

**Subtype Samsung EHS R32 Mono 12kW & 16kW(WMH/TIH 200L)**

Certificate Holder	Samsung Electronics Air Conditioner Europe B.V.
Address	Evert van de Beekstraat 310
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City	Schiphol
Country	NL
Certification Body	DIN CERTCO Gesellschaft für Konformitätsbewertung mbH
Subtype title	Samsung EHS R32 Mono 12kW & 16kW(WMH/TIH 200L)
Registration number	011-1W0804
Heat Pump Type	Outdoor Air/Water
Refrigerant	R32
Mass of Refrigerant	2.2 kg
Certification Date	25.06.2024
Testing basis	HP KEYMARK certification scheme rules rev. 14

**Model AE120RXYDEG/EU AE200DNXMPK/EU**

Model name	AE120RXYDEG/EU AE200DNXMPK/EU
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 $\eta_{DHW}$	148 %
COP	3.40
Heating up time	0:42 h:min
Standby power input	45.0 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	11.30 kW
El input	2.65 kW	3.73 kW
COP	4.53	3.03

**EN 12102-1 | Average Climate**

	Low temperature	Medium temperature
Sound power level indoor	44 dB(A)	44 dB(A)
Sound power level outdoor	64 dB(A)	64 dB(A)

**EN 14825 | Average Climate**

	Low temperature	Medium temperature
$\eta_S$	185 %	138 %

Prated	13.00 kW	12.00 kW
SCOP	4.69	3.51
Tbiv	-7 °C	-7 °C
TOL	-10 °C	-10 °C
Pdh Tj = -7°C	11.50 kW	10.60 kW
COP Tj = -7°C	2.71	2.16
Cdh Tj = -7 °C	0.900	0.900
Pdh Tj = +2°C	7.00 kW	6.50 kW
COP Tj = +2°C	4.48	3.45
Cdh Tj = +2 °C	0.900	0.900
Pdh Tj = +7°C	5.60 kW	4.20 kW
COP Tj = +7°C	6.86	4.57
Cdh Tj = +7 °C	0.900	0.900
Pdh Tj = 12°C	4.80 kW	4.40 kW
COP Tj = 12°C	8.95	6.12
Cdh Tj = +12 °C	0.900	0.900
Pdh Tj = Tbiv	11.50 kW	10.60 kW
COP Tj = Tbiv	2.71	2.16
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	13.00 kW	12.00 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.37	1.96
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	0.900	0.900
WTOL	65 °C	65 °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	5725 kWh	7051 kWh

**Model AE120RXYDEG/EU AE200DNWMPK/EU**

Model name	AE120RXYDEG/EU AE200DNWMPK/EU
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 $\eta_{DHW}$	148 %
COP	3.40
Heating up time	0:42 h:min
Standby power input	45.0 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	11.30 kW
El input	2.65 kW	3.73 kW
COP	4.53	3.03

**EN 12102-1 | Average Climate**

	Low temperature	Medium temperature
Sound power level indoor	42 dB(A)	42 dB(A)
Sound power level outdoor	64 dB(A)	64 dB(A)

**EN 14825 | Average Climate**

	Low temperature	Medium temperature
$\eta_S$	185 %	138 %

Prated	13.00 kW	12.00 kW
SCOP	4.69	3.51
Tbiv	-7 °C	-7 °C
TOL	-10 °C	-10 °C
Pdh Tj = -7°C	11.50 kW	10.60 kW
COP Tj = -7°C	2.71	2.16
Cdh Tj = -7 °C	0.900	0.900
Pdh Tj = +2°C	7.00 kW	6.50 kW
COP Tj = +2°C	4.48	3.45
Cdh Tj = +2 °C	0.900	0.900
Pdh Tj = +7°C	5.60 kW	4.20 kW
COP Tj = +7°C	6.86	4.57
Cdh Tj = +7 °C	0.900	0.900
Pdh Tj = 12°C	4.80 kW	4.40 kW
COP Tj = 12°C	8.95	6.12
Cdh Tj = +12 °C	0.900	0.900
Pdh Tj = Tbiv	11.50 kW	10.60 kW
COP Tj = Tbiv	2.71	2.16
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	13.00 kW	12.00 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.37	1.96
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	0.900	0.900
WTOL	65 °C	65 °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	5725 kWh	7051 kWh

**Model AE120RXYDEG/EU AE160DNZMPK/EU**

Model name	AE120RXYDEG/EU AE160DNZMPK/EU
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 14511-2 | Heating**

	Low temperature	Medium temperature
Heat output	12.00 kW	11.30 kW
El input	2.65 kW	3.73 kW
COP	4.53	3.03

**EN 12102-1 | Average Climate**

	Low temperature	Medium temperature
Sound power level indoor	44 dB(A)	44 dB(A)
Sound power level outdoor	64 dB(A)	64 dB(A)

**EN 14825 | Average Climate**

	Low temperature	Medium temperature
$\eta_s$	185 %	138 %
Prated	13.00 kW	12.00 kW
SCOP	4.69	3.51
Tbiv	-7 °C	-7 °C
TOL	-10 °C	-10 °C
Pdh Tj = -7°C	11.50 kW	10.60 kW
COP Tj = -7°C	2.71	2.16
Cdh Tj = -7 °C	0.900	0.900
Pdh Tj = +2°C	7.00 kW	6.50 kW
COP Tj = +2°C	4.48	3.45
Cdh Tj = +2 °C	0.900	0.900

