

Subtype Samsung EHS R290 12&16kW(WMH/TIH 200L)

Certificate Holder	Samsung Electronics Air Conditioner Europe B.V.
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Country	NL
Certification Body	DIN CERTCO Gesellschaft für Konformitätsbewertung mbH
Subtype title	Samsung EHS R290 12&16kW(WMH/TIH 200L)
Registration number	011-1W0809
Heat Pump Type	Outdoor Air/Water
Refrigerant	R290
Mass of Refrigerant	1.25 kg
Certification Date	25.06.2024
Testing basis	European KEYMARK Scheme for Heat Pumps rev.14 (as of 2024-04)

Model AE120CXYDEK/EU AE200DNXMPK/EU

Model name	AE120CXYDEK/EU AE200DNXMPK/EU
Application	Heating + DHW + low temp
Units	Indoor, Outdoor
Climate zone (for heating)	Warmer, Warmer Climate
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}	148 %
COP	3.40
Heating up time	0:53 h:min
Standby power input	45.0 W
Reference hot water temperature	49.0 °C
Mixed water at 40°C	220 l

EN 16147 | Warmer Climate

Declared load profile	L
Efficiency η_{DHW}	162 %
COP	3.80
Heating up time	0:45 h:min
Standby power input	40.0 W
Reference hot water temperature	49.0 °C
Mixed water at 40°C	220 l

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 14511-2 | Heating

	Low temperature	Medium temperature
Heat output	12.00 kW	12.00 kW
El input	2.50 kW	4.00 kW
COP	4.80	3.00

EN 12102-1 | Average Climate

	Low temperature	Medium temperature
Sound power level indoor	44 dB(A)	44 dB(A)
Sound power level outdoor	60 dB(A)	60 dB(A)

EN 14825 | Average Climate

	Low temperature	Medium temperature
η_S	193 %	143 %
Prated	12.00 kW	12.00 kW
SCOP	4.90	3.65
Tbiv	-7 °C	-7 °C
TOL	-10 °C	-10 °C
Pdh Tj = -7°C	10.62 kW	10.62 kW
COP Tj = -7°C	2.95	2.15
Cdh Tj = -7 °C	0.900	0.900
Pdh Tj = +2°C	6.46 kW	6.46 kW
COP Tj = +2°C	4.83	3.60
Cdh Tj = +2 °C	0.900	0.900
Pdh Tj = +7°C	4.15 kW	4.20 kW
COP Tj = +7°C	6.50	4.88
Cdh Tj = +7 °C	0.900	0.900
Pdh Tj = 12°C	4.15 kW	4.20 kW
COP Tj = 12°C	8.00	5.95
Cdh Tj = +12 °C	0.900	0.900
Pdh Tj = Tbiv	10.62 kW	10.62 kW
COP Tj = Tbiv	2.95	2.15
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	11.62 kW	11.50 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.46	1.85
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	0.900	0.900
WTOL	75 °C	75 °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	0.40 kW	0.50 kW
Annual energy consumption Qhe	5051 kWh	6784 kWh

EN 12102-1 | Warmer Climate

	Low temperature	Medium temperature
Sound power level indoor	44 dB(A)	44 dB(A)
Sound power level outdoor	60 dB(A)	60 dB(A)

EN 14825 | Warmer Climate

	Low temperature	Medium temperature
ηs	257 %	180 %
Prated	12.50 kW	12.50 kW
SCOP	6.51	4.58
Tbiv	2 °C	2 °C
TOL	2 °C	2 °C
Pdh Tj = +2°C	12.50 kW	12.50 kW
COP Tj = +2°C	3.45	2.40
Cdh Tj = +2 °C	0.900	0.900
Pdh Tj = +7°C	8.04 kW	8.04 kW
COP Tj = +7°C	5.80	3.90
Cdh Tj = +7 °C	0.900	0.900
Pdh Tj = 12°C	4.30 kW	4.20 kW
COP Tj = 12°C	8.20	6.00
Cdh Tj = +12 °C	0.900	0.900
Pdh Tj = Tbiv	12.50 kW	12.50 kW
COP Tj = Tbiv	3.45	2.40
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	12.50 kW	12.50 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	3.45	2.40
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	0.900	0.900
WTOL	75 °C	75 °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	0.00 kW	0.00 kW
Annual energy consumption Qhe	2549 kWh	3631 kWh

Model AE120CXYDEK/EU AE200DNWMPK/EU

Model name	AE120CXYDEK/EU AE200DNWMPK/EU
Application	Heating + DHW + low temp
Units	Indoor, Outdoor
Climate zone (for heating)	Warmer, Warmer Climate
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}	148 %
COP	3.40
Heating up time	0:53 h:min
Standby power input	45.0 W
Reference hot water temperature	49.0 °C
Mixed water at 40°C	220 l

EN 16147 | Warmer Climate

Declared load profile	L
Efficiency η_{DHW}	162 %
COP	3.80
Heating up time	0:45 h:min
Standby power input	40.0 W
Reference hot water temperature	49.0 °C
Mixed water at 40°C	220 l

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 14511-2 | Heating

	Low temperature	Medium temperature
Heat output	12.00 kW	12.00 kW
El input	2.50 kW	4.00 kW
COP	4.80	3.00

EN 12102-1 | Average Climate

	Low temperature	Medium temperature
Sound power level indoor	42 dB(A)	42 dB(A)
Sound power level outdoor	60 dB(A)	60 dB(A)

EN 14825 | Average Climate

	Low temperature	Medium temperature
η_S	193 %	143 %
Prated	12.00 kW	12.00 kW
SCOP	4.90	3.65
Tbiv	-7 °C	-7 °C
TOL	-10 °C	-10 °C
Pdh Tj = -7°C	10.62 kW	10.62 kW
COP Tj = -7°C	2.95	2.15
Cdh Tj = -7 °C	0.900	0.900
Pdh Tj = +2°C	6.46 kW	6.46 kW
COP Tj = +2°C	4.83	3.60
Cdh Tj = +2 °C	0.900	0.900
Pdh Tj = +7°C	4.15 kW	4.20 kW
COP Tj = +7°C	6.50	4.88
Cdh Tj = +7 °C	0.900	0.900
Pdh Tj = 12°C	4.15 kW	4.20 kW
COP Tj = 12°C	8.00	5.95
Cdh Tj = +12 °C	0.900	0.900
Pdh Tj = Tbiv	10.62 kW	10.62 kW
COP Tj = Tbiv	2.95	2.15
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	11.62 kW	11.50 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.46	1.85
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	0.900	0.900
WTOL	75 °C	75 °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	0.40 kW	0.50 kW
Annual energy consumption Qhe	5051 kWh	6784 kWh

EN 12102-1 | Warmer Climate

	Low temperature	Medium temperature
Sound power level indoor	42 dB(A)	42 dB(A)
Sound power level outdoor	60 dB(A)	60 dB(A)

EN 14825 | Warmer Climate

	Low temperature	Medium temperature
ηs	257 %	180 %
Prated	12.50 kW	12.50 kW
SCOP	6.51	4.58
Tbiv	2 °C	2 °C
TOL	2 °C	2 °C
Pdh Tj = +2°C	12.50 kW	12.50 kW
COP Tj = +2°C	3.45	2.40
Cdh Tj = +2 °C	0.900	0.900
Pdh Tj = +7°C	8.04 kW	8.04 kW
COP Tj = +7°C	5.80	3.90
Cdh Tj = +7 °C	0.900	0.900
Pdh Tj = 12°C	4.30 kW	4.20 kW
COP Tj = 12°C	8.20	6.00
Cdh Tj = +12 °C	0.900	0.900
Pdh Tj = Tbiv	12.50 kW	12.50 kW
COP Tj = Tbiv	3.45	2.40
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	12.50 kW	12.50 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	3.45	2.40
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	0.900	0.900
WTOL	75 °C	75 °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	0.00 kW	0.00 kW
Annual energy consumption Qhe	2549 kWh	3631 kWh

Model AE120CXYDEK/EU AE160DNZMPK/EU

Model name	AE120CXYDEK/EU AE160DNZMPK/EU
Application	Heating (medium temp)
Units	Indoor, Outdoor
Climate zone (for heating)	Warmer, Warmer Climate
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 14511-2 | Heating

	Low temperature	Medium temperature
Heat output	12.00 kW	12.00 kW
El input	2.50 kW	4.00 kW
COP	4.80	3.00

EN 12102-1 | Average Climate

	Low temperature	Medium temperature
Sound power level indoor	44 dB(A)	44 dB(A)
Sound power level outdoor	60 dB(A)	60 dB(A)

EN 14825 | Average Climate

	Low temperature	Medium temperature
η_s	193 %	143 %
Prated	12.00 kW	12.00 kW
SCOP	4.90	3.65
Tbiv	-7 °C	-7 °C
TOL	-10 °C	-10 °C
Pdh Tj = -7°C	10.62 kW	10.62 kW
COP Tj = -7°C	2.95	2.15
Cdh Tj = -7 °C	0.900	0.900
Pdh Tj = +2°C	6.46 kW	6.46 kW
COP Tj = +2°C	4.83	3.60
Cdh Tj = +2 °C	0.900	0.900

Pdh Tj = +7°C	4.15 kW	4.20 kW
COP Tj = +7°C	6.50	4.88
Cdh Tj = +7 °C	0.900	0.900
Pdh Tj = 12°C	4.15 kW	4.20 kW
COP Tj = 12°C	8.00	5.95
Cdh Tj = +12 °C	0.900	0.900
Pdh Tj = Tbiv	10.62 kW	10.62 kW
COP Tj = Tbiv	2.95	2.15
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	11.62 kW	11.50 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.46	1.85
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	0.900	0.900
WTOL	75 °C	75 °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	0.40 kW	0.50 kW
Annual energy consumption Qhe	5051 kWh	6784 kWh

EN 12102-1 | Warmer Climate

	Low temperature	Medium temperature
Sound power level indoor	44 dB(A)	44 dB(A)
Sound power level outdoor	60 dB(A)	60 dB(A)

