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

Summary of	Ecodan Power Inverter 10/12-200D AA	Reg. No.	037-0020-20	
Certificate Holder	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 Power Inverter 10/12-200D AA			
Heat Pump Type	Outdoor Air/Water			
Refrigerant	R32			
Mass of Refrigerant	1.6 kg			
Certification Date	06.10.2020			
Testing basis	HP Keymark scheme rules rev. no. 6			



## Model: PUD-SWM100VAA(-BS) + E\*SD-\*M\*D

Configure model		
Model name PUD-SWM100VAA(-BS) + E*SD-*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	1x230V 50Hz	

## Heating

EN 14511-2			
Low temperature Medium temperature			
Heat output	8 kW	8 kW	
El input	1.6 kW	3.08 kW	
СОР	5	2.6	

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 41 dB(A) 41 dB(A) Sound power level outdoor 59 dB(A) 59 dB(A)

EN 14825		
	Low temperature	Medium temperature
$\eta_{S}$	178 %	131 %
Prated	10 kW	10 kW
SCOP	4.53	3.35
Tbiv	-7 °C	-7 °C
TOL	-25 °C	-25 °C
Pdh Tj = -7°C	8.8 kW	8.8 kW
COP Tj = -7°C	3.1	2
Cdh Tj = -7 °C	1	1
Pdh Tj = $+2$ °C	5.7 kW	5.7 kW
$COP Tj = +2^{\circ}C$	4.46	3.16
Cdh Tj = +2 °C	0.99	0.99
Pdh Tj = +7°C	5.4 kW	5.2 kW
COP Tj = +7°C	5.68	4.77
Cdh Tj = +7 °C	0.98	0.99
	·	



Pdh Tj = 12°C	4.5 kW	3.6 kW
COP Tj = 12°C	7.76	6.92
Cdh Tj = +12 °C	0.97	0.97
Pdh Tj = Tbiv	8.8 kW	8.8 kW
COP Tj = Tbiv	3.1	2
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	8.57 kW	8.57 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.85	1.93
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	1.43 kW	1.43 kW
Annual energy consumption Qhe	4564 kWh	6173 kWh



## Model: PUD-SWM100VAA(-BS) + E\*SD-M\*D

Configure model		
Model name PUD-SWM100VAA(-BS) + E*SD-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	1x230V 50Hz	

## Heating

EN 14511-2			
Low temperature Medium temperature			
Heat output	8 kW	8 kW	
El input	1.6 kW	3.08 kW	
СОР	5	2.6	

EN 14511-4	
Chutting off the heat transfer medium flow	nassad
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	41 dB(A)	41 dB(A)
Sound power level outdoor	59 dB(A)	59 dB(A)

EN 14825		
	Low temperature	Medium temperature
$\eta_{s}$	178 %	131 %
Prated	10 kW	10 kW
SCOP	4.53	3.35
Tbiv	-7 °C	-7 °C
TOL	-25 °C	-25 °C
Pdh Tj = -7°C	8.8 kW	8.8 kW
COP Tj = -7°C	3.1	2
Cdh Tj = -7 °C	1	1
Pdh Tj = +2°C	5.7 kW	5.7 kW
COP Tj = +2°C	4.46	3.16
Cdh Tj = +2 °C	0.99	0.99
Pdh Tj = +7°C	5.4 kW	5.2 kW
COP Tj = +7°C	5.68	4.77
Cdh Tj = +7 °C	0.98	0.99



	<u> </u>	
Pdh Tj = 12°C	4.5 kW	3.6 kW
COP Tj = 12°C	7.76	6.92
Cdh Tj = +12 °C	0.97	0.97
Pdh Tj = Tbiv	8.8 kW	8.8 kW
COP Tj = Tbiv	3.1	2
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	8.57 kW	8.57 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.85	1.93
WTOL	60 °C	60 °C
Poff	15 W	15 W
РТО	15 W	15 W
PSB	15 W	15 W
РСК	o w	0 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	1.43 kW	1.43 kW
Annual energy consumption Qhe	4564 kWh	6173 kWh



