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

#### **Login**

Summary of	Ecodan Power Inverter 16	Reg. No.	037-0052-20		
Certificate Holder	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 16				
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-SW160YKA(-BS) + EHSE-M\*C

Configure model		
Model name	PUHZ-SW160YKA(-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	22.00 kW	22.00 kW
El input	5.23 kW	8.91 kW
СОР	4.21	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	78 dB(A)	78 dB(A)

EN 14825		
	Low temperature	Medium temperature
$\eta_{s}$	161 %	125 %
Prated	15.30 kW	13.50 kW
SCOP	4.10	3.20
Tbiv	-7 °C	-7 °C
TOL	-20 °C	-20 °C
Pdh Tj = -7°C	13.50 kW	11.90 kW
COP Tj = -7°C	2.57	1.83
Cdh Tj = -7 °C	0.990	0.990
Pdh Tj = +2°C	8.20 kW	7.20 kW
COP Tj = +2°C	4.13	3.17
Cdh Tj = +2 °C	0.990	0.990
Pdh Tj = +7°C	6.30 kW	5.90 kW
COP Tj = +7°C	5.22	4.29
Cdh Tj = +7 °C	0.990	0.990





Pdh Tj = 12°C	7.70 kW	7.40 kW
COP Tj = 12°C	7.08	6.32
Cdh Tj = +12 °C	0.990	0.990
Pdh Tj = Tbiv	13.50 kW	11.90 kW
COP Tj = Tbiv	2.57	1.83
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	12.50 kW	11.30 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.35	1.80
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh		
WTOL	60 °C	60 °C
Poff	22 W	22 W
PTO	22 W	22 W
PSB	22 W	22 W
PCK	0 W	0 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	2.80 kW	2.20 kW
Annual energy consumption Qhe	7702 kWh	8716 kWh

## Model: PUHZ-SW160YKA(-BS) + EHSE-\*M\*C

Configure model		
Model name	PUHZ-SW160YKA(-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	22.00 kW	22.00 kW
El input	5.23 kW	8.91 kW
СОР	4.21	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	78 dB(A)	78 dB(A)

EN 14825		
	Low temperature	Medium temperature
$\eta_{s}$	161 %	125 %
Prated	15.30 kW	13.50 kW
SCOP	4.10	3.20
Tbiv	-7 °C	-7 °C
TOL	-20 °C	-20 °C
Pdh Tj = -7°C	13.50 kW	11.90 kW
COP Tj = -7°C	2.57	1.83
Cdh Tj = -7 °C	0.990	0.990
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COP Tj = +7°C	5.22	4.29
Cdh Tj = +7 °C	0.990	0.990





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Pdh Tj = Tbiv	13.50 kW	11.90 kW
COP Tj = Tbiv	2.57	1.83
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	12.50 kW	11.30 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.35	1.80
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh		
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	2.80 kW	2.20 kW
Annual energy consumption Qhe	7702 kWh	8716 kWh



## Model: PUHZ-SW160YKA(-BS) + ERSE-M\*C

Configure model		
Model name	PUHZ-SW160YKA(-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

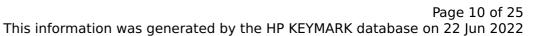
EN 14511-2		
	Low temperature	Medium temperature
Heat output	22.00 kW	22.00 kW
El input	5.23 kW	8.91 kW
СОР	4.21	2.47

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	78 dB(A)	78 dB(A)

EN 14825		
	Low temperature	Medium temperature
$\eta_{s}$	163 %	126 %
Prated	15.30 kW	13.50 kW
SCOP	4.15	3.23
Tbiv	-7 °C	-7 °C
TOL	-20 °C	-20 °C
Pdh Tj = -7°C	13.50 kW	11.90 kW
COP Tj = -7°C	2.57	1.83
Cdh Tj = -7 °C	0.990	0.990
Pdh Tj = +2°C	8.20 kW	7.20 kW
COP Tj = +2°C	4.13	3.17
Cdh Tj = +2 °C	0.990	0.990
Pdh Tj = +7°C	6.30 kW	5.90 kW
COP Tj = +7°C	5.22	4.29
Cdh Tj = +7 °C	0.990	0.990