EN 14825 | Warmer Climate

	Low temperature	Medium temperature
ηs	257 %	180 %
Prated	12.50 kW	12.50 kW
SCOP	6.51	4.58
Tbiv	2 °C	2 °C
TOL	2 °C	2 °C
Pdh Tj = +2°C	12.50 kW	12.50 kW
COP Tj = +2°C	3.45	2.40
Cdh Tj = +2 °C	0.900	0.900
Pdh Tj = +7°C	8.04 kW	8.04 kW
COP Tj = +7°C	5.80	3.90
Cdh Tj = +7 °C	0.900	0.900
Pdh Tj = 12°C	4.30 kW	4.20 kW
COP Tj = 12°C	8.20	6.00
Cdh Tj = +12 °C	0.900	0.900
Pdh Tj = Tbiv	12.50 kW	12.50 kW
COP Tj = Tbiv	3.45	2.40

Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	12.50 kW	12.50 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	3.45	2.40
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	0.900	0.900
WTOL	75 °C	75 °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	0.00 kW	0.00 kW
Annual energy consumption Qhe	2549 kWh	3631 kWh

Model AE120CXYDEK/EU AE160DNYMPK/EU

Model name	AE120CXYDEK/EU AE160DNYMPK/EU
Application	Heating (medium temp)
Units	Indoor, Outdoor
Climate zone (for heating)	Warmer, Warmer Climate
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 14511-2 | Heating

	Low temperature	Medium temperature
Heat output	12.00 kW	12.00 kW
El input	2.50 kW	4.00 kW
COP	4.80	3.00

EN 12102-1 | Average Climate

	Low temperature	Medium temperature
Sound power level indoor	42 dB(A)	42 dB(A)
Sound power level outdoor	60 dB(A)	60 dB(A)

EN 14825 | Average Climate

	Low temperature	Medium temperature
η_s	193 %	143 %
Prated	12.00 kW	12.00 kW
SCOP	4.90	3.65
Tbiv	-7 °C	-7 °C
TOL	-10 °C	-10 °C
Pdh Tj = -7°C	10.62 kW	10.62 kW
COP Tj = -7°C	2.95	2.15
Cdh Tj = -7 °C	0.900	0.900
Pdh Tj = +2°C	6.46 kW	6.46 kW
COP Tj = +2°C	4.83	3.60
Cdh Tj = +2 °C	0.900	0.900

Pdh Tj = +7°C	4.15 kW	4.20 kW
COP Tj = +7°C	6.50	4.88
Cdh Tj = +7 °C	0.900	0.900
Pdh Tj = 12°C	4.15 kW	4.20 kW
COP Tj = 12°C	8.00	5.95
Cdh Tj = +12 °C	0.900	0.900
Pdh Tj = Tbiv	10.62 kW	10.62 kW
COP Tj = Tbiv	2.95	2.15
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	11.62 kW	11.50 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.46	1.85
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	0.900	0.900
WTOL	75 °C	75 °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	0.40 kW	0.50 kW
Annual energy consumption Qhe	5051 kWh	6784 kWh

EN 12102-1 | Warmer Climate

	Low temperature	Medium temperature
Sound power level indoor	42 dB(A)	42 dB(A)
Sound power level outdoor	60 dB(A)	60 dB(A)

EN 14825 | Warmer Climate

	Low temperature	Medium temperature
ηs	257 %	180 %
Prated	12.50 kW	12.50 kW
SCOP	6.51	4.58
Tbiv	2 °C	2 °C
TOL	2 °C	2 °C
Pdh Tj = +2°C	12.50 kW	12.50 kW
COP Tj = +2°C	3.45	2.40
Cdh Tj = +2 °C	0.900	0.900
Pdh Tj = +7°C	8.04 kW	8.04 kW
COP Tj = +7°C	5.80	3.90
Cdh Tj = +7 °C	0.900	0.900
Pdh Tj = 12°C	4.30 kW	4.20 kW
COP Tj = 12°C	8.20	6.00
Cdh Tj = +12 °C	0.900	0.900
Pdh Tj = Tbiv	12.50 kW	12.50 kW
COP Tj = Tbiv	3.45	2.40

Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	12.50 kW	12.50 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	3.45	2.40
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	0.900	0.900
WTOL	75 °C	75 °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	0.00 kW	0.00 kW
Annual energy consumption Qhe	2549 kWh	3631 kWh

Model AE120CXYDGK/EU AE200DNXMPK/EU

Model name	AE120CXYDGK/EU AE200DNXMPK/EU
Application	Heating + DHW + low temp
Units	Indoor, Outdoor
Climate zone (for heating)	Warmer, Warmer Climate
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}	148 %
COP	3.40
Heating up time	0:53 h:min
Standby power input	45.0 W
Reference hot water temperature	49.0 °C
Mixed water at 40°C	220 l

EN 16147 | Warmer Climate

Declared load profile	L
Efficiency η_{DHW}	162 %
COP	3.80
Heating up time	0:45 h:min
Standby power input	40.0 W
Reference hot water temperature	49.0 °C
Mixed water at 40°C	220 l

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 14511-2 | Heating

	Low temperature	Medium temperature
Heat output	12.00 kW	12.00 kW
El input	2.50 kW	4.00 kW
COP	4.80	3.00

EN 12102-1 | Average Climate

	Low temperature	Medium temperature
Sound power level indoor	44 dB(A)	44 dB(A)
Sound power level outdoor	60 dB(A)	60 dB(A)

EN 14825 | Average Climate

	Low temperature	Medium temperature
η_s	193 %	143 %
Prated	12.00 kW	12.00 kW
SCOP	4.90	3.65
Tbiv	-7 °C	-7 °C
TOL	-10 °C	-10 °C
Pdh Tj = -7°C	10.62 kW	10.62 kW
COP Tj = -7°C	2.95	2.15
Cdh Tj = -7 °C	0.900	0.900
Pdh Tj = +2°C	6.46 kW	6.46 kW
COP Tj = +2°C	4.83	3.60
Cdh Tj = +2 °C	0.900	0.900
Pdh Tj = +7°C	4.15 kW	4.20 kW
COP Tj = +7°C	6.50	4.88
Cdh Tj = +7 °C	0.900	0.900
Pdh Tj = 12°C	4.15 kW	4.20 kW
COP Tj = 12°C	8.00	5.95
Cdh Tj = +12 °C	0.900	0.900
Pdh Tj = Tbiv	10.62 kW	10.62 kW
COP Tj = Tbiv	2.95	2.15
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	11.62 kW	11.50 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.46	1.85
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	0.900	0.900
WTOL	75 °C	75 °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	0.40 kW	0.50 kW
Annual energy consumption Qhe	5051 kWh	6784 kWh

EN 12102-1 | Warmer Climate

	Low temperature	Medium temperature
Sound power level indoor	44 dB(A)	44 dB(A)
Sound power level outdoor	60 dB(A)	60 dB(A)

EN 14825 | Warmer Climate

	Low temperature	Medium temperature
ηs	257 %	180 %
Prated	12.50 kW	12.50 kW
SCOP	6.51	4.58
Tbiv	2 °C	2 °C
TOL	2 °C	2 °C
Pdh Tj = +2°C	12.50 kW	12.50 kW
COP Tj = +2°C	3.45	2.40
Cdh Tj = +2 °C	0.900	0.900
Pdh Tj = +7°C	8.04 kW	8.04 kW
COP Tj = +7°C	5.80	3.90
Cdh Tj = +7 °C	0.900	0.900
Pdh Tj = 12°C	4.30 kW	4.20 kW
COP Tj = 12°C	8.20	6.00
Cdh Tj = +12 °C	0.900	0.900
Pdh Tj = Tbiv	12.50 kW	12.50 kW
COP Tj = Tbiv	3.45	2.40
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	12.50 kW	12.50 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	3.45	2.40
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	0.900	0.900
WTOL	75 °C	75 °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	0.00 kW	0.00 kW
Annual energy consumption Qhe	2549 kWh	3631 kWh

Model AE120CXYDGK/EU AE200DNWMPK/EU

Model name	AE120CXYDGK/EU AE200DNWMPK/EU
Application	Heating + DHW + low temp
Units	Indoor, Outdoor
Climate zone (for heating)	Warmer, Warmer Climate
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}	148 %
COP	3.40
Heating up time	0:53 h:min
Standby power input	45.0 W
Reference hot water temperature	49.0 °C
Mixed water at 40°C	220 l

EN 16147 | Warmer Climate

Declared load profile	L
Efficiency η_{DHW}	162 %
COP	3.80
Heating up time	0:45 h:min
Standby power input	40.0 W
Reference hot water temperature	49.0 °C
Mixed water at 40°C	220 l

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 14511-2 | Heating

	Low temperature	Medium temperature
Heat output	12.00 kW	12.00 kW
El input	2.50 kW	4.00 kW
COP	4.80	3.00

EN 12102-1 | Average Climate

	Low temperature	Medium temperature
Sound power level indoor	42 dB(A)	42 dB(A)
Sound power level outdoor	60 dB(A)	60 dB(A)

EN 14825 | Average Climate

	Low temperature	Medium temperature
η_S	193 %	143 %
Prated	12.00 kW	12.00 kW
SCOP	4.90	3.65
Tbiv	-7 °C	-7 °C
TOL	-10 °C	-10 °C
Pdh Tj = -7°C	10.62 kW	10.62 kW
COP Tj = -7°C	2.95	2.15
Cdh Tj = -7 °C	0.900	0.900
Pdh Tj = +2°C	6.46 kW	6.46 kW
COP Tj = +2°C	4.83	3.60
Cdh Tj = +2 °C	0.900	0.900
Pdh Tj = +7°C	4.15 kW	4.20 kW
COP Tj = +7°C	6.50	4.88
Cdh Tj = +7 °C	0.900	0.900
Pdh Tj = 12°C	4.15 kW	4.20 kW
COP Tj = 12°C	8.00	5.95
Cdh Tj = +12 °C	0.900	0.900
Pdh Tj = Tbiv	10.62 kW	10.62 kW
COP Tj = Tbiv	2.95	2.15
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	11.62 kW	11.50 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.46	1.85
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	0.900	0.900
WTOL	75 °C	75 °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	0.40 kW	0.50 kW
Annual energy consumption Qhe	5051 kWh	6784 kWh

EN 12102-1 | Warmer Climate

	Low temperature	Medium temperature
Sound power level indoor	42 dB(A)	42 dB(A)
Sound power level outdoor	60 dB(A)	60 dB(A)

