

Subtype Samsung EHS TDM Plus R410A 12kW & 16kW (space heating/ 260L)

Certificate Holder	Samsung Electronics Air Conditioner Europe B.V.
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Certification Body	DIN CERTCO Gesellschaft für Konformitätsbewertung mbH
Subtype title	Samsung EHS TDM Plus R410A 12kW & 16kW (space heating/ 260L)
Registration number	011-1W0378
Heat Pump Type	Outdoor Air/Water
Refrigerant	R410A
Mass of Refrigerant	3.5 kg
Certification Date	29.07.2020
Testing basis	European KEYMARK Scheme for Heat Pumps Rev. 7

Model AE120MXTPEH/EU & AE260TNWTEH/EU

Model name	AE120MXTPEH/EU & AE260TNWTEH/EU
Application	Heating + DHW + low temp
Units	Indoor, 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 16147 | Average Climate

Declared load profile	XL
Efficiency η_{DHW}	95 %
COP	2.45
Heating up time	2:10 h:min
Standby power input	85.0 W
Reference hot water temperature	52.0 °C
Mixed water at 40°C	290 l

EN 16147 | Warmer Climate

Declared load profile	XL
Efficiency η_{DHW}	110 %
COP	2.64
Heating up time	1:49 h:min
Standby power input	75.0 W
Reference hot water temperature	52.0 °C
Mixed water at 40°C	290 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	10.72 kW
El input	2.72 kW	3.91 kW
COP	4.41	2.74

EN 12102-1 | Average Climate

	Low temperature	Medium temperature
Sound power level indoor	47 dB(A)	47 dB(A)
Sound power level outdoor	70 dB(A)	70 dB(A)

EN 14825 | Average Climate

	Low temperature	Medium temperature
η_s	183 %	114 %
Prated	10.00 kW	8.00 kW
SCOP	4.65	2.92
Tbiv	-10 °C	-10 °C
TOL	-10 °C	-10 °C
Pdh Tj = -7°C	8.80 kW	7.10 kW
COP Tj = -7°C	2.72	1.94
Cdh Tj = -7 °C	0.900	0.900
Pdh Tj = +2°C	5.40 kW	4.30 kW
COP Tj = +2°C	4.69	2.86
Cdh Tj = +2 °C	0.900	0.900
Pdh Tj = +7°C	3.50 kW	2.80 kW
COP Tj = +7°C	5.92	3.43
Cdh Tj = +7 °C	0.900	0.900
Pdh Tj = 12°C	4.40 kW	5.00 kW
COP Tj = 12°C	7.85	5.52
Cdh Tj = +12 °C	0.900	0.900
Pdh Tj = Tbiv	10.00 kW	8.00 kW
COP Tj = Tbiv	2.41	1.79
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	10.00 kW	8.00 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.41	1.79
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	0.900	0.900
WTOL	55 °C	55 °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	4516 kWh	5799 kWh

EN 12102-1 | Warmer Climate

	Low temperature	Medium temperature
Sound power level indoor	47 dB(A)	47 dB(A)
Sound power level outdoor	70 dB(A)	70 dB(A)

EN 14825 | Warmer Climate

	Low temperature	Medium temperature
η_s	234 %	140 %
Prated	10.00 kW	8.00 kW
SCOP	5.93	3.57
Tbiv	2 °C	2 °C
TOL	2 °C	2 °C
Pdh Tj = +2°C	11.00 kW	8.70 kW
COP Tj = +2°C	3.19	2.03
Cdh Tj = +2 °C	0.900	0.900
Pdh Tj = +7°C	6.70 kW	5.20 kW
COP Tj = +7°C	5.45	3.18
Cdh Tj = +7 °C	0.900	0.900
Pdh Tj = 12°C	4.20 kW	3.50 kW
COP Tj = 12°C	7.24	4.41
Cdh Tj = +12 °C	0.900	0.900
Pdh Tj = Tbiv	11.00 kW	8.70 kW
COP Tj = Tbiv	3.19	2.03
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	11.00 kW	8.70 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	3.19	2.03
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	0.900	0.900
WTOL	55 °C	55 °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	2284 kWh	3054 kWh

Model AE120MXTPGH/EU & AE260TNWTEH/EU

Model name	AE120MXTPGH/EU & AE260TNWTEH/EU
Application	Heating + DHW + low temp
Units	Indoor, 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 16147 | Average Climate

Declared load profile	XL
Efficiency η_{DHW}	95 %
COP	2.45
Heating up time	2:10 h:min
Standby power input	85.0 W
Reference hot water temperature	52.0 °C
Mixed water at 40°C	290 l

EN 16147 | Warmer Climate

Declared load profile	XL
Efficiency η_{DHW}	110 %
COP	2.64
Heating up time	1:49 h:min
Standby power input	75.0 W
Reference hot water temperature	52.0 °C
Mixed water at 40°C	290 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	10.72 kW
El input	2.72 kW	3.91 kW
COP	4.41	2.74