Pdh Tj = +7°C	5.60 kW	4.20 kW
COP Tj = +7°C	6.86	4.57
Cdh Tj = +7 °C	0.900	0.900
Pdh Tj = 12°C	4.80 kW	4.40 kW
COP Tj = 12°C	8.95	6.12
Cdh Tj = +12 °C	0.900	0.900
Pdh Tj = Tbiv	11.50 kW	10.60 kW
COP Tj = Tbiv	2.71	2.16
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	13.00 kW	12.00 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.37	1.96
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	0.900	0.900
WTOL	65 °C	65 °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	5725 kWh	7051 kWh

**Model AE120RXYDEG/EU AE160DNYMPK/EU**

Model name	AE120RXYDEG/EU AE160DNYMPK/EU
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 14511-2 | Heating**

	Low temperature	Medium temperature
Heat output	12.00 kW	11.30 kW
El input	2.65 kW	3.73 kW
COP	4.53	3.03

**EN 12102-1 | Average Climate**

	Low temperature	Medium temperature
Sound power level indoor	42 dB(A)	42 dB(A)
Sound power level outdoor	64 dB(A)	64 dB(A)

**EN 14825 | Average Climate**

	Low temperature	Medium temperature
$\eta_s$	185 %	138 %
Prated	13.00 kW	12.00 kW
SCOP	4.69	3.51
Tbiv	-7 °C	-7 °C
TOL	-10 °C	-10 °C
Pdh Tj = -7°C	11.50 kW	10.60 kW
COP Tj = -7°C	2.71	2.16
Cdh Tj = -7 °C	0.900	0.900
Pdh Tj = +2°C	7.00 kW	6.50 kW
COP Tj = +2°C	4.48	3.45
Cdh Tj = +2 °C	0.900	0.900

Pdh Tj = +7°C	5.60 kW	4.20 kW
COP Tj = +7°C	6.86	4.57
Cdh Tj = +7 °C	0.900	0.900
Pdh Tj = 12°C	4.80 kW	4.40 kW
COP Tj = 12°C	8.95	6.12
Cdh Tj = +12 °C	0.900	0.900
Pdh Tj = Tbiv	11.50 kW	10.60 kW
COP Tj = Tbiv	2.71	2.16
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	13.00 kW	12.00 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.37	1.96
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	0.900	0.900
WTOL	65 °C	65 °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	5725 kWh	7051 kWh

**Model AE120RXYDGG/EU AE200DNXMPK/EU**

Model name	AE120RXYDGG/EU AE200DNXMPK/EU
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 $\eta_{DHW}$	148 %
COP	3.40
Heating up time	0:42 h:min
Standby power input	45.0 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	11.30 kW
El input	2.65 kW	3.73 kW
COP	4.53	3.03

**EN 12102-1 | Average Climate**

	Low temperature	Medium temperature
Sound power level indoor	44 dB(A)	44 dB(A)
Sound power level outdoor	64 dB(A)	64 dB(A)

**EN 14825 | Average Climate**

	Low temperature	Medium temperature
$\eta_S$	185 %	138 %

Prated	13.00 kW	12.00 kW
SCOP	4.69	3.51
Tbiv	-7 °C	-7 °C
TOL	-10 °C	-10 °C
Pdh Tj = -7°C	11.50 kW	10.60 kW
COP Tj = -7°C	2.71	2.16
Cdh Tj = -7 °C	0.900	0.900
Pdh Tj = +2°C	7.00 kW	6.50 kW
COP Tj = +2°C	4.48	3.45
Cdh Tj = +2 °C	0.900	0.900
Pdh Tj = +7°C	5.60 kW	4.20 kW
COP Tj = +7°C	6.86	4.57
Cdh Tj = +7 °C	0.900	0.900
Pdh Tj = 12°C	4.80 kW	4.40 kW
COP Tj = 12°C	8.95	6.12
Cdh Tj = +12 °C	0.900	0.900
Pdh Tj = Tbiv	11.50 kW	10.60 kW
COP Tj = Tbiv	2.71	2.16
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	13.00 kW	12.00 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.37	1.96
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	0.900	0.900
WTOL	65 °C	65 °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	5725 kWh	7051 kWh

**Model AE120RXYDGG/EU AE200DNWMPK/EU**

Model name	AE120RXYDGG/EU AE200DNWMPK/EU
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 $\eta_{DHW}$	148 %
COP	3.40
Heating up time	0:42 h:min
Standby power input	45.0 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	11.30 kW
El input	2.65 kW	3.73 kW
COP	4.53	3.03

**EN 12102-1 | Average Climate**

	Low temperature	Medium temperature
Sound power level indoor	42 dB(A)	42 dB(A)
Sound power level outdoor	64 dB(A)	64 dB(A)