EN 14825 | Warmer Climate

	Low temperature	Medium temperature
ηs	257 %	180 %
Prated	12.50 kW	12.50 kW
SCOP	6.51	4.58
Tbiv	2 °C	2 °C
TOL	2 °C	2 °C
Pdh Tj = +2°C	12.50 kW	12.50 kW
COP Tj = +2°C	3.45	2.40
Cdh Tj = +2 °C	0.900	0.900
Pdh Tj = +7°C	8.04 kW	8.04 kW
COP Tj = +7°C	5.80	3.90
Cdh Tj = +7 °C	0.900	0.900
Pdh Tj = 12°C	4.30 kW	4.20 kW
COP Tj = 12°C	8.20	6.00
Cdh Tj = +12 °C	0.900	0.900
Pdh Tj = Tbiv	12.50 kW	12.50 kW
COP Tj = Tbiv	3.45	2.40
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	12.50 kW	12.50 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	3.45	2.40
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	0.900	0.900
WTOL	75 °C	75 °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	0.00 kW	kW
Annual energy consumption Qhe	2549 kWh	3631 kWh

Model AE120CXYDGK/EU AE160DNZMPK/EU

Model name	AE120CXYDGK/EU AE160DNZMPK/EU
Application	Heating (medium temp)
Units	Indoor, Outdoor
Climate zone (for heating)	Warmer, Warmer Climate
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 14511-2 | Heating

	Low temperature	Medium temperature
Heat output	12.00 kW	12.00 kW
El input	2.50 kW	4.00 kW
COP	4.80	3.00

EN 12102-1 | Average Climate

	Low temperature	Medium temperature
Sound power level indoor	44 dB(A)	44 dB(A)
Sound power level outdoor	60 dB(A)	60 dB(A)

EN 14825 | Average Climate

	Low temperature	Medium temperature
η_s	193 %	143 %
Prated	12.00 kW	12.00 kW
SCOP	4.90	3.65
Tbiv	-7 °C	-7 °C
TOL	-10 °C	-10 °C
Pdh Tj = -7°C	10.62 kW	10.62 kW
COP Tj = -7°C	2.95	2.15
Cdh Tj = -7 °C	0.900	0.900
Pdh Tj = +2°C	6.46 kW	6.46 kW
COP Tj = +2°C	4.83	3.60
Cdh Tj = +2 °C	0.900	0.900

Pdh Tj = +7°C	4.15 kW	4.20 kW
COP Tj = +7°C	6.50	4.88
Cdh Tj = +7 °C	0.900	0.900
Pdh Tj = 12°C	4.15 kW	4.20 kW
COP Tj = 12°C	8.00	5.95
Cdh Tj = +12 °C	0.900	0.900
Pdh Tj = Tbiv	10.62 kW	10.62 kW
COP Tj = Tbiv	2.95	2.15
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	11.62 kW	11.50 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.46	1.85
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	0.900	0.900
WTOL	75 °C	75 °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	0.40 kW	0.50 kW
Annual energy consumption Qhe	5051 kWh	6784 kWh

EN 12102-1 | Warmer Climate

	Low temperature	Medium temperature
Sound power level indoor	44 dB(A)	44 dB(A)
Sound power level outdoor	60 dB(A)	60 dB(A)

EN 14825 | Warmer Climate

	Low temperature	Medium temperature
ηs	257 %	180 %
Prated	12.50 kW	12.50 kW
SCOP	6.51	4.58
Tbiv	2 °C	2 °C
TOL	2 °C	2 °C
Pdh Tj = +2°C	12.50 kW	12.50 kW
COP Tj = +2°C	3.45	2.40
Cdh Tj = +2 °C	0.900	0.900
Pdh Tj = +7°C	8.04 kW	8.04 kW
COP Tj = +7°C	5.80	3.90
Cdh Tj = +7 °C	0.900	0.900
Pdh Tj = 12°C	4.30 kW	4.20 kW
COP Tj = 12°C	8.20	6.00
Cdh Tj = +12 °C	0.900	0.900
Pdh Tj = Tbiv	12.50 kW	12.50 kW
COP Tj = Tbiv	3.45	2.40

Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	12.50 kW	12.50 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	3.45	2.40
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	0.900	0.900
WTOL	75 °C	75 °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	0.00 kW	0.00 kW
Annual energy consumption Qhe	2549 kWh	3631 kWh

Model AE120CXYDGK/EU AE160DNYMPK/EU

Model name	AE120CXYDGK/EU AE160DNYMPK/EU
Application	Heating (medium temp)
Units	Indoor, Outdoor
Climate zone (for heating)	Warmer, Warmer Climate
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 14511-2 | Heating

	Low temperature	Medium temperature
Heat output	12.00 kW	12.00 kW
El input	2.50 kW	4.00 kW
COP	4.80	3.00

EN 12102-1 | Average Climate

	Low temperature	Medium temperature
Sound power level indoor	42 dB(A)	42 dB(A)
Sound power level outdoor	60 dB(A)	60 dB(A)

EN 14825 | Average Climate

	Low temperature	Medium temperature
η_s	193 %	143 %
Prated	12.00 kW	12.00 kW
SCOP	4.90	3.65
Tbiv	-7 °C	-7 °C
TOL	-10 °C	-10 °C
Pdh Tj = -7°C	10.62 kW	10.62 kW
COP Tj = -7°C	2.95	2.15
Cdh Tj = -7 °C	0.900	0.900
Pdh Tj = +2°C	6.46 kW	6.46 kW
COP Tj = +2°C	4.83	3.60
Cdh Tj = +2 °C	0.900	0.900

Pdh Tj = +7°C	4.15 kW	4.20 kW
COP Tj = +7°C	6.50	4.88
Cdh Tj = +7 °C	0.900	0.900
Pdh Tj = 12°C	4.15 kW	4.20 kW
COP Tj = 12°C	8.00	5.95
Cdh Tj = +12 °C	0.900	0.900
Pdh Tj = Tbiv	10.62 kW	10.62 kW
COP Tj = Tbiv	2.95	2.15
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	11.62 kW	11.50 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.46	1.85
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	0.900	0.900
WTOL	75 °C	75 °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	0.40 kW	0.50 kW
Annual energy consumption Qhe	5051 kWh	6784 kWh

EN 12102-1 | Warmer Climate

	Low temperature	Medium temperature
Sound power level indoor	42 dB(A)	42 dB(A)
Sound power level outdoor	60 dB(A)	60 dB(A)

EN 14825 | Warmer Climate

	Low temperature	Medium temperature
ηs	257 %	180 %
Prated	12.50 kW	12.50 kW
SCOP	6.51	4.58
Tbiv	2 °C	2 °C
TOL	2 °C	2 °C
Pdh Tj = +2°C	12.50 kW	12.50 kW
COP Tj = +2°C	3.45	2.40
Cdh Tj = +2 °C	0.900	0.900
Pdh Tj = +7°C	8.04 kW	8.04 kW
COP Tj = +7°C	5.80	3.90
Cdh Tj = +7 °C	0.900	0.900
Pdh Tj = 12°C	4.30 kW	4.20 kW
COP Tj = 12°C	8.20	6.00
Cdh Tj = +12 °C	0.900	0.900
Pdh Tj = Tbiv	12.50 kW	12.50 kW
COP Tj = Tbiv	3.45	2.40

Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	12.50 kW	12.50 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	3.45	2.40
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	0.900	0.900
WTOL	75 °C	75 °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	0.00 kW	kW
Annual energy consumption Qhe	2549 kWh	3631 kWh

Model AE160CXYDEK/EU AE200DNXMPK/EU

Model name	AE160CXYDEK/EU AE200DNXMPK/EU
Application	Heating + DHW + low temp
Units	Indoor, Outdoor
Climate zone (for heating)	Warmer, Warmer Climate
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}	148 %
COP	3.40
Heating up time	0.53 h:min
Standby power input	45.0 W
Reference hot water temperature	49.0 °C
Mixed water at 40°C	220 l

EN 16147 | Warmer Climate

Declared load profile	L
Efficiency η_{DHW}	162 %
COP	3.80
Heating up time	0:45 h:min
Standby power input	40.0 W
Reference hot water temperature	49.0 °C
Mixed water at 40°C	220 l

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 14511-2 | Heating

	Low temperature	Medium temperature
Heat output	16.00 kW	16.00 kW
El input	3.55 kW	5.52 kW
COP	4.51	2.90

EN 12102-1 | Average Climate

	Low temperature	Medium temperature
Sound power level indoor	44 dB(A)	44 dB(A)
Sound power level outdoor	65 dB(A)	65 dB(A)

EN 14825 | Average Climate

	Low temperature	Medium temperature
η_S	185 %	139 %
P _{rated}	15.50 kW	14.50 kW
SCOP	4.70	3.55
T _{biv}	-7 °C	-7 °C
T _{OL}	-10 °C	-10 °C
P _{dh T_j} = -7°C	13.71 kW	12.83 kW
COP T _j = -7°C	2.50	2.00
C _{dh T_j} = -7 °C	0.900	0.900
P _{dh T_j} = +2°C	8.35 kW	7.81 kW
COP T _j = +2°C	4.52	3.41
C _{dh T_j} = +2 °C	0.900	0.900
P _{dh T_j} = +7°C	5.37 kW	5.00 kW
COP T _j = +7°C	7.10	5.13
C _{dh T_j} = +7 °C	0.900	0.900
P _{dh T_j} = 12°C	4.20 kW	4.20 kW
COP T _j = 12°C	9.00	6.58
C _{dh T_j} = +12 °C	0.900	0.900
P _{dh T_j} = T _{biv}	13.71 kW	12.83 kW
COP T _j = T _{biv}	2.50	2.00
P _{dh T_j} = T _{OL} or P _{dh T_j} = T _{designh} if T _{OL} < T _{designh}	13.50 kW	12.50 kW
COP T _j = T _{OL} or COP T _j = T _{designh} if T _{OL} < T _{designh}	2.31	1.85
C _{dh T_j} = T _{OL} or P _{dh T_j} = T _{designh} if T _{OL} < T _{designh}	0.900	0.900
WT _{OL}	75 °C	75 °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	2.00 kW	2.00 kW
Annual energy consumption Q _{he}	6793 kWh	8403 kWh

