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#### This information was generated by the HP KEYMARK database on 22 Jun 2022

#### <u>Login</u>

Summary of	Ecodan Power Inverter 20	Reg. No.	037-0053-20	
Certificate Holder				
Name	Mitsubishi Electric Air Conditioning Systems Europe LTD			
Address	Nettlehill Road, Houston Industrial Estate Zip EH54 5EQ			
City	Livingston	Country	United Kingdom	
Certification Body	SZU - Strojirensky zkusebni ustav (Engineering Test Institute, Public Enterprise)			
Subtype title	Ecodan Power Inverter 20			
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-SW200YKA(-BS) + EHSE-\*M\*C

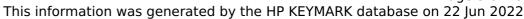
Configure model		
Model name	PUHZ-SW200YKA(-BS) + EHSE-*M*C	
Application	Heating (medium temp)	
Units	Indoor + Outdoor	
Climate Zone	n/a	
Reversibility	No	
Cooling mode application (optional)	n/a	

General Data		
Power supply	3x400V 50Hz	

### Heating

EN 14511-2		
	Low temperature	Medium temperature
Heat output	25 kW	25 kW
El input	6.25 kW	10.2 kW
СОР	4	2.45

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	78 dB(A)	78 dB(A)

EN 14825		
	Low temperature	Medium temperature
$\eta_{s}$	163 %	127 %
Prated	17.3 kW	15.5 kW
SCOP	4.14	3.26
Tbiv	-7 °C	-7 °C
TOL	-20 °C	-20 °C
Pdh Tj = -7°C	15.3 kW	13.7 kW
COP Tj = -7°C	2.53	1.83
Cdh Tj = -7 °C	0.99	0.99
Pdh Tj = +2°C	9.3 kW	8.3 kW
COP Tj = +2°C	4.2	3.28
Cdh Tj = +2 °C	0.99	0.99
Pdh Tj = +7°C	6.3 kW	5.9 kW
COP Tj = +7°C	5.22	4.27
Cdh Tj = +7 °C	0.99	0.99





Pdh Tj = 12°C	7.7 kW	7.4 kW
COP Tj = 12°C	7.08	6.31
Cdh Tj = +12 °C	0.99	0.99
Pdh Tj = Tbiv	15.3 kW	13.7 kW
COP Tj = Tbiv	2.53	1.83
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	14.2 kW	13 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.3	1.78
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	3.1 kW	2.5 kW
Annual energy consumption Qhe	8638 kWh	9820 kWh

## Model: PUHZ-SW200YKA(-BS) + EHSE-\*M\*D

Configure model		
Model name	PUHZ-SW200YKA(-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	25 kW	25 kW
El input	6.25 kW	10.2 kW
СОР	4	2.45

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	78 dB(A)	78 dB(A)

EN 14825		
Low temperature	Medium temperature	
163 %	127 %	
17.3 kW	15.5 kW	
4.14	3.26	
-7 °C	-7 °C	
-20 °C	-20 °C	
15.3 kW	13.7 kW	
2.53	1.83	
1	1	
9.3 kW	8.3 kW	
4.2	3.28	
0.99	0.99	
6.3 kW	5.9 kW	
5.22	4.27	
0.99	0.98	
	Low temperature  163 %  17.3 kW  4.14  -7 °C  -20 °C  15.3 kW  2.53  1  9.3 kW  4.2  0.99  6.3 kW  5.22	





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COP Tj = Tbiv	2.53	1.83
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	14.2 kW	13 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.3	1.78
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	3.1 kW	2.5 kW
Annual energy consumption Qhe	8638 kWh	9820 kWh



## Model: PUHZ-SW200YKA(-BS) + EHSE-M\*C

Configure model		
Model name	PUHZ-SW200YKA(-BS) + 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	25 kW	25 kW
El input	6.25 kW	10.2 kW
СОР	4	2.45

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	78 dB(A)	78 dB(A)

EN 14825		
	Low temperature	Medium temperature
$\eta_{s}$	163 %	127 %
Prated	17.3 kW	15.5 kW
SCOP	4.14	3.26
Tbiv	-7 °C	-7 °C
TOL	-20 °C	-20 °C
Pdh Tj = -7°C	15.3 kW	13.7 kW
COP Tj = -7°C	2.53	1.83
Cdh Tj = -7 °C	0.99	0.99
Pdh Tj = +2°C	9.3 kW	8.3 kW
COP Tj = +2°C	4.2	3.28
Cdh Tj = +2 °C	0.99	0.99
Pdh Tj = +7°C	6.3 kW	5.9 kW
COP Tj = +7°C	5.22	4.27
Cdh Tj = +7 °C	0.99	0.99





This information was generated by the Till KETMAKK database on 22 Juli 2022			
Pdh Tj = 12°C	7.7 kW	7.4 kW	
COP Tj = 12°C	7.08	6.31	
Cdh Tj = +12 °C	0.99	0.99	
Pdh Tj = Tbiv	15.3 kW	13.7 kW	
COP Tj = Tbiv	2.53	1.83	
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	14.2 kW	13 kW	
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.3	1.78	
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	3.1 kW	2.5 kW	
Annual energy consumption Qhe	8638 kWh	9820 kWh	



## Model: PUHZ-SW200YKA(-BS) + EHSE-M\*D

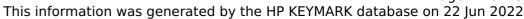
Configure model		
Model name	PUHZ-SW200YKA(-BS) + EHSE-M*D	
Application	Heating (medium temp)	
Units	Indoor + Outdoor	
Climate Zone	n/a	
Reversibility	No	
Cooling mode application (optional)	n/a	

