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#### **Login**

Summary of	Ecodan Zubadan 8/11-300D AA	Reg. No.	037-0016-20		
Certificate Holder					
Name	Mitsubishi Electric Air Conditioning Systems Europe LTD				
Address	Nettlehill Road, Houston Industrial Estate	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 8/11-300D AA				
Heat Pump Type	Outdoor Air/Water				
Refrigerant	R410A				
Mass of Refrigerant	4.6 kg				
Certification Date	14.02.2020				
Testing basis	HP Keymark scheme rules rev. no. 6				

## Model: PUHZ-SHW80VAA + EHST30C-\*M\*D

Configure model		
Model name PUHZ-SHW80VAA + EHST30C-*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	1.72 kW	2.96 kW
СОР	4.65	2.7

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	40 dB(A)	40 dB(A)
Sound power level outdoor	59 dB(A)	59 dB(A)

EN 14825		
	Low temperature	Medium temperature
$\eta_{s}$	169 %	133 %
Prated	9.6 kW	9 kW
SCOP	4.31	3.4
Tbiv	-7 °C	-7 °C
TOL	-28 °C	-28 °C
Pdh Tj = -7°C	8.5 kW	8 kW
COP Tj = -7°C	3.15	2.13
Cdh Tj = -7 °C	0.99	1
Pdh Tj = +2°C	5.2 kW	4.9 kW
COP Tj = +2°C	4.05	3.29
Cdh Tj = +2 °C	0.99	0.99
Pdh Tj = +7°C	5 kW	5.4 kW
$COP Tj = +7^{\circ}C$	5.62	4.66
Cdh Tj = +7 °C	0.98	0.99





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Pdh Tj = 12°C	5.6 kW	5.3 kW
COP Tj = 12°C	7.53	5.92
Cdh Tj = +12 °C	0.98	0.98
Pdh Tj = Tbiv	8.5 kW	8 kW
COP Tj = Tbiv	3.15	2.13
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	8.36 kW	7.93 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.91	2.05
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	1.24 kW	1.07 kW
Annual energy consumption Qhe	4602 kWh	5465 kWh

Domestic Hot Water (DHW)





EN 16147		
Declared load profile	XL	
Efficiency ηDHW	120 %	
СОР	2.9	
Heating up time	03:41 h:min	
Standby power input	41 W	
Reference hot water temperature	52.5 °C	
Mixed water at 40°C	417	

## Model: PUHZ-SHW80VAA + EHST30C-M\*D

Configure model		
Model name	PUHZ-SHW80VAA + EHST30C-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	1.72 kW	2.96 kW
СОР	4.65	2.7

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	40 dB(A)	40 dB(A)
Sound power level outdoor	59 dB(A)	59 dB(A)

EN 14825		
	Low temperature	Medium temperature
$\eta_{s}$	169 %	133 %
Prated	9.6 kW	9 kW
SCOP	4.31	3.4
Tbiv	-7 °C	-7 °C
TOL	-28 °C	-28 °C
Pdh Tj = -7°C	8.5 kW	8 kW
COP Tj = -7°C	3.15	2.13
Cdh Tj = -7 °C	0.99	1
Pdh Tj = +2°C	5.2 kW	4.9 kW
COP Tj = +2°C	4.05	3.29
Cdh Tj = +2 °C	0.99	0.99
Pdh Tj = +7°C	5 kW	5.4 kW
$COP Tj = +7^{\circ}C$	5.62	4.66
Cdh Tj = +7 °C	0.98	0.99





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Pdh Tj = 12°C	5.6 kW	5.3 kW
COP Tj = 12°C	7.53	5.92
Cdh Tj = +12 °C	0.98	0.98
Pdh Tj = Tbiv	8.5 kW	8 kW
COP Tj = Tbiv	3.15	2.13
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	8.36 kW	7.93 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.91	2.05
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	1.24 kW	1.07 kW
Annual energy consumption Qhe	4602 kWh	5465 kWh

Domestic Hot Water (DHW)