EN 12102-1 | Average Climate

	Low temperature	Medium temperature
Sound power level indoor	47 dB(A)	47 dB(A)
Sound power level outdoor	70 dB(A)	70 dB(A)

EN 14825 | Average Climate

	Low temperature	Medium temperature
η_s	183 %	114 %
Prated	10.00 kW	8.00 kW
SCOP	4.65	2.92
Tbiv	-10 °C	-10 °C
TOL	-10 °C	-10 °C
Pdh Tj = -7°C	8.80 kW	7.10 kW
COP Tj = -7°C	2.72	1.94
Cdh Tj = -7 °C	0.900	0.900
Pdh Tj = +2°C	5.40 kW	4.30 kW
COP Tj = +2°C	4.69	2.86
Cdh Tj = +2 °C	0.900	0.900
Pdh Tj = +7°C	3.50 kW	2.80 kW
COP Tj = +7°C	5.92	3.43
Cdh Tj = +7 °C	0.900	0.900
Pdh Tj = 12°C	4.40 kW	5.00 kW
COP Tj = 12°C	7.85	5.52
Cdh Tj = +12 °C	0.900	0.900
Pdh Tj = Tbiv	10.00 kW	8.00 kW
COP Tj = Tbiv	2.41	1.79
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	10.00 kW	8.00 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.41	1.79
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	0.900	0.900
WTOL	55 °C	55 °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	4516 kWh	5799 kWh

EN 12102-1 | Warmer Climate

	Low temperature	Medium temperature
Sound power level indoor	47 dB(A)	47 dB(A)
Sound power level outdoor	70 dB(A)	70 dB(A)

EN 14825 | Warmer Climate

	Low temperature	Medium temperature
η_s	234 %	140 %
Prated	10.00 kW	8.00 kW
SCOP	5.93	3.57
Tbiv	2 °C	2 °C
TOL	2 °C	2 °C
Pdh Tj = +2°C	11.00 kW	8.70 kW
COP Tj = +2°C	3.19	2.03
Cdh Tj = +2 °C	0.900	0.900
Pdh Tj = +7°C	6.70 kW	5.20 kW
COP Tj = +7°C	5.45	3.18
Cdh Tj = +7 °C	0.900	0.900
Pdh Tj = 12°C	4.20 kW	3.50 kW
COP Tj = 12°C	7.24	4.41
Cdh Tj = +12 °C	0.900	0.900
Pdh Tj = Tbiv	11.00 kW	8.70 kW
COP Tj = Tbiv	3.19	2.03
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	11.00 kW	8.70 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	3.19	2.03
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	0.900	0.900
WTOL	55 °C	55 °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	2284 kWh	3054 kWh

Model AE160MXTPEH/EU & AE260TNWTEH/EU

Model name	AE160MXTPEH/EU & AE260TNWTEH/EU
Application	Heating + DHW + low temp
Units	Indoor, 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 16147 | Average Climate

Declared load profile	XL
Efficiency η_{DHW}	95 %
COP	2.45
Heating up time	2:10 h:min
Standby power input	85.0 W
Reference hot water temperature	52.0 °C
Mixed water at 40°C	290 l

EN 16147 | Warmer Climate

Declared load profile	XL
Efficiency η_{DHW}	110 %
COP	2.64
Heating up time	1:49 h:min
Standby power input	75.0 W
Reference hot water temperature	52.0 °C
Mixed water at 40°C	290 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	14.60 kW
El input	3.95 kW	5.32 kW
COP	4.05	2.74

EN 12102-1 | Average Climate

	Low temperature	Medium temperature
Sound power level indoor	47 dB(A)	47 dB(A)
Sound power level outdoor	73 dB(A)	73 dB(A)

EN 14825 | Average Climate

	Low temperature	Medium temperature
η_s	182 %	119 %
Prated	11.00 kW	9.00 kW
SCOP	4.63	3.06
Tbiv	-10 °C	-10 °C
TOL	-10 °C	-10 °C
Pdh Tj = -7°C	9.90 kW	7.80 kW
COP Tj = -7°C	2.65	2.01
Cdh Tj = -7 °C	0.900	0.900
Pdh Tj = +2°C	6.00 kW	4.70 kW
COP Tj = +2°C	4.62	2.97
Cdh Tj = +2 °C	0.900	0.900
Pdh Tj = +7°C	3.90 kW	3.50 kW
COP Tj = +7°C	6.12	3.73
Cdh Tj = +7 °C	0.900	0.900
Pdh Tj = 12°C	4.40 kW	5.00 kW
COP Tj = 12°C	7.85	5.52
Cdh Tj = +12 °C	0.900	0.900
Pdh Tj = Tbiv	11.20 kW	8.80 kW
COP Tj = Tbiv	2.33	1.83
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	11.20 kW	8.80 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.33	1.83
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	0.900	0.900
WTOL	55 °C	55 °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	5086 kWh	6111 kWh