**EN 14825 | Average Climate**

	Low temperature	Medium temperature
$\eta_S$	185 %	138 %

Prated	13.00 kW	12.00 kW
SCOP	4.69	3.51
Tbiv	-7 °C	-7 °C
TOL	-10 °C	-10 °C
Pdh Tj = -7°C	11.50 kW	10.60 kW
COP Tj = -7°C	2.71	2.16
Cdh Tj = -7 °C	0.900	0.900
Pdh Tj = +2°C	7.00 kW	6.50 kW
COP Tj = +2°C	4.48	3.45
Cdh Tj = +2 °C	0.900	0.900
Pdh Tj = +7°C	5.60 kW	4.20 kW
COP Tj = +7°C	6.86	4.57
Cdh Tj = +7 °C	0.900	0.900
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Pdh Tj = Tbiv	11.50 kW	10.60 kW
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Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	13.00 kW	12.00 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.37	1.96
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	0.900	0.900
WTOL	65 °C	65 °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	5725 kWh	7051 kWh

**Model AE120RXYDGG/EU AE160DNZMPK/EU**

Model name	AE120RXYDGG/EU AE160DNZMPK/EU
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 14511-2 | Heating**

	Low temperature	Medium temperature
Heat output	12.00 kW	11.30 kW
El input	2.65 kW	3.73 kW
COP	4.53	3.03

**EN 12102-1 | Average Climate**

	Low temperature	Medium temperature
Sound power level indoor	44 dB(A)	44 dB(A)
Sound power level outdoor	64 dB(A)	64 dB(A)

**EN 14825 | Average Climate**

	Low temperature	Medium temperature
$\eta_s$	185 %	138 %
Prated	13.00 kW	12.00 kW
SCOP	4.69	3.51
Tbiv	-7 °C	-7 °C
TOL	-10 °C	-10 °C
Pdh Tj = -7°C	11.50 kW	10.60 kW
COP Tj = -7°C	2.71	2.16
Cdh Tj = -7 °C	0.900	0.900
Pdh Tj = +2°C	7.00 kW	6.50 kW
COP Tj = +2°C	4.48	3.45
Cdh Tj = +2 °C	0.900	0.900

Pdh Tj = +7°C	5.60 kW	4.20 kW
COP Tj = +7°C	6.86	4.57
Cdh Tj = +7 °C	0.900	0.900
Pdh Tj = 12°C	4.80 kW	4.40 kW
COP Tj = 12°C	8.95	6.12
Cdh Tj = +12 °C	0.900	0.900
Pdh Tj = Tbiv	11.50 kW	10.60 kW
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Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	0.900	0.900
WTOL	65 °C	65 °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	5725 kWh	7051 kWh

**Model AE120RXYDGG/EU AE160DNYMPK/EU**

Model name	AE120RXYDGG/EU AE160DNYMPK/EU
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 14511-2 | Heating**

	Low temperature	Medium temperature
Heat output	12.00 kW	11.30 kW
El input	2.65 kW	3.73 kW
COP	4.53	3.03

**EN 12102-1 | Average Climate**

	Low temperature	Medium temperature
Sound power level indoor	42 dB(A)	42 dB(A)
Sound power level outdoor	64 dB(A)	64 dB(A)

**EN 14825 | Average Climate**

	Low temperature	Medium temperature
$\eta_s$	185 %	138 %
Prated	13.00 kW	12.00 kW
SCOP	4.69	3.51
Tbiv	-7 °C	-7 °C
TOL	-10 °C	-10 °C
Pdh Tj = -7°C	11.50 kW	10.60 kW
COP Tj = -7°C	2.71	2.16
Cdh Tj = -7 °C	0.900	0.900
Pdh Tj = +2°C	7.00 kW	6.50 kW
COP Tj = +2°C	4.48	3.45
Cdh Tj = +2 °C	0.900	0.900

Pdh Tj = +7°C	5.60 kW	4.20 kW
COP Tj = +7°C	6.86	4.57
Cdh Tj = +7 °C	0.900	0.900
Pdh Tj = 12°C	4.80 kW	4.40 kW
COP Tj = 12°C	8.95	6.12
Cdh Tj = +12 °C	0.900	0.900
Pdh Tj = Tbiv	11.50 kW	10.60 kW
COP Tj = Tbiv	2.71	2.16
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	13.00 kW	12.00 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.37	1.96
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	0.900	0.900
WTOL	65 °C	65 °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	5725 kWh	7051 kWh

**Model AE160RXYDEG/EU AE200DNXMPK/EU**

Model name	AE160RXYDEG/EU AE200DNXMPK/EU
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 $\eta_{DHW}$	148 %
COP	3.40
Heating up time	0:42 h:min
Standby power input	45.0 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	15.00 kW
El input	3.62 kW	5.18 kW
COP	4.42	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	66 dB(A)	66 dB(A)

**EN 14825 | Average Climate**

	Low temperature	Medium temperature
$\eta_S$	176 %	138 %

Prated	16.00 kW	16.00 kW
SCOP	4.48	3.53
Tbiv	-7 °C	-7 °C
TOL	-10 °C	-10 °C
Pdh Tj = -7°C	14.15 kW	14.15 kW
COP Tj = -7°C	2.65	2.06
Cdh Tj = -7 °C	0.900	0.900
Pdh Tj = +2°C	8.62 kW	8.62 kW
COP Tj = +2°C	4.11	3.31
Cdh Tj = +2 °C	0.900	0.900
Pdh Tj = +7°C	5.54 kW	5.54 kW
COP Tj = +7°C	6.86	5.23
Cdh Tj = +7 °C	0.900	0.900
Pdh Tj = 12°C	5.20 kW	4.49 kW
COP Tj = 12°C	8.81	6.57
Cdh Tj = +12 °C	0.900	0.900
Pdh Tj = Tbiv	14.15 kW	14.15 kW
COP Tj = Tbiv	2.65	2.06
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	13.80 kW	14.00 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.37	1.82
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	0.900	0.900
WTOL	65 °C	65 °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	2.20 kW	2.00 kW
Annual energy consumption Qhe	7385 kWh	9379 kWh

