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Summary of	Samsung EHS TDM Plus R410A 12 kW & 16 kW (wall-mounted hydro unit)	Reg. No.	011- 1W0379
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 12 kW & 16 kW (wall-mounted hydro unit)		
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 & AE160MNYDEH/EU

Configure model		
Model name AE120MXTPEH/EU & AE160MNYDEH/EU		
Application	Heating (medium temp)	
Units Indoor + Outdoor		
Climate Zone Warmer Climate		
Reversibility Yes		
Cooling mode application (optional) n/a		

General Data		
Power supply 1x230V 50Hz		

Heating

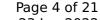
EN 14511-2			
Low temperature Medium temperature			
Heat output	12.00 kW	10.72 kW	
El input	2.72 kW	3.91 kW	
СОР	4.41	2.74	

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	55 dB(A)	55 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 = $+7^{\circ}$ 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





This information was generated by the HP KEYMARK database on 23 Jun 2022 Pdh Tj = Tbiv11.00 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 22 W Poff 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

Average Climate

Annual energy consumption Qhe

EN 12102-1		
Low temperature Medium temperature		
Sound power level indoor	55 dB(A)	55 dB(A)
Sound power level outdoor	70 dB(A)	70 dB(A)

2284 kWh

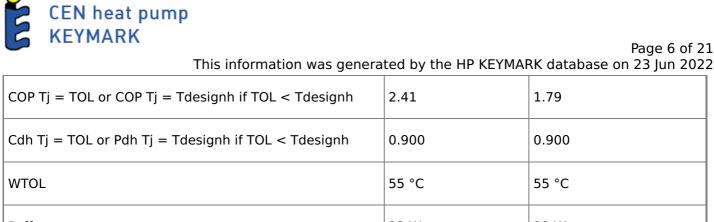
3054 kWh





	Low temperature	Medium temperature
ης	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
$COP Tj = +2^{\circ}C$	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







Model: AE120MXTPGH/EU & AE160MNYDGH/EU

Configure model		
Model name AE120MXTPGH/EU & AE160MNYDGH/EU		
Application	Heating (medium 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	55 dB(A)	55 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

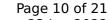




Pdh Tj = Tbiv	11.00 kW	8.70 kW
COP Tj = Tbiv	3.19	2.03
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	11.00 kW	8.70 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	3.19	2.03
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	0.900	0.900
WTOL	55 °C	55 °C
Poff	22 W	22 W
РТО	22 W	22 W
PSB	22 W	22 W
PCK	0 W	0 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	0.00 kW	0.00 kW
Annual energy consumption Qhe	2284 kWh	3054 kWh

Average Climate

EN 12102-1			
Low temperature Medium temperature			
Sound power level indoor	55 dB(A)	55 dB(A)	
Sound power level outdoor	70 dB(A)	70 dB(A)	





	Low temperature	Medium temperature
ης	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
$COP Tj = +2^{\circ}C$	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



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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
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	0.00 kW	0.00 kW
Annual energy consumption Qhe	4516 kWh	5799 kWh



Model: AE160MXTPEH/EU & AE160MNYDEH/EU

Configure model		
Model name AE160MXTPEH/EU & AE160MNYDEH/EU		
Application Heating (medium 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	

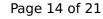
EN 14511-4	
Shutting off the heat transfer medium flow	passed
Complete power supply failure	passed
Defrost test	passed
Starting and operating test	passed





EN 12102-1		
	Low temperature	Medium temperature
Sound power level indoor	55 dB(A)	55 dB(A)
Sound power level outdoor	73 dB(A)	73 dB(A)

EN 14825		
Low temperature	Medium temperature	
240 %	143 %	
11.00 kW	9.00 kW	
6.07	3.65	
2 °C	2 °C	
2 °C	2 °C	
11.80 kW	9.00 kW	
3.10	2.13	
0.900	0.900	
7.40 kW	5.90 kW	
5.45	3.21	
0.900	0.900	
4.40 kW	3.50 kW	
7.62	4.53	
0.900	0.900	
	Low temperature 240 % 11.00 kW 6.07 2 °C 2 °C 11.80 kW 3.10 0.900 7.40 kW 5.45 0.900 4.40 kW 7.62	

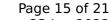




Pdh Tj = Tbiv	11.80 kW	9.00 kW
COP Tj = Tbiv	3.10	2.13
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	11.80 kW	9.00 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	3.10	2.13
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	0.900	0.900
WTOL	55 °C	55 °C
Poff	22 W	22 W
PTO	22 W	22 W
PSB	22 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	55 dB(A)	55 dB(A)
Sound power level outdoor	73 dB(A)	73 dB(A)





	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
$COP Tj = -7^{\circ}C$	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



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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	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



Model: AE160MXTPGH/EU & AE160MNYDGH/EU

Configure model		
Model name	AE160MXTPGH/EU & AE160MNYDGH/EU	
Application	Heating (medium 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	

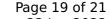
EN 14511-4	
Shutting off the heat transfer medium flow	passed
Complete power supply failure	passed
Defrost test	passed
Starting and operating test	passed





EN 12102-1		
	Low temperature	Medium temperature
Sound power level indoor	55 dB(A)	55 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





This information was generated by the HP KEYMARK database on 23 Jun 2022 Pdh Tj = Tbiv11.80 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 22 W Poff 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

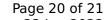
Average Climate

Annual energy consumption Qhe

EN 12102-1		
	Low temperature	Medium temperature
Sound power level indoor	55 dB(A)	55 dB(A)
Sound power level outdoor	73 dB(A)	73 dB(A)

2494 kWh

3289 kWh





	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
$COP Tj = -7^{\circ}C$	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



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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	o 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