EN 12102-1 | Warmer Climate

	Low temperature	Medium temperature
Sound power level indoor	47 dB(A)	47 dB(A)
Sound power level outdoor	73 dB(A)	73 dB(A)

EN 14825 | Warmer Climate

	Low temperature	Medium temperature
η_s	240 %	143 %
Prated	11.00 kW	9.00 kW
SCOP	6.07	3.65
Tbiv	2 °C	2 °C
TOL	2 °C	2 °C
Pdh Tj = +2°C	11.80 kW	9.00 kW
COP Tj = +2°C	3.10	2.13
Cdh Tj = +2 °C	0.900	0.900
Pdh Tj = +7°C	7.40 kW	5.90 kW
COP Tj = +7°C	5.45	3.21
Cdh Tj = +7 °C	0.900	0.900
Pdh Tj = 12°C	4.40 kW	3.50 kW
COP Tj = 12°C	7.62	4.53
Cdh Tj = +12 °C	0.900	0.900
Pdh Tj = Tbiv	11.80 kW	9.00 kW
COP Tj = Tbiv	3.10	2.13
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	11.80 kW	9.00 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	3.10	2.13
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	0.900	0.900
WTOL	55 °C	55 °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	2494 kWh	3289 kWh

Model AE160MXTPGH/EU & AE260TNWTEH/EU

Model name	AE160MXTPGH/EU & AE260TNWTEH/EU
Application	Heating + DHW + low temp
Units	Indoor, 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 16147 | Average Climate

Declared load profile	XL
Efficiency η_{DHW}	95 %
COP	2.45
Heating up time	2:10 h:min
Standby power input	85.0 W
Reference hot water temperature	52.0 °C
Mixed water at 40°C	290 l

EN 16147 | Warmer Climate

Declared load profile	XL
Efficiency η_{DHW}	110 %
COP	2.64
Heating up time	1:49 h:min
Standby power input	75.0 W
Reference hot water temperature	52.0 °C
Mixed water at 40°C	290 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	14.60 kW
El input	3.95 kW	5.32 kW
COP	4.05	2.74

EN 12102-1 | Average Climate

	Low temperature	Medium temperature
Sound power level indoor	47 dB(A)	47 dB(A)
Sound power level outdoor	73 dB(A)	73 dB(A)

EN 14825 | Average Climate

	Low temperature	Medium temperature
η_s	182 %	119 %
Prated	11.00 kW	9.00 kW
SCOP	4.63	3.06
Tbiv	-10 °C	-10 °C
TOL	-10 °C	-10 °C
Pdh Tj = -7°C	9.90 kW	7.80 kW
COP Tj = -7°C	2.65	2.01
Cdh Tj = -7 °C	0.900	0.900
Pdh Tj = +2°C	6.00 kW	4.70 kW
COP Tj = +2°C	4.62	2.97
Cdh Tj = +2 °C	0.900	0.900
Pdh Tj = +7°C	3.90 kW	3.50 kW
COP Tj = +7°C	6.12	3.73
Cdh Tj = +7 °C	0.900	0.900
Pdh Tj = 12°C	4.40 kW	5.00 kW
COP Tj = 12°C	7.85	5.52
Cdh Tj = +12 °C	0.900	0.900
Pdh Tj = Tbiv	11.20 kW	8.80 kW
COP Tj = Tbiv	2.33	1.83
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	11.20 kW	8.80 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.33	1.83
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	0.900	0.900
WTOL	55 °C	55 °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	5086 kWh	6111 kWh

EN 12102-1 | Warmer Climate

	Low temperature	Medium temperature
Sound power level indoor	47 dB(A)	47 dB(A)
Sound power level outdoor	73 dB(A)	73 dB(A)

EN 14825 | Warmer Climate

	Low temperature	Medium temperature
η_s	240 %	143 %
Prated	11.00 kW	9.00 kW
SCOP	6.07	3.65
Tbiv	2 °C	2 °C
TOL	2 °C	2 °C
Pdh Tj = +2°C	11.80 kW	9.00 kW
COP Tj = +2°C	3.10	2.13
Cdh Tj = +2 °C	0.900	0.900
Pdh Tj = +7°C	7.40 kW	5.90 kW
COP Tj = +7°C	5.45	3.21
Cdh Tj = +7 °C	0.900	0.900
Pdh Tj = 12°C	4.40 kW	3.50 kW
COP Tj = 12°C	7.62	4.53
Cdh Tj = +12 °C	0.900	0.900
Pdh Tj = Tbiv	11.80 kW	9.00 kW
COP Tj = Tbiv	3.10	2.13
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	11.80 kW	9.00 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	3.10	2.13
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	0.900	0.900
WTOL	55 °C	55 °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	2494 kWh	3289 kWh