

Subtype Matrix series 18 22 26 30 kW

Certificate Holder	Inventor A.G. Electric Appliances S.A.
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City	Agios Stefanos
Country	GR
Certification Body	BRE Global Limited
Subtype title	Matrix series 18 22 26 30 kW
Registration number	041-K014-04
Heat Pump Type	Outdoor Air/Water
Refrigerant	R32
Mass of Refrigerant	5 kg
Certification Date	10.05.2021
Testing basis	Heat Pump Keymark Scheme Rules Rev 08

Model ATM18T

Model name	ATM18T
Application	Heating (medium temp)
Units	Outdoor
Climate zone (for heating)	Warmer Climate, Colder Climate
Reversibility	Yes
Cooling mode application (optional)	n/a
Any additional heat sources	n/a

General data

Power supply	3x400V 50Hz
Off-peak product	n/a

Outdoor Air/Water

EN 14511-4 | Heating

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

EN 12102-1 | Average Climate

	Low temperature	Medium temperature
Sound power level outdoor	71 dB(A)	71 dB(A)

EN 14825 | Average Climate

	Low temperature	Medium temperature
η_s	181 %	125 %
Prated	17.99 kW	17.67 kW
SCOP	4.60	3.21
Tbiv	-7 °C	-7 °C
TOL	-10 °C	-10 °C
Pdh Tj = -7°C	15.90 kW	15.61 kW
COP Tj = -7°C	2.85	1.72
Cdh Tj = -7 °C	0.900	0.900
Pdh Tj = +2°C	9.66 kW	9.59 kW
COP Tj = +2°C	4.59	3.32
Cdh Tj = +2 °C	0.900	0.900
Pdh Tj = +7°C	6.56 kW	6.37 kW
COP Tj = +7°C	5.99	4.48
Cdh Tj = +7 °C	0.900	0.900
Pdh Tj = 12°C	3.76 kW	3.57 kW
COP Tj = 12°C	7.08	5.27
Cdh Tj = +12 °C	0.900	0.900
Pdh Tj = Tbiv	15.90 kW	15.61 kW
COP Tj = Tbiv	2.85	1.72

Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	17.99 kW	15.00 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.49	1.17
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh		
WTOL	60 °C	60 °C
Poff	18 W	18 W
PTO	96 W	96 W
PSB	18 W	18 W
PCK	0 W	0 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	0.00 kW	2.64 kW
Annual energy consumption Qhe	8086 kWh	11375 kWh

EN 12102-1 | Colder Climate

	Low temperature	Medium temperature
Sound power level outdoor	71 dB(A)	71 dB(A)

EN 14825 | Colder Climate

	Low temperature	Medium temperature
η_s	146 %	97 %
Prated	17.76 kW	18.38 kW
SCOP	3.73	2.50
Tbiv	-15 °C	-7 °C
TOL	-22 °C	-15 °C
Pdh Tj = -7°C	11.21 kW	11.13 kW
COP Tj = -7°C	3.09	1.98
Cdh Tj = -7 °C	0.90	0.90
Pdh Tj = +2°C	6.64 kW	6.65 kW
COP Tj = +2°C	4.50	3.44
Cdh Tj = +2 °C	0.90	0.90
Pdh Tj = +7°C	4.77 kW	4.66 kW
COP Tj = +7°C	5.85	4.35
Cdh Tj = +7 °C	0.90	0.90
Pdh Tj = 12°C	3.95 kW	3.74 kW
COP Tj = 12°C	7.18	5.68
Cdh Tj = +12 °C	0.90	0.90
Pdh Tj = Tbiv	14.49 kW	11.13 kW
COP Tj = Tbiv	2.42	1.98
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	13.14 kW	13.56 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	1.67	1.21
WTOL	60 °C	60 °C
Poff	20 W	20 W

PTO	96 W	96 W
PSB	18 W	18 W
PCK	0 W	0 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	4.62 kW	18.38 kW
Annual energy consumption Q _{he}	11740 kWh	18156 kWh
P _{dh} T _j = -15°C (if TOL	14.49	13.56
COP T _j = -15°C (if TOL	2.42	1.21
C _{dh} T _j = -15 °C	0.90	0.90

EN 12102-1 | Warmer Climate

	Low temperature	Medium temperature
Sound power level outdoor	71 dB(A)	71 dB(A)

