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#### Login

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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	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	
СОР	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	



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
$\eta_{s}$	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
$COP Tj = +2^{\circ}C$	3.19	2.03
Cdh Tj = +2 °C	0.900	0.900
Pdh Tj = $+7^{\circ}$ C	6.70 kW	5.20 kW
$COP Tj = +7^{\circ}C$	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
РТО	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





	Low temperature	Medium temperature
$\eta_{s}$	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 = $-7^{\circ}$ C	8.80 kW	7.10 kW
COP Tj = $-7^{\circ}$ C	2.72	1.94
Cdh Tj = -7 °C	0.900	0.900
Pdh Tj = $+2$ °C	5.40 kW	4.30 kW
$COPTj = +2^{\circ}C$	4.69	2.86
Cdh Tj = $+2$ °C	0.900	0.900
Pdh Tj = $+7^{\circ}$ C	3.50 kW	2.80 kW
$COPTj = +7^{\circ}C$	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	o 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)

EN 16147			
Declared load profile	XL	XL	
Efficiency ηDHW	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	290	





# Average Climate

EN 16147		
Declared load profile	XL	
Efficiency ηDHW	95 %	
СОР	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 I	

# 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		
СОР	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	



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
$\eta_{s}$	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



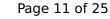


Pdh Tj = Tbiv	11.00 kW	8.70 kW
COP Tj = Tbiv	3.19	2.03
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	11.00 kW	8.70 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	3.19	2.03
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	0.900	0.900
WTOL	55 °C	55 °C
Poff	22 W	22 W
РТО	22 W	22 W
PSB	22 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**

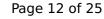
EN 12102-1				
Low temperature Medium temperature				
Sound power level indoor	47 dB(A)	47 dB(A)		
Sound power level outdoor	70 dB(A)	70 dB(A)		

#### EN 14825





	Low temperature	Medium temperature
$\eta_{s}$	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 = $-7^{\circ}$ 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
$COP Tj = +2^{\circ}C$	4.69	2.86
Cdh Tj = +2 °C	0.900	0.900
Pdh Tj = $+7^{\circ}$ C	3.50 kW	2.80 kW
$COP Tj = +7^{\circ}C$	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	0.20 kW	0.20 kW
Annual energy consumption Qhe	4516 kWh	5799 kWh

# Domestic Hot Water (DHW)

EN		
Declared load profile	XL	XL
Efficiency ηDHW	110 %	110 %
СОР	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 I	290 I



# Average Climate

EN 16147		
Declared load profile	XL	
Efficiency ηDHW	95 %	
СОР	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 I	

# 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	

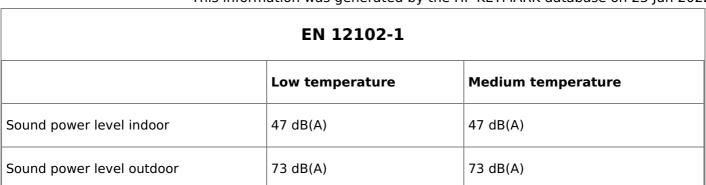
General Data		
Power supply	1x230V 50Hz	

# Heating

EN 14511-2		
	Low temperature	Medium temperature
Heat output	16.00 kW	14.60 kW
El input	3.95 kW	5.32 kW
СОР	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





CEN heat pump

EN 14825		
	Low temperature	Medium temperature
$\eta_{s}$	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



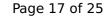


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Pdh Tj = Tbiv	11.80 kW	9.00 kW
COP Tj = Tbiv	3.10	2.13
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	11.80 kW	9.00 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	3.10	2.13
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	0.900	0.900
WTOL	55 °C	55 °C
Poff	22 W	22 W
РТО	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**

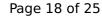
EN 12102-1			
	Low temperature	Medium temperature	
Sound power level indoor	47 dB(A)	47 dB(A)	
Sound power level outdoor	73 dB(A)	73 dB(A)	

#### EN 14825





	Low temperature	Medium temperature
ης	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 = $-7^{\circ}$ C	9.90 kW	7.80 kW
$COP Tj = -7^{\circ}C$	2.65	2.01
Cdh Tj = -7 °C	0.900	0.900
Pdh Tj = $+2$ °C	6.00 kW	4.70 kW
$COP Tj = +2^{\circ}C$	4.62	2.97
Cdh Tj = +2 °C	0.900	0.900
Pdh Tj = $+7^{\circ}$ C	3.90 kW	3.50 kW
$COPTj = +7^{\circ}C$	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	0.20 kW	0.20 kW
Annual energy consumption Qhe	5086 kWh	6111 kWh

# Domestic Hot Water (DHW)

EN 16147	
Declared load profile	XL
Efficiency ηDHW	110 %
СОР	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 I



# Average Climate

EN 16147		
Declared load profile	XL	
Efficiency ηDHW	95 %	
СОР	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 I	

# 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	
СОР	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





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
$\eta_{s}$	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



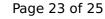


Pdh Tj = Tbiv	11.80 kW	9.00 kW
COP Tj = Tbiv	3.10	2.13
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	11.80 kW	9.00 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	3.10	2.13
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	0.900	0.900
WTOL	55 °C	55 °C
Poff	22 W	22 W
РТО	22 W	22 W
PSB	22 W	22 W
PCK	o 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





	Low temperature	Medium temperature
ης	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 = $-7^{\circ}$ C	9.90 kW	7.80 kW
$COP Tj = -7^{\circ}C$	2.65	2.01
Cdh Tj = -7 °C	0.900	0.900
Pdh Tj = $+2$ °C	6.00 kW	4.70 kW
$COP Tj = +2^{\circ}C$	4.62	2.97
Cdh Tj = +2 °C	0.900	0.900
Pdh Tj = $+7^{\circ}$ C	3.90 kW	3.50 kW
$COPTj = +7^{\circ}C$	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
РТО	22 W	22 W
PSB	22 W	22 W
PCK	o 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)

EN 16147		
Declared load profile	XL	
Efficiency ηDHW	110 %	
СОР	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 I	



# Average Climate

EN 16147		
Declared load profile	XL	
Efficiency ηDHW	95 %	
СОР	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 I	