EN 16147		
Declared load profile	XL	
Efficiency ηDHW	120 %	
СОР	2.9	
Heating up time	03:41 h:min	
Standby power input	41 W	
Reference hot water temperature	52.5 °C	
Mixed water at 40°C	417	



## Model: PUHZ-SHW80VAA + ERST30C-\*M\*D

Configure model		
Model name	PUHZ-SHW80VAA + ERST30C-*M*D	
Application	Heating + DHW + low temp	
Units	Indoor + Outdoor	
Climate Zone	n/a	
Reversibility	Yes	
Cooling mode application (optional)	n/a	

General Data		
Power supply 1x230V 50Hz		

## Heating

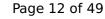
EN 14511-2			
Low temperature Medium temperature			
Heat output	8 kW	8 kW	
El input	1.72 kW	2.96 kW	
СОР	4.65	2.7	

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	40 dB(A)	40 dB(A)
Sound power level outdoor	59 dB(A)	59 dB(A)

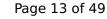
EN 14825		
	Low temperature	Medium temperature
$\eta_{s}$	172 %	135 %
Prated	9.6 kW	9 kW
SCOP	4.38	3.45
Tbiv	-7 °C	-7 °C
TOL	-28 °C	-28 °C
Pdh Tj = -7°C	8.5 kW	8 kW
COP Tj = -7°C	3.15	2.13
Cdh Tj = -7 °C	0.99	1
Pdh Tj = +2°C	5.2 kW	4.9 kW
COP Tj = +2°C	4.08	3.31
Cdh Tj = +2 °C	0.99	0.99
Pdh Tj = +7°C	5 kW	5.4 kW
COP Tj = +7°C	5.62	4.66
Cdh Tj = +7 °C	0.98	0.99





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Pdh Tj = 12°C	5.6 kW	5.3 kW
COP Tj = 12°C	7.53	5.92
Cdh Tj = +12 °C	0.98	0.98
Pdh Tj = Tbiv	8.5 kW	8 kW
COP Tj = Tbiv	3.15	2.13
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	8.36 kW	7.93 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.91	2.05
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	1.24 kW	1.07 kW
Annual energy consumption Qhe	4531 kWh	5393 kWh

Domestic Hot Water (DHW)





EN 16147		
Declared load profile	XL	
Efficiency ηDHW	120 %	
СОР	2.9	
Heating up time	03:41 h:min	
Standby power input	41 W	
Reference hot water temperature	52.5 °C	
Mixed water at 40°C	417	



## Model: PUHZ-SHW80YAA + EHST30C-\*M\*D

Configure model		
Model name PUHZ-SHW80YAA + EHST30C-*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

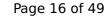
EN 14511-2			
Low temperature Medium temperature			
Heat output	8 kW	8 kW	
El input	1.72 kW	2.96 kW	
СОР	4.65	2.7	

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	40 dB(A)	40 dB(A)
Sound power level outdoor	59 dB(A)	59 dB(A)

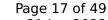
EN 14825		
	Low temperature	Medium temperature
$\eta_{s}$	167 %	132 %
Prated	9.6 kW	9 kW
SCOP	4.26	3.36
Tbiv	-7 °C	-7 °C
TOL	-28 °C	-28 °C
Pdh Tj = -7°C	8.5 kW	8 kW
COP Tj = -7°C	3.15	2.13
Cdh Tj = -7 °C	0.99	1
Pdh Tj = +2°C	5.2 kW	4.9 kW
COP Tj = +2°C	4.02	3.27
Cdh Tj = +2 °C	0.99	0.99
Pdh Tj = +7°C	5 kW	5.4 kW
COP Tj = +7°C	5.62	4.64
Cdh Tj = +7 °C	0.98	0.99





Pdh Tj = 12°C	5.6 kW	5.3 kW
COP Tj = 12°C	7.53	5.92
Cdh Tj = +12 °C	0.98	0.98
Pdh Tj = Tbiv	8.5 kW	8 kW
COP Tj = Tbiv	3.15	2.13
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	8.36 kW	7.93 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.91	2.05
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	1.24 kW	1.07 kW
Annual energy consumption Qhe	4659 kWh	5527 kWh