EN 12102-1 | Warmer Climate

	Low temperature	Medium temperature
Sound power level indoor	44 dB(A)	44 dB(A)
Sound power level outdoor	65 dB(A)	65 dB(A)

EN 14825 | Warmer Climate

	Low temperature	Medium temperature
ηs	259 %	186 %
Prated	15.50 kW	14.50 kW
SCOP	6.54	4.72
Tbiv	2 °C	2 °C
TOL	2 °C	2 °C
Pdh Tj = +2°C	15.50 kW	14.50 kW
COP Tj = +2°C	3.30	2.30
Cdh Tj = +2 °C	0.900	0.900
Pdh Tj = +7°C	9.96 kW	9.32 kW
COP Tj = +7°C	5.70	4.00
Cdh Tj = +7 °C	0.900	0.900
Pdh Tj = 12°C	4.43 kW	4.20 kW
COP Tj = 12°C	8.30	6.20
Cdh Tj = +12 °C	0.900	0.900
Pdh Tj = Tbiv	15.50 kW	14.50 kW
COP Tj = Tbiv	3.30	2.30
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	15.50 kW	14.50 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	3.30	2.30
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	0.900	0.900
WTOL	75 °C	75 °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	0.00 kW	0.00 kW
Annual energy consumption Qhe	3151 kWh	4087 kWh

Model AE160CXYDEK/EU AE200DNWMPK/EU

Model name	AE160CXYDEK/EU AE200DNWMPK/EU
Application	Heating + DHW + low temp
Units	Indoor, Outdoor
Climate zone (for heating)	Warmer, Warmer Climate
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}	148 %
COP	3.40
Heating up time	0.53 h:min
Standby power input	45.0 W
Reference hot water temperature	49.0 °C
Mixed water at 40°C	220 l

EN 16147 | Warmer Climate

Declared load profile	L
Efficiency η_{DHW}	162 %
COP	3.80
Heating up time	0:45 h:min
Standby power input	40.0 W
Reference hot water temperature	49.0 °C
Mixed water at 40°C	220 l

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 14511-2 | Heating

	Low temperature	Medium temperature
Heat output	16.00 kW	16.00 kW
El input	3.55 kW	5.52 kW
COP	4.51	2.90

EN 12102-1 | Average Climate

	Low temperature	Medium temperature
Sound power level indoor	42 dB(A)	42 dB(A)
Sound power level outdoor	65 dB(A)	65 dB(A)

EN 14825 | Average Climate

	Low temperature	Medium temperature
η_S	185 %	139 %
P _{rated}	15.50 kW	14.50 kW
SCOP	4.70	3.55
T _{biv}	-7 °C	-7 °C
T _{OL}	-10 °C	-10 °C
P _{dh T_j} = -7°C	13.71 kW	12.83 kW
COP T _j = -7°C	2.50	2.00
C _{dh T_j} = -7 °C	0.900	0.900
P _{dh T_j} = +2°C	8.35 kW	7.81 kW
COP T _j = +2°C	4.52	3.41
C _{dh T_j} = +2 °C	0.900	0.900
P _{dh T_j} = +7°C	5.37 kW	5.00 kW
COP T _j = +7°C	7.10	5.13
C _{dh T_j} = +7 °C	0.900	0.900
P _{dh T_j} = 12°C	4.20 kW	4.20 kW
COP T _j = 12°C	9.00	6.58
C _{dh T_j} = +12 °C	0.900	0.900
P _{dh T_j} = T _{biv}	13.71 kW	12.83 kW
COP T _j = T _{biv}	2.50	2.00
P _{dh T_j} = T _{OL} or P _{dh T_j} = T _{designh} if T _{OL} < T _{designh}	13.50 kW	12.50 kW
COP T _j = T _{OL} or COP T _j = T _{designh} if T _{OL} < T _{designh}	2.31	1.85
C _{dh T_j} = T _{OL} or P _{dh T_j} = T _{designh} if T _{OL} < T _{designh}	0.900	0.900
WT _{OL}	75 °C	75 °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	2.00 kW	2.00 kW
Annual energy consumption Q _{he}	6793 kWh	8403 kWh

EN 12102-1 | Warmer Climate

	Low temperature	Medium temperature
Sound power level indoor	42 dB(A)	42 dB(A)
Sound power level outdoor	65 dB(A)	65 dB(A)

EN 14825 | Warmer Climate

	Low temperature	Medium temperature
ηs	259 %	186 %
Prated	15.50 kW	14.50 kW
SCOP	6.54	4.72
Tbiv	2 °C	2 °C
TOL	2 °C	2 °C
Pdh Tj = +2°C	15.50 kW	14.50 kW
COP Tj = +2°C	3.30	2.30
Cdh Tj = +2 °C	0.900	0.900
Pdh Tj = +7°C	9.96 kW	9.32 kW
COP Tj = +7°C	5.70	4.00
Cdh Tj = +7 °C	0.900	0.900
Pdh Tj = 12°C	4.43 kW	4.20 kW
COP Tj = 12°C	8.30	6.20
Cdh Tj = +12 °C	0.900	0.900
Pdh Tj = Tbiv	15.50 kW	14.50 kW
COP Tj = Tbiv	3.30	2.30
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	15.50 kW	14.50 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	3.30	2.30
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	0.900	0.900
WTOL	75 °C	75 °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	0.00 kW	0.00 kW
Annual energy consumption Qhe	3151 kWh	4087 kWh

Model AE160CXYDEK/EU AE160DNZMPK/EU

Model name	AE160CXYDEK/EU AE160DNZMPK/EU
Application	Heating (medium temp)
Units	Indoor, Outdoor
Climate zone (for heating)	Warmer, Warmer Climate
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 14511-2 | Heating

	Low temperature	Medium temperature
Heat output	16.00 kW	16.00 kW
El input	3.55 kW	5.52 kW
COP	4.51	2.90

EN 12102-1 | Average Climate

	Low temperature	Medium temperature
Sound power level indoor	44 dB(A)	44 dB(A)
Sound power level outdoor	65 dB(A)	65 dB(A)

EN 14825 | Average Climate

	Low temperature	Medium temperature
η_s	185 %	139 %
Prated	15.50 kW	14.50 kW
SCOP	4.70	3.55
Tbiv	-7 °C	-7 °C
TOL	-10 °C	-10 °C
Pdh Tj = -7°C	13.71 kW	12.83 kW
COP Tj = -7°C	2.50	2.00
Cdh Tj = -7 °C	0.900	0.900
Pdh Tj = +2°C	8.35 kW	7.81 kW
COP Tj = +2°C	4.52	3.41
Cdh Tj = +2 °C	0.900	0.900

Pdh Tj = +7°C	5.37 kW	5.00 kW
COP Tj = +7°C	7.10	5.13
Cdh Tj = +7 °C	0.900	0.900
Pdh Tj = 12°C	4.20 kW	4.20 kW
COP Tj = 12°C	9.00	6.58
Cdh Tj = +12 °C	0.900	0.900
Pdh Tj = Tbiv	13.71 kW	12.83 kW
COP Tj = Tbiv	2.50	2.00
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	13.50 kW	12.50 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.31	1.85
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	0.900	0.900
WTOL	75 °C	75 °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	2.00 kW	2.00 kW
Annual energy consumption Qhe	6793 kWh	8403 kWh

EN 12102-1 | Warmer Climate

	Low temperature	Medium temperature
Sound power level indoor	44 dB(A)	44 dB(A)
Sound power level outdoor	65 dB(A)	65 dB(A)

EN 14825 | Warmer Climate

	Low temperature	Medium temperature
ηs	259 %	186 %
Prated	15.50 kW	14.50 kW
SCOP	6.54	4.72
Tbiv	2 °C	2 °C
TOL	2 °C	2 °C
Pdh Tj = +2°C	15.50 kW	145.00 kW
COP Tj = +2°C	3.30	2.30
Cdh Tj = +2 °C	0.900	0.900
Pdh Tj = +7°C	9.96 kW	9.32 kW
COP Tj = +7°C	5.70	4.00
Cdh Tj = +7 °C	0.900	0.900
Pdh Tj = 12°C	4.43 kW	4.20 kW
COP Tj = 12°C	8.30	6.20
Cdh Tj = +12 °C	0.900	0.900
Pdh Tj = Tbiv	15.50 kW	14.50 kW
COP Tj = Tbiv	3.30	2.30

Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	15.50 kW	14.50 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	3.30	2.30
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	0.900	0.900
WTOL	75 °C	75 °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	0.00 kW	0.00 kW
Annual energy consumption Qhe	3151 kWh	4087 kWh

Model AE160CXYDEK/EU AE160DNYMPK/EU

Model name	AE160CXYDEK/EU AE160DNYMPK/EU
Application	Heating (medium temp)
Units	Indoor, Outdoor
Climate zone (for heating)	Warmer, Warmer Climate
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 14511-2 | Heating

	Low temperature	Medium temperature
Heat output	16.00 kW	16.00 kW
El input	3.55 kW	5.52 kW
COP	4.51	2.90

EN 12102-1 | Average Climate

	Low temperature	Medium temperature
Sound power level indoor	42 dB(A)	42 dB(A)
Sound power level outdoor	65 dB(A)	65 dB(A)

EN 14825 | Average Climate

	Low temperature	Medium temperature
η_s	185 %	139 %
Prated	15.50 kW	14.50 kW
SCOP	4.70	3.55
Tbiv	-7 °C	-7 °C
TOL	-10 °C	-10 °C
Pdh Tj = -7°C	13.71 kW	12.83 kW
COP Tj = -7°C	2.50	2.00
Cdh Tj = -7 °C	0.900	0.900
Pdh Tj = +2°C	8.35 kW	7.81 kW
COP Tj = +2°C	4.52	3.41
Cdh Tj = +2 °C	0.900	0.900

Pdh Tj = +7°C	5.37 kW	5.00 kW
COP Tj = +7°C	7.10	5.13
Cdh Tj = +7 °C	0.900	0.900
Pdh Tj = 12°C	4.20 kW	4.20 kW
COP Tj = 12°C	9.00	6.58
Cdh Tj = +12 °C	0.900	0.900
Pdh Tj = Tbiv	13.71 kW	12.83 kW
COP Tj = Tbiv	2.50	2.00
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	13.50 kW	12.50 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.31	1.85
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	0.900	0.900
WTOL	75 °C	75 °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	2.00 kW	2.00 kW
Annual energy consumption Qhe	6793 kWh	8403 kWh

