Low temperature	Medium temperature
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EN 14511-2		
	Low temperature	Medium temperature
Heat output	23 kW	23 kW
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EN 14511-4		
Shutting off the heat transfer medium flow	passed	
Complete power supply failure	passed	
Defrost test	passed	
Starting and operating test	passed	