## Domestic Hot Water (DHW)





EN 16147		
Declared load profile	XL	
Efficiency ηDHW	120 %	
СОР	2.9	
Heating up time	03:41 h:min	
Standby power input	41 W	
Reference hot water temperature	52.5 °C	
Mixed water at 40°C	417	



# Model: PUHZ-SHW80YAA + EHST30C-M\*D

Configure model		
Model name PUHZ-SHW80YAA + EHST30C-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	1.72 kW	2.96 kW	
СОР	4.65	2.7	

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	40 dB(A)	40 dB(A)
Sound power level outdoor	59 dB(A)	59 dB(A)

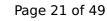
EN 14825		
	Low temperature	Medium temperature
$\eta_{s}$	167 %	132 %
Prated	9.6 kW	9 kW
SCOP	4.26	3.36
Tbiv	-7 °C	-7 °C
TOL	-28 °C	-28 °C
Pdh Tj = -7°C	8.5 kW	8 kW
COP Tj = -7°C	3.15	2.13
Cdh Tj = -7 °C	0.99	1
Pdh Tj = +2°C	5.2 kW	4.9 kW
COP Tj = +2°C	4.02	3.27
Cdh Tj = +2 °C	0.99	0.99
Pdh Tj = +7°C	5 kW	5.4 kW
COP Tj = +7°C	5.62	4.64
Cdh Tj = +7 °C	0.98	0.99





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Pdh Tj = 12°C	5.6 kW	5.3 kW
COP Tj = 12°C	7.53	5.92
Cdh Tj = +12 °C	0.98	0.98
Pdh Tj = Tbiv	8.5 kW	8 kW
COP Tj = Tbiv	3.15	2.13
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	8.36 kW	7.93 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.91	2.05
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	1.24 kW	1.07 kW
Annual energy consumption Qhe	4659 kWh	5527 kWh

Domestic Hot Water (DHW)





EN 16147		
Declared load profile	XL	
Efficiency ηDHW	120 %	
СОР	2.9	
Heating up time	03:41 h:min	
Standby power input	41 W	
Reference hot water temperature	52.5 °C	
Mixed water at 40°C	417	



## Model: PUHZ-SHW80YAA + ERST30C-\*M\*D

Configure model		
Model name	PUHZ-SHW80YAA + ERST30C-*M*D	
Application	Heating + DHW + low 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	8 kW	8 kW
El input	1.72 kW	2.96 kW
СОР	4.65	2.7

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	40 dB(A)	40 dB(A)
Sound power level outdoor	59 dB(A)	59 dB(A)

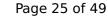
EN 14825		
	Low temperature	Medium temperature
$\eta_{s}$	172 %	134 %
Prated	9.6 kW	9 kW
SCOP	4.37	3.44
Tbiv	-7 °C	-7 °C
TOL	-28 °C	-28 °C
Pdh Tj = -7°C	8.5 kW	8 kW
COP Tj = -7°C	3.15	2.13
Cdh Tj = -7 °C	0.99	1
Pdh Tj = +2°C	5.2 kW	4.9 kW
COP Tj = +2°C	4.09	3.31
Cdh Tj = +2 °C	0.99	0.99
Pdh Tj = +7°C	5 kW	5.4 kW
COP Tj = +7°C	5.62	4.64
Cdh Tj = +7 °C	0.98	0.99





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Pdh Tj = 12°C	5.6 kW	5.3 kW
COP Tj = 12°C	7.53	5.92
Cdh Tj = +12 °C	0.98	0.98
Pdh Tj = Tbiv	8.5 kW	8 kW
COP Tj = Tbiv	3.15	2.13
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	8.36 kW	7.93 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.91	2.05
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	1.24 kW	1.07 kW
Annual energy consumption Qhe	4539 kWh	5413 kWh

Domestic Hot Water (DHW)





EN 16147		
Declared load profile	XL	
Efficiency ηDHW	120 %	
СОР	2.9	
Heating up time	03:41 h:min	
Standby power input	41 W	
Reference hot water temperature	52.5 °C	
Mixed water at 40°C	417	