## Model: PUD-SWM100VAA(-BS) + E\*ST20D-\*M\*D

Configure model		
Model name   PUD-SWM100VAA(-BS) + E*ST20D-*M*D		
Application	Heating + DHW + low temp	
Units	Indoor + Outdoor	
Climate Zone n/a		
Reversibility	No	
Cooling mode application (optional) n/a		

General Data		
Power supply	1x230V 50Hz	

## Heating

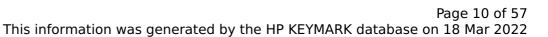
EN 14511-2		
	Low temperature	Medium temperature
Heat output	8 kW	8 kW
El input	1.6 kW	3.08 kW
СОР	5	2.6

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	41 dB(A)	41 dB(A)
Sound power level outdoor	59 dB(A)	59 dB(A)

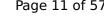
EN 14825		
	Low temperature	Medium temperature
$\eta_{s}$	178 %	131 %
Prated	10 kW	10 kW
SCOP	4.53	3.35
Tbiv	-7 °C	-7 °C
TOL	-25 °C	-25 °C
Pdh Tj = -7°C	8.8 kW	8.8 kW
COP Tj = -7°C	3.1	2
Cdh Tj = -7 °C	1	1
Pdh Tj = +2°C	5.7 kW	5.7 kW
COP Tj = +2°C	4.46	3.16
Cdh Tj = +2 °C	0.99	0.99
Pdh Tj = +7°C	5.4 kW	5.2 kW
COP Tj = +7°C	5.68	4.77
Cdh Tj = +7 °C	0.98	0.99





Pdh Tj = 12°C	4.5 kW	3.6 kW
COP Tj = 12°C	7.76	6.92
Cdh Tj = +12 °C	0.97	0.97
Pdh Tj = Tbiv	8.8 kW	8.8 kW
COP Tj = Tbiv	3.1	2
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	8.57 kW	8.57 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.85	1.93
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	1.43 kW	1.43 kW
Annual energy consumption Qhe	4564 kWh	6173 kWh

Domestic Hot Water (DHW)





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EN 16147		
Efficiency ηDHW	148 %	
СОР	3.49	
Standby power input	36 W	
Reference hot water temperature	52.5 °C	
Mixed water at 40°C	278	
Declared load profile	L	
Heating up time	01:47 h:min	



## Model: PUD-SWM100VAA(-BS) + E\*ST20D-M\*D

Configure model		
Model name PUD-SWM100VAA(-BS) + E*ST20D-M*D		
Application	Heating + DHW + low temp	
Units	Indoor + Outdoor	
Climate Zone n/a		
Reversibility	No	
Cooling mode application (optional)	n/a	

General Data		
Power supply	1x230V 50Hz	

## Heating

EN 14511-2		
	Low temperature	Medium temperature
Heat output	8 kW	8 kW
El input	1.6 kW	3.08 kW
СОР	5	2.6

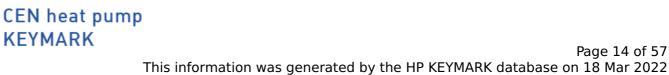
EN 14511-4	
Shutting off the heat transfer medium flow	naccod
Shutting off the heat transfer medium flow	passed
Complete power supply failure	passed
Defrost test	passed
Starting and operating test	passed



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EN 12102-1		
	Low temperature	Medium temperature
Sound power level indoor	41 dB(A)	41 dB(A)
Sound power level outdoor	59 dB(A)	59 dB(A)

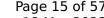
EN 14825		
	Low temperature	Medium temperature
$\eta_{s}$	178 %	131 %
Prated	10 kW	10 kW
SCOP	4.53	3.35
Tbiv	-7 °C	-7 °C
TOL	-25 °C	-25 °C
Pdh Tj = -7°C	8.8 kW	8.8 kW
COP Tj = -7°C	3.1	2
Cdh Tj = -7 °C	1	1
Pdh Tj = +2°C	5.7 kW	5.7 kW
COP Tj = +2°C	4.46	3.16
Cdh Tj = +2 °C	0.99	0.99
Pdh Tj = +7°C	5.4 kW	5.2 kW
COP Tj = +7°C	5.68	4.77
Cdh Tj = +7 °C	0.98	0.99



