Login

| 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 |
| 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

| 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** |
| $\eta_s$ | 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 |
| 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 |

## 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) |

| **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°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 |

# 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 |
| 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

## 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 |
|---|---|---|
| $\eta_s$ | 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 |
| 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 |

## 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) |

| **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°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 |

# 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 |
| 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 | 55 dB(A) | 55 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 |
| 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) |

| **EN 14825** |
|---|

| | **Low temperature** | **Medium temperature** |
|---|---|---|
| $\eta_s$ | 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 | 0.20 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 |
| 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 | 55 dB(A) | 55 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 |
| 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) |

| **EN 14825** |
|---|

| | **Low temperature** | **Medium temperature** |
|---|---|---|
| $\eta_s$ | 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 | 0.20 kW | 0.20 kW |
| Annual energy consumption Qhe | 5086 kWh | 6111 kWh |