## Model: PUHZ-SHW112VAA + EHST30C-\*M\*D

Configure model		
Model name PUHZ-SHW112VAA + EHST30C-*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

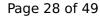
EN 14511-2			
Low temperature Medium temperature			
Heat output	11.2 kW	11.2 kW	
El input	2.51 kW	4.13 kW	
СОР	4.46	2.71	

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	40 dB(A)	40 dB(A)
Sound power level outdoor	60 dB(A)	60 dB(A)

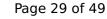
EN 14825		
	Low temperature	Medium temperature
$\eta_{s}$	171 %	135 %
Prated	13.9 kW	12.7 kW
SCOP	4.34	3.46
Tbiv	-7 °C	-7 °C
TOL	-28 °C	-28 °C
Pdh Tj = -7°C	12.3 kW	11.2 kW
COP Tj = -7°C	3.15	2.12
Cdh Tj = -7 °C	1	1
Pdh Tj = +2°C	7.5 kW	6.8 kW
COP Tj = +2°C	4.08	3.31
Cdh Tj = +2 °C	0.99	0.99
Pdh Tj = +7°C	5 kW	4.7 kW
COP Tj = +7°C	5.56	4.79
Cdh Tj = +7 °C	0.98	0.99





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Pdh Tj = 12°C	5.6 kW	5.3 kW
COP Tj = 12°C	7.45	6.12
Cdh Tj = +12 °C	0.98	0.98
Pdh Tj = Tbiv	12.3 kW	11.2 kW
COP Tj = Tbiv	3.15	2.12
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	11.8 kW	10.9 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.9	2.03
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	2.1 kW	1.8 kW
Annual energy consumption Qhe	6618 kWh	7588 kWh

## Domestic Hot Water (DHW)





EN 16147		
Declared load profile	XL	
Efficiency ηDHW	120 %	
СОР	2.9	
Heating up time	03:41 h:min	
Standby power input	41 W	
Reference hot water temperature	52.5 °C	
Mixed water at 40°C	417	



## Model: PUHZ-SHW112VAA + EHST30C-M\*D

Configure model		
Model name PUHZ-SHW112VAA + EHST30C-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

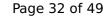
EN 14511-2			
Low temperature Medium temperature			
Heat output	11.2 kW	11.2 kW	
El input	2.51 kW	4.13 kW	
СОР	4.46	2.71	

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	40 dB(A)	40 dB(A)
Sound power level outdoor	60 dB(A)	60 dB(A)

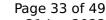
EN 14825		
	Low temperature	Medium temperature
$\eta_{s}$	171 %	135 %
Prated	13.9 kW	12.7 kW
SCOP	4.34	3.46
Tbiv	-7 °C	-7 °C
TOL	-28 °C	-28 °C
Pdh Tj = $-7^{\circ}$ C	12.3 kW	11.2 kW
COP Tj = -7°C	3.15	2.12
Cdh Tj = -7 °C	1	1
Pdh Tj = $+2^{\circ}$ C	7.5 kW	6.8 kW
COP Tj = +2°C	4.08	3.31
Cdh Tj = +2 °C	0.99	0.99
Pdh Tj = +7°C	5 kW	4.7 kW
COP Tj = +7°C	5.56	4.79
Cdh Tj = +7 °C	0.98	0.99





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Pdh Tj = 12°C	5.6 kW	5.3 kW
COP Tj = 12°C	7.45	6.12
Cdh Tj = +12 °C	0.98	0.98
Pdh Tj = Tbiv	12.3 kW	11.2 kW
COP Tj = Tbiv	3.15	2.12
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	11.8 kW	10.9 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.9	2.03
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	2.1 kW	1.8 kW
Annual energy consumption Qhe	6618 kWh	7588 kWh

## Domestic Hot Water (DHW)





EN 16147		
Declared load profile	XL	
Efficiency ηDHW	120 %	
СОР	2.9	
Heating up time	03:41 h:min	
Standby power input	41 W	
Reference hot water temperature	52.5 °C	
Mixed water at 40°C	417	