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Pdh Tj = 12°C	4.5 kW	3.6 kW
COP Tj = 12°C	7.76	6.92
Cdh Tj = +12 °C	0.97	0.97
Pdh Tj = Tbiv	8.8 kW	8.8 kW
COP Tj = Tbiv	3.1	2
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	8.57 kW	8.57 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.85	1.93
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	1.43 kW	1.43 kW
Annual energy consumption Qhe	4564 kWh	6173 kWh

## Domestic Hot Water (DHW)





# $$\operatorname{\textit{Page}}\ 15$$ of 57 This information was generated by the HP KEYMARK database on 18 Mar 2022

EN 16147	
Efficiency ηDHW	148 %
СОР	3.49
Standby power input	36 W
Reference hot water temperature	52.5 °C
Mixed water at 40°C	278
Declared load profile	L
Heating up time	01:47 h:min



## Model: PUD-SWM100YAA(-BS) + E\*SD-\*M\*D

Configure model		
Model name	PUD-SWM100YAA(-BS) + E*SD-*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	8 kW	8 kW
El input	1.6 kW	3.08 kW
СОР	5	2.6

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	41 dB(A)	41 dB(A)
Sound power level outdoor	59 dB(A)	59 dB(A)

EN 14825		
	Low temperature	Medium temperature
$\eta_{s}$	177 %	130 %
Prated	10 kW	10 kW
SCOP	4.49	3.33
Tbiv	-7 °C	-7 °C
TOL	-25 °C	-25 °C
Pdh Tj = -7°C	8.8 kW	8.8 kW
COP Tj = -7°C	3.1	2
Cdh Tj = -7 °C	0.99	1
Pdh Tj = +2°C	5.7 kW	5.7 kW
COP Tj = +2°C	4.46	3.16
Cdh Tj = +2 °C	0.98	0.99
Pdh Tj = +7°C	5.4 kW	5.2 kW
COP Tj = +7°C	5.68	4.77
Cdh Tj = +7 °C	0.98	0.98



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#### This information was generated by the HP KEYMARK database on 18 Mar 2022

Pdh Tj = 12°C	4.5 kW	3.6 kW
COP Tj = 12°C	7.76	6.92
Cdh Tj = +12 °C	0.96	0.96
Pdh Tj = Tbiv	8.8 kW	8.8 kW
COP Tj = Tbiv	3.1	2
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	8.57 kW	8.57 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.85	1.93
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	1.43 kW	1.43 kW
Annual energy consumption Qhe	4602 kWh	6210 kWh



## Model: PUD-SWM100YAA(-BS) + E\*SD-M\*D

Configure model		
Model name	PUD-SWM100YAA(-BS) + E*SD-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	Power supply 3x400V 50Hz	

## Heating

EN 14511-2		
	Low temperature	Medium temperature
Heat output	8 kW	8 kW
El input	1.6 kW	3.08 kW
СОР	5	2.6

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	41 dB(A)	41 dB(A)
Sound power level outdoor	59 dB(A)	59 dB(A)

EN 14825		
	Low temperature	Medium temperature
$\eta_{s}$	177 %	130 %
Prated	10 kW	10 kW
SCOP	4.49	3.33
Tbiv	-7 °C	-7 °C
TOL	-25 °C	-25 °C
Pdh Tj = -7°C	8.8 kW	8.8 kW
COP Tj = -7°C	3.1	2
Cdh Tj = -7 °C	0.99	1
Pdh Tj = +2°C	5.7 kW	5.7 kW
COP Tj = +2°C	4.46	3.16
Cdh Tj = +2 °C	0.98	0.99
Pdh Tj = +7°C	5.4 kW	5.2 kW
COP Tj = +7°C	5.68	4.77
Cdh Tj = +7 °C	0.98	0.98



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Pdh Tj = 12°C	4.5 kW	3.6 kW
-		
COP Tj = 12°C	7.76	6.92
Cdh Tj = +12 °C	0.96	0.96
Pdh Tj = Tbiv	8.8 kW	8.8 kW
COP Tj = Tbiv	3.1	2
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	8.57 kW	8.57 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.85	1.93
WTOL	60 °C	60 °C
Poff	22 W	22 W
PTO	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	1.43 kW	1.43 kW
Annual energy consumption Qhe	4602 kWh	6210 kWh



