

Subtype Ecodan Zubadan 8/11/14

Certificate Holder	Mitsubishi Electric Air Conditioning Systems Europe LTD
Address	Nettlehill Road, Houston Industrial Estate
ZIP	EH54 5EQ
City	Livingston
Country	GB
Certification Body	SZU - Strojirensky zkusebni ustav (Engineering Test Institute, Public Enterprise)
Subtype title	Ecodan Zubadan 8/11/14
Registration number	037-0059-20
Heat Pump Type	Outdoor Air/Water
Refrigerant	R410A
Mass of Refrigerant	5.5 kg
Certification Date	09.04.2020
Testing basis	HP Keymark scheme rules rev. no. 7

Model PUHZ-SHW80VHA(-BS) + EHST20C-M*C

Model name	PUHZ-SHW80VHA(-BS) + EHST20C-M*C
Application	Heating + DHW + low temp
Units	Indoor, Outdoor
Climate zone (for heating)	n/a
Cooling mode application (optional)	n/a
Any additional heat sources	n/a

General data

Power supply	1x230V 50Hz
Off-peak product	n/a

Outdoor Air/Water

EN 16147 | Average Climate

Declared load profile	L
Efficiency η_{DHW}	103 %
COP	2.48
Heating up time	01:46 h:min
Standby power input	36 W
Reference hot water temperature	52.5 °C
Mixed water at 40°C	292 l

Model PUAZ-SHW80VHA(-BS) + EHST20C-*M*C

Model name	PUAZ-SHW80VHA(-BS) + EHST20C-*M*C
Application	Heating + DHW + low temp
Units	Indoor, Outdoor
Climate zone (for heating)	n/a
Cooling mode application (optional)	n/a
Any additional heat sources	n/a

General data

Power supply	1x230V 50Hz
Off-peak product	n/a

Outdoor Air/Water

EN 16147 | Average Climate

Declared load profile	L
Efficiency η_{DHW}	103 %
COP	2.48
Heating up time	01:46 h:min
Standby power input	36 W
Reference hot water temperature	52.5 °C
Mixed water at 40°C	292 l

Model PUAZ-SHW80VHA(-BS) + ERST20C-M*C

Model name	PUHZ-SHW80VHA(-BS) + ERST20C-M*C
Application	Heating + DHW + low temp
Units	Indoor, Outdoor
Climate zone (for heating)	n/a
Reversibility	Yes
Cooling mode application (optional)	n/a
Any additional heat sources	n/a

General data

Power supply	1x230V 50Hz
Off-peak product	n/a

Outdoor Air/Water

EN 16147 | Average Climate

Declared load profile	L
Efficiency η_{DHW}	103 %
COP	2.48
Heating up time	01:46 h:min
Standby power input	36 W
Reference hot water temperature	52.5 °C
Mixed water at 40°C	292 l

Model PUAZ-SHW80VHA(-BS) + ERST20C-*M*C

Model name	PUAZ-SHW80VHA(-BS) + ERST20C-*M*C
Application	Heating + DHW + low temp
Units	Indoor, Outdoor
Climate zone (for heating)	n/a
Reversibility	Yes
Cooling mode application (optional)	n/a
Any additional heat sources	n/a

General data

Power supply	1x230V 50Hz
Off-peak product	n/a

Outdoor Air/Water

EN 16147 | Average Climate

Declared load profile	L
Efficiency η_{DHW}	103 %
COP	2.48
Heating up time	01:46 h:min
Standby power input	36 W
Reference hot water temperature	52.5 °C
Mixed water at 40°C	292 l

Model PUHZ-SHW80VHA(-BS) + EHSC-M*C

Model name	PUHZ-SHW80VHA(-BS) + EHSC-M*C
Application	Heating (medium temp)
Units	Indoor, Outdoor
Climate zone (for heating)	n/a
Cooling mode application (optional)	n/a
Any additional heat sources	n/a

General data

Power supply	1x230V 50Hz
Off-peak product	n/a

Outdoor Air/Water

EN 14511-4 | Heating

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

EN 12102-1 | Average Climate

	Low temperature	Medium temperature
Sound power level indoor	40 dB(A)	40 dB(A)
Sound power level outdoor	69 dB(A)	69 dB(A)

EN 14825 | Average Climate

	Low temperature	Medium temperature
η_s	171 %	131 %
Prated	9.6 kW	9 kW
SCOP	4.36	3.35
Tbiv	-7 °C	-7 °C
TOL	-28 °C	-28 °C
Pdh Tj = -7°C	8.5 kW	8 kW
COP Tj = -7°C	2.91	2.04
Cdh Tj = -7 °C	0.98	0.98
Pdh Tj = +2°C	5.2 kW	4.9 kW
COP Tj = +2°C	4.26	3.22
Cdh Tj = +2 °C	0.98	0.98
Pdh Tj = +7°C	4.4 kW	4.1 kW
COP Tj = +7°C	5.65	4.59
Cdh Tj = +7 °C	0.98	0.98
Pdh Tj = 12°C	7.4 kW	7.1 kW
COP Tj = 12°C	7.59	6.72
Cdh Tj = +12 °C	0.98	0.98
Pdh Tj = Tbiv	8.5 kW	8 kW
COP Tj = Tbiv	2.91	2.04

Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	8.01 kW	7.59 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.7	1.97
WTOL	60 °C	60 °C
Poff	15 W	15 W
PTO	15 W	15 W
PSB	15 W	15 W
PCK	0 W	0 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	1.59 kW	1.41 kW
Annual energy consumption Qhe	4553 kWh	5548 kWh

Model PUHZ-SHW80VHA(-BS) + EHSC-*M*C

Model name	PUHZ-SHW80VHA(-BS) + EHSC-*M*C
Application	Heating (medium temp)
Units	Indoor, Outdoor
Climate zone (for heating)	n/a
Cooling mode application (optional)	n/a
Any additional heat sources	n/a

General data

Power supply	1x230V 50Hz
Off-peak product	n/a

Outdoor Air/Water

EN 14511-4 | Heating

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

EN 12102-1 | Average Climate

	Low temperature	Medium temperature
Sound power level indoor	40 dB(A)	40 dB(A)
Sound power level outdoor	69 dB(A)	69 dB(A)

EN 14825 | Average Climate

	Low temperature	Medium temperature
η_s	171 %	131 %
Prated	9.6 kW	9 kW
SCOP	4.36	3.35
Tbiv	-7 °C	-7 °C
TOL	-28 °C	-28 °C
Pdh Tj = -7°C	8.5 kW	8 kW
COP Tj = -7°C	2.91	2.04
Cdh Tj = -7 °C	0.98	0.98
Pdh Tj = +2°C	5.2 kW	4.9 kW
COP Tj = +2°C	4.26	3.22
Cdh Tj = +2 °C	0.98	0.98
Pdh Tj = +7°C	4.4 kW	4.1 kW
COP Tj = +7°C	5.65	4.59
Cdh Tj = +7 °C	0.98	0.98
Pdh Tj = 12°C	7.4 kW	7.1 kW
COP Tj = 12°C	7.59	6.72
Cdh Tj = +12 °C	0.98	0.98
Pdh Tj = Tbiv	8.5 kW	8 kW
COP Tj = Tbiv	2.91	2.04

Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	8.01 kW	7.59 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.7	1.97
WTOL	60 °C	60 °C
Poff	15 W	15 W
PTO	15 W	15 W
PSB	15 W	15 W
PCK	0 W	0 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	1.59 kW	1.41 kW
Annual energy consumption Qhe	4553 kWh	5548 kWh

Model PUHZ-SHW80VHA(-BS) + ERSC-M*C

Model name	PUHZ-SHW80VHA(-BS) + ERSC-M*C
Application	Heating (medium temp)
Units	Indoor, Outdoor
Climate zone (for heating)	n/a
Reversibility	Yes
Cooling mode application (optional)	n/a
Any additional heat sources	n/a

General data

Power supply	1x230V 50Hz
Off-peak product	n/a

Outdoor Air/Water

EN 14511-4 | Heating

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

EN 12102-1 | Average Climate

	Low temperature	Medium temperature
Sound power level indoor	40 dB(A)	40 dB(A)
Sound power level outdoor	69 dB(A)	69 dB(A)

EN 14825 | Average Climate

	Low temperature	Medium temperature
η_s	174 %	133 %
Prated	9.6 kW	9 kW
SCOP	4.44	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	2.91	2.04
Cdh Tj = -7 °C	0.98	0.98
Pdh Tj = +2°C	5.2 kW	4.9 kW
COP Tj = +2°C	4.31	3.25
Cdh Tj = +2 °C	0.98	0.98
Pdh Tj = +7°C	4.4 kW	4.1 kW
COP Tj = +7°C	5.65	4.59
Cdh Tj = +7 °C	0.98	0.98
Pdh Tj = 12°C	7.4 kW	7.1 kW
COP Tj = 12°C	7.59	6.72
Cdh Tj = +12 °C	0.98	0.98
Pdh Tj = Tbiv	8.5 kW	8 kW

COP $T_j = T_{biv}$	2.91	2.04
$P_{dh} T_j = TOL$ or $P_{dh} T_j = T_{designh}$ if $TOL < T_{designh}$	8.01 kW	7.59 kW
COP $T_j = TOL$ or COP $T_j = T_{designh}$ if $TOL < T_{designh}$	2.7	1.97
WTOL	60 °C	60 °C
P _{off}	15 W	15 W
PTO	15 W	15 W
PSB	15 W	15 W
PCK	0 W	0 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	1.59 kW	1.41 kW
Annual energy consumption Q _{he}	4472 kWh	5467 kWh

Model PUAZ-SHW80VHA(-BS) + ERSC-*M*C

Model name	PUAZ-SHW80VHA(-BS) + ERSC-*M*C
Application	Heating (medium temp)
Units	Indoor, Outdoor
Climate zone (for heating)	n/a
Reversibility	Yes
Cooling mode application (optional)	n/a
Any additional heat sources	n/a

General data

Power supply	1x230V 50Hz
Off-peak product	n/a

Outdoor Air/Water

EN 14511-4 | Heating

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

EN 12102-1 | Average Climate

	Low temperature	Medium temperature
Sound power level indoor	40 dB(A)	40 dB(A)
Sound power level outdoor	69 dB(A)	69 dB(A)

EN 14825 | Average Climate

	Low temperature	Medium temperature
η_s	174 %	133 %
Prated	9.6 kW	9 kW
SCOP	4.44	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	2.91	2.04
Cdh Tj = -7 °C	0.98	0.98
Pdh Tj = +2°C	5.2 kW	4.9 kW
COP Tj = +2°C	4.31	3.25
Cdh Tj = +2 °C	0.98	0.98
Pdh Tj = +7°C	4.4 kW	4.1 kW
COP Tj = +7°C	5.65	4.59
Cdh Tj = +7 °C	0.98	0.98
Pdh Tj = 12°C	7.4 kW	7.1 kW
COP Tj = 12°C	7.59	6.72
Cdh Tj = +12 °C	0.98	0.98
Pdh Tj = Tbiv	8.5 kW	8 kW

COP $T_j = T_{biv}$	2.91	2.04
$P_{dh} T_j = TOL$ or $P_{dh} T_j = T_{designh}$ if $TOL < T_{designh}$	8.01 kW	7.59 kW
COP $T_j = TOL$ or COP $T_j = T_{designh}$ if $TOL < T_{designh}$	2.7	1.97
WTOL	60 °C	60 °C
P _{off}	15 W	15 W
PTO	15 W	15 W
PSB	15 W	15 W
PCK	0 W	0 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	1.59 kW	1.41 kW
Annual energy consumption Q _{he}	4472 kWh	5467 kWh

Model PUHZ-SHW112VHA(-BS) + EHST20C-M*C

Model name	PUHZ-SHW112VHA(-BS) + EHST20C-M*C
Application	Heating + DHW + low temp
Units	Indoor, Outdoor
Climate zone (for heating)	n/a
Cooling mode application (optional)	n/a
Any additional heat sources	n/a

General data

Power supply	1x230V 50Hz
Off-peak product	n/a

Outdoor Air/Water

EN 16147 | Average Climate

Declared load profile	L
Efficiency η_{DHW}	103 %
COP	2.48
Heating up time	01:46 h:min
Standby power input	36 W
Reference hot water temperature	52.5 °C
Mixed water at 40°C	292 l

Model PUAZ-SHW112VHA(-BS) + EHST20C-*M*C

Model name	PUAZ-SHW112VHA(-BS) + EHST20C-*M*C
Application	Heating + DHW + low temp
Units	Indoor, Outdoor
Climate zone (for heating)	n/a
Cooling mode application (optional)	n/a
Any additional heat sources	n/a

General data

Power supply	1x230V 50Hz
Off-peak product	n/a

Outdoor Air/Water

EN 16147 | Average Climate

Declared load profile	L
Efficiency η_{DHW}	103 %
COP	2.48
Heating up time	01:46 h:min
Standby power input	36 W
Reference hot water temperature	52.5 °C
Mixed water at 40°C	292 l

Model PUAZ-SHW112VHA(-BS) + ERST20C-M*C

Model name	PUAZ-SHW112VHA(-BS) + ERST20C-M*C
Application	Heating + DHW + low temp
Units	Indoor, Outdoor
Climate zone (for heating)	n/a
Reversibility	Yes
Cooling mode application (optional)	n/a
Any additional heat sources	n/a