**Model AE160RXYDEG/EU AE200DNWMPK/EU**

Model name	AE160RXYDEG/EU AE200DNWMPK/EU
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 $\eta_{DHW}$	148 %
COP	3.40
Heating up time	0:42 h:min
Standby power input	45.0 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	15.00 kW
El input	3.62 kW	5.18 kW
COP	4.42	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	66 dB(A)	66 dB(A)

**EN 14825 | Average Climate**

	Low temperature	Medium temperature
$\eta_S$	176 %	138 %

Prated	16.00 kW	16.00 kW
SCOP	4.48	3.53
Tbiv	-7 °C	-7 °C
TOL	-10 °C	-10 °C
Pdh Tj = -7°C	14.15 kW	14.15 kW
COP Tj = -7°C	2.65	2.06
Cdh Tj = -7 °C	0.900	0.900
Pdh Tj = +2°C	8.62 kW	8.62 kW
COP Tj = +2°C	4.11	3.31
Cdh Tj = +2 °C	0.900	0.900
Pdh Tj = +7°C	5.54 kW	5.54 kW
COP Tj = +7°C	6.86	5.23
Cdh Tj = +7 °C	0.900	0.900
Pdh Tj = 12°C	5.20 kW	4.49 kW
COP Tj = 12°C	8.81	6.57
Cdh Tj = +12 °C	0.900	0.900
Pdh Tj = Tbiv	14.15 kW	14.15 kW
COP Tj = Tbiv	2.65	2.06
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	13.80 kW	14.00 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.37	1.82
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	0.900	0.900
WTOL	65 °C	65 °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	2.20 kW	2.00 kW
Annual energy consumption Qhe	7385 kWh	9379 kWh

**Model AE160RXYDEG/EU AE160DNZMPK/EU**

Model name	AE160RXYDEG/EU AE160DNZMPK/EU
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 14511-2 | Heating**

	Low temperature	Medium temperature
Heat output	16.00 kW	15.00 kW
El input	3.62 kW	5.18 kW
COP	4.42	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	66 dB(A)	66 dB(A)

**EN 14825 | Average Climate**

	Low temperature	Medium temperature
$\eta_s$	176 %	138 %
Prated	16.00 kW	16.00 kW
SCOP	4.48	3.53
Tbiv	-7 °C	-7 °C
TOL	-10 °C	-10 °C
Pdh Tj = -7°C	14.15 kW	14.15 kW
COP Tj = -7°C	2.65	2.06
Cdh Tj = -7 °C	0.900	0.900
Pdh Tj = +2°C	8.62 kW	8.62 kW
COP Tj = +2°C	4.11	3.31
Cdh Tj = +2 °C	0.900	0.900

Pdh Tj = +7°C	5.54 kW	5.54 kW
COP Tj = +7°C	6.86	5.23
Cdh Tj = +7 °C	0.900	0.900
Pdh Tj = 12°C	5.20 kW	4.49 kW
COP Tj = 12°C	8.81	6.57
Cdh Tj = +12 °C	0.900	0.900
Pdh Tj = Tbiv	14.15 kW	14.15 kW
COP Tj = Tbiv	2.65	2.06
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	13.80 kW	14.00 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.37	1.82
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	0.900	0.900
WTOL	65 °C	65 °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	2.20 kW	2.00 kW
Annual energy consumption Qhe	7385 kWh	9379 kWh

**Model AE160RXYDEG/EU AE160DNYMPK/EU**

Model name	AE160RXYDEG/EU AE160DNYMPK/EU
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 14511-2 | Heating**

	Low temperature	Medium temperature
Heat output	16.00 kW	15.00 kW
El input	3.62 kW	5.18 kW
COP	4.42	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	66 dB(A)	66 dB(A)

**EN 14825 | Average Climate**

	Low temperature	Medium temperature
$\eta_s$	176 %	138 %
Prated	16.00 kW	16.00 kW
SCOP	4.48	3.53
Tbiv	-7 °C	-7 °C
TOL	-10 °C	-10 °C
Pdh Tj = -7°C	14.15 kW	14.15 kW
COP Tj = -7°C	2.65	2.06
Cdh Tj = -7 °C	0.900	0.900
Pdh Tj = +2°C	8.62 kW	8.62 kW
COP Tj = +2°C	4.11	3.31
Cdh Tj = +2 °C	0.900	0.900

Pdh Tj = +7°C	5.54 kW	5.54 kW
COP Tj = +7°C	6.86	5.23
Cdh Tj = +7 °C	0.900	0.900
Pdh Tj = 12°C	5.20 kW	4.49 kW
COP Tj = 12°C	8.81	6.57
Cdh Tj = +12 °C	0.900	0.900
Pdh Tj = Tbiv	14.15 kW	14.15 kW
COP Tj = Tbiv	2.65	2.06
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	13.80 kW	14.00 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.37	1.82
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	0.900	0.900
WTOL	65 °C	65 °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	2.20 kW	2.00 kW
Annual energy consumption Qhe	7385 kWh	9379 kWh

