This information was generated by the HP KEYMARK database on 17 Dec 2020

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		
Name of testing laboratory	TÜV Rheinland Korea Ltd.		
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

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
Indoor water flow rate	2.08 m³/h	1.16 m³/h

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

Average Climate

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

EN 14825		
	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	0.90	0.90
Pdh Tj = +2°C	5.40 kW	4.30 kW
COP Tj = +2°C	4.69	2.86
Cdh	0.90	0.90
Pdh Tj = +7°C	3.50 kW	2.80 kW
COP Tj = +7°C	5.92	3.43
Cdh	0.90	0.90

Pdh Tj = 12°C	4.40 kW	5.00 kW
COP Tj = 12°C	7.85	5.52
Cdh	0.90	0.90
Pdh Tj = Tbiv	10.00 kW	8.00 kW
COP Tj = Tbiv	2.41	1.79
Pdh Tj = TOL	10.00 kW	8.00 kW
COP Tj = TOL	2.41	1.79
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	Electrical	Electrical
Supplementary Heater: PSUP	0.00 kW	0.00 kW
Annual energy consumption Qhe	4516 kWh	5799 kWh

Model: AE120MXTPGH/EU & AE160MNYDGH/EU

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
Indoor water flow rate	2.08 m³/h	1.16 m³/h

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

Average Climate

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

EN 14825		
	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	0.90	0.90
Pdh Tj = +2°C	5.40 kW	4.30 kW
COP Tj = +2°C	4.69	2.86
Cdh	0.90	0.90
Pdh Tj = +7°C	3.50 kW	2.80 kW
COP Tj = +7°C	5.92	3.43
Cdh	0.90	0.90

Pdh Tj = 12°C	4.40 kW	5.00 kW
COP Tj = 12°C	7.85	5.52
Cdh	0.90	0.90
Pdh Tj = Tbiv	10.00 kW	8.00 kW
COP Tj = Tbiv	2.41	1.79
Pdh Tj = TOL	10.00 kW	8.00 kW
COP Tj = TOL	2.41	1.79
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	Electrical	Electrical
Supplementary Heater: PSUP	0.00 kW	0.00 kW
Annual energy consumption Qhe	4516 kWh	5799 kWh

Model: AE160MXTPEH/EU & AE160MNYDEH/EU

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
Indoor water flow rate	2.77 m³/h	1.58 m³/h

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

Average Climate

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

EN 14825		
	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	0.90	0.90
Pdh Tj = +2°C	6.00 kW	4.70 kW
COP Tj = +2°C	4.62	2.97
Cdh	0.90	0.90
Pdh Tj = +7°C	3.90 kW	3.50 kW
COP Tj = +7°C	6.12	3.73
Cdh	0.90	0.90

Pdh Tj = 12°C	4.40 kW	5.00 kW
COP Tj = 12°C	7.85	5.52
Cdh	0.90	0.90
Pdh Tj = Tbiv	11.20 kW	8.80 kW
COP Tj = Tbiv	2.33	1.83
Pdh Tj = TOL	11.20 kW	8.80 kW
COP Tj = TOL	2.33	1.83
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	Electrical	Electrical
Supplementary Heater: PSUP	0.00 kW	0.00 kW
Annual energy consumption Qhe	5086 kWh	6111 kWh

Model: AE160MXTPGH/EU & AE160MNYDGH/EU

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
Indoor water flow rate	2.77 m³/h	1.58 m³/h

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

Average Climate

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

EN 14825		
	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	0.90	0.90
Pdh Tj = +2°C	6.00 kW	4.70 kW
COP Tj = +2°C	4.62	2.97
Cdh	0.90	0.90
Pdh Tj = +7°C	3.90 kW	3.50 kW
COP Tj = +7°C	6.12	3.73
Cdh	0.90	0.90

Pdh Tj = 12°C	4.40 kW	5.00 kW
COP Tj = 12°C	7.85	5.52
Cdh	0.90	0.90
Pdh Tj = Tbiv	11.20 kW	8.80 kW
COP Tj = Tbiv	2.33	1.83
Pdh Tj = TOL	11.20 kW	8.80 kW
COP Tj = TOL	2.33	1.83
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	Electrical	Electrical
Supplementary Heater: PSUP	0.00 kW	0.00 kW
Annual energy consumption Qhe	5086 kWh	6111 kWh