EN 12102-1 | Warmer Climate

	Low temperature	Medium temperature
Sound power level indoor	42 dB(A)	42 dB(A)
Sound power level outdoor	65 dB(A)	65 dB(A)

EN 14825 | Warmer Climate

	Low temperature	Medium temperature
ηs	259 %	186 %
Prated	15.50 kW	14.50 kW
SCOP	6.54	4.72
Tbiv	2 °C	2 °C
TOL	2 °C	2 °C
Pdh Tj = +2°C	15.50 kW	14.50 kW
COP Tj = +2°C	3.30	2.30
Cdh Tj = +2 °C	0.900	0.900
Pdh Tj = +7°C	9.96 kW	9.32 kW
COP Tj = +7°C	5.70	4.00
Cdh Tj = +7 °C	0.900	0.900
Pdh Tj = 12°C	4.43 kW	4.20 kW
COP Tj = 12°C	8.30	6.20
Cdh Tj = +12 °C	0.900	0.900
Pdh Tj = Tbiv	15.50 kW	14.50 kW
COP Tj = Tbiv	3.30	2.30

Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	15.50 kW	14.50 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	3.30	2.30
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	0.900	0.900
WTOL	75 °C	75 °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	0.00 kW	kW
Annual energy consumption Qhe	3151 kWh	4087 kWh

Model AE160CXYDGK/EU AE200DNXMPK/EU

Model name	AE160CXYDGK/EU AE200DNXMPK/EU
Application	Heating + DHW + low temp
Units	Indoor, Outdoor
Climate zone (for heating)	Warmer, Warmer Climate
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}	148 %
COP	3.40
Heating up time	0.53 h:min
Standby power input	45.0 W
Reference hot water temperature	49.0 °C
Mixed water at 40°C	220 l

EN 16147 | Warmer Climate

Declared load profile	L
Efficiency η_{DHW}	162 %
COP	3.80
Heating up time	0:45 h:min
Standby power input	40.0 W
Reference hot water temperature	49.0 °C
Mixed water at 40°C	220 l

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 14511-2 | Heating

	Low temperature	Medium temperature
Heat output	16.00 kW	16.00 kW
El input	3.55 kW	5.52 kW
COP	4.51	2.90

EN 12102-1 | Average Climate

	Low temperature	Medium temperature
Sound power level indoor	44 dB(A)	44 dB(A)
Sound power level outdoor	65 dB(A)	65 dB(A)

EN 14825 | Average Climate

	Low temperature	Medium temperature
η_S	185 %	139 %
P _{rated}	15.50 kW	15.50 kW
SCOP	4.70	3.55
T _{biv}	-7 °C	-7 °C
T _{OL}	-10 °C	-10 °C
P _{dh T_j} = -7°C	13.71 kW	13.71 kW
COP T _j = -7°C	2.50	1.95
C _{dh T_j} = -7 °C	0.900	0.900
P _{dh T_j} = +2°C	8.35 kW	8.35 kW
COP T _j = +2°C	4.52	3.43
C _{dh T_j} = +2 °C	0.900	0.900
P _{dh T_j} = +7°C	5.37 kW	5.37 kW
COP T _j = +7°C	7.10	5.18
C _{dh T_j} = +7 °C	0.900	0.900
P _{dh T_j} = 12°C	4.20 kW	4.20 kW
COP T _j = 12°C	9.00	6.58
C _{dh T_j} = +12 °C	0.900	0.900
P _{dh T_j} = T _{biv}	13.71 kW	13.71 kW
COP T _j = T _{biv}	2.50	1.95
P _{dh T_j} = T _{OL} or P _{dh T_j} = T _{designh} if T _{OL} < T _{designh}	13.50 kW	13.30 kW
COP T _j = T _{OL} or COP T _j = T _{designh} if T _{OL} < T _{designh}	2.31	1.75
C _{dh T_j} = T _{OL} or P _{dh T_j} = T _{designh} if T _{OL} < T _{designh}	0.900	0.900
WT _{OL}	75 °C	75 °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	2.00 kW	2.20 kW
Annual energy consumption Q _{he}	6793 kWh	8985 kWh

EN 12102-1 | Warmer Climate

	Low temperature	Medium temperature
Sound power level indoor	44 dB(A)	44 dB(A)
Sound power level outdoor	65 dB(A)	65 dB(A)

EN 14825 | Warmer Climate

	Low temperature	Medium temperature
ηs	259 %	183 %
Prated	15.50 kW	15.50 kW
SCOP	6.54	4.66
Tbiv	2 °C	2 °C
TOL	2 °C	2 °C
Pdh Tj = +2°C	15.50 kW	15.50 kW
COP Tj = +2°C	3.30	2.20
Cdh Tj = +2 °C	0.900	0.900
Pdh Tj = +7°C	9.96 kW	9.96 kW
COP Tj = +7°C	5.70	3.85
Cdh Tj = +7 °C	0.900	0.900
Pdh Tj = 12°C	4.43 kW	4.43 kW
COP Tj = 12°C	8.30	6.30
Cdh Tj = +12 °C	0.900	0.900
Pdh Tj = Tbiv	15.50 kW	15.50 kW
COP Tj = Tbiv	3.30	2.20
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	15.50 kW	15.50 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	3.30	2.20
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	0.900	0.900
WTOL	75 °C	75 °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	0.00 kW	0.00 kW
Annual energy consumption Qhe	3151 kWh	4429 kWh

Model AE160CXYDGK/EU AE200DNWMPK/EU

Model name	AE160CXYDGK/EU AE200DNWMPK/EU
Application	Heating + DHW + low temp
Units	Indoor, Outdoor
Climate zone (for heating)	Warmer, Warmer Climate
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}	148 %
COP	3.40
Heating up time	0.53 h:min
Standby power input	45.0 W
Reference hot water temperature	49.0 °C
Mixed water at 40°C	220 l

EN 16147 | Warmer Climate

Declared load profile	L
Efficiency η_{DHW}	162 %
COP	3.80
Heating up time	0:45 h:min
Standby power input	40.0 W
Reference hot water temperature	49.0 °C
Mixed water at 40°C	220 l

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 14511-2 | Heating

	Low temperature	Medium temperature
Heat output	16.00 kW	16.00 kW
El input	3.55 kW	5.52 kW
COP	4.51	2.90

EN 12102-1 | Average Climate

	Low temperature	Medium temperature
Sound power level indoor	42 dB(A)	42 dB(A)
Sound power level outdoor	65 dB(A)	65 dB(A)

EN 14825 | Average Climate

	Low temperature	Medium temperature
η_S	185 %	139 %
P _{rated}	15.50 kW	15.50 kW
SCOP	4.70	3.55
T _{biv}	-7 °C	-7 °C
T _{OL}	-10 °C	-10 °C
P _{dh T_j} = -7°C	13.71 kW	13.71 kW
COP T _j = -7°C	2.50	1.95
C _{dh T_j} = -7 °C	0.900	0.900
P _{dh T_j} = +2°C	8.35 kW	8.35 kW
COP T _j = +2°C	4.52	3.43
C _{dh T_j} = +2 °C	0.900	0.900
P _{dh T_j} = +7°C	5.37 kW	5.37 kW
COP T _j = +7°C	7.10	5.18
C _{dh T_j} = +7 °C	0.900	0.900
P _{dh T_j} = 12°C	4.20 kW	4.20 kW
COP T _j = 12°C	9.00	6.58
C _{dh T_j} = +12 °C	0.900	0.900
P _{dh T_j} = T _{biv}	13.71 kW	13.71 kW
COP T _j = T _{biv}	2.50	1.95
P _{dh T_j} = T _{OL} or P _{dh T_j} = T _{designh} if T _{OL} < T _{designh}	13.50 kW	13.30 kW
COP T _j = T _{OL} or COP T _j = T _{designh} if T _{OL} < T _{designh}	2.31	1.75
C _{dh T_j} = T _{OL} or P _{dh T_j} = T _{designh} if T _{OL} < T _{designh}	0.900	0.900
WT _{OL}	75 °C	75 °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	2.00 kW	2.20 kW
Annual energy consumption Q _{he}	6793 kWh	8985 kWh

EN 12102-1 | Warmer Climate

	Low temperature	Medium temperature
Sound power level indoor	42 dB(A)	42 dB(A)
Sound power level outdoor	65 dB(A)	65 dB(A)

EN 14825 | Warmer Climate

	Low temperature	Medium temperature
ηs	259 %	183 %
Prated	15.50 kW	15.50 kW
SCOP	6.54	4.66
Tbiv	2 °C	2 °C
TOL	2 °C	2 °C
Pdh Tj = +2°C	15.50 kW	15.50 kW
COP Tj = +2°C	3.30	2.20
Cdh Tj = +2 °C	0.900	0.900
Pdh Tj = +7°C	9.96 kW	9.96 kW
COP Tj = +7°C	5.70	3.85
Cdh Tj = +7 °C	0.900	0.900
Pdh Tj = 12°C	4.43 kW	4.43 kW
COP Tj = 12°C	8.30	6.30
Cdh Tj = +12 °C	0.900	0.900
Pdh Tj = Tbiv	15.50 kW	15.50 kW
COP Tj = Tbiv	3.30	2.20
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	15.50 kW	15.50 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	3.30	2.20
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	0.900	0.900
WTOL	75 °C	75 °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	0.00 kW	0.00 kW
Annual energy consumption Qhe	3151 kWh	4429 kWh

Model AE160CXYDGK/EU AE160DNZMPK/EU

Model name	AE160CXYDGK/EU AE160DNZMPK/EU
Application	Heating (medium temp)
Units	Indoor, Outdoor
Climate zone (for heating)	Warmer, Warmer Climate
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 14511-2 | Heating

	Low temperature	Medium temperature
Heat output	16.00 kW	16.00 kW
El input	3.55 kW	5.52 kW
COP	4.51	2.90