## Model: PUD-SWM100YAA(-BS) + E\*ST20D-\*M\*D

Configure model		
Model name	PUD-SWM100YAA(-BS) + E*ST20D-*M*D	
Application	Heating + DHW + low temp	
Units Indoor + Outdoor		
Climate Zone n/a		
Reversibility No		
Cooling mode application (optional)	n/a	

General Data		
Power supply	Power supply 3x400V 50Hz	

## Heating

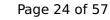
EN 14511-2		
	Low temperature	Medium temperature
Heat output	8 kW	8 kW
El input	1.6 kW	3.08 kW
СОР	5	2.6

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	41 dB(A)	41 dB(A)
Sound power level outdoor	59 dB(A)	59 dB(A)

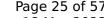
EN 14825		
	Low temperature	Medium temperature
$\eta_{s}$	177 %	130 %
Prated	10 kW	10 kW
SCOP	4.49	3.33
Tbiv	-7 °C	-7 °C
TOL	-25 °C	-25 °C
Pdh Tj = -7°C	8.8 kW	8.8 kW
COP Tj = -7°C	3.1	2
Cdh Tj = -7 °C	0.99	1
Pdh Tj = +2°C	5.7 kW	5.7 kW
COP Tj = +2°C	4.46	3.16
Cdh Tj = +2 °C	0.98	0.99
Pdh Tj = +7°C	5.4 kW	5.2 kW
COP Tj = +7°C	5.68	4.77
Cdh Tj = +7 °C	0.98	0.98





Pdh Tj = 12°C	4.5 kW	3.6 kW
COP Tj = 12°C	7.76	6.92
Cdh Tj = +12 °C	0.96	0.96
Pdh Tj = Tbiv	8.8 kW	8.8 kW
COP Tj = Tbiv	3.1	2
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	8.57 kW	8.57 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.85	1.93
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	1.43 kW	1.43 kW
Annual energy consumption Qhe	4602 kWh	6210 kWh

## Domestic Hot Water (DHW)





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EN 16147		
Efficiency ηDHW	148 %	
СОР	3.49	
Standby power input	36 W	
Reference hot water temperature	52.5 °C	
Mixed water at 40°C	278	
Declared load profile	L	
Heating up time	01:47 h:min	



## Model: PUD-SWM100YAA(-BS) + E\*ST20D-M\*D

Configure model		
Model name PUD-SWM100YAA(-BS) + E*ST20D-M*D		
Application	Heating + DHW + low 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	8 kW	8 kW	
El input	1.6 kW	3.08 kW	
СОР	5	2.6	

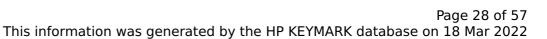
EN 14511-4	
Shutting off the heat transfer medium flow	passed
Complete power supply failure	passed
Defrost test	passed
Starting and operating test	passed



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EN 12102-1		
	Low temperature	Medium temperature
Sound power level indoor	41 dB(A)	41 dB(A)
Sound power level outdoor	59 dB(A)	59 dB(A)

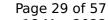
EN 14825		
	Low temperature	Medium temperature
$\eta_{s}$	177 %	130 %
Prated	10 kW	10 kW
SCOP	4.49	3.33
Tbiv	-7 °C	-7 °C
TOL	-25 °C	-25 °C
Pdh Tj = -7°C	8.8 kW	8.8 kW
COP Tj = -7°C	3.1	2
Cdh Tj = -7 °C	0.99	1
Pdh Tj = +2°C	5.7 kW	5.7 kW
COP Tj = +2°C	4.46	3.16
Cdh Tj = +2 °C	0.98	0.99
Pdh Tj = +7°C	5.4 kW	5.2 kW
COP Tj = +7°C	5.68	4.77
Cdh Tj = +7 °C	0.98	0.98





4.5 kW	3.6 kW
7.76	6.92
0.96	0.96
8.8 kW	8.8 kW
3.1	2
8.57 kW	8.57 kW
2.85	1.93
60 °C	60 °C
22 W	22 W
22 W	22 W
22 W	22 W
o w	o w
Electricity	Electricity
1.43 kW	1.43 kW
4602 kWh	6210 kWh
	7.76  0.96  8.8 kW  3.1  8.57 kW  2.85  60 °C  22 W  22 W  22 W  0 W  Electricity  1.43 kW