EN 14825 | Warmer Climate

	Low temperature	Medium temperature
η _s	226 %	157 %
Prated	17.67 kW	18.07 kW
SCOP	5.74	4.00
T _{biv}	7 °C	7 °C
TOL	2 °C	2 °C
P _{dh} T _j = +2°C	17.67 kW	18.07 kW
COP T _j = +2°C	3.53	2.12
C _{dh} T _j = +2 °C	0.900	0.900
P _{dh} T _j = +7°C	11.36 kW	11.62 kW
COP T _j = +7°C	5.16	3.49
C _{dh} T _j = +7 °C	0.900	0.900
P _{dh} T _j = 12°C	5.45 kW	5.35 kW
COP T _j = 12°C	7.01	5.09
C _{dh} T _j = +12 °C	0.900	0.900
P _{dh} T _j = T _{biv}	11.36 kW	11.62 kW
COP T _j = T _{biv}	5.16	3.49
P _{dh} T _j = TOL or P _{dh} T _j = T _{designh} if TOL < T _{designh}	17.67 kW	18.07 kW
COP T _j = TOL or COP T _j = T _{designh} if TOL < T _{designh}	3.53	2.12
C _{dh} T _j = TOL or P _{dh} T _j = T _{designh} if TOL < T _{designh}		
WTOL	60 °C	60 °C
P _{off}	18 W	18 W
PTO	96 W	96 W
PSB	18 W	18 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 Q_{he}

4116 kWh

6041 kWh

Model ATM22T

Model name	ATM22T
Application	Heating (medium temp)
Units	Outdoor
Climate zone (for heating)	Warmer Climate, Colder Climate
Reversibility	Yes
Cooling mode application (optional)	n/a
Any additional heat sources	n/a

General data

Power supply	3x400V 50Hz
Off-peak product	n/a

Outdoor Air/Water

EN 14511-4 | Heating

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

EN 12102-1 | Average Climate

	Low temperature	Medium temperature
Sound power level outdoor	73 dB(A)	73 dB(A)

EN 14825 | Average Climate

	Low temperature	Medium temperature
η_s	178 %	126 %
Prated	22.31 kW	22.43 kW
SCOP	4.53	3.22
Tbiv	-7 °C	-7 °C
TOL	-10 °C	-10 °C
Pdh Tj = -7°C	19.72 kW	19.82 kW
COP Tj = -7°C	2.74	1.74
Cdh Tj = -7 °C	0.90	0.90
Pdh Tj = +2°C	12.03 kW	11.89 kW
COP Tj = +2°C	4.41	3.32
Cdh Tj = +2 °C	0.90	0.90
Pdh Tj = +7°C	8.00 kW	7.97 kW
COP Tj = +7°C	6.29	4.66
Cdh Tj = +7 °C	0.90	0.90
Pdh Tj = 12°C	3.79 kW	3.60 kW
COP Tj = 12°C	7.14	5.32
Cdh Tj = +12 °C	0.90	0.90
Pdh Tj = Tbiv	19.72 kW	19.82 kW
COP Tj = Tbiv	2.74	1.74

Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	20.33 kW	13.81 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.35	1.08
WTOL	60 °C	60 °C
Poff	18 W	18 W
PTO	96 W	96 W
PSB	18 W	18 W
PCK	0 W	0 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	1.97 kW	8.60 kW
Annual energy consumption Qhe	10180 kWh	14390 kWh

EN 12102-1 | Colder Climate

	Low temperature	Medium temperature
Sound power level outdoor	73 dB(A)	73 dB(A)

EN 14825 | Colder Climate

	Low temperature	Medium temperature
ηs	146 %	102 %
Prated	21.40 kW	22.36 kW
SCOP	3.72	2.62
Tbiv	-15 °C	-7 °C
TOL	-22 °C	-15 °C
Pdh Tj = -7°C	13.30 kW	13.53 kW
COP Tj = -7°C	3.12	2.07
Cdh Tj = -7 °C	0.90	0.90
Pdh Tj = +2°C	8.25 kW	8.61 kW
COP Tj = +2°C	4.42	3.70
Cdh Tj = +2 °C	0.90	0.90
Pdh Tj = +7°C	5.45 kW	5.21 kW
COP Tj = +7°C	5.87	4.49
Cdh Tj = +7 °C	0.90	0.90
Pdh Tj = 12°C	3.98 kW	3.74 kW
COP Tj = 12°C	7.19	5.76
Cdh Tj = +12 °C	0.90	0.90
Pdh Tj = Tbiv	17.46 kW	13.53 kW
COP Tj = Tbiv	2.36	2.07
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	13.27 kW	13.78 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	1.69	1.24
WTOL	60 °C	60 °C
Poff	20 W	20 W
PTO	96 W	96 W
PSB	18 W	18 W