Pdh Tj = 12°C	7.70 kW	7.40 kW
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COP Tj = Tbiv	2.57	1.83
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	12.50 kW	11.30 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.35	1.80
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh		
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	2.80 kW	2.20 kW
Annual energy consumption Qhe	7621 kWh	8636 kWh



# Model: PUHZ-SW160YKA(-BS) + ERSE-\*M\*C

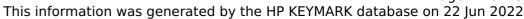
Configure model		
Model name	PUHZ-SW160YKA(-BS) + ERSE-*M*C	
Application	Heating (medium temp)	
Units	Indoor + Outdoor	
Climate Zone	n/a	
Reversibility	Yes	
Cooling mode application (optional)	n/a	

General Data		
Power supply	3x400V 50Hz	

#### Heating

EN 14511-2			
	Low temperature	Medium temperature	
Heat output	22.00 kW	22.00 kW	
El input	5.23 kW	8.91 kW	
СОР	4.21	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	78 dB(A)	78 dB(A)	

EN 14825		
	Low temperature	Medium temperature
$\eta_{s}$	163 %	126 %
Prated	15.30 kW	13.50 kW
SCOP	4.15	3.23
Tbiv	-7 °C	-7 °C
TOL	-20 °C	-20 °C
Pdh Tj = -7°C	13.50 kW	11.90 kW
COP Tj = -7°C	2.57	1.83
Cdh Tj = -7 °C	0.990	0.990
Pdh Tj = +2°C	8.20 kW	7.20 kW
COP Tj = +2°C	4.13	3.17
Cdh Tj = +2 °C	0.990	0.990
Pdh Tj = +7°C	6.30 kW	5.90 kW
COP Tj = +7°C	5.22	4.29
Cdh Tj = +7 °C	0.990	0.990



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Pdh Tj = 12°C	7.70 kW	7.40 kW
COP Tj = 12°C	7.08	6.32
Cdh Tj = +12 °C	0.990	0.990
Pdh Tj = Tbiv	13.50 kW	11.90 kW
COP Tj = Tbiv	2.57	1.83
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	12.50 kW	11.30 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.35	1.80
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh		
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	2.80 kW	2.20 kW
Annual energy consumption Qhe	7621 kWh	8636 kWh



# Model: PUHZ-SW160YKA(-BS) + EHSE-M\*D

Configure model		
Model name	PUHZ-SW160YKA(-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	22.00 kW	22.00 kW	
El input	5.24 kW	8.91 kW	
СОР	4.20	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	78 dB(A)	78 dB(A)

EN 14825		
	Low temperature	Medium temperature
$\eta_{s}$	161 %	125 %
Prated	15.30 kW	13.50 kW
SCOP	4.10	3.20
Tbiv	-7 °C	-7 °C
TOL	-20 °C	-20 °C
Pdh Tj = -7°C	13.50 kW	11.90 kW
COP Tj = -7°C	2.57	1.83
Cdh Tj = -7 °C	1.000	1.000
Pdh Tj = +2°C	8.20 kW	7.20 kW
COP Tj = +2°C	4.13	3.17
Cdh Tj = +2 °C	0.990	0.990
Pdh Tj = +7°C	6.30 kW	5.90 kW
COP Tj = +7°C	5.22	4.29
Cdh Tj = +7 °C	0.990	0.980



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Pdh Tj = 12°C	7.70 kW	7.40 kW
COP Tj = 12°C	7.08	6.32
Cdh Tj = +12 °C	0.990	0.980
Pdh Tj = Tbiv	13.50 kW	11.90 kW
COP Tj = Tbiv	2.57	1.83
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	12.50 kW	11.30 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.35	1.80
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh		
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	2.80 kW	2.20 kW
Annual energy consumption Qhe	7702 kWh	8716 kWh