General data

Power supply	1x230V 50Hz
Off-peak product	n/a

Outdoor Air/Water

EN 16147 | Average Climate

Declared load profile	L
Efficiency η_{DHW}	103 %
COP	2.48
Heating up time	01:46 h:min
Standby power input	36 W
Reference hot water temperature	52.5 °C
Mixed water at 40°C	292 l

Model PUAZ-SHW112VHA(-BS) + ERST20C-*M*C

Model name	PUAZ-SHW112VHA(-BS) + ERST20C-*M*C
Application	Heating + DHW + low temp
Units	Indoor, Outdoor
Climate zone (for heating)	n/a
Reversibility	Yes
Cooling mode application (optional)	n/a
Any additional heat sources	n/a

General data

Power supply	1x230V 50Hz
Off-peak product	n/a

Outdoor Air/Water

EN 16147 | Average Climate

Declared load profile	L
Efficiency η_{DHW}	103 %
COP	2.48
Heating up time	01:46 h:min
Standby power input	36 W
Reference hot water temperature	52.5 °C
Mixed water at 40°C	292 l

Model PUHZ-SHW112VHA(-BS) + EHSC-M*C

Model name	PUHZ-SHW112VHA(-BS) + EHSC-M*C
Application	Heating (medium temp)
Units	Indoor, Outdoor
Climate zone (for heating)	n/a
Cooling mode application (optional)	n/a
Any additional heat sources	n/a

General data

Power supply	1x230V 50Hz
Off-peak product	n/a

Outdoor Air/Water

EN 14511-4 | Heating

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

EN 12102-1 | Average Climate

	Low temperature	Medium temperature
Sound power level indoor	40 dB(A)	40 dB(A)
Sound power level outdoor	70 dB(A)	70 dB(A)

EN 14825 | Average Climate

	Low temperature	Medium temperature
η_s	167 %	128 %
Prated	13.9 kW	12.7 kW
SCOP	4.24	3.28
Tbiv	-7 °C	-7 °C
TOL	-28 °C	-28 °C
Pdh Tj = -7°C	12.3 kW	11.2 kW
COP Tj = -7°C	2.85	1.96
Cdh Tj = -7 °C	0.98	0.98
Pdh Tj = +2°C	7.5 kW	6.8 kW
COP Tj = +2°C	4.01	3.1
Cdh Tj = +2 °C	0.98	0.98
Pdh Tj = +7°C	4.8 kW	4.4 kW
COP Tj = +7°C	5.68	4.61
Cdh Tj = +7 °C	0.98	0.98
Pdh Tj = 12°C	7.3 kW	7 kW
COP Tj = 12°C	7.51	6.66
Cdh Tj = +12 °C	0.98	0.98
Pdh Tj = Tbiv	12.3 kW	11.2 kW
COP Tj = Tbiv	2.85	1.96

Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	11.6 kW	10.7 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.65	1.9
WTOL	60 °C	60 °C
Poff	15 W	15 W
PTO	15 W	15 W
PSB	15 W	15 W
PCK	0 W	0 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	2.3 kW	2 kW
Annual energy consumption Qhe	6771 kWh	7998 kWh

Model PUHZ-SHW112VHA(-BS) + EHSC-*M*C

Model name	PUHZ-SHW112VHA(-BS) + EHSC-*M*C
Application	Heating (medium temp)
Units	Indoor, Outdoor
Climate zone (for heating)	n/a
Cooling mode application (optional)	n/a
Any additional heat sources	n/a

General data

Power supply	1x230V 50Hz
Off-peak product	n/a

Outdoor Air/Water

EN 14511-4 | Heating

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

EN 12102-1 | Average Climate

	Low temperature	Medium temperature
Sound power level indoor	40 dB(A)	40 dB(A)
Sound power level outdoor	70 dB(A)	70 dB(A)

EN 14825 | Average Climate

	Low temperature	Medium temperature
η_s	167 %	128 %
Prated	13.9 kW	12.7 kW
SCOP	4.24	3.28
Tbiv	-7 °C	-7 °C
TOL	-28 °C	-28 °C
Pdh Tj = -7°C	12.3 kW	11.2 kW
COP Tj = -7°C	2.85	1.96
Cdh Tj = -7 °C	0.98	0.98
Pdh Tj = +2°C	7.5 kW	6.8 kW
COP Tj = +2°C	4.01	3.1
Cdh Tj = +2 °C	0.98	0.98
Pdh Tj = +7°C	4.8 kW	4.4 kW
COP Tj = +7°C	5.68	4.61
Cdh Tj = +7 °C	0.98	0.98
Pdh Tj = 12°C	7.3 kW	7 kW
COP Tj = 12°C	7.51	6.66
Cdh Tj = +12 °C	0.98	0.98
Pdh Tj = Tbiv	12.3 kW	11.2 kW
COP Tj = Tbiv	2.85	1.96

Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	11.6 kW	10.7 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.65	1.9
WTOL	60 °C	60 °C
Poff	15 W	15 W
PTO	15 W	15 W
PSB	15 W	15 W
PCK	0 W	0 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	2.3 kW	2 kW
Annual energy consumption Qhe	6771 kWh	7998 kWh

Model PUHZ-SHW112VHA(-BS) + ERSC-M*C

Model name	PUHZ-SHW112VHA(-BS) + ERSC-M*C
Application	Heating (medium temp)
Units	Indoor, Outdoor
Climate zone (for heating)	n/a
Reversibility	Yes
Cooling mode application (optional)	n/a
Any additional heat sources	n/a

General data

Power supply	1x230V 50Hz
Off-peak product	n/a

Outdoor Air/Water

EN 14511-4 | Heating

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

EN 12102-1 | Average Climate

	Low temperature	Medium temperature
Sound power level indoor	40 dB(A)	40 dB(A)
Sound power level outdoor	70 dB(A)	70 dB(A)

EN 14825 | Average Climate

	Low temperature	Medium temperature
η_s	169 %	130 %
Prated	13.9 kW	12.7 kW
SCOP	4.29	3.31
Tbiv	-7 °C	-7 °C
TOL	-28 °C	-28 °C
Pdh Tj = -7°C	12.3 kW	11.2 kW
COP Tj = -7°C	2.85	1.96
Cdh Tj = -7 °C	0.98	0.98
Pdh Tj = +2°C	7.5 kW	6.8 kW
COP Tj = +2°C	4.04	3.12
Cdh Tj = +2 °C	0.98	0.98
Pdh Tj = +7°C	4.8 kW	4.4 kW
COP Tj = +7°C	5.68	4.61
Cdh Tj = +7 °C	0.98	0.98
Pdh Tj = 12°C	7.3 kW	7 kW
COP Tj = 12°C	7.51	6.66
Cdh Tj = +12 °C	0.98	0.98
Pdh Tj = Tbiv	12.3 kW	11.2 kW