Domestic Hot Water (DHW)





EN 16147		
Efficiency ηDHW	148 %	
СОР	3.49	
Standby power input	36 W	
Reference hot water temperature	52.5 °C	
Mixed water at 40°C	278	
Declared load profile	L	
Heating up time	01:47 h:min	



## Model: PUD-SWM120VAA(-BS) + E\*SD-\*M\*D

Configure model		
Model name PUD-SWM120VAA(-BS) + E*SD-*M*D		
Application	Heating (medium temp)	
nits Indoor + Outdoor		
Climate Zone	e Zone n/a	
Reversibility No		
Cooling mode application (optional)	n/a	

General Data		
Power supply 1x230V 50Hz		

## Heating

EN 14511-2			
Low temperature Medium temperature			
Heat output	10 kW	10 kW	
El input	2.13 kW	3.77 kW	
СОР	4.7	2.65	

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	41 dB(A)	41 dB(A)	
Sound power level outdoor	60 dB(A)	60 dB(A)	

EN 14825		
	Low temperature	Medium temperature
$\eta_{s}$	177 %	129 %
Prated	12 kW	12 kW
SCOP	4.5	3.3
Tbiv	-7 °C	-7 °C
TOL	-25 °C	-25 °C
Pdh Tj = -7°C	10.6 kW	10.6 kW
COP Tj = -7°C	2.85	1.94
Cdh Tj = -7 °C	1	1
Pdh Tj = $+2$ °C	6.5 kW	6.5 kW
COP Tj = +2°C	4.45	3.1
Cdh Tj = +2 °C	0.99	0.99
Pdh Tj = +7°C	5.6 kW	5.3 kW
COP Tj = +7°C	5.83	4.73
Cdh Tj = +7 °C	0.98	0.99



Pdh Tj = 12°C	4.4 kW	4.3 kW
COP Tj = 12°C	7.86	6.94
Cdh Tj = +12 °C	0.97	0.98
Pdh Tj = Tbiv	10.6 kW	10.6 kW
COP Tj = Tbiv	2.85	1.94
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	10.2 kW	10.2 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.64	1.88
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	1.8 kW	1.8 kW
Annual energy consumption Qhe	5512 kWh	7519 kWh



## Model: PUD-SWM120VAA(-BS) + E\*SD-M\*D

Configure model		
Model name   PUD-SWM120VAA(-BS) + E*SD-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 1x230V 50Hz		

## Heating

EN 14511-2			
Low temperature Medium temperature			
Heat output	10 kW	10 kW	
El input	2.13 kW	3.77 kW	
СОР	4.7	2.65	

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	41 dB(A)	41 dB(A)	
Sound power level outdoor	60 dB(A)	60 dB(A)	

EN 14825			
	Low temperature	Medium temperature	
$\eta_{s}$	177 %	129 %	
Prated	12 kW	12 kW	
SCOP	4.5	3.3	
Tbiv	-7 °C	-7 °C	
TOL	-25 °C	-25 °C	
Pdh Tj = -7°C	10.6 kW	10.6 kW	
COP Tj = -7°C	2.85	1.94	
Cdh Tj = -7 °C	1	1	
Pdh Tj = +2°C	6.5 kW	6.5 kW	
COP Tj = +2°C	4.45	3.1	
Cdh Tj = +2 °C	0.99	0.99	
Pdh Tj = +7°C	5.6 kW	5.3 kW	
COP Tj = +7°C	5.83	4.73	
Cdh Tj = +7 °C	0.98	0.99	



Pdh Tj = 12°C	4.4 kW	4.3 kW
COP Tj = 12°C	7.86	6.94
Cdh Tj = +12 °C	0.97	0.98
Pdh Tj = Tbiv	10.6 kW	10.6 kW
COP Tj = Tbiv	2.85	1.94
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	10.2 kW	10.2 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.64	1.88
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	1.8 kW	1.8 kW
Annual energy consumption Qhe	5512 kWh	7519 kWh