**Model AE160RXYDGG/EU AE200DNXMPK/EU**

Model name	AE160RXYDGG/EU AE200DNXMPK/EU
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 $\eta_{DHW}$	148 %
COP	3.40
Heating up time	0:42 h:min
Standby power input	45.0 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	15.00 kW
El input	3.62 kW	5.18 kW
COP	4.42	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	66 dB(A)	66 dB(A)

**EN 14825 | Average Climate**

	Low temperature	Medium temperature
$\eta_S$	176 %	138 %

Prated	16.00 kW	16.00 kW
SCOP	4.48	3.53
Tbiv	-7 °C	-7 °C
TOL	-10 °C	-10 °C
Pdh Tj = -7°C	14.15 kW	14.15 kW
COP Tj = -7°C	2.65	2.06
Cdh Tj = -7 °C	0.900	0.900
Pdh Tj = +2°C	8.62 kW	8.62 kW
COP Tj = +2°C	4.11	3.31
Cdh Tj = +2 °C	0.900	0.900
Pdh Tj = +7°C	5.54 kW	5.54 kW
COP Tj = +7°C	6.86	5.23
Cdh Tj = +7 °C	0.900	0.900
Pdh Tj = 12°C	5.20 kW	4.49 kW
COP Tj = 12°C	8.81	6.57
Cdh Tj = +12 °C	0.900	0.900
Pdh Tj = Tbiv	14.15 kW	14.15 kW
COP Tj = Tbiv	2.65	2.06
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	13.80 kW	14.00 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.37	1.82
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	0.900	0.900
WTOL	65 °C	65 °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	2.20 kW	2.00 kW
Annual energy consumption Qhe	7385 kWh	9379 kWh

**Model AE160RXYDGG/EU AE200DNWMPK/EU**

Model name	AE160RXYDGG/EU AE200DNWMPK/EU
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 $\eta_{DHW}$	148 %
COP	3.40
Heating up time	0:42 h:min
Standby power input	45.0 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	15.00 kW
El input	3.62 kW	5.18 kW
COP	4.42	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	66 dB(A)	66 dB(A)

**EN 14825 | Average Climate**

	Low temperature	Medium temperature
$\eta_S$	176 %	138 %

Prated	16.00 kW	16.00 kW
SCOP	4.48	3.53
Tbiv	-7 °C	-7 °C
TOL	-10 °C	-10 °C
Pdh Tj = -7°C	14.15 kW	14.15 kW
COP Tj = -7°C	2.65	2.06
Cdh Tj = -7 °C	0.900	0.900
Pdh Tj = +2°C	8.62 kW	8.62 kW
COP Tj = +2°C	4.11	3.31
Cdh Tj = +2 °C	0.900	0.900
Pdh Tj = +7°C	5.54 kW	5.54 kW
COP Tj = +7°C	6.86	5.23
Cdh Tj = +7 °C	0.900	0.900
Pdh Tj = 12°C	5.20 kW	4.49 kW
COP Tj = 12°C	8.81	6.57
Cdh Tj = +12 °C	0.900	0.900
Pdh Tj = Tbiv	14.15 kW	14.15 kW
COP Tj = Tbiv	2.65	2.06
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	13.80 kW	14.00 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.37	1.82
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	0.900	0.900
WTOL	65 °C	65 °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	2.20 kW	2.00 kW
Annual energy consumption Qhe	7385 kWh	9379 kWh

**Model AE160RXYDGG/EU AE160DNZMPK/EU**

Model name	AE160RXYDGG/EU AE160DNZMPK/EU
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 14511-2 | Heating**

	Low temperature	Medium temperature
Heat output	16.00 kW	15.00 kW
El input	3.62 kW	5.18 kW
COP	4.42	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	66 dB(A)	66 dB(A)

**EN 14825 | Average Climate**

	Low temperature	Medium temperature
$\eta_s$	176 %	138 %
Prated	16.00 kW	16.00 kW
SCOP	4.48	3.53
Tbiv	-7 °C	-7 °C
TOL	-10 °C	-10 °C
Pdh Tj = -7°C	14.15 kW	14.15 kW
COP Tj = -7°C	2.65	2.06
Cdh Tj = -7 °C	0.900	0.900
Pdh Tj = +2°C	8.62 kW	8.62 kW
COP Tj = +2°C	4.11	3.31
Cdh Tj = +2 °C	0.900	0.900

Pdh Tj = +7°C	5.54 kW	5.54 kW
COP Tj = +7°C	6.86	5.23
Cdh Tj = +7 °C	0.900	0.900
Pdh Tj = 12°C	5.20 kW	4.49 kW
COP Tj = 12°C	8.81	6.57
Cdh Tj = +12 °C	0.900	0.900
Pdh Tj = Tbiv	14.15 kW	14.15 kW
COP Tj = Tbiv	2.65	2.06
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	13.80 kW	14.00 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.37	1.82
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	0.900	0.900
WTOL	65 °C	65 °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	2.20 kW	2.00 kW
Annual energy consumption Qhe	7385 kWh	9379 kWh

**Model AE160RXYDGG/EU AE160DNYMPK/EU**

Model name	AE160RXYDGG/EU AE160DNYMPK/EU
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 14511-2 | Heating**