COP $T_j = T_{biv}$	2.85	1.96
$P_{dh} T_j = TOL$ or $P_{dh} T_j = T_{designh}$ if $TOL < T_{designh}$	11.6 kW	10.7 kW
COP $T_j = TOL$ or COP $T_j = T_{designh}$ if $TOL < T_{designh}$	2.65	1.9
WTOL	60 °C	60 °C
P _{off}	15 W	15 W
PTO	15 W	15 W
PSB	15 W	15 W
PCK	0 W	0 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	2.3 kW	2 kW
Annual energy consumption Q _{he}	6691 kWh	7917 kWh

Model PUAZ-SHW112VHA(-BS) + ERSC-*M*C

Model name	PUAZ-SHW112VHA(-BS) + ERSC-*M*C
Application	Heating (medium temp)
Units	Indoor, Outdoor
Climate zone (for heating)	n/a
Reversibility	Yes
Cooling mode application (optional)	n/a
Any additional heat sources	n/a

General data

Power supply	1x230V 50Hz
Off-peak product	n/a

Outdoor Air/Water

EN 14511-4 | Heating

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

EN 12102-1 | Average Climate

	Low temperature	Medium temperature
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EN 14825 | Average Climate

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COP Tj = -7°C	2.85	1.96
Cdh Tj = -7 °C	0.98	0.98
Pdh Tj = +2°C	7.5 kW	6.8 kW
COP Tj = +2°C	4.04	3.12
Cdh Tj = +2 °C	0.98	0.98
Pdh Tj = +7°C	4.8 kW	4.4 kW
COP Tj = +7°C	5.68	4.61
Cdh Tj = +7 °C	0.98	0.98
Pdh Tj = 12°C	7.3 kW	7 kW
COP Tj = 12°C	7.51	6.66
Cdh Tj = +12 °C	0.98	0.98
Pdh Tj = Tbiv	12.3 kW	11.2 kW

COP $T_j = T_{biv}$	2.85	1.96
$P_{dh} T_j = TOL$ or $P_{dh} T_j = T_{designh}$ if $TOL < T_{designh}$	11.6 kW	10.7 kW
COP $T_j = TOL$ or COP $T_j = T_{designh}$ if $TOL < T_{designh}$	2.65	1.9
WTOL	60 °C	60 °C
P _{off}	15 W	15 W
PTO	15 W	15 W
PSB	15 W	15 W
PCK	0 W	0 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	2.3 kW	2 kW
Annual energy consumption Q _{he}	6691 kWh	7917 kWh

Model PUAZ-SHW112YHA(-BS) + EHST20C-M*C

Model name	PUAZ-SHW112YHA(-BS) + EHST20C-M*C
Application	Heating + DHW + low temp
Units	Indoor, Outdoor
Climate zone (for heating)	n/a
Cooling mode application (optional)	n/a
Any additional heat sources	n/a

General data

Power supply	3x400V 50Hz
Off-peak product	n/a

Outdoor Air/Water

EN 16147 | Average Climate

Declared load profile	L
Efficiency η_{DHW}	103 %
COP	2.48
Heating up time	01:46 h:min
Standby power input	36 W
Reference hot water temperature	52.5 °C
Mixed water at 40°C	292 l

Model PUAZ-SHW112YHA(-BS) + EHST20C-*M*C

Model name	PUAZ-SHW112YHA(-BS) + EHST20C-*M*C
Application	Heating + DHW + low temp
Units	Indoor, Outdoor
Climate zone (for heating)	n/a
Cooling mode application (optional)	n/a
Any additional heat sources	n/a

General data

Power supply	3x400V 50Hz
Off-peak product	n/a

Outdoor Air/Water

EN 16147 | Average Climate

Declared load profile	L
Efficiency η_{DHW}	103 %
COP	2.48
Heating up time	01:46 h:min
Standby power input	36 W
Reference hot water temperature	52.5 °C
Mixed water at 40°C	292 l

Model PUAZ-SHW112YHA(-BS) + ERST20C-M*C

Model name	PUAZ-SHW112YHA(-BS) + ERST20C-M*C
Application	Heating + DHW + low temp
Units	Indoor, Outdoor
Climate zone (for heating)	n/a
Reversibility	Yes
Cooling mode application (optional)	n/a
Any additional heat sources	n/a

General data

Power supply	3x400V 50Hz
Off-peak product	n/a

Outdoor Air/Water

EN 16147 | Average Climate

Declared load profile	L
Efficiency η_{DHW}	103 %
COP	2.48
Heating up time	01:46 h:min
Standby power input	36 W
Reference hot water temperature	52.5 °C
Mixed water at 40°C	292 l

Model PUAZ-SHW112YHA(-BS) + ERST20C-*M*C

Model name	PUAZ-SHW112YHA(-BS) + ERST20C-*M*C
Application	Heating + DHW + low temp
Units	Indoor, Outdoor
Climate zone (for heating)	n/a
Reversibility	Yes
Cooling mode application (optional)	n/a
Any additional heat sources	n/a

General data

Power supply	3x400V 50Hz
Off-peak product	n/a

Outdoor Air/Water

EN 16147 | Average Climate

Declared load profile	L
Efficiency η_{DHW}	103 %
COP	2.48
Heating up time	01:46 h:min
Standby power input	36 W
Reference hot water temperature	52.5 °C
Mixed water at 40°C	292 l

Model PUHZ-SHW112YHA(-BS) + EHSC-M*C

Model name	PUHZ-SHW112YHA(-BS) + EHSC-M*C
Application	Heating (medium temp)
Units	Indoor, Outdoor
Climate zone (for heating)	n/a
Cooling mode application (optional)	n/a
Any additional heat sources	n/a

General data

Power supply	3x400V 50Hz
Off-peak product	n/a

Outdoor Air/Water

EN 14511-4 | Heating

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

EN 12102-1 | Average Climate

	Low temperature	Medium temperature
Sound power level indoor	40 dB(A)	40 dB(A)
Sound power level outdoor	70 dB(A)	70 dB(A)

EN 14825 | Average Climate

	Low temperature	Medium temperature
η_s	167 %	128 %
Prated	13.9 kW	12.7 kW
SCOP	4.24	3.28
Tbiv	-7 °C	-7 °C
TOL	-28 °C	-28 °C
Pdh Tj = -7°C	12.3 kW	11.2 kW
COP Tj = -7°C	2.85	1.96
Cdh Tj = -7 °C	0.99	0.99
Pdh Tj = +2°C	7.5 kW	6.8 kW
COP Tj = +2°C	4.04	3.12
Cdh Tj = +2 °C	0.99	0.99
Pdh Tj = +7°C	4.8 kW	4.4 kW
COP Tj = +7°C	5.72	4.65
Cdh Tj = +7 °C	0.99	0.99
Pdh Tj = 12°C	7.3 kW	7 kW
COP Tj = 12°C	7.51	6.66
Cdh Tj = +12 °C	0.99	0.99
Pdh Tj = Tbiv	12.3 kW	11.2 kW
COP Tj = Tbiv	2.85	1.96

Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	11.6 kW	10.7 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.65	1.9
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	2.3 kW	2 kW
Annual energy consumption Qhe	6770 kWh	7992 kWh

Model PUHZ-SHW112YHA(-BS) + EHSC-*M*C

Model name	PUHZ-SHW112YHA(-BS) + EHSC-*M*C
Application	Heating (medium temp)
Units	Indoor, Outdoor
Climate zone (for heating)	n/a
Cooling mode application (optional)	n/a
Any additional heat sources	n/a

General data

Power supply	3x400V 50Hz
Off-peak product	n/a

Outdoor Air/Water

EN 14511-4 | Heating

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

EN 12102-1 | Average Climate

	Low temperature	Medium temperature
Sound power level indoor	40 dB(A)	40 dB(A)
Sound power level outdoor	70 dB(A)	70 dB(A)

EN 14825 | Average Climate

	Low temperature	Medium temperature
η_s	167 %	128 %
Prated	13.9 kW	12.7 kW
SCOP	4.24	3.28
Tbiv	-7 °C	-7 °C
TOL	-28 °C	-28 °C
Pdh Tj = -7°C	12.3 kW	11.2 kW
COP Tj = -7°C	2.85	1.96
Cdh Tj = -7 °C	0.99	0.99
Pdh Tj = +2°C	7.5 kW	6.8 kW
COP Tj = +2°C	4.04	3.12
Cdh Tj = +2 °C	0.99	0.99
Pdh Tj = +7°C	4.8 kW	4.4 kW
COP Tj = +7°C	5.72	4.65
Cdh Tj = +7 °C	0.99	0.99
Pdh Tj = 12°C	7.3 kW	7 kW
COP Tj = 12°C	7.51	6.66
Cdh Tj = +12 °C	0.99	0.99
Pdh Tj = Tbiv	12.3 kW	11.2 kW
COP Tj = Tbiv	2.85	1.96

Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	11.6 kW	10.7 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.65	1.9
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	2.3 kW	2 kW
Annual energy consumption Qhe	6770 kWh	7992 kWh

Model PUHZ-SHW112YHA(-BS) + ERSC-M*C

Model name	PUHZ-SHW112YHA(-BS) + ERSC-M*C
Application	Heating (medium temp)
Units	Indoor, Outdoor
Climate zone (for heating)	n/a
Reversibility	Yes
Cooling mode application (optional)	n/a
Any additional heat sources	n/a

General data

Power supply	3x400V 50Hz
Off-peak product	n/a

Outdoor Air/Water

EN 14511-4 | Heating

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

EN 12102-1 | Average Climate

	Low temperature	Medium temperature
Sound power level indoor	40 dB(A)	40 dB(A)
Sound power level outdoor	70 dB(A)	70 dB(A)

EN 14825 | Average Climate

	Low temperature	Medium temperature
η_s	169 %	130 %
Prated	13.9 kW	12.7 kW
SCOP	4.29	3.31
Tbiv	-7 °C	-7 °C
TOL	-28 °C	-28 °C
Pdh Tj = -7°C	12.3 kW	11.2 kW
COP Tj = -7°C	2.85	1.96
Cdh Tj = -7 °C	0.99	0.99
Pdh Tj = +2°C	7.5 kW	6.8 kW
COP Tj = +2°C	4.04	3.12
Cdh Tj = +2 °C	0.99	0.99
Pdh Tj = +7°C	4.8 kW	4.4 kW
COP Tj = +7°C	5.72	4.63
Cdh Tj = +7 °C	0.99	0.99
Pdh Tj = 12°C	7.3 kW	7 kW
COP Tj = 12°C	7.51	6.66
Cdh Tj = +12 °C	0.99	0.99
Pdh Tj = Tbiv	12.3 kW	11.2 kW

COP $T_j = T_{biv}$	2.85	1.96
$P_{dh} T_j = TOL$ or $P_{dh} T_j = T_{designh}$ if $TOL < T_{designh}$	11.6 kW	10.7 kW
COP $T_j = TOL$ or COP $T_j = T_{designh}$ if $TOL < T_{designh}$	2.65	1.9
WTOL	60 °C	60 °C
P _{off}	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	2.3 kW	2 kW
Annual energy consumption Q _{he}	6689 kWh	7918 kWh

Model PUHZ-SHW112YHA(-BS) + ERSC-*M*C

Model name	PUHZ-SHW112YHA(-BS) + ERSC-*M*C
Application	Heating (medium temp)
Units	Indoor, Outdoor
Climate zone (for heating)	n/a
Reversibility	Yes
Cooling mode application (optional)	n/a
Any additional heat sources	n/a

General data

Power supply	3x400V 50Hz
Off-peak product	n/a

Outdoor Air/Water

EN 14511-4 | Heating

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

EN 12102-1 | Average Climate

	Low temperature	Medium temperature
Sound power level indoor	40 dB(A)	40 dB(A)
Sound power level outdoor	70 dB(A)	70 dB(A)

EN 14825 | Average Climate

	Low temperature	Medium temperature
η_s	169 %	130 %
Prated	13.9 kW	12.7 kW
SCOP	4.29	3.31
Tbiv	-7 °C	-7 °C
TOL	-28 °C	-28 °C
Pdh Tj = -7°C	12.3 kW	11.2 kW
COP Tj = -7°C	2.85	1.96
Cdh Tj = -7 °C	0.99	0.99
Pdh Tj = +2°C	7.5 kW	6.8 kW
COP Tj = +2°C	4.04	3.12
Cdh Tj = +2 °C	0.99	0.99
Pdh Tj = +7°C	4.8 kW	4.4 kW
COP Tj = +7°C	5.72	4.63
Cdh Tj = +7 °C	0.99	0.99
Pdh Tj = 12°C	7.3 kW	7 kW
COP Tj = 12°C	7.51	6.66
Cdh Tj = +12 °C	0.99	0.99
Pdh Tj = Tbiv	12.3 kW	11.2 kW

COP $T_j = T_{biv}$	2.85	1.96
$P_{dh} T_j = TOL$ or $P_{dh} T_j = T_{designh}$ if $TOL < T_{designh}$	11.6 kW	10.7 kW
COP $T_j = TOL$ or COP $T_j = T_{designh}$ if $TOL < T_{designh}$	2.65	1.9
WTOL	60 °C	60 °C
P _{off}	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	2.3 kW	2 kW
Annual energy consumption Q _{he}	6689 kWh	7918 kWh

Model PUHZ-SHW140YHA(-BS) + EHST20C-M*C

Model name	PUHZ-SHW140YHA(-BS) + EHST20C-M*C
Application	Heating + DHW + low temp
Units	Indoor, Outdoor
Climate zone (for heating)	n/a
Cooling mode application (optional)	n/a
Any additional heat sources	n/a