PCK	0 W	0 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	8.13 kW	22.36 kW
Annual energy consumption Q _{he}	14179 kWh	21067 kWh
P _{dh} T _j = -15°C (if TOL	17.46	13.78
COP T _j = -15°C (if TOL	2.36	1.24
C _{dh} T _j = -15 °C	0.90	0.90

EN 12102-1 | Warmer Climate

	Low temperature	Medium temperature
Sound power level outdoor	73 dB(A)	73 dB(A)

EN 14825 | Warmer Climate

	Low temperature	Medium temperature
η _s	234 %	161 %
Prated	21.90 kW	22.01 kW
SCOP	5.85	4.09
T _{biv}	7 °C	7 °C
TOL	2 °C	2 °C
P _{dh} T _j = +2°C	21.81 kW	22.01 kW
COP T _j = +2°C	3.31	2.12
C _{dh} T _j = +2 °C	0.900	0.900
P _{dh} T _j = +7°C	14.08 kW	14.15 kW
COP T _j = +7°C	5.20	3.50
C _{dh} T _j = +7 °C	0.900	0.900
P _{dh} T _j = 12°C	6.44 kW	6.38 kW
COP T _j = 12°C	7.50	5.34
C _{dh} T _j = +12 °C	0.900	0.900
P _{dh} T _j = T _{biv}	14.08 kW	14.15 kW
COP T _j = T _{biv}	5.20	3.50
P _{dh} T _j = TOL or P _{dh} T _j = T _{designh} if TOL < T _{designh}	21.81 kW	22.01 kW
COP T _j = TOL or COP T _j = T _{designh} if TOL < T _{designh}	3.31	2.12
C _{dh} T _j = TOL or P _{dh} T _j = T _{designh} if TOL < T _{designh}		
WTOL	60 °C	60 °C
P _{off}	18 W	18 W
PTO	96 W	96 W
PSB	18 W	18 W
PCK	0 W	0 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	0.09 kW	0.00 kW
Annual energy consumption Q _{he}	4945 kWh	7180 kWh

Model ATM26T

Model name	ATM26T
Application	Heating (medium temp)
Units	Outdoor
Climate zone (for heating)	Warmer Climate, Colder Climate
Reversibility	Yes
Cooling mode application (optional)	n/a
Any additional heat sources	n/a

General data

Power supply	3x400V 50Hz
Off-peak product	n/a

Outdoor Air/Water

EN 14511-4 | Heating

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

EN 12102-1 | Average Climate

	Low temperature	Medium temperature
Sound power level outdoor	75 dB(A)	75 dB(A)

EN 14825 | Average Climate

	Low temperature	Medium temperature
η_s	177 %	123 %
Prated	25.04 kW	26.15 kW
SCOP	4.50	3.14
Tbiv	-7 °C	-6 °C
TOL	-10 °C	-10 °C
Pdh Tj = -7°C	22.12 kW	20.64 kW
COP Tj = -7°C	2.57	1.69
Cdh Tj = -7 °C	0.90	0.90
Pdh Tj = +2°C	13.76 kW	14.26 kW
COP Tj = +2°C	4.44	3.12
Cdh Tj = +2 °C	0.90	0.90
Pdh Tj = +7°C	9.36 kW	9.29 kW
COP Tj = +7°C	6.52	4.74
Cdh Tj = +7 °C	0.90	0.90
Pdh Tj = 12°C	4.09 kW	3.89 kW
COP Tj = 12°C	7.35	5.48
Cdh Tj = +12 °C	0.90	0.90
Pdh Tj = Tbiv	22.12 kW	22.11 kW
COP Tj = Tbiv	2.57	1.88

Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	20.33 kW	13.86 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.35	1.08
WTOL	60 °C	60 °C
Poff	18 W	18 W
PTO	96 W	96 W
PSB	18 W	18 W
PCK	0 W	0 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	4.68 kW	12.28 kW
Annual energy consumption Qhe	11489 kWh	17204 kWh