EN 12102-1 | Average Climate

	Low temperature	Medium temperature
Sound power level indoor	44 dB(A)	44 dB(A)
Sound power level outdoor	65 dB(A)	65 dB(A)

EN 14825 | Average Climate

	Low temperature	Medium temperature
η_s	185 %	139 %
Prated	15.50 kW	15.50 kW
SCOP	4.70	3.55
Tbiv	-7 °C	-7 °C
TOL	-10 °C	-10 °C
Pdh Tj = -7°C	13.71 kW	13.71 kW
COP Tj = -7°C	2.50	1.95
Cdh Tj = -7 °C	0.900	0.900
Pdh Tj = +2°C	8.35 kW	8.35 kW
COP Tj = +2°C	4.52	3.43
Cdh Tj = +2 °C	0.900	0.900

Pdh Tj = +7°C	5.37 kW	5.37 kW
COP Tj = +7°C	7.10	5.18
Cdh Tj = +7 °C	0.900	0.900
Pdh Tj = 12°C	4.20 kW	4.20 kW
COP Tj = 12°C	9.00	6.58
Cdh Tj = +12 °C	0.900	0.900
Pdh Tj = Tbiv	13.71 kW	13.71 kW
COP Tj = Tbiv	2.50	1.95
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	13.50 kW	13.30 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.31	1.75
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	0.900	0.900
WTOL	75 °C	75 °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	2.00 kW	2.20 kW
Annual energy consumption Qhe	6793 kWh	8985 kWh

EN 12102-1 | Warmer Climate

	Low temperature	Medium temperature
Sound power level indoor	44 dB(A)	44 dB(A)
Sound power level outdoor	65 dB(A)	65 dB(A)

EN 14825 | Warmer Climate

	Low temperature	Medium temperature
ηs	259 %	183 %
Prated	15.50 kW	15.50 kW
SCOP	6.54	4.66
Tbiv	2 °C	2 °C
TOL	2 °C	2 °C
Pdh Tj = +2°C	15.50 kW	15.50 kW
COP Tj = +2°C	3.30	2.20
Cdh Tj = +2 °C	0.900	0.900
Pdh Tj = +7°C	9.96 kW	9.96 kW
COP Tj = +7°C	5.70	3.85
Cdh Tj = +7 °C	0.900	0.900
Pdh Tj = 12°C	4.43 kW	4.43 kW
COP Tj = 12°C	8.30	6.30
Cdh Tj = +12 °C	0.900	0.900
Pdh Tj = Tbiv	15.50 kW	15.50 kW
COP Tj = Tbiv	3.30	2.20

Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	15.50 kW	15.50 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	3.30	2.20
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	0.900	0.900
WTOL	75 °C	75 °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	0.00 kW	0.00 kW
Annual energy consumption Qhe	3151 kWh	4429 kWh

Model AE160CXYDGK/EU AE160DNYMPK/EU

Model name	AE160CXYDGK/EU AE160DNYMPK/EU
Application	Heating (medium temp)
Units	Indoor, Outdoor
Climate zone (for heating)	Warmer, Warmer Climate
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 14511-2 | Heating

	Low temperature	Medium temperature
Heat output	16.00 kW	16.00 kW
El input	3.55 kW	5.52 kW
COP	4.51	2.90

EN 12102-1 | Average Climate

	Low temperature	Medium temperature
Sound power level indoor	42 dB(A)	42 dB(A)
Sound power level outdoor	65 dB(A)	65 dB(A)

EN 14825 | Average Climate

	Low temperature	Medium temperature
η_s	185 %	139 %
Prated	15.50 kW	15.50 kW
SCOP	4.70	3.55
Tbiv	-7 °C	-7 °C
TOL	-10 °C	-10 °C
Pdh Tj = -7°C	13.71 kW	13.71 kW
COP Tj = -7°C	2.50	1.95
Cdh Tj = -7 °C	0.900	0.900
Pdh Tj = +2°C	8.35 kW	8.35 kW
COP Tj = +2°C	4.52	3.43
Cdh Tj = +2 °C	0.900	0.900

Pdh Tj = +7°C	5.37 kW	5.37 kW
COP Tj = +7°C	7.10	5.18
Cdh Tj = +7 °C	0.900	0.900
Pdh Tj = 12°C	4.20 kW	4.20 kW
COP Tj = 12°C	9.00	6.58
Cdh Tj = +12 °C	0.900	0.900
Pdh Tj = Tbiv	13.71 kW	13.71 kW
COP Tj = Tbiv	2.50	1.95
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	13.50 kW	13.30 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.31	1.75
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	0.900	0.900
WTOL	75 °C	75 °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	2.00 kW	2.20 kW
Annual energy consumption Qhe	6793 kWh	8985 kWh

EN 12102-1 | Warmer Climate

	Low temperature	Medium temperature
Sound power level indoor	42 dB(A)	42 dB(A)
Sound power level outdoor	65 dB(A)	65 dB(A)

EN 14825 | Warmer Climate

	Low temperature	Medium temperature
ηs	259 %	183 %
Prated	15.50 kW	15.50 kW
SCOP	6.54	4.66
Tbiv	2 °C	2 °C
TOL	2 °C	2 °C
Pdh Tj = +2°C	15.50 kW	15.50 kW
COP Tj = +2°C	3.30	2.20
Cdh Tj = +2 °C	0.900	0.900
Pdh Tj = +7°C	9.96 kW	9.96 kW
COP Tj = +7°C	5.70	3.85
Cdh Tj = +7 °C	0.900	0.900
Pdh Tj = 12°C	4.43 kW	4.43 kW
COP Tj = 12°C	8.30	6.30
Cdh Tj = +12 °C	0.900	0.900
Pdh Tj = Tbiv	15.50 kW	15.50 kW
COP Tj = Tbiv	3.30	2.20

Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	15.50 kW	15.50 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	3.30	2.20
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	0.900	0.900
WTOL	75 °C	75 °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	0.00 kW	0.00 kW
Annual energy consumption Qhe	3151 kWh	4429 kWh

Model AE120CXYDEK/EU MIM-E03FN

Model name	AE120CXYDEK/EU MIM-E03FN
Application	Heating (medium temp)
Units	Outdoor
Climate zone (for heating)	Warmer, Warmer Climate
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 14511-2 | Heating

	Low temperature	Medium temperature
Heat output	12.00 kW	12.00 kW
El input	2.50 kW	4.00 kW
COP	4.80	3.00

EN 12102-1 | Average Climate

	Low temperature	Medium temperature
Sound power level outdoor	60 dB(A)	60 dB(A)

EN 14825 | Average Climate

	Low temperature	Medium temperature
η_s	193 %	143 %
Prated	12.00 kW	12.00 kW
SCOP	4.90	3.65
Tbiv	-7 °C	-7 °C
TOL	-10 °C	-10 °C
Pdh Tj = -7°C	10.62 kW	10.62 kW
COP Tj = -7°C	2.95	2.15
Cdh Tj = -7 °C	0.900	0.900
Pdh Tj = +2°C	6.46 kW	6.46 kW
COP Tj = +2°C	4.83	3.60
Cdh Tj = +2 °C	0.900	0.900
Pdh Tj = +7°C	4.15 kW	4.20 kW

COP Tj = +7°C	6.50	4.88
Cdh Tj = +7 °C	0.900	0.900
Pdh Tj = 12°C	4.15 kW	4.20 kW
COP Tj = 12°C	8.00	5.95
Cdh Tj = +12 °C	0.900	0.900
Pdh Tj = Tbiv	10.62 kW	10.62 kW
COP Tj = Tbiv	2.95	2.15
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	11.62 kW	11.50 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.46	1.85
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	0.900	0.900
WTOL	75 °C	75 °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	0.40 kW	0.50 kW
Annual energy consumption Qhe	5051 kWh	6784 kWh

EN 12102-1 | Warmer Climate

	Low temperature	Medium temperature
Sound power level outdoor	60 dB(A)	60 dB(A)

EN 14825 | Warmer Climate

	Low temperature	Medium temperature
ηs	257 %	180 %
Prated	12.50 kW	12.50 kW
SCOP	6.51	4.58
Tbiv	2 °C	2 °C
TOL	2 °C	2 °C
Pdh Tj = +2°C	12.50 kW	12.50 kW
COP Tj = +2°C	3.45	2.40
Cdh Tj = +2 °C	0.900	0.900
Pdh Tj = +7°C	8.04 kW	8.04 kW
COP Tj = +7°C	5.80	3.90
Cdh Tj = +7 °C	0.900	0.900
Pdh Tj = 12°C	4.30 kW	4.20 kW
COP Tj = 12°C	8.20	6.00
Cdh Tj = +12 °C	0.900	0.900
Pdh Tj = Tbiv	12.50 kW	12.50 kW
COP Tj = Tbiv	3.45	2.40
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	12.50 kW	12.50 kW

COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	3.45	2.40
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	0.900	0.900
WTOL	75 °C	75 °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	0.00 kW	0.00 kW
Annual energy consumption Qhe	2549 kWh	3631 kWh

Model AE120CXYDGK/EU MIM-E03FN

Model name	AE120CXYDGK/EU MIM-E03FN
Application	Heating (medium temp)
Units	Outdoor
Climate zone (for heating)	Warmer, Warmer Climate
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 14511-2 | Heating

	Low temperature	Medium temperature
Heat output	12.00 kW	12.00 kW
El input	2.50 kW	4.00 kW
COP	4.80	3.00

EN 12102-1 | Average Climate

	Low temperature	Medium temperature
Sound power level outdoor	60 dB(A)	60 dB(A)

EN 14825 | Average Climate

	Low temperature	Medium temperature
η_s	193 %	143 %
Prated	12.00 kW	12.00 kW
SCOP	4.90	3.65
Tbiv	-7 °C	-7 °C
TOL	-10 °C	-10 °C
Pdh Tj = -7°C	10.62 kW	10.62 kW
COP Tj = -7°C	2.95	2.15
Cdh Tj = -7 °C	0.900	0.900
Pdh Tj = +2°C	6.46 kW	6.46 kW
COP Tj = +2°C	4.83	3.60
Cdh Tj = +2 °C	0.900	0.900
Pdh Tj = +7°C	4.15 kW	4.20 kW