## Model: PUHZ-SHW112VAA + ERST30C-\*M\*D

Configure model		
Model name	PUHZ-SHW112VAA + ERST30C-*M*D	
Application	Heating + DHW + low temp	
Units	Indoor + Outdoor	
Climate Zone	n/a	
Reversibility	Yes	
Cooling mode application (optional)	n/a	

General Data		
Power supply 1x230V 50Hz		

## Heating

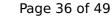
EN 14511-2		
	Low temperature	Medium temperature
Heat output	11.2 kW	11.2 kW
El input	2.51 kW	4.13 kW
СОР	4.46	2.71

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	40 dB(A)	40 dB(A)
Sound power level outdoor	60 dB(A)	60 dB(A)

EN 14825		
	Low temperature	Medium temperature
$\eta_{s}$	173 %	137 %
Prated	13.9 kW	12.7 kW
SCOP	4.39	3.5
Tbiv	-7 °C	-7 °C
TOL	-28 °C	-28 °C
Pdh Tj = $-7$ °C	12.3 kW	11.2 kW
COP Tj = $-7^{\circ}$ C	3.15	2.12
Cdh Tj = -7 °C	1	1
Pdh Tj = $+2$ °C	7.5 kW	6.8 kW
COP Tj = +2°C	4.11	3.34
Cdh Tj = +2 °C	0.99	0.99
Pdh Tj = +7°C	5 kW	4.7 kW
COP Tj = +7°C	5.56	4.79
Cdh Tj = +7 °C	0.98	0.99





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Pdh Tj = 12°C	5.6 kW	5.3 kW
COP Tj = 12°C	7.45	6.12
Cdh Tj = +12 °C	0.98	0.98
Pdh Tj = Tbiv	12.3 kW	11.2 kW
COP Tj = Tbiv	3.15	2.12
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	11.8 kW	10.9 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.9	2.03
WTOL	60 °C	60 °C
Poff	15 W	15 W
PTO	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	2.1 kW	1.8 kW
Annual energy consumption Qhe	6539 kWh	7498 kWh

Domestic Hot Water (DHW)





EN 16147		
Declared load profile	XL	
Efficiency ηDHW	120 %	
СОР	2.9	
Heating up time	03:41 h:min	
Standby power input	41 W	
Reference hot water temperature	52.5 °C	
Mixed water at 40°C	417	



## Model: PUHZ-SHW112YAA + EHST30C-\*M\*D

Configure model		
Model name PUHZ-SHW112YAA + EHST30C-*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	11.2 kW	11.2 kW	
El input	2.51 kW	4.13 kW	
СОР	4.46	2.71	

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	40 dB(A)	40 dB(A)
Sound power level outdoor	60 dB(A)	60 dB(A)

EN 14825		
	Low temperature	Medium temperature
$\eta_{s}$	169 %	135 %
Prated	13.9 kW	12.7 kW
SCOP	4.31	3.44
Tbiv	-7 °C	-7 °C
TOL	-28 °C	-28 °C
Pdh Tj = -7°C	12.3 kW	11.2 kW
COP Tj = -7°C	3.15	2.12
Cdh Tj = -7 °C	1	1
Pdh Tj = +2°C	7.5 kW	6.8 kW
COP Tj = +2°C	4.06	3.31
Cdh Tj = +2 °C	0.99	0.99
Pdh Tj = +7°C	5 kW	4.7 kW
COP Tj = +7°C	5.56	4.79
Cdh Tj = +7 °C	0.98	0.99

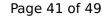
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Pdh Tj = 12°C	5.6 kW	5.3 kW
COP Tj = 12°C	7.45	6.12
Cdh Tj = +12 °C	0.98	0.98
Pdh Tj = Tbiv	12.3 kW	11.2 kW
COP Tj = Tbiv	3.15	2.12
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	11.8 kW	10.9 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.9	2.03
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	2.1 kW	1.8 kW
Annual energy consumption Qhe	6667 kWh	7621 kWh