## Model: PUD-SWM120VAA(-BS) + E\*ST20D-\*M\*D

Configure model		
Model name	PUD-SWM120VAA(-BS) + E*ST20D-*M*D	
Application	Heating + DHW + low temp	
Units	Indoor + Outdoor	
Climate Zone	n/a	
Reversibility	No	
Cooling mode application (optional)	n/a	

General Data		
Power supply	1x230V 50Hz	

## Heating

EN 14511-2				
	Low temperature	Medium temperature		
Heat output	10 kW	10 kW		
El input	2.13 kW	3.77 kW		
СОР	4.7	2.65		

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

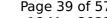


EN 12102-1		
	Low temperature	Medium temperature
Sound power level indoor	41 dB(A)	41 dB(A)
Sound power level outdoor	60 dB(A)	60 dB(A)

EN 14825		
	Low temperature	Medium temperature
$\eta_{s}$	177 %	129 %
Prated	12 kW	12 kW
SCOP	4.5	3.3
Tbiv	-7 °C	-7 °C
TOL	-25 °C	-25 °C
Pdh Tj = -7°C	10.6 kW	10.6 kW
COP Tj = -7°C	2.85	1.94
Cdh Tj = -7 °C	1	1
Pdh Tj = $+2$ °C	6.5 kW	6.5 kW
COP Tj = +2°C	4.45	3.1
Cdh Tj = +2 °C	0.99	0.99
Pdh Tj = +7°C	5.6 kW	5.3 kW
COP Tj = +7°C	5.83	4.73
Cdh Tj = +7 °C	0.98	0.99

-	
4.4 kW	4.3 kW
7.86	6.94
0.97	0.98
10.6 kW	10.6 kW
2.85	1.94
10.2 kW	10.2 kW
2.64	1.88
60 °C	60 °C
15 W	15 W
15 W	15 W
15 W	15 W
o w	o w
Electricity	Electricity
1.8 kW	1.8 kW
5512 kWh	7519 kWh
	4.4 kW 7.86 0.97 10.6 kW 2.85 10.2 kW 2.64 60 °C 15 W 15 W 0 W Electricity 1.8 kW

Domestic Hot Water (DHW)





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EN 16147		
Efficiency ηDHW	148 %	
СОР	3.49	
Standby power input	36 W	
Reference hot water temperature	52.5 °C	
Mixed water at 40°C	278	
Declared load profile	L	
Heating up time	01:47 h:min	



## Model: PUD-SWM120VAA(-BS) + E\*ST20D-M\*D

Configure model		
Model name	PUD-SWM120VAA(-BS) + E*ST20D-M*D	
Application Heating + DHW + low temp		
Units	Indoor + Outdoor	
Climate Zone n/a		
Reversibility No		
Cooling mode application (optional)	n/a	

General Data		
Power supply 1x230V 50Hz		

### Heating

EN 14511-2		
	Low temperature	Medium temperature
Heat output	10 kW	10 kW
El input	2.13 kW	3.77 kW
СОР	4.7	2.65

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	41 dB(A)	41 dB(A)
Sound power level outdoor	60 dB(A)	60 dB(A)

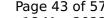
EN 14825		
	Low temperature	Medium temperature
$\eta_{s}$	177 %	129 %
Prated	12 kW	12 kW
SCOP	4.5	3.3
Tbiv	-7 °C	-7 °C
TOL	-25 °C	-25 °C
Pdh Tj = -7°C	10.6 kW	10.6 kW
COP Tj = -7°C	2.85	1.94
Cdh Tj = -7 °C	1	1
Pdh Tj = $+2$ °C	6.5 kW	6.5 kW
COP Tj = +2°C	4.45	3.1
Cdh Tj = +2 °C	0.99	0.99
Pdh Tj = +7°C	5.6 kW	5.3 kW
COP Tj = +7°C	5.83	4.73
Cdh Tj = +7 °C	0.98	0.99





Pdh Tj = 12°C	4.4 kW	4.3 kW
COP Tj = 12°C	7.86	6.94
Cdh Tj = +12 °C	0.97	0.98
Pdh Tj = Tbiv	10.6 kW	10.6 kW
COP Tj = Tbiv	2.85	1.94
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	10.2 kW	10.2 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.64	1.88
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	1.8 kW	1.8 kW
Annual energy consumption Qhe	5512 kWh	7519 kWh