COP Tj = +7°C	6.50	4.88
Cdh Tj = +7 °C	0.900	0.900
Pdh Tj = 12°C	4.15 kW	4.20 kW
COP Tj = 12°C	8.00	5.95
Cdh Tj = +12 °C	0.900	0.900
Pdh Tj = Tbiv	10.62 kW	10.62 kW
COP Tj = Tbiv	2.95	2.15
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	11.62 kW	11.50 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.46	1.85
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	0.900	0.900
WTOL	75 °C	75 °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	0.40 kW	0.50 kW
Annual energy consumption Qhe	5051 kWh	6784 kWh

EN 12102-1 | Warmer Climate

	Low temperature	Medium temperature
Sound power level outdoor	60 dB(A)	60 dB(A)

EN 14825 | Warmer Climate

	Low temperature	Medium temperature
ηs	257 %	180 %
Prated	12.50 kW	12.50 kW
SCOP	6.51	4.58
Tbiv	2 °C	2 °C
TOL	2 °C	2 °C
Pdh Tj = +2°C	12.50 kW	12.50 kW
COP Tj = +2°C	3.45	2.40
Cdh Tj = +2 °C	0.900	0.900
Pdh Tj = +7°C	8.04 kW	8.04 kW
COP Tj = +7°C	5.80	3.90
Cdh Tj = +7 °C	0.900	0.900
Pdh Tj = 12°C	4.30 kW	4.20 kW
COP Tj = 12°C	8.20	6.00
Cdh Tj = +12 °C	0.900	0.900
Pdh Tj = Tbiv	12.50 kW	12.50 kW
COP Tj = Tbiv	3.45	2.40
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	12.50 kW	12.50 kW

COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	3.45	2.40
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	0.900	0.900
WTOL	75 °C	75 °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	0.00 kW	0.00 kW
Annual energy consumption Qhe	2549 kWh	3631 kWh

Model AE160CXYDEK/EU MIM-E03FN

Model name	AE160CXYDEK/EU MIM-E03FN
Application	Heating (medium temp)
Units	Outdoor
Climate zone (for heating)	Warmer, Warmer Climate
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 14511-2 | Heating

	Low temperature	Medium temperature
Heat output	16.00 kW	16.00 kW
El input	3.55 kW	5.52 kW
COP	4.51	2.90

EN 12102-1 | Average Climate

	Low temperature	Medium temperature
Sound power level outdoor	65 dB(A)	65 dB(A)

EN 14825 | Average Climate

	Low temperature	Medium temperature
η_s	185 %	139 %
Prated	15.50 kW	14.50 kW
SCOP	4.70	3.55
Tbiv	-7 °C	-7 °C
TOL	-10 °C	-10 °C
Pdh Tj = -7°C	13.71 kW	12.83 kW
COP Tj = -7°C	2.50	2.00
Cdh Tj = -7 °C	0.900	0.900
Pdh Tj = +2°C	8.35 kW	7.81 kW
COP Tj = +2°C	4.52	3.41
Cdh Tj = +2 °C	0.900	0.900
Pdh Tj = +7°C	5.37 kW	5.00 kW

COP Tj = +7°C	7.10	5.13
Cdh Tj = +7 °C	0.900	0.900
Pdh Tj = 12°C	4.20 kW	4.20 kW
COP Tj = 12°C	9.00	6.58
Cdh Tj = +12 °C	0.900	0.900
Pdh Tj = Tbiv	13.71 kW	12.83 kW
COP Tj = Tbiv	2.50	2.00
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	13.50 kW	12.50 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.31	1.85
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	0.900	0.900
WTOL	75 °C	75 °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	2.00 kW	2.00 kW
Annual energy consumption Qhe	6793 kWh	8403 kWh

EN 12102-1 | Warmer Climate

	Low temperature	Medium temperature
Sound power level outdoor	65 dB(A)	65 dB(A)

EN 14825 | Warmer Climate

	Low temperature	Medium temperature
ηs	259 %	186 %
Prated	15.50 kW	14.50 kW
SCOP	6.54	4.72
Tbiv	2 °C	2 °C
TOL	2 °C	2 °C
Pdh Tj = +2°C	15.50 kW	14.50 kW
COP Tj = +2°C	3.30	2.30
Cdh Tj = +2 °C	0.900	0.900
Pdh Tj = +7°C	9.96 kW	9.32 kW
COP Tj = +7°C	5.70	4.00
Cdh Tj = +7 °C	0.900	0.900
Pdh Tj = 12°C	4.43 kW	4.20 kW
COP Tj = 12°C	8.30	6.20
Cdh Tj = +12 °C	0.900	0.900
Pdh Tj = Tbiv	15.50 kW	14.50 kW
COP Tj = Tbiv	3.30	2.30
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	15.50 kW	14.50 kW

COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	3.30	2.30
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	0.900	0.900
WTOL	75 °C	75 °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	0.00 kW	0.00 kW
Annual energy consumption Qhe	3151 kWh	4087 kWh

Model AE160CXYDGK/EU MIM-E03FN

Model name	AE160CXYDGK/EU MIM-E03FN
Application	Heating (medium temp)
Units	Indoor
Climate zone (for heating)	Warmer, Warmer Climate
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 14511-2 | Heating

	Low temperature	Medium temperature
Heat output	16.00 kW	16.00 kW
El input	3.55 kW	5.52 kW
COP	4.51	2.90

EN 12102-1 | Average Climate

	Low temperature	Medium temperature
Sound power level indoor	65 dB(A)	65 dB(A)

EN 14825 | Average Climate

	Low temperature	Medium temperature
η_s	185 %	139 %
Prated	15.50 kW	15.50 kW
SCOP	4.70	3.55
Tbiv	-7 °C	-7 °C
TOL	-10 °C	-10 °C
Pdh Tj = -7°C	13.71 kW	13.71 kW
COP Tj = -7°C	2.50	1.95
Cdh Tj = -7 °C	0.900	0.900
Pdh Tj = +2°C	8.35 kW	8.35 kW
COP Tj = +2°C	4.52	3.43
Cdh Tj = +2 °C	0.900	0.900
Pdh Tj = +7°C	5.37 kW	5.40 kW

COP Tj = +7°C	7.10	5.18
Cdh Tj = +7 °C	0.900	0.900
Pdh Tj = 12°C	4.20 kW	4.20 kW
COP Tj = 12°C	9.00	6.58
Cdh Tj = +12 °C	0.900	0.900
Pdh Tj = Tbiv	13.71 kW	13.71 kW
COP Tj = Tbiv	2.50	1.95
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	13.50 kW	13.30 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.31	1.75
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	0.900	0.900
WTOL	75 °C	75 °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	2.00 kW	2.20 kW
Annual energy consumption Qhe	6793 kWh	8985 kWh

EN 12102-1 | Warmer Climate

	Low temperature	Medium temperature
Sound power level indoor	65 dB(A)	65 dB(A)

EN 14825 | Warmer Climate

	Low temperature	Medium temperature
ηs	259 %	183 %
Prated	15.50 kW	15.50 kW
SCOP	6.54	4.66
Tbiv	2 °C	2 °C
TOL	2 °C	2 °C
Pdh Tj = +2°C	15.50 kW	15.50 kW
COP Tj = +2°C	3.30	2.20
Cdh Tj = +2 °C	0.900	0.900
Pdh Tj = +7°C	9.96 kW	9.96 kW
COP Tj = +7°C	5.70	3.85
Cdh Tj = +7 °C	0.900	0.900
Pdh Tj = 12°C	4.43 kW	4.43 kW
COP Tj = 12°C	8.30	6.30
Cdh Tj = +12 °C	0.900	0.900
Pdh Tj = Tbiv	15.50 kW	15.50 kW
COP Tj = Tbiv	3.30	2.20
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	15.50 kW	15.50 kW

COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	3.30	2.20
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	0.900	0.900
WTOL	75 °C	75 °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	0.00 kW	0.00 kW
Annual energy consumption Qhe	3151 kWh	4429 kWh

Model AE120CXYDEK/EU MIM-E03GN

Model name	AE120CXYDEK/EU MIM-E03GN
Application	Heating (medium temp)
Units	Outdoor
Climate zone (for heating)	Warmer Climate
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 14511-2 | Heating

	Low temperature	Medium temperature
Heat output	12 kW	12 kW
El input	2.5 kW	4 kW
COP	4.8	3

EN 12102-1 | Average Climate

	Low temperature	Medium temperature
Sound power level indoor	- dB(A)	- dB(A)
Sound power level outdoor	60 dB(A)	60 dB(A)

EN 14825 | Average Climate

	Low temperature	Medium temperature
η_s	193 %	143 %
Prated	12 kW	12 kW
SCOP	4.9	3.65
Tbiv	-7 °C	-7 °C
TOL	-10 °C	-10 °C
Pdh Tj = -7°C	10.62 kW	10.62 kW
COP Tj = -7°C	2.95	2.15
Cdh Tj = -7 °C	0.9	0.9
Pdh Tj = +2°C	6.46 kW	6.46 kW
COP Tj = +2°C	4.83	3.6
Cdh Tj = +2 °C	0.9	0.9

Pdh Tj = +7°C	4.15 kW	4.15 kW
COP Tj = +7°C	6.5	4.88
Cdh Tj = +7 °C	0.9	0.9
Pdh Tj = 12°C	4.15 kW	4.15 kW
COP Tj = 12°C	8	5.95
Cdh Tj = +12 °C	0.9	0.9
Pdh Tj = Tbiv	10.62 kW	10.62 kW
COP Tj = Tbiv	2.95	2.15
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	11.62 kW	11.5 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.46	1.85
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	0.9	0.9
WTOL	75 °C	75 °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	0.4 kW	0.5 kW
Annual energy consumption Qhe	5051 kWh	6784 kWh

EN 12102-1 | Warmer Climate

	Low temperature	Medium temperature
Sound power level indoor	- dB(A)	- dB(A)
Sound power level outdoor	60 dB(A)	60 dB(A)