	Low temperature	Medium temperature
Heat output	16.00 kW	15.00 kW
El input	3.62 kW	5.18 kW
COP	4.42	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	66 dB(A)	66 dB(A)

**EN 14825 | Average Climate**

	Low temperature	Medium temperature
$\eta_s$	176 %	138 %
Prated	16.00 kW	16.00 kW
SCOP	4.48	3.53
Tbiv	-7 °C	-7 °C
TOL	-10 °C	-10 °C
Pdh Tj = -7°C	14.15 kW	14.15 kW
COP Tj = -7°C	2.65	2.06
Cdh Tj = -7 °C	0.900	0.900
Pdh Tj = +2°C	8.62 kW	8.62 kW
COP Tj = +2°C	4.11	3.31
Cdh Tj = +2 °C	0.900	0.900

Pdh Tj = +7°C	5.54 kW	5.54 kW
COP Tj = +7°C	6.86	5.23
Cdh Tj = +7 °C	0.900	0.900
Pdh Tj = 12°C	5.20 kW	4.49 kW
COP Tj = 12°C	8.81	6.57
Cdh Tj = +12 °C	0.900	0.900
Pdh Tj = Tbiv	14.15 kW	14.15 kW
COP Tj = Tbiv	2.65	2.06
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	13.80 kW	14.00 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.37	1.82
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	0.900	0.900
WTOL	65 °C	65 °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	2.20 kW	2.00 kW
Annual energy consumption Qhe	7385 kWh	9379 kWh

**Model AE120RXYDEG/EU MIM-E03FN**

Model name	AE120RXYDEG/EU MIM-E03FN
Application	Heating (medium temp)
Units	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 14511-2 | Heating**

	Low temperature	Medium temperature
Heat output	12.00 kW	11.30 kW
El input	2.65 kW	3.73 kW
COP	4.53	3.03

**EN 12102-1 | Average Climate**

	Low temperature	Medium temperature
Sound power level outdoor	64 dB(A)	64 dB(A)

**EN 14825 | Average Climate**

	Low temperature	Medium temperature
$\eta_s$	185 %	138 %
Prated	13.00 kW	12.00 kW
SCOP	4.69	3.51
Tbiv	-7 °C	-7 °C
TOL	-10 °C	-10 °C
Pdh Tj = -7 °C	11.50 kW	10.60 kW
COP Tj = -7 °C	2.71	2.16
Cdh Tj = -7 °C		
Pdh Tj = +2 °C	7.00 kW	6.50 kW
COP Tj = +2 °C	4.48	3.45
Cdh Tj = +2 °C		
Pdh Tj = +7 °C	5.60 kW	4.20 kW

COP Tj = +7°C	6.86	4.57
Cdh Tj = +7 °C		
Pdh Tj = 12°C	4.80 kW	4.40 kW
COP Tj = 12°C	8.95	6.12
Cdh Tj = +12 °C		
Pdh Tj = Tbiv	11.50 kW	10.60 kW
COP Tj = Tbiv	2.71	2.16
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	13.00 kW	12.00 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.37	1.96
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	0.900	0.900
WTOL	65 °C	65 °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	5725 kWh	7051 kWh

**Model AE120RXYDGG/EU MIM-E03FN**

Model name	AE120RXYDGG/EU MIM-E03FN
Application	Heating (medium temp)
Units	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 14511-2 | Heating**

	Low temperature	Medium temperature
Heat output	12.00 kW	11.30 kW
El input	2.65 kW	3.73 kW
COP	4.53	3.03

**EN 12102-1 | Average Climate**

	Low temperature	Medium temperature
Sound power level outdoor	64 dB(A)	64 dB(A)

**EN 14825 | Average Climate**

	Low temperature	Medium temperature
$\eta_s$	185 %	138 %
Prated	13.00 kW	12.00 kW
SCOP	4.69	3.51
Tbiv	-7 °C	-7 °C
TOL	°C	°C
Pdh Tj = -7°C	kW	kW
COP Tj = -7°C		
Cdh Tj = -7 °C		
Pdh Tj = +2°C	kW	kW
COP Tj = +2 °C		
Cdh Tj = +2 °C		
Pdh Tj = +7°C	kW	kW

COP Tj = +7°C

Cd<sub>h</sub> Tj = +7 °C

Pd<sub>h</sub> Tj = 12°C

kW

kW

COP Tj = 12°C

Cd<sub>h</sub> Tj = +12 °C

Pd<sub>h</sub> Tj = Tbiv

kW

kW

COP Tj = Tbiv

Pd<sub>h</sub> Tj = TOL or Pd<sub>h</sub> Tj = Tdesignh if TOL < Tdesignh

kW

COP Tj = TOL or COP Tj = Tdesignh if TOL &lt; Tdesignh

Cd<sub>h</sub> Tj = TOL or Pd<sub>h</sub> Tj = Tdesignh if TOL < Tdesignh

WTOL

°C

°C

Poff

W

W

PTO

W

W

PSB

W

W

PCK

W

W

Supplementary Heater: Type of energy input

n/a

n/a

Supplementary Heater: PSUP

kW

kW

Annual energy consumption Qhe

kWh

kWh

**Model AE160RXYDEG/EU MIM-E03FN**

Model name	AE160RXYDEG/EU MIM-E03FN
Application	Heating (medium temp)
Units	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 14511-2 | Heating**