Domestic Hot Water (DHW)





# $$\operatorname{\textit{Page}}\xspace$ 43 of 57 This information was generated by the HP KEYMARK database on 18 Mar 2022

EN 16147		
Efficiency ηDHW	148 %	
СОР	3.49	
Standby power input	36 W	
Reference hot water temperature	52.5 °C	
Mixed water at 40°C	278	
Declared load profile	L	
Heating up time	01:47 h:min	



## Model: PUD-SWM120YAA(-BS) + E\*SD-\*M\*D

Configure model		
Model name PUD-SWM120YAA(-BS) + E*SD-*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	10 kW	10 kW	
El input	2.13 kW	3.77 kW	
СОР	4.7	2.65	

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	41 dB(A)	41 dB(A)	
Sound power level outdoor	60 dB(A)	60 dB(A)	

EN 14825		
	Low temperature	Medium temperature
$\eta_{s}$	176 %	128 %
Prated	12 kW	12 kW
SCOP	4.47	3.28
Tbiv	-7 °C	-7 °C
TOL	-25 °C	-25 °C
Pdh Tj = -7°C	10.6 kW	10.6 kW
$COP Tj = -7^{\circ}C$	2.85	1.94
Cdh Tj = -7 °C	0.99	1
Pdh Tj = +2°C	6.5 kW	6.5 kW
COP Tj = +2°C	4.45	3.1
Cdh Tj = +2 °C	0.98	0.99
Pdh Tj = +7°C	5.6 kW	5.3 kW
COP Tj = +7°C	5.83	4.73
Cdh Tj = +7 °C	0.98	0.98
Cdh Tj = +7 °C	0.98	0.98



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#### This information was generated by the HP KEYMARK database on 18 Mar 2022

Pdh Tj = 12°C	4.4 kW	4.3 kW
COP Tj = 12°C	7.86	6.94
Cdh Tj = +12 °C	0.96	0.96
Pdh Tj = Tbiv	10.6 kW	10.6 kW
COP Tj = Tbiv	2.85	1.94
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	10.2 kW	10.2 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.64	1.88
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	1.8 kW	1.8 kW
Annual energy consumption Qhe	5548 kWh	7555 kWh



# Model: PUD-SWM120YAA(-BS) + E\*SD-M\*D

Configure model		
Model name   PUD-SWM120YAA(-BS) + E*SD-M*D		
Application	Heating (medium temp)	
Units	Indoor + Outdoor	
Climate Zone	n/a	
Reversibility	No	
Cooling mode application (optional)	(optional) n/a	

General Data		
Power supply 3x400V 50Hz		

### Heating

EN 14511-2			
Low temperature Medium temperature			
Heat output	10 kW	10 kW	
El input	2.13 kW	3.77 kW	
СОР	4.7	2.65	

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	41 dB(A)	41 dB(A)
Sound power level outdoor	60 dB(A)	60 dB(A)

EN 14825		
	Low temperature	Medium temperature
$\eta_{s}$	176 %	128 %
Prated	12 kW	12 kW
SCOP	4.47	3.28
Tbiv	-7 °C	-7 °C
TOL	-25 °C	-25 °C
Pdh Tj = -7°C	10.6 kW	10.6 kW
COP Tj = -7°C	2.85	1.94
Cdh Tj = -7 °C	0.99	1
Pdh Tj = +2°C	6.5 kW	6.5 kW
COP Tj = +2°C	4.45	3.1
Cdh Tj = +2 °C	0.98	0.99
Pdh Tj = +7°C	5.6 kW	5.3 kW
COP Tj = +7°C	5.83	4.73
Cdh Tj = +7 °C	0.98	0.98



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#### This information was generated by the HP KEYMARK database on 18 Mar 2022

Pdh Tj = 12°C	4.4 kW	4.3 kW
COP Tj = 12°C	7.86	6.94
Cdh Tj = +12 °C	0.96	0.96
Pdh Tj = Tbiv	10.6 kW	10.6 kW
COP Tj = Tbiv	2.85	1.94
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	10.2 kW	10.2 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.64	1.88
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	1.8 kW	1.8 kW
Annual energy consumption Qhe	5548 kWh	7555 kWh

