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Summary of	Samsung EHS TDM Plus R410A 12kW & 16kW (space heating/ 260L)	Reg. No.	011-1W0378
Certificate Holder			
Name	Samsung Electronics Air Conditioner Europe B.V.		
Address	Evert van de Beekstraat 310	Zip	1118 CX
City	Schiphol	Country	Netherlands
Certification Body	DIN CERTCO Gesellschaft für Konformitätsbewertung mbH		
Subtype title	Samsung EHS TDM Plus R410A 12kW & 16kW (space heating/ 260L)		
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

Configure model	
Model name	AE120MXTPEH/EU & AE260TNWTEH/EU
Application	Heating + DHW + low temp
Units	Indoor + Outdoor
Climate Zone	Warmer Climate
Reversibility	Yes
Cooling mode application (optional)	n/a

General Data	
Power supply	1x230V 50Hz

Heating

EN 14511-2		
	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 14511-4	
Shutting off the heat transfer medium flow	passed
Complete power supply failure	passed
Defrost test	passed
Starting and operating test	passed

Warmer Climate

This information was generated by the HP KEYMARK database on 23 Jun 2022

EN 12102-1

	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

	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

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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	0.20 kW	0.20 kW
Annual energy consumption Qhe	2284 kWh	3054 kWh

Average Climate

EN 12102-1		
	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

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	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

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COP $T_j = TOL$ or COP $T_j = T_{designh}$ if $TOL < T_{designh}$	2.41	1.79
Cdh $T_j = TOL$ or Pdh $T_j = T_{designh}$ if $TOL < T_{designh}$	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	0.20 kW	0.20 kW
Annual energy consumption Qhe	4516 kWh	5799 kWh

Domestic Hot Water (DHW)

Warmer Climate

EN 16147		
Declared load profile	XL	XL
Efficiency η_{DHW}	110 %	110 %
COP	2.64	2.64
Heating up time	1:49 h:min	1:49 h:min
Standby power input	75.0 W	75.0 W
Reference hot water temperature	52.0 °C	52.0 °C
Mixed water at 40°C	290 l	290 l

Average Climate

EN 16147	
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

Model: AE120MXTPGH/EU & AE260TNWTEH/EU

Configure model	
Model name	AE120MXTPGH/EU & AE260TNWTEH/EU
Application	Heating + DHW + low temp
Units	Indoor + Outdoor
Climate Zone	Warmer Climate
Reversibility	Yes
Cooling mode application (optional)	n/a

General Data	
Power supply	3x400V 50Hz

Heating

EN 14511-2		
	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 14511-4	
Shutting off the heat transfer medium flow	passed
Complete power supply failure	passed
Defrost test	passed
Starting and operating test	passed

Warmer Climate

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EN 12102-1

	Low temperature	Medium temperature
Sound power level indoor	47 dB(A)	47 dB(A)
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EN 14825

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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

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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	0.20 kW	0.20 kW
Annual energy consumption Qhe	2284 kWh	3054 kWh

Average Climate

EN 12102-1		
	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

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η_s	183 %	114 %
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SCOP	4.65	2.92
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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

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COP $T_j = TOL$ or COP $T_j = T_{designh}$ if $TOL < T_{designh}$	2.41	1.79
Cdh $T_j = TOL$ or Pdh $T_j = T_{designh}$ if $TOL < T_{designh}$	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	0.20 kW	0.20 kW
Annual energy consumption Qhe	4516 kWh	5799 kWh

Domestic Hot Water (DHW)

Warmer Climate

EN 16147		
Declared load profile	XL	XL
Efficiency η_{DHW}	110 %	110 %
COP	2.64	2.64
Heating up time	1:49 h:min	1:49 h:min
Standby power input	75.0 W	75.0 W
Reference hot water temperature	52.0 °C	52.0 °C
Mixed water at 40°C	290 l	290 l

Average Climate

EN 16147	
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

Model: AE160MXTPEH/EU & AE260TNWTEH/EU

Configure model	
Model name	AE160MXTPEH/EU & AE260TNWTEH/EU
Application	Heating + DHW + low temp
Units	Indoor + Outdoor
Climate Zone	Warmer Climate
Reversibility	Yes
Cooling mode application (optional)	n/a

General Data	
Power supply	1x230V 50Hz

Heating

EN 14511-2		
	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 14511-4	
Shutting off the heat transfer medium flow	passed
Complete power supply failure	passed
Defrost test	passed
Starting and operating test	passed

Warmer Climate

EN 12102-1

	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

	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

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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	0.20 kW	0.20 kW
Annual energy consumption Qhe	2494 kWh	3289 kWh

Average Climate

EN 12102-1		
	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

This information was generated by the HP KEYMARK database on 23 Jun 2022

	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

This information was generated by the HP KEYMARK database on 23 Jun 2022

COP $T_j = TOL$ or COP $T_j = T_{designh}$ if $TOL < T_{designh}$	2.33	1.83
Cdh $T_j = TOL$ or Pdh $T_j = T_{designh}$ if $TOL < T_{designh}$	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	0.20 kW	0.20 kW
Annual energy consumption Qhe	5086 kWh	6111 kWh

Domestic Hot Water (DHW)

Warmer Climate

EN 16147	
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

Average Climate

EN 16147	
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

Model: AE160MXTPGH/EU & AE260TNWTEH/EU

Configure model	
Model name	AE160MXTPGH/EU & AE260TNWTEH/EU
Application	Heating + DHW + low temp
Units	Indoor + Outdoor
Climate Zone	Warmer Climate
Reversibility	Yes
Cooling mode application (optional)	n/a

General Data	
Power supply	3x400V 50Hz

Heating

EN 14511-2		
	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 14511-4	
Shutting off the heat transfer medium flow	passed
Complete power supply failure	passed
Defrost test	passed
Starting and operating test	passed

Warmer Climate

EN 12102-1

	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

	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

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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	0.20 kW	0.20 kW
Annual energy consumption Qhe	2494 kWh	3289 kWh

Average Climate

EN 12102-1		
	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

This information was generated by the HP KEYMARK database on 23 Jun 2022

	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

This information was generated by the HP KEYMARK database on 23 Jun 2022

COP $T_j = TOL$ or COP $T_j = T_{designh}$ if $TOL < T_{designh}$	2.33	1.83
Cdh $T_j = TOL$ or Pdh $T_j = T_{designh}$ if $TOL < T_{designh}$	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	0.20 kW	0.20 kW
Annual energy consumption Qhe	5086 kWh	6111 kWh

Domestic Hot Water (DHW)

Warmer Climate

EN 16147	
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

Average Climate

EN 16147	
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