	Low temperature	Medium temperature
Heat output	16.00 kW	15.00 kW
El input	3.62 kW	5.18 kW
COP	4.42	2.90

**EN 12102-1 | Average Climate**

	Low temperature	Medium temperature
Sound power level outdoor	66 dB(A)	66 dB(A)

**EN 14825 | Average Climate**

	Low temperature	Medium temperature
$\eta_s$	176 %	138 %
Prated	16.00 kW	16.00 kW
SCOP	4.48	3.53
Tbiv	-7 °C	-7 °C
TOL	-10 °C	-10 °C
Pdh Tj = -7°C	14.15 kW	14.15 kW
COP Tj = -7°C	2.65	2.06
Cdh Tj = -7 °C	0.900	0.900
Pdh Tj = +2°C	8.62 kW	8.62 kW
COP Tj = +2°C	4.11	3.31
Cdh Tj = +2 °C	0.900	0.900
Pdh Tj = +7°C	5.54 kW	5.54 kW

COP Tj = +7°C	6.86	5.23
Cdh Tj = +7 °C	0.900	0.900
Pdh Tj = 12°C	5.20 kW	4.49 kW
COP Tj = 12°C	8.81	6.57
Cdh Tj = +12 °C	0.900	0.900
Pdh Tj = Tbiv	41.15 kW	14.15 kW
COP Tj = Tbiv	2.65	2.06
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	13.80 kW	14.00 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.37	1.82
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	0.900	0.900
WTOL	65 °C	65 °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	2.20 kW	2.00 kW
Annual energy consumption Qhe	7385 kWh	9379 kWh

**Model AE160RXYDGG/EU MIM-E03FN**

Model name	AE160RXYDGG/EU MIM-E03FN
Application	Heating (medium temp)
Units	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 14511-2 | Heating**

	Low temperature	Medium temperature
Heat output	16.00 kW	15.00 kW
El input	3.62 kW	5.18 kW
COP	4.42	2.90

**EN 12102-1 | Average Climate**

	Low temperature	Medium temperature
Sound power level outdoor	66 dB(A)	66 dB(A)

**EN 14825 | Average Climate**

	Low temperature	Medium temperature
$\eta_s$	176 %	138 %
Prated	16.00 kW	16.00 kW
SCOP	4.48	3.53
Tbiv	-7 °C	-7 °C
TOL	-10 °C	-10 °C
Pdh Tj = -7°C	14.15 kW	14.15 kW
COP Tj = -7°C	2.65	2.06
Cdh Tj = -7 °C	0.900	0.900
Pdh Tj = +2°C	8.62 kW	8.62 kW
COP Tj = +2°C	4.11	3.31
Cdh Tj = +2 °C	0.900	0.900
Pdh Tj = +7°C	5.54 kW	5.54 kW

COP Tj = +7°C	6.86	5.23
Cdh Tj = +7 °C	0.900	0.900
Pdh Tj = 12°C	5.20 kW	4.49 kW
COP Tj = 12°C	8.81	6.57
Cdh Tj = +12 °C	0.900	0.900
Pdh Tj = Tbiv	14.15 kW	14.15 kW
COP Tj = Tbiv	2.65	2.06
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	13.80 kW	14.00 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.37	1.82
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	0.900	0.900
WTOL	65 °C	65 °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	2.20 kW	2.00 kW
Annual energy consumption Qhe	7385 kWh	9379 kWh

**Model AE120RXYDEG/EU MIM-E03GN**

Model name	AE120RXYDEG/EU MIM-E03GN
Application	Heating (medium temp)
Units	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 14511-2 | Heating**

	Low temperature	Medium temperature
Heat output	12 kW	11.3 kW
El input	2.65 kW	3.73 kW
COP	4.53	3.03

**EN 12102-1 | Average Climate**

	Low temperature	Medium temperature
Sound power level indoor	- dB(A)	- dB(A)
Sound power level outdoor	64 dB(A)	64 dB(A)

**EN 14825 | Average Climate**

	Low temperature	Medium temperature
$\eta_s$	185 %	138 %
Prated	13 kW	12 kW
SCOP	4.69	3.51
Tbiv	-7 °C	-7 °C
TOL	-10 °C	-10 °C
Pdh Tj = -7°C	11.5 kW	10.6 kW
COP Tj = -7°C	2.71	2.16
Cdh Tj = -7 °C	0.9	0.9
Pdh Tj = +2°C	7 kW	6.5 kW
COP Tj = +2°C	4.48	3.45
Cdh Tj = +2 °C	0.9	0.9

Pdh Tj = +7°C	5.6 kW	4.2 kW
COP Tj = +7°C	6.86	4.57
Cdh Tj = +7 °C	0.9	0.9
Pdh Tj = 12°C	4.8 kW	4.4 kW
COP Tj = 12°C	8.95	6.12
Cdh Tj = +12 °C	0.9	0.9
Pdh Tj = Tbiv	11.5 kW	10.6 kW
COP Tj = Tbiv	2.71	2.16
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	13 kW	12 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.37	1.96
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	0.9	0.9
WTOL	65 °C	65 °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	5725 kWh	7051 kWh