## Model: PUD-SWM120YAA(-BS) + E\*ST20D-\*M\*D

Configure model		
Model name PUD-SWM120YAA(-BS) + E*ST20D-*M*D		
Application	Heating + DHW + low 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	10 kW	10 kW
El input	2.13 kW	3.77 kW
СОР	4.7	2.65

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	41 dB(A)	41 dB(A)
Sound power level outdoor	60 dB(A)	60 dB(A)

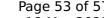
EN 14825		
	Low temperature	Medium temperature
$\eta_{s}$	176 %	128 %
Prated	12 kW	12 kW
SCOP	4.47	3.28
Tbiv	-7 °C	-7 °C
TOL	-25 °C	-25 °C
Pdh Tj = -7°C	10.6 kW	10.6 kW
COP Tj = -7°C	2.85	1.94
Cdh Tj = -7 °C	0.99	1
Pdh Tj = +2°C	6.5 kW	6.5 kW
COP Tj = +2°C	4.45	3.1
Cdh Tj = +2 °C	0.98	0.99
Pdh Tj = +7°C	5.6 kW	5.3 kW
COP Tj = +7°C	5.83	4.73
Cdh Tj = +7 °C	0.98	0.98





Pdh Tj = 12°C	4.4 kW	4.3 kW
COP Tj = 12°C	7.86	6.94
Cdh Tj = +12 °C	0.96	0.96
Pdh Tj = Tbiv	10.6 kW	10.6 kW
COP Tj = Tbiv	2.85	1.94
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	10.2 kW	10.2 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.64	1.88
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	1.8 kW	1.8 kW
Annual energy consumption Qhe	5548 kWh	7555 kWh

Domestic Hot Water (DHW)





# $$\operatorname{\textsc{Page}}\xspace$ 53 of 57 This information was generated by the HP KEYMARK database on 18 Mar 2022

EN 16147	
Efficiency ηDHW	148 %
СОР	3.49
Standby power input	36 W
Reference hot water temperature	52.5 °C
Mixed water at 40°C	278
Declared load profile	L
Heating up time	01:47 h:min



# Model: PUD-SWM120YAA(-BS) + E\*ST20D-M\*D

Configure model		
Model name PUD-SWM120YAA(-BS) + E*ST20D-M*D		
Application	Heating + DHW + low 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	10 kW	10 kW		
El input	2.13 kW	3.77 kW		
СОР	4.7	2.65		

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	41 dB(A)	41 dB(A)	
Sound power level outdoor	60 dB(A)	60 dB(A)	

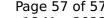
EN 14825				
	Low temperature	Medium temperature		
$\eta_{s}$	176 %	128 %		
Prated	12 kW	12 kW		
SCOP	4.47	3.28		
Tbiv	-7 °C	-7 °C		
TOL	-25 °C	-25 °C		
Pdh Tj = -7°C	10.6 kW	10.6 kW		
COP Tj = -7°C	2.85	1.94		
Cdh Tj = -7 °C	0.99	1		
Pdh Tj = +2°C	6.5 kW	6.5 kW		
COP Tj = +2°C	4.45	3.1		
Cdh Tj = +2 °C	0.98	0.99		
Pdh Tj = +7°C	5.6 kW	5.3 kW		
COP Tj = +7°C	5.83	4.73		
Cdh Tj = +7 °C	0.98	0.98		





Pdh Tj = 12°C	4.4 kW	4.3 kW
COP Tj = 12°C	7.86	6.94
Cdh Tj = +12 °C	0.96	0.96
Pdh Tj = Tbiv	10.6 kW	10.6 kW
COP Tj = Tbiv	2.85	1.94
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	10.2 kW	10.2 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.64	1.88
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	1.8 kW	1.8 kW
Annual energy consumption Qhe	5548 kWh	7555 kWh

Domestic Hot Water (DHW)





# $$\operatorname{\textsc{Page}}\xspace$ 57 of 57 This information was generated by the HP KEYMARK database on 18 Mar 2022

EN 16147		
Efficiency ηDHW	148 %	
СОР	3.49	
Standby power input	36 W	
Reference hot water temperature	52.5 °C	
Mixed water at 40°C	278	
Declared load profile	L	
Heating up time	01:47 h:min	