EN 12102-1 | Colder Climate

	Low temperature	Medium temperature
Sound power level outdoor	75 dB(A)	75 dB(A)

EN 14825 | Colder Climate

	Low temperature	Medium temperature
ηs	143 %	101 %
Prated	25.75 kW	26.27 kW
SCOP	3.64	2.59
Tbiv	-12 °C	-7 °C
TOL	-22 °C	-15 °C
Pdh Tj = -7°C	15.91 kW	15.90 kW
COP Tj = -7°C	3.10	2.10
Cdh Tj = -7 °C	0.90	0.90
Pdh Tj = +2°C	10.10 kW	10.17 kW
COP Tj = +2°C	4.45	3.58
Cdh Tj = +2 °C	0.90	0.90
Pdh Tj = +7°C	6.30 kW	6.52 kW
COP Tj = +7°C	6.06	4.99
Cdh Tj = +7 °C	0.90	0.90
Pdh Tj = 12°C	4.03 kW	3.63 kW
COP Tj = 12°C	7.13	5.68
Cdh Tj = +12 °C	0.90	0.90
Pdh Tj = Tbiv	18.97 kW	15.90 kW
COP Tj = Tbiv	2.36	2.10
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	13.07 kW	13.37 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	1.67	1.20
WTOL	60 °C	60 °C
Poff	20 W	20 W
PTO	96 W	96 W
PSB	18 W	18 W

PCK	0 W	0 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	12.68 kW	26.27 kW
Annual energy consumption Q _{he}	17421 kWh	24967 kWh
P _{dh} T _j = -15°C (if TOL	18.95	13.37
COP T _j = -15°C (if TOL	2.27	1.20
C _{dh} T _j = -15 °C	0.90	0.90

EN 12102-1 | Warmer Climate

	Low temperature	Medium temperature
Sound power level outdoor	75 dB(A)	75 dB(A)

EN 14825 | Warmer Climate

	Low temperature	Medium temperature
η _s	231 %	168 %
Prated	26.08 kW	26.22 kW
SCOP	5.85	4.26
T _{biv}	7 °C	7 °C
TOL	2 °C	2 °C
P _{dh} T _j = +2°C	25.50 kW	26.22 kW
COP T _j = +2°C	3.00	1.99
C _{dh} T _j = +2 °C	0.900	0.900
P _{dh} T _j = +7°C	16.77 kW	16.86 kW
COP T _j = +7°C	5.02	3.47
C _{dh} T _j = +7 °C	0.900	0.900
P _{dh} T _j = 12°C	7.65 kW	7.58 kW
COP T _j = 12°C	7.78	5.94
C _{dh} T _j = +12 °C	0.900	0.900
P _{dh} T _j = T _{biv}	16.77 kW	16.86 kW
COP T _j = T _{biv}	5.02	3.47
P _{dh} T _j = TOL or P _{dh} T _j = T _{designh} if TOL < T _{designh}	25.50 kW	26.22 kW
COP T _j = TOL or COP T _j = T _{designh} if TOL < T _{designh}	3.00	1.99
C _{dh} T _j = TOL or P _{dh} T _j = T _{designh} if TOL < T _{designh}		
WTOL	60 °C	60 °C
P _{off}	18 W	18 W
PTO	96 W	96 W
PSB	18 W	18 W
PCK	0 W	0 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	0.58 kW	0.00 kW
Annual energy consumption Q _{he}	5959 kWh	8218 kWh

Model ATM30T

Model name	ATM30T
Application	Heating (medium temp)
Units	Outdoor
Climate zone (for heating)	Warmer Climate, Colder Climate
Reversibility	Yes
Cooling mode application (optional)	n/a
Any additional heat sources	n/a

General data

Power supply	3x400V 50Hz
Off-peak product	n/a

Outdoor Air/Water

EN 14511-4 | Heating

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

EN 12102-1 | Average Climate

	Low temperature	Medium temperature
Sound power level outdoor	77 dB(A)	77 dB(A)