**Model AE120RXYDGG/EU MIM-E03GN**

Model name	AE120RXYDGG/EU MIM-E03GN
Application	Heating (medium temp)
Units	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 14511-2 | Heating**

	Low temperature	Medium temperature
Heat output	12 kW	11.3 kW
El input	2.65 kW	3.73 kW
COP	4.53	3.03

**EN 12102-1 | Average Climate**

	Low temperature	Medium temperature
Sound power level indoor	- dB(A)	- dB(A)
Sound power level outdoor	64 dB(A)	64 dB(A)

**EN 14825 | Average Climate**

	Low temperature	Medium temperature
$\eta_s$	185 %	138 %
Prated	13 kW	12 kW
SCOP	4.69	3.51
Tbiv	-7 °C	-7 °C
TOL	-10 °C	-10 °C
Pdh Tj = -7°C	11.5 kW	10.6 kW
COP Tj = -7°C	2.71	2.16
Cdh Tj = -7 °C	0.9	0.9
Pdh Tj = +2°C	7 kW	6.5 kW
COP Tj = +2°C	4.48	3.45
Cdh Tj = +2 °C	0.9	0.9

Pdh Tj = +7°C	5.6 kW	4.2 kW
COP Tj = +7°C	6.86	4.57
Cdh Tj = +7 °C	0.9	0.9
Pdh Tj = 12°C	4.8 kW	4.4 kW
COP Tj = 12°C	8.95	6.12
Cdh Tj = +12 °C	0.9	0.9
Pdh Tj = Tbiv	11.5 kW	10.6 kW
COP Tj = Tbiv	2.71	2.16
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	13 kW	12 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.37	1.96
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	0.9	0.9
WTOL	65 °C	65 °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	5725 kWh	7051 kWh

**Model AE160RXYDEG/EU MIM-E03GN**

Model name	AE160RXYDEG/EU MIM-E03GN
Application	Heating (medium temp)
Units	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 14511-2 | Heating**

	Low temperature	Medium temperature
Heat output	16 kW	15 kW
El input	3.62 kW	5.18 kW
COP	4.42	2.9

**EN 12102-1 | Average Climate**

	Low temperature	Medium temperature
Sound power level indoor	- dB(A)	- dB(A)
Sound power level outdoor	66 dB(A)	66 dB(A)

**EN 14825 | Average Climate**

	Low temperature	Medium temperature
$\eta_s$	176 %	138 %
Prated	16 kW	16 kW
SCOP	4.48	3.53
Tbiv	-7 °C	-7 °C
TOL	-10 °C	-10 °C
Pdh Tj = -7°C	14.15 kW	14.15 kW
COP Tj = -7°C	2.65	2.06
Cdh Tj = -7 °C	0.9	0.9
Pdh Tj = +2°C	8.62 kW	8.62 kW
COP Tj = +2°C	4.11	3.31
Cdh Tj = +2 °C	0.9	0.9

Pdh Tj = +7°C	5.54 kW	5.54 kW
COP Tj = +7°C	6.86	5.23
Cdh Tj = +7 °C	0.9	0.9
Pdh Tj = 12°C	5.2 kW	4.49 kW
COP Tj = 12°C	8.81	6.57
Cdh Tj = +12 °C	0.9	0.9
Pdh Tj = Tbiv	14.15 kW	14.15 kW
COP Tj = Tbiv	2.65	2.06
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	13.8 kW	14 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.37	1.82
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	0.9	0.9
WTOL	65 °C	65 °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	2.2 kW	2 kW
Annual energy consumption Qhe	7385 kWh	9379 kWh

**Model AE160RXYDGG/EU MIM-E03GN**

Model name	AE160RXYDGG/EU MIM-E03GN
Application	Heating (medium temp)
Units	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 14511-2 | Heating**

	Low temperature	Medium temperature
Heat output	16 kW	15 kW
El input	3.62 kW	5.18 kW
COP	4.42	2.9

**EN 12102-1 | Average Climate**

	Low temperature	Medium temperature
Sound power level indoor	- dB(A)	- dB(A)
Sound power level outdoor	66 dB(A)	66 dB(A)

**EN 14825 | Average Climate**

	Low temperature	Medium temperature
$\eta_s$	176 %	138 %
Prated	16 kW	16 kW
SCOP	4.48	3.53
Tbiv	-7 °C	-7 °C
TOL	-10 °C	-10 °C
Pdh Tj = -7°C	14.15 kW	14.15 kW
COP Tj = -7°C	2.65	2.06
Cdh Tj = -7 °C	0.9	0.9
Pdh Tj = +2°C	8.62 kW	8.62 kW
COP Tj = +2°C	4.11	3.31
Cdh Tj = +2 °C	0.9	0.9

Pdh Tj = +7°C	5.54 kW	5.54 kW
COP Tj = +7°C	6.86	5.23
Cdh Tj = +7 °C	0.9	0.9
Pdh Tj = 12°C	5.2 kW	4.49 kW
COP Tj = 12°C	8.81	6.57
Cdh Tj = +12 °C	0.9	0.9
Pdh Tj = Tbiv	14.15 kW	14.15 kW
COP Tj = Tbiv	2.65	2.06
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	13.8 kW	14 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.37	1.82
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	0.9	0.9
WTOL	65 °C	65 °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	2.2 kW	2 kW
Annual energy consumption Qhe	7385 kWh	9379 kWh