General data

Power supply	3x400V 50Hz
Off-peak product	n/a

Outdoor Air/Water

EN 16147 | Average Climate

Declared load profile	L
Efficiency η_{DHW}	103 %
COP	2.48
Heating up time	01:46 h:min
Standby power input	36 W
Reference hot water temperature	52.5 °C
Mixed water at 40°C	292 l

Model PUHZ-SHW140YHA(-BS) + EHST20C-*M*C

Model name	PUHZ-SHW140YHA(-BS) + EHST20C-*M*C
Application	Heating + DHW + low temp
Units	Indoor, Outdoor
Climate zone (for heating)	n/a
Cooling mode application (optional)	n/a
Any additional heat sources	n/a

General data

Power supply	3x400V 50Hz
Off-peak product	n/a

Outdoor Air/Water

EN 16147 | Average Climate

Declared load profile	L
Efficiency η_{DHW}	103 %
COP	2.48
Heating up time	01:46 h:min
Standby power input	36 W
Reference hot water temperature	52.5 °C
Mixed water at 40°C	292 l

Model PUAZ-SHW140YHA(-BS) + ERST20C-M*C

Model name	PUAZ-SHW140YHA(-BS) + ERST20C-M*C
Application	Heating + DHW + low temp
Units	Indoor, Outdoor
Climate zone (for heating)	n/a
Reversibility	Yes
Cooling mode application (optional)	n/a
Any additional heat sources	n/a

General data

Power supply	3x400V 50Hz
Off-peak product	n/a

Outdoor Air/Water

EN 16147 | Average Climate

Declared load profile	L
Efficiency η_{DHW}	103 %
COP	2.48
Heating up time	01:46 h:min
Standby power input	36 W
Reference hot water temperature	52.5 °C
Mixed water at 40°C	292 l

Model PUAZ-SHW140YHA(-BS) + ERST20C-*M*C

Model name	PUAZ-SHW140YHA(-BS) + ERST20C-*M*C
Application	Heating + DHW + low temp
Units	Indoor, Outdoor
Climate zone (for heating)	n/a
Reversibility	Yes
Cooling mode application (optional)	n/a
Any additional heat sources	n/a

General data

Power supply	3x400V 50Hz
Off-peak product	n/a

Outdoor Air/Water

EN 16147 | Average Climate

Declared load profile	L
Efficiency η_{DHW}	103 %
COP	2.48
Heating up time	01:46 h:min
Standby power input	36 W
Reference hot water temperature	52.5 °C
Mixed water at 40°C	292 l

Model PUHZ-SHW140YHA(-BS) + EHSC-M*C

Model name	PUHZ-SHW140YHA(-BS) + EHSC-M*C
Application	Heating (medium temp)
Units	Indoor, Outdoor
Climate zone (for heating)	n/a
Cooling mode application (optional)	n/a
Any additional heat sources	n/a

General data

Power supply	3x400V 50Hz
Off-peak product	n/a

Outdoor Air/Water

EN 14511-4 | Heating

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

EN 12102-1 | Average Climate

	Low temperature	Medium temperature
Sound power level indoor	40 dB(A)	40 dB(A)
Sound power level outdoor	70 dB(A)	70 dB(A)

EN 14825 | Average Climate

	Low temperature	Medium temperature
η_s	163 %	127 %
Prated	17 kW	15.8 kW
SCOP	4.16	3.25
Tbiv	-7 °C	-7 °C
TOL	-28 °C	-28 °C
Pdh Tj = -7°C	15 kW	14 kW
COP Tj = -7°C	2.59	1.84
Cdh Tj = -7 °C	0.99	0.99
Pdh Tj = +2°C	9.1 kW	8.5 kW
COP Tj = +2°C	4.01	3.1
Cdh Tj = +2 °C	0.99	0.99
Pdh Tj = +7°C	5.9 kW	5.5 kW
COP Tj = +7°C	5.71	4.67
Cdh Tj = +7 °C	0.99	0.99
Pdh Tj = 12°C	7.3 kW	7 kW
COP Tj = 12°C	7.47	6.62
Cdh Tj = +12 °C	0.99	0.99
Pdh Tj = Tbiv	15 kW	14 kW
COP Tj = Tbiv	2.59	1.84

Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	14.1 kW	13.9 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.42	1.83
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	2.9 kW	1.9 kW
Annual energy consumption Qhe	8446 kWh	10054 kWh

Model PUHZ-SHW140YHA(-BS) + EHSC-*M*C

Model name	PUHZ-SHW140YHA(-BS) + EHSC-*M*C
Application	Heating (medium temp)
Units	Indoor, Outdoor
Climate zone (for heating)	n/a
Cooling mode application (optional)	n/a
Any additional heat sources	n/a

General data

Power supply	3x400V 50Hz
Off-peak product	n/a

Outdoor Air/Water

EN 14511-4 | Heating

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

EN 12102-1 | Average Climate

	Low temperature	Medium temperature
Sound power level indoor	40 dB(A)	40 dB(A)
Sound power level outdoor	70 dB(A)	70 dB(A)

EN 14825 | Average Climate

	Low temperature	Medium temperature
η_s	163 %	127 %
Prated	17 kW	15.8 kW
SCOP	4.16	3.25
Tbiv	-7 °C	-7 °C
TOL	-28 °C	-28 °C
Pdh Tj = -7°C	15 kW	14 kW
COP Tj = -7°C	2.59	1.84
Cdh Tj = -7 °C	0.99	0.99
Pdh Tj = +2°C	9.1 kW	8.5 kW
COP Tj = +2°C	4.01	3.1
Cdh Tj = +2 °C	0.99	0.99
Pdh Tj = +7°C	5.9 kW	5.5 kW
COP Tj = +7°C	5.71	4.67
Cdh Tj = +7 °C	0.99	0.99
Pdh Tj = 12°C	7.3 kW	7 kW
COP Tj = 12°C	7.47	6.62
Cdh Tj = +12 °C	0.99	0.99
Pdh Tj = Tbiv	15 kW	14 kW
COP Tj = Tbiv	2.59	1.84

Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	14.1 kW	13.9 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.42	1.83
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	2.9 kW	1.9 kW
Annual energy consumption Qhe	8446 kWh	10054 kWh

Model PUHZ-SHW140YHA(-BS) + ERSC-M*C

Model name	PUHZ-SHW140YHA(-BS) + ERSC-M*C
Application	Heating (medium temp)
Units	Indoor, Outdoor
Climate zone (for heating)	n/a
Reversibility	Yes
Cooling mode application (optional)	n/a
Any additional heat sources	n/a

General data

Power supply	3x400V 50Hz
Off-peak product	n/a

Outdoor Air/Water

EN 14511-4 | Heating

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

EN 12102-1 | Average Climate

	Low temperature	Medium temperature
Sound power level indoor	40 dB(A)	40 dB(A)
Sound power level outdoor	70 dB(A)	70 dB(A)