# Model: PUHZ-SW160YKA(-BS) + EHSE-\*M\*D

Configure model		
Model name PUHZ-SW160YKA(-BS) + EHSE-*M*D		
Application	plication 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	22.00 kW	22.00 kW	
El input	5.24 kW	8.91 kW	
СОР	4.20	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	78 dB(A)	78 dB(A)

EN 14825		
	Low temperature	Medium temperature
$\eta_{s}$	161 %	125 %
Prated	15.30 kW	13.50 kW
SCOP	4.10	3.20
Tbiv	-7 °C	-7 °C
TOL	-20 °C	-20 °C
Pdh Tj = -7°C	13.50 kW	11.90 kW
COP Tj = -7°C	2.57	1.83
Cdh Tj = -7 °C	1.000	1.000
Pdh Tj = +2°C	8.20 kW	7.20 kW
COP Tj = +2°C	4.13	3.17
Cdh Tj = +2 °C	0.990	0.990
Pdh Tj = +7°C	6.30 kW	5.90 kW
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This information was genera	· · · · · · · · · · · · · · · · · · ·	
Pdh Tj = 12°C	7.70 kW	7.40 kW
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COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.35	1.80
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh		
WTOL	60 °C	60 °C
Poff	22 W	22 W
РТО	22 W	22 W
PSB	22 W	22 W
PCK	0 W	0 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	2.80 kW	2.20 kW
Annual energy consumption Qhe	7702 kWh	8716 kWh



## Model: PUHZ-SW160YKA(-BS) + ERSE-M\*D

Configure model		
Model name PUHZ-SW160YKA(-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

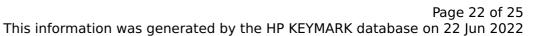
EN 14511-2			
Low temperature Medium temperature			
Heat output	22.00 kW	22.00 kW	
El input	5.24 kW	8.91 kW	
СОР	4.20	2.47	

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



EN 12102-1		
	Low temperature	Medium temperature
Sound power level indoor	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 %	126 %
Prated	15.30 kW	13.50 kW
SCOP	4.15	3.23
Tbiv	-7 °C	-7 °C
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Pdh Tj = -7°C	13.50 kW	11.90 kW
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Pdh Tj = 12°C	7.70 kW	7.40 kW	
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COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.35	1.80	
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WTOL	60 °C	60 °C	
Poff	22 W	22 W	
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PSB	22 W	22 W	
PCK	o w	o w	
Supplementary Heater: Type of energy input	Electricity	Electricity	
Supplementary Heater: PSUP	2.80 kW	2.20 kW	
Annual energy consumption Qhe	7621 kWh	8636 kWh	

## Model: PUHZ-SW160YKA(-BS) + ERSE-\*M\*D

Configure model		
Model name	PUHZ-SW160YKA(-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	22.00 kW	22.00 kW	
El input	5.24 kW	8.91 kW	
СОР	4.20	2.47	

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



EN 12102-1		
	Low temperature	Medium temperature
Sound power level indoor	45 dB(A)	45 dB(A)
Sound power level outdoor	78 dB(A)	78 dB(A)

EN 14825		
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$\eta_{s}$	163 %	126 %
Prated	15.30 kW	13.50 kW
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COP Tj = -7°C	2.57	1.83
Cdh Tj = -7 °C	1.000	1.000
Pdh Tj = +2°C	8.20 kW	7.20 kW
$COP Tj = +2^{\circ}C$	4.13	3.17
Cdh Tj = +2 °C	0.990	0.990
Pdh Tj = +7°C	6.30 kW	5.90 kW
COP Tj = +7°C	5.22	4.29
Cdh Tj = +7 °C	0.990	0.980





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Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh		
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	2.80 kW	2.20 kW
Annual energy consumption Qhe	7621 kWh	8636 kWh