EN 14825 | Average Climate

	Low temperature	Medium temperature
η_s	165 %	123 %
Prated	29.18 kW	29.69 kW
SCOP	4.19	3.14
Tbiv	-5 °C	-5 °C
TOL	-10 °C	-10 °C
Pdh Tj = -7°C	21.90 kW	20.11 kW
COP Tj = -7°C	2.54	1.63
Cdh Tj = -7 °C	0.90	0.90
Pdh Tj = +2°C	16.16 kW	16.49 kW
COP Tj = +2°C	4.16	3.09
Cdh Tj = +2 °C	0.90	0.90
Pdh Tj = +7°C	10.64 kW	10.50 kW
COP Tj = +7°C	6.38	4.75
Cdh Tj = +7 °C	0.90	0.90
Pdh Tj = 12°C	4.54 kW	4.64 kW
COP Tj = 12°C	7.72	5.91
Cdh Tj = +12 °C	0.90	0.90
Pdh Tj = Tbiv	23.51 kW	23.97 kW
COP Tj = Tbiv	2.71	2.02

Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	20.37 kW	13.82 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.35	1.07
WTOL	60 °C	60 °C
Poff	18 W	18 W
PTO	96 W	96 W
PSB	18 W	18 W
PCK	0 W	0 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	8.75 kW	15.86 kW
Annual energy consumption Qhe	14165 kWh	19316.17 kWh

EN 12102-1 | Colder Climate

	Low temperature	Medium temperature
Sound power level outdoor	77 dB(A)	77 dB(A)

EN 14825 | Colder Climate

	Low temperature	Medium temperature
η_s	138 %	100 %
Prated	29.13 kW	30.41 kW
SCOP	3.52	2.56
Tbiv	-10 °C	-7 °C
TOL	-22 °C	-15 °C
Pdh Tj = -7°C	18.49 kW	18.40 kW
COP Tj = -7°C	3.07	2.10
Cdh Tj = -7 °C	0.90	0.90
Pdh Tj = +2°C	11.88 kW	11.22 kW
COP Tj = +2°C	4.42	3.51
Cdh Tj = +2 °C	0.90	0.90
Pdh Tj = +7°C	7.53 kW	7.42 kW
COP Tj = +7°C	6.15	5.18
Cdh Tj = +7 °C	0.90	0.90
Pdh Tj = 12°C	4.11 kW	3.64 kW
COP Tj = 12°C	6.87	5.73
Cdh Tj = +12 °C	0.90	0.90
Pdh Tj = Tbiv	19.93 kW	18.40 kW
COP Tj = Tbiv	2.44	2.10
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	13.17 kW	13.06 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	1.67	1.18
WTOL	60 °C	60 °C
Poff	18 W	18 W
PTO	96 W	96 W
PSB	18 W	18 W

PCK	0 W	0 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	15.96 kW	30.41 kW
Annual energy consumption Q _{he}	20390 kWh	29238 kWh
P _{dh} T _j = -15°C (if TOL	18.61	13.06
COP T _j = -15°C (if TOL	2.24	1.18
C _{dh} T _j = -15 °C	0.90	0.90

EN 12102-1 | Warmer Climate

	Low temperature	Medium temperature
Sound power level outdoor	77 dB(A)	77 dB(A)

EN 14825 | Warmer Climate

	Low temperature	Medium temperature
η _s	213 %	163 %
Prated	30.44 kW	29.73 kW
SCOP	5.39	4.15
T _{biv}	7 °C	7 °C
TOL	2 °C	2 °C
P _{dh} T _j = +2°C	26.29 kW	26.41 kW
COP T _j = +2°C	2.94	1.99
C _{dh} T _j = +2 °C	0.90	0.90
P _{dh} T _j = +7°C	19.57 kW	19.11 kW
COP T _j = +7°C	4.75	3.37
C _{dh} T _j = +7 °C	0.90	0.90
P _{dh} T _j = 12°C	8.90 kW	8.92 kW
COP T _j = 12°C	7.53	6.09
C _{dh} T _j = +12 °C	0.90	0.90
P _{dh} T _j = T _{biv}	19.57 kW	19.11 kW
COP T _j = T _{biv}	4.75	3.37
P _{dh} T _j = TOL or P _{dh} T _j = T _{designh} if TOL < T _{designh}	26.29 kW	26.41 kW
COP T _j = TOL or COP T _j = T _{designh} if TOL < T _{designh}	2.94	1.99
WTOL	60 °C	60 °C
P _{off}	18 W	18 W
PTO	96 W	96 W
PSB	18 W	18 W
PCK	0 W	0 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	4.15 kW	3.32 kW
Annual energy consumption Q _{he}	7540 kWh	9580 kWh