EN 14825 | Average Climate

	Low temperature	Medium temperature
η_s	165 %	128 %
Prated	17 kW	15.8 kW
SCOP	4.21	3.27
Tbiv	-7 °C	-7 °C
TOL	-28 °C	-28 °C
Pdh Tj = -7°C	15 kW	14 kW
COP Tj = -7°C	2.59	1.84
Cdh Tj = -7 °C	0.99	0.99
Pdh Tj = +2°C	9.1 kW	8.5 kW
COP Tj = +2°C	4.03	3.1
Cdh Tj = +2 °C	0.99	0.99
Pdh Tj = +7°C	5.9 kW	5.5 kW
COP Tj = +7°C	5.71	4.67
Cdh Tj = +7 °C	0.99	0.99
Pdh Tj = 12°C	7.3 kW	7 kW
COP Tj = 12°C	7.47	6.62
Cdh Tj = +12 °C	0.99	0.99
Pdh Tj = Tbiv	15 kW	14 kW

COP $T_j = T_{biv}$	2.59	1.84
$P_{dh} T_j = TOL$ or $P_{dh} T_j = T_{designh}$ if $TOL < T_{designh}$	14.1 kW	13.9 kW
COP $T_j = TOL$ or COP $T_j = T_{designh}$ if $TOL < T_{designh}$	2.42	1.83
WTOL	60 °C	60 °C
P _{off}	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	2.9 kW	1.9 kW
Annual energy consumption Q _{he}	8344 kWh	9973 kWh

Model PUHZ-SHW140YHA(-BS) + ERSC-*M*C

Model name	PUHZ-SHW140YHA(-BS) + ERSC-*M*C
Application	Heating (medium temp)
Units	Indoor, Outdoor
Climate zone (for heating)	n/a
Reversibility	Yes
Cooling mode application (optional)	n/a
Any additional heat sources	n/a

General data

Power supply	3x400V 50Hz
Off-peak product	n/a

Outdoor Air/Water

EN 14511-4 | Heating

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

EN 12102-1 | Average Climate

	Low temperature	Medium temperature
Sound power level indoor	40 dB(A)	40 dB(A)
Sound power level outdoor	70 dB(A)	70 dB(A)

EN 14825 | Average Climate

	Low temperature	Medium temperature
η_s	165 %	128 %
Prated	17 kW	15.8 kW
SCOP	4.21	3.27
Tbiv	-7 °C	-7 °C
TOL	-28 °C	-28 °C
Pdh Tj = -7°C	15 kW	14 kW
COP Tj = -7°C	2.59	1.84
Cdh Tj = -7 °C	0.99	0.99
Pdh Tj = +2°C	9.1 kW	8.5 kW
COP Tj = +2°C	4.03	3.1
Cdh Tj = +2 °C	0.99	0.99
Pdh Tj = +7°C	5.9 kW	5.5 kW
COP Tj = +7°C	5.71	4.67
Cdh Tj = +7 °C	0.99	0.99
Pdh Tj = 12°C	7.3 kW	7 kW
COP Tj = 12°C	7.47	6.62
Cdh Tj = +12 °C	0.99	0.99
Pdh Tj = Tbiv	15 kW	14 kW

COP $T_j = T_{biv}$	2.59	1.84
$P_{dh} T_j = TOL$ or $P_{dh} T_j = T_{designh}$ if $TOL < T_{designh}$	14.1 kW	13.9 kW
COP $T_j = TOL$ or COP $T_j = T_{designh}$ if $TOL < T_{designh}$	2.42	1.83
WTOL	60 °C	60 °C
P _{off}	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	2.9 kW	1.9 kW
Annual energy consumption Q _{he}	8344 kWh	9973 kWh

Model PUHZ-SHW140YHA(-BS) + EHST20C-M*D

Model name	PUHZ-SHW140YHA(-BS) + EHST20C-M*D
Application	Heating + DHW + low temp
Units	Indoor, Outdoor
Climate zone (for heating)	n/a
Cooling mode application (optional)	n/a
Any additional heat sources	n/a

General data

Power supply	3x400V 50Hz
Off-peak product	n/a

Outdoor Air/Water

EN 16147 | Average Climate

Declared load profile	L
Efficiency η_{DHW}	138 %
COP	3.25
Heating up time	01:32 h:min
Standby power input	35 W
Reference hot water temperature	52.5 °C
Mixed water at 40°C	278 l

Model PUAZ-SHW140YHA(-BS) + EHST20C-*M*D

Model name	PUAZ-SHW140YHA(-BS) + EHST20C-*M*D
Application	Heating + DHW + low temp
Units	Indoor, Outdoor
Climate zone (for heating)	n/a
Cooling mode application (optional)	n/a
Any additional heat sources	n/a

General data

Power supply	3x400V 50Hz
Off-peak product	n/a

Outdoor Air/Water

EN 16147 | Average Climate

Declared load profile	L
Efficiency η_{DHW}	138 %
COP	3.25
Heating up time	01:32 h:min
Standby power input	35 W
Reference hot water temperature	52.5 °C
Mixed water at 40°C	278 l

Model PUAZ-SHW140YHA(-BS) + ERST20C-*M*D

Model name	PUAZ-SHW140YHA(-BS) + ERST20C-*M*D
Application	Heating + DHW + low temp
Units	Indoor, Outdoor
Climate zone (for heating)	n/a
Reversibility	Yes
Cooling mode application (optional)	n/a
Any additional heat sources	n/a

General data

Power supply	3x400V 50Hz
Off-peak product	n/a

Outdoor Air/Water

EN 16147 | Average Climate

Declared load profile	L
Efficiency η_{DHW}	138 %
COP	3.25
Heating up time	01:32 h:min
Standby power input	35 W
Reference hot water temperature	52.5 °C
Mixed water at 40°C	278 l

Model PUHZ-SHW140YHA(-BS) + EHSC-M*D

Model name	PUHZ-SHW140YHA(-BS) + EHSC-M*D
Application	Heating (medium temp)
Units	Indoor, Outdoor
Climate zone (for heating)	n/a
Cooling mode application (optional)	n/a
Any additional heat sources	n/a

General data

Power supply	3x400V 50Hz
Off-peak product	n/a

Outdoor Air/Water

EN 14511-4 | Heating

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

EN 12102-1 | Average Climate

	Low temperature	Medium temperature
Sound power level indoor	40 dB(A)	40 dB(A)
Sound power level outdoor	70 dB(A)	70 dB(A)