General Data		
Power supply	3x400V 50Hz	

### Heating

EN 14511-2				
Low temperature Medium temperature				
Heat output	25 kW	25 kW		
El input	6.25 kW	10.2 kW		
СОР	4	2.45		

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	78 dB(A)	78 dB(A)

EN 14825		
Low temperature	Medium temperature	
163 %	127 %	
17.3 kW	15.5 kW	
4.14	3.26	
-7 °C	-7 °C	
-20 °C	-20 °C	
15.3 kW	13.7 kW	
2.53	1.83	
1	1	
9.3 kW	8.3 kW	
4.2	3.28	
0.99	0.99	
6.3 kW	5.9 kW	
5.22	4.27	
0.99	0.98	
	Low temperature  163 %  17.3 kW  4.14  -7 °C  -20 °C  15.3 kW  2.53  1  9.3 kW  4.2  0.99  6.3 kW  5.22	



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#### This information was generated by the HP KEYMARK database on 22 Jun 2022

Pdh Tj = 12°C	7.7 kW	7.4 kW
COP Tj = 12°C	7.08	6.31
Cdh Tj = +12 °C	0.99	0.98
Pdh Tj = Tbiv	15.3 kW	13.7 kW
COP Tj = Tbiv	2.53	1.83
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	14.2 kW	13 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.3	1.78
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	3.1 kW	2.5 kW
Annual energy consumption Qhe	8638 kWh	9820 kWh



## Model: PUHZ-SW200YKA(-BS) + ERSE-\*M\*C

Configure model		
Model name	PUHZ-SW200YKA(-BS) + 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	25 kW	25 kW	
El input	6.25 kW	10.2 kW	
СОР	4	2.45	

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	78 dB(A)	78 dB(A)	

CEN heat pump KEYMARK

EN 14825		
	Low temperature	Medium temperature
$\eta_{S}$	164 %	129 %
Prated	17.3 kW	15.5 kW
SCOP	4.18	3.29
Tbiv	-7 °C	-7 °C
TOL	-20 °C	-20 °C
Pdh Tj = -7°C	15.3 kW	13.7 kW
COP Tj = -7°C	2.53	1.83
Cdh Tj = -7 °C	0.99	0.99
Pdh Tj = +2°C	9.3 kW	8.3 kW
COP Tj = +2°C	4.2	3.28
Cdh Tj = +2 °C	0.99	0.99
Pdh Tj = $+7^{\circ}$ C	6.3 kW	5.9 kW
$COPTj = +7^{\circ}C$	5.22	4.27
Cdh Tj = +7 °C	0.99	0.99



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#### This information was generated by the HP KEYMARK database on 22 Jun 2022

Pdh Tj = 12°C	7.7 kW	7.4 kW
COP Tj = 12°C	7.08	6.31
Cdh Tj = +12 °C	0.99	0.99
Pdh Tj = Tbiv	15.3 kW	13.7 kW
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COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.3	1.78
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	3.1 kW	2.5 kW
Annual energy consumption Qhe	8558 kWh	9740 kWh

# Model: PUHZ-SW200YKA(-BS) + ERSE-\*M\*D

Configure model		
Model name PUHZ-SW200YKA(-BS) + ERSE-*M*D		
Application Heating (medium temp)		
Units	ts 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	25 kW	25 kW	
El input	6.25 kW	10.2 kW	
СОР	4	2.45	

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	78 dB(A)	78 dB(A)

Low temperature	Medium temperature
164 %	129 %
17.3 kW	15.5 kW
4.18	3.29
-7 °C	-7 °C
-20 °C	-20 °C
15.3 kW	13.7 kW
2.53	1.83
1	1
9.3 kW	8.3 kW
4.2	3.28
0.99	0.99
6.3 kW	5.9 kW
5.22	4.27
0.99	0.98
	164 %  17.3 kW  4.18  -7 °C  -20 °C  15.3 kW  2.53  1  9.3 kW  4.2  0.99  6.3 kW  5.22



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COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.3	1.78
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	3.1 kW	2.5 kW
Annual energy consumption Qhe	8558 kWh	9740 kWh



## Model: PUHZ-SW200YKA(-BS) + ERSE-M\*C

Configure model		
Model name PUHZ-SW200YKA(-BS) + 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

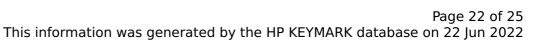
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СОР	4	2.45	

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	78 dB(A)	78 dB(A)

EN 14825		
	Low temperature	Medium temperature
$\eta_{s}$	164 %	129 %
Prated	17.3 kW	15.5 kW
SCOP	4.18	3.29
Tbiv	-7 °C	-7 °C
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Pdh Tj = -7°C	15.3 kW	13.7 kW
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Cdh Tj = -7 °C	0.99	0.99
Pdh Tj = +2°C	9.3 kW	8.3 kW
COP Tj = +2°C	4.2	3.28
Cdh Tj = +2 °C	0.99	0.99
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Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	3.1 kW	2.5 kW
Annual energy consumption Qhe	8558 kWh	9740 kWh



# Model: PUHZ-SW200YKA(-BS) + ERSE-M\*D

Configure model		
Model name	PUHZ-SW200YKA(-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	25 kW	25 kW	
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Starting and operating test	passed	



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Sound power level indoor	45 dB(A)	45 dB(A)
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Pdh Tj = -7°C	15.3 kW	13.7 kW
COP Tj = -7°C	2.53	1.83
Cdh Tj = -7 °C	1	1
Pdh Tj = +2°C	9.3 kW	8.3 kW
COP Tj = +2°C	4.2	3.28
Cdh Tj = +2 °C	0.99	0.99
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