Subtype Samsung EHS R290 Mono 12kW & 16kW (space heating/ 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 R290 Mono 12kW & 16kW (space heating/ 200L)
Registration number	011-1W0685
Heat Pump Type	Outdoor Air/Water
Refrigerant	R290
Mass of Refrigerant	1.25 kg
Certification Date	26.09.2023
Testing basis	European KEYMARK Scheme for Heat Pumps Rev. 12 (as of 2023-03)

Model AE120CXYDEK/EU + MIM-E03EN	
Model name	AE120CXYDEK/EU + MIM-E03EN
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	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
ηs	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	10.60 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	10.60 kW	10.60 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

Model AE160CXYDEK/EU+ MIM-E03EN	
Model name	AE160CXYDEK/EU+ MIM-E03EN
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	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
ηs	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	12.80 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	12.80 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

Model AE120CXYDEK/EU + AE200CNWMEG/EU	
Model name	AE120CXYDEK/EU + AE200CNWMEG/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 ηDHW	115 %
COP	2.65
Heating up time	1:00 h:min
Standby power input	75.0 W
Reference hot water temperature	52.1 °C
Mixed water at 40°C	210 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
ηs	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	10.60 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	10.60 kW	10.60 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

Model AE160CXYDEK/EU + AE200CNWMEG/EU	
Model name	AE160CXYDEK/EU + AE200CNWMEG/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 ηDHW	115 %
COP	2.65
Heating up time	1:00 h:min
Standby power input	75.0 W
Reference hot water temperature	52.1 °C
Mixed water at 40°C	210 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	4.57 kW
COP	4.51	3.50

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
ηs	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	12.80 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	12.80 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

Model AE120CXYBEK/EU	
Model name	AE120CXYBEK/EU
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	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
ηs	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	10.60 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	10.60 kW	10.60 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

Model AE160CXYBEK/EU	
Model name	AE160CXYBEK/EU
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	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
ηs	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	12.80 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	12.80 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

Model AE120CXYDEK/EU + AE200RNWMEG/EU	
Model name	AE120CXYDEK/EU + AE200RNWMEG/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 ηDHW	115 %
COP	2.65
Heating up time	1:00 h:min
Standby power input	75.0 W
Reference hot water temperature	52.1 °C
Mixed water at 40°C	210 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
ηs	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	10.60 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	10.60 kW	10.60 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

Model AE160CXYDEK/EU + AE200RNWMEG/EU	
Model name	AE160CXYDEK/EU + AE200RNWMEG/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 ηDHW	115 %
COP	2.65
Heating up time	1:00 h:min
Standby power input	75.0 W
Reference hot water temperature	52.1 °C
Mixed water at 40°C	210 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
ηs	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	12.80 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	12.80 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