EN 14825 | Average Climate

	Low temperature	Medium temperature
η_s	163 %	127 %
Prated	17 kW	15.8 kW
SCOP	4.16	3.25
Tbiv	-7 °C	-7 °C
TOL	-28 °C	-28 °C
Pdh Tj = -7°C	15 kW	14 kW
COP Tj = -7°C	2.59	1.84
Cdh Tj = -7 °C	0.99	1
Pdh Tj = +2°C	9.1 kW	8.5 kW
COP Tj = +2°C	4.01	3.1
Cdh Tj = +2 °C	0.99	0.99
Pdh Tj = +7°C	5.9 kW	5.5 kW
COP Tj = +7°C	5.71	4.67
Cdh Tj = +7 °C	0.99	0.98
Pdh Tj = 12°C	7.3 kW	7 kW
COP Tj = 12°C	7.47	6.62
Cdh Tj = +12 °C	0.99	0.98
Pdh Tj = Tbiv	15 kW	14 kW
COP Tj = Tbiv	2.59	1.84

Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	14.1 kW	13.9 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.42	1.83
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	2.9 kW	1.9 kW
Annual energy consumption Qhe	8446 kWh	10054 kWh

Model PUHZ-SHW140YHA(-BS) + EHSC-*M*D

Model name	PUHZ-SHW140YHA(-BS) + EHSC-*M*D
Application	Heating (medium temp)
Units	Indoor, Outdoor
Climate zone (for heating)	n/a
Cooling mode application (optional)	n/a
Any additional heat sources	n/a

General data

Power supply	3x400V 50Hz
Off-peak product	n/a

Outdoor Air/Water

EN 14511-4 | Heating

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

EN 12102-1 | Average Climate

	Low temperature	Medium temperature
Sound power level indoor	40 dB(A)	40 dB(A)
Sound power level outdoor	70 dB(A)	70 dB(A)

EN 14825 | Average Climate

	Low temperature	Medium temperature
η_s	163 %	127 %
Prated	17 kW	15.8 kW
SCOP	4.16	3.25
Tbiv	-7 °C	-7 °C
TOL	-28 °C	-28 °C
Pdh Tj = -7°C	15 kW	14 kW
COP Tj = -7°C	2.59	1.84
Cdh Tj = -7 °C	0.99	1
Pdh Tj = +2°C	9.1 kW	8.5 kW
COP Tj = +2°C	4.01	3.1
Cdh Tj = +2 °C	0.99	0.99
Pdh Tj = +7°C	5.9 kW	5.5 kW
COP Tj = +7°C	5.71	4.67
Cdh Tj = +7 °C	0.99	0.98
Pdh Tj = 12°C	7.3 kW	7 kW
COP Tj = 12°C	7.47	6.62
Cdh Tj = +12 °C	0.99	0.98
Pdh Tj = Tbiv	15 kW	14 kW
COP Tj = Tbiv	2.59	1.84

Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	14.1 kW	13.9 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.42	1.83
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	2.9 kW	1.9 kW
Annual energy consumption Qhe	8446 kWh	10054 kWh

Model PUHZ-SHW140YHA(-BS) + ERSC-M*D

Model name	PUHZ-SHW140YHA(-BS) + ERSC-M*D
Application	Heating (medium temp)
Units	Indoor, Outdoor
Climate zone (for heating)	n/a
Reversibility	Yes
Cooling mode application (optional)	n/a
Any additional heat sources	n/a

General data

Power supply	3x400V 50Hz
Off-peak product	n/a

Outdoor Air/Water

EN 14511-4 | Heating

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

EN 12102-1 | Average Climate

	Low temperature	Medium temperature
Sound power level indoor	40 dB(A)	40 dB(A)
Sound power level outdoor	70 dB(A)	70 dB(A)

EN 14825 | Average Climate

	Low temperature	Medium temperature
η_s	165 %	128 %
Prated	17 kW	15.8 kW
SCOP	4.21	3.27
Tbiv	-7 °C	-7 °C
TOL	-28 °C	-28 °C
Pdh Tj = -7°C	15 kW	14 kW
COP Tj = -7°C	2.59	1.84
Cdh Tj = -7 °C	0.99	1
Pdh Tj = +2°C	9.1 kW	8.5 kW
COP Tj = +2°C	4.03	3.1
Cdh Tj = +2 °C	0.99	0.99
Pdh Tj = +7°C	5.9 kW	5.5 kW
COP Tj = +7°C	5.71	4.67
Cdh Tj = +7 °C	0.99	0.98
Pdh Tj = 12°C	7.3 kW	7 kW
COP Tj = 12°C	7.47	6.62
Cdh Tj = +12 °C	0.99	0.98
Pdh Tj = Tbiv	15 kW	14 kW

COP $T_j = T_{biv}$	2.59	1.84
$P_{dh} T_j = TOL$ or $P_{dh} T_j = T_{designh}$ if $TOL < T_{designh}$	14.1 kW	13.9 kW
COP $T_j = TOL$ or COP $T_j = T_{designh}$ if $TOL < T_{designh}$	2.42	1.83
WTOL	60 °C	60 °C
P _{off}	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	2.9 kW	1.9 kW
Annual energy consumption Q _{he}	8344 kWh	9973 kWh

Model PUHZ-SHW140YHA(-BS) + ERSC-*M*D

Model name	PUHZ-SHW140YHA(-BS) + ERSC-*M*D
Application	Heating (medium temp)
Units	Indoor, Outdoor
Climate zone (for heating)	n/a
Reversibility	Yes
Cooling mode application (optional)	n/a
Any additional heat sources	n/a

General data

Power supply	3x400V 50Hz
Off-peak product	n/a

Outdoor Air/Water

EN 14511-4 | Heating

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

EN 12102-1 | Average Climate

	Low temperature	Medium temperature
Sound power level indoor	40 dB(A)	40 dB(A)
Sound power level outdoor	70 dB(A)	70 dB(A)

EN 14825 | Average Climate

	Low temperature	Medium temperature
η_s	165 %	128 %
Prated	17 kW	15.8 kW
SCOP	4.21	3.27
Tbiv	-7 °C	-7 °C
TOL	-28 °C	-28 °C
Pdh Tj = -7°C	15 kW	14 kW
COP Tj = -7°C	2.59	1.84
Cdh Tj = -7 °C	0.99	1
Pdh Tj = +2°C	9.1 kW	8.5 kW
COP Tj = +2°C	4.03	3.1
Cdh Tj = +2 °C	0.99	0.99
Pdh Tj = +7°C	5.9 kW	5.5 kW
COP Tj = +7°C	5.71	4.67
Cdh Tj = +7 °C	0.99	0.98
Pdh Tj = 12°C	7.3 kW	7 kW
COP Tj = 12°C	7.47	6.62
Cdh Tj = +12 °C	0.99	0.98
Pdh Tj = Tbiv	15 kW	14 kW

COP $T_j = T_{biv}$	2.59	1.84
$P_{dh} T_j = TOL$ or $P_{dh} T_j = T_{designh}$ if $TOL < T_{designh}$	14.1 kW	13.9 kW
COP $T_j = TOL$ or COP $T_j = T_{designh}$ if $TOL < T_{designh}$	2.42	1.83
WTOL	60 °C	60 °C
P _{off}	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	2.9 kW	1.9 kW
Annual energy consumption Q _{he}	8344 kWh	9973 kWh