## Domestic Hot Water (DHW)





EN 16147		
Declared load profile	XL	
Efficiency ηDHW	120 %	
СОР	2.9	
Heating up time	03:41 h:min	
Standby power input	41 W	
Reference hot water temperature	52.5 °C	
Mixed water at 40°C	417	



# Model: PUHZ-SHW112YAA + EHST30C-M\*D

Configure model		
Model name PUHZ-SHW112YAA + EHST30C-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	11.2 kW	11.2 kW	
El input	2.51 kW	4.13 kW	
СОР	4.46	2.71	

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	40 dB(A)	40 dB(A)
Sound power level outdoor	60 dB(A)	60 dB(A)

EN 14825		
	Low temperature	Medium temperature
$\eta_{s}$	169 %	135 %
Prated	13.9 kW	12.7 kW
SCOP	4.31	3.44
Tbiv	-7 °C	-7 °C
TOL	-28 °C	-28 °C
Pdh Tj = -7°C	12.3 kW	11.2 kW
COP Tj = -7°C	3.15	2.12
Cdh Tj = -7 °C	1	1
Pdh Tj = +2°C	7.5 kW	6.8 kW
COP Tj = +2°C	4.06	3.31
Cdh Tj = +2 °C	0.99	0.99
Pdh Tj = +7°C	5 kW	4.7 kW
COP Tj = +7°C	5.56	4.79
Cdh Tj = +7 °C	0.98	0.99

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Pdh Tj = 12°C	5.6 kW	5.3 kW
COP Tj = 12°C	7.45	6.12
Cdh Tj = +12 °C	0.98	0.98
Pdh Tj = Tbiv	12.3 kW	11.2 kW
COP Tj = Tbiv	3.15	2.12
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	11.8 kW	10.9 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.9	2.03
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	2.1 kW	1.8 kW
Annual energy consumption Qhe	6667 kWh	7621 kWh

## Domestic Hot Water (DHW)





EN 16147		
Declared load profile	XL	
Efficiency ηDHW	120 %	
СОР	2.9	
Heating up time	03:41 h:min	
Standby power input	41 W	
Reference hot water temperature	52.5 °C	
Mixed water at 40°C	417	

## Model: PUHZ-SHW112YAA + ERST30C-\*M\*D

Configure model		
Model name	PUHZ-SHW112YAA + ERST30C-*M*D	
Application Heating + DHW + low 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	11.2 kW	11.2 kW	
El input	2.51 kW	4.13 kW	
СОР	4.46	2.71	

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	40 dB(A)	40 dB(A)
Sound power level outdoor	60 dB(A)	60 dB(A)

	EN 14825	
	Low temperature	Medium temperature
$\eta_{s}$	173 %	137 %
Prated	13.9 kW	12.7 kW
SCOP	4.39	3.49
Tbiv	-7 °C	-7 °C
TOL	-28 °C	-28 °C
Pdh Tj = -7°C	12.3 kW	11.2 kW
COP Tj = -7°C	3.15	2.12
Cdh Tj = -7 °C	1	1
Pdh Tj = +2°C	7.5 kW	6.8 kW
COP Tj = +2°C	4.12	3.33
Cdh Tj = +2 °C	0.99	0.99
Pdh Tj = +7°C	5 kW	4.7 kW
COP Tj = +7°C	5.56	4.79
Cdh Tj = +7 °C	0.98	0.99

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Pdh Tj = 12°C	5.6 kW	5.3 kW
COP Tj = 12°C	7.45	6.12
Cdh Tj = +12 °C	0.98	0.98
Pdh Tj = Tbiv	12.3 kW	11.2 kW
COP Tj = Tbiv	3.15	2.12
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	11.8 kW	10.9 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.9	2.03
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	2.1 kW	1.8 kW
Annual energy consumption Qhe	6538 kWh	7517 kWh

Domestic Hot Water (DHW)





EN 16147	
Declared load profile	XL
Efficiency ηDHW	120 %
СОР	2.9
Heating up time	03:41 h:min
Standby power input	41 W
Reference hot water temperature	52.5 °C
Mixed water at 40°C	417