EN 14825 | Warmer Climate

	Low temperature	Medium temperature
ηs	257 %	180 %
Prated	12.5 kW	12.5 kW
SCOP	6.51	4.58
Tbiv	2 °C	2 °C
TOL	2 °C	2 °C
Pdh Tj = +2°C	12.5 kW	12.5 kW
COP Tj = +2°C	3.45	2.4
Cdh Tj = +2 °C	0.9	0.9
Pdh Tj = +7°C	8.04 kW	8.04 kW
COP Tj = +7°C	5.8	3.9
Cdh Tj = +7 °C	0.9	0.9
Pdh Tj = 12°C	4.3 kW	4.2 kW
COP Tj = 12°C	8.2	8.2
Cdh Tj = +12 °C	0.9	0.9
Pdh Tj = Tbiv	12.5 kW	12.5 kW
COP Tj = Tbiv	3.45	2.4

Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	12.5 kW	12.5 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	3.45	2.4
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	0.9	0.9
WTOL	75 °C	75 °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	0 kW	0 kW
Annual energy consumption Qhe	2549 kWh	3631 kWh

Model AE120CXYDGK/EU MIM-E03GN

Model name	AE120CXYDGK/EU MIM-E03GN
Application	Heating (medium temp)
Units	Outdoor
Climate zone (for heating)	Warmer Climate
Reversibility	Yes
Cooling mode application (optional)	n/a
Any additional heat sources	n/a

General data

Power supply	3x400V 50Hz
Off-peak product	Yes

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 14511-2 | Heating

	Low temperature	Medium temperature
Heat output	12 kW	12 kW
El input	2.5 kW	4 kW
COP	4.8	3

EN 12102-1 | Average Climate

	Low temperature	Medium temperature
Sound power level indoor	- dB(A)	- dB(A)
Sound power level outdoor	60 dB(A)	60 dB(A)

EN 14825 | Average Climate

	Low temperature	Medium temperature
η_s	193 %	143 %
Prated	12 kW	12 kW
SCOP	4.9	3.65
Tbiv	-7 °C	-7 °C
TOL	-10 °C	-10 °C
Pdh Tj = -7°C	10.62 kW	10.62 kW
COP Tj = -7°C	2.95	2.15
Cdh Tj = -7 °C	0.9	0.9
Pdh Tj = +2°C	6.46 kW	6.46 kW
COP Tj = +2°C	4.83	3.6
Cdh Tj = +2 °C	0.9	0.9

Pdh Tj = +7°C	4.15 kW	4.15 kW
COP Tj = +7°C	6.5	4.88
Cdh Tj = +7 °C	0.9	0.9
Pdh Tj = 12°C	4.15 kW	4.15 kW
COP Tj = 12°C	8	5.95
Cdh Tj = +12 °C	0.9	0.9
Pdh Tj = Tbiv	10.62 kW	10.62 kW
COP Tj = Tbiv	2.95	2.15
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	11.62 kW	11.5 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.46	1.85
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	0.9	0.9
WTOL	75 °C	75 °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	0.4 kW	0.5 kW
Annual energy consumption Qhe	5051 kWh	6784 kWh

EN 12102-1 | Warmer Climate

	Low temperature	Medium temperature
Sound power level indoor	- dB(A)	- dB(A)
Sound power level outdoor	60 dB(A)	60 dB(A)

EN 14825 | Warmer Climate

	Low temperature	Medium temperature
ηs	257 %	180 %
Prated	12.5 kW	12.5 kW
SCOP	6.51	4.58
Tbiv	2 °C	2 °C
TOL	2 °C	2 °C
Pdh Tj = +2°C	12.5 kW	12.5 kW
COP Tj = +2°C	3.45	2.4
Cdh Tj = +2 °C	0.9	0.9
Pdh Tj = +7°C	8.04 kW	8.04 kW
COP Tj = +7°C	5.8	3.9
Cdh Tj = +7 °C	0.9	0.9
Pdh Tj = 12°C	4.3 kW	4.2 kW
COP Tj = 12°C	8.2	8.2
Cdh Tj = +12 °C	0.9	0.9
Pdh Tj = Tbiv	12.5 kW	12.5 kW
COP Tj = Tbiv	3.45	2.4

Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	12.5 kW	12.5 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	3.45	2.4
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	0.9	0.9
WTOL	75 °C	75 °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	0 kW	0 kW
Annual energy consumption Qhe	2549 kWh	3631 kWh

Model AE160CXYDEK/EU MIM-E03GN

Model name	AE160CXYDEK/EU MIM-E03GN
Application	Heating (medium temp)
Units	Outdoor
Climate zone (for heating)	Warmer Climate
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 14511-2 | Heating

	Low temperature	Medium temperature
Heat output	16 kW	16 kW
El input	3.55 kW	5.52 kW
COP	4.51	2.9

EN 12102-1 | Average Climate

	Low temperature	Medium temperature
Sound power level indoor	- dB(A)	- dB(A)
Sound power level outdoor	65 dB(A)	65 dB(A)

EN 14825 | Average Climate

	Low temperature	Medium temperature
η_s	185 %	139 %
Prated	15.5 kW	14.5 kW
SCOP	4.7	3.55
Tbiv	-7 °C	-7 °C
TOL	-10 °C	-10 °C
Pdh Tj = -7°C	13.71 kW	12.83 kW
COP Tj = -7°C	2.5	2
Cdh Tj = -7 °C	0.9	0.9
Pdh Tj = +2°C	8.35 kW	7.81 kW
COP Tj = +2°C	4.52	3.41
Cdh Tj = +2 °C	0.9	0.9

Pdh Tj = +7°C	5.37 kW	5.02 kW
COP Tj = +7°C	7.1	5.13
Cdh Tj = +7 °C	0.9	0.9
Pdh Tj = 12°C	4.2 kW	4.2 kW
COP Tj = 12°C	9	6.58
Cdh Tj = +12 °C	0.9	0.9
Pdh Tj = Tbiv	13.71 kW	12.83 kW
COP Tj = Tbiv	2.5	2
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	13.5 kW	12.5 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.31	1.85
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	0.9	0.9
WTOL	75 °C	75 °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 kW	2 kW
Annual energy consumption Qhe	6793 kWh	8403 kWh

EN 12102-1 | Warmer Climate

	Low temperature	Medium temperature
Sound power level indoor	- dB(A)	- dB(A)
Sound power level outdoor	65 dB(A)	65 dB(A)

EN 14825 | Warmer Climate

	Low temperature	Medium temperature
ηs	259 %	186 %
Prated	15.5 kW	14.5 kW
SCOP	6.54	4.72
Tbiv	2 °C	2 °C
TOL	2 °C	2 °C
Pdh Tj = +2°C	15.5 kW	14.5 kW
COP Tj = +2°C	3.3	2.3
Cdh Tj = +2 °C	0.9	0.9
Pdh Tj = +7°C	9.96 kW	9.32 kW
COP Tj = +7°C	5.7	4
Cdh Tj = +7 °C	0.9	0.9
Pdh Tj = 12°C	4.43 kW	4.2 kW
COP Tj = 12°C	8.3	8.3
Cdh Tj = +12 °C	0.9	0.9
Pdh Tj = Tbiv	15.5 kW	14.5 kW
COP Tj = Tbiv	3.3	2.3

Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	15.5 kW	14.5 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	3.3	2.3
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	0.9	0.9
WTOL	75 °C	75 °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	0 kW	0 kW
Annual energy consumption Qhe	3151 kWh	4087 kWh

Model AE160CXYDGK/EU MIM-E03GN

Model name	AE160CXYDGK/EU MIM-E03GN
Application	Heating (medium temp)
Units	Outdoor
Climate zone (for heating)	Warmer Climate
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 14511-2 | Heating

	Low temperature	Medium temperature
Heat output	16 kW	16 kW
El input	3.55 kW	5.52 kW
COP	4.51	2.9

EN 12102-1 | Average Climate

	Low temperature	Medium temperature
Sound power level indoor	- dB(A)	- dB(A)
Sound power level outdoor	65 dB(A)	65 dB(A)

EN 14825 | Average Climate

	Low temperature	Medium temperature
η_s	185 %	139 %
Prated	15.5 kW	15.5 kW
SCOP	4.7	3.55
Tbiv	-7 °C	-7 °C
TOL	-10 °C	-10 °C
Pdh Tj = -7°C	13.71 kW	13.71 kW
COP Tj = -7°C	2.5	1.95
Cdh Tj = -7 °C	0.9	0.9
Pdh Tj = +2°C	8.35 kW	8.35 kW
COP Tj = +2°C	4.52	3.43
Cdh Tj = +2 °C	0.9	0.9

Pdh Tj = +7°C	5.37 kW	5.37 kW
COP Tj = +7°C	7.1	5.18
Cdh Tj = +7 °C	0.9	0.9
Pdh Tj = 12°C	4.2 kW	4.2 kW
COP Tj = 12°C	9	6.58
Cdh Tj = +12 °C	0.9	0.9
Pdh Tj = Tbiv	13.71 kW	13.71 kW
COP Tj = Tbiv	2.5	1.95
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	13.5 kW	13.3 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.31	1.75
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	0.9	0.9
WTOL	75 °C	75 °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 kW	2.2 kW
Annual energy consumption Qhe	6793 kWh	8985 kWh

EN 12102-1 | Warmer Climate

	Low temperature	Medium temperature
Sound power level indoor	- dB(A)	- dB(A)
Sound power level outdoor	65 dB(A)	65 dB(A)

EN 14825 | Warmer Climate

	Low temperature	Medium temperature
ηs	259 %	183 %
Prated	15.5 kW	15.5 kW
SCOP	6.54	4.66
Tbiv	2 °C	2 °C
TOL	2 °C	2 °C
Pdh Tj = +2°C	15.5 kW	15.5 kW
COP Tj = +2°C	3.3	2.2
Cdh Tj = +2 °C	0.9	0.9
Pdh Tj = +7°C	9.96 kW	9.96 kW
COP Tj = +7°C	5.7	3.85
Cdh Tj = +7 °C	0.9	0.9
Pdh Tj = 12°C	4.43 kW	4.43 kW
COP Tj = 12°C	8.3	8.3
Cdh Tj = +12 °C	0.9	0.9
Pdh Tj = Tbiv	15.5 kW	15.5 kW
COP Tj = Tbiv	3.3	2.2

Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	15.5 kW	15.5 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	3.3	2.2
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	0.9	0.9
WTOL	75 °C	75 °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	0 kW	0 kW
Annual energy consumption Qhe	3151 kWh	4429 kWh