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Login

Summary of	WWC 160 H/X	Reg. No.	041-K001-33
Certificate Holder			
Name	ait-deutschland GmbH		
Address	Industriestr. 3	Zip	95359
City	Kasendorf	Country	Germany
Certification Body	BRE Global Limited		
Subtype title	WWC 160 H/X		
Heat Pump Type	Water/Water		
Refrigerant	R407c		
Mass of Refrigerant	3.95 kg		
Certification Date	06.09.2019		

Model: WWC 160H/X

Configure model	
Model name	WWC 160H/X
Application	Heating (medium temp)
Units	Indoor
Climate Zone	Colder Climate + Warmer Climate
Reversibility	No
Cooling mode application (optional)	n/a

General Data	
Power supply	3x400V 50Hz

Heating

EN 14511-2		
	Low temperature	**Medium temperature**
Heat output	14.60 kW	13.42 kW
El input	2.73 kW	3.90 kW
COP	5.35	3.44

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

Average Climate

EN 12102-1		
	Low temperature	**Medium temperature**
Sound power level indoor	53 dB(A)	53 dB(A)

EN 14825		
	Low temperature	**Medium temperature**
η_s	221 %	167 %
Prated	14.60 kW	13.83 kW
SCOP	5.72	4.37
Tbiv	-10 °C	-10 °C
TOL	-10 °C	-10 °C
Pdh Tj = -7°C	14.61 kW	13.53 kW
COP Tj = -7°C	5.39	3.61
Cdh Tj = -7 °C	1.00	1.00
Pdh Tj = +2°C	14.71 kW	13.97 kW
COP Tj = +2°C	5.70	4.28
Cdh Tj = +2 °C	1.00	1.00
Pdh Tj = +7°C	14.79 kW	14.50 kW
COP Tj = +7°C	5.97	4.92
Cdh Tj = +7 °C	1.00	1.00
Pdh Tj = 12°C	14.87 kW	14.72 kW

COP Tj = 12°C	6.31	5.60
Cdh Tj = +12 °C	1.00	1.00
Pdh Tj = Tbiv	14.60 kW	13.35 kW
COP Tj = Tbiv	5.35	3.40
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	14.60 kW	13.35 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	5.35	3.40
WTOL	65 °C	65 °C
Poff	7 W	7 W
PTO	7 W	7 W
PSB	7 W	7 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	5278 kWh	6534 kWh

Warmer Climate

EN 14825		
	Low temperature	**Medium temperature**
η_s	240 %	168 %
Prated	14.70 kW	13.83 kW
SCOP	6.19	4.40

Tbiv	2 °C	2 °C
TOL	2 °C	2 °C
Pdh Tj = +2°C	14.70 kW	13.83 kW
COP Tj = +2°C	5.65	3.41
Cdh Tj = +2 °C	n/a	1.00
Pdh Tj = +7°C	14.79 kW	14.14 kW
COP Tj = +7°C	6.05	3.99
Cdh Tj = +7 °C	1.00	1.00
Pdh Tj = 12°C	14.93 kW	14.58 kW
COP Tj = 12°C	6.68	5.14
Cdh Tj = +12 °C	1.00	1.00
Pdh Tj = Tbiv	14.70 kW	13.83 kW
COP Tj = Tbiv	5.65	3.41
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	14.70 kW	13.83 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	5.65	3.41
WTOL	65 °C	65 °C
Poff	10 W	10 W
PTO	10 W	10 W
PSB	10 W	10 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	3172 kWh	4197 kWh

Colder Climate

EN 14825		
	Low temperature	**Medium temperature**
η_s	246 %	172 %
Prated	14.70 kW	13.83 kW
SCOP	6.34	4.50
Tbiv	-22 °C	-22 °C
TOL	-22 °C	-22 °C
Pdh Tj = -7°C	14.83 kW	14.22 kW
COP Tj = -7°C	6.21	4.16
Cdh Tj = -7 °C	1.00	1.00
Pdh Tj = +2°C	14.91 kW	14.47 kW
COP Tj = +2°C	6.57	4.80
Cdh Tj = +2 °C	1.00	1.00
Pdh Tj = +7°C	14.97 kW	14.65 kW
COP Tj = +7°C	6.84	5.39
Cdh Tj = +7 °C	1.00	1.00
Pdh Tj = 12°C	14.98 kW	14.79 kW

COP Tj = 12°C	6.76	5.84
Cdh Tj = +12 °C	1.00	1.00
Pdh Tj = Tbiv	14.70 kW	13.83 kW
COP Tj = Tbiv	5.65	3.41
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	14.70 kW	13.83 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	5.65	3.41
WTOL	65 °C	65 °C
Poff	10 W	10 W
PTO	10 W	10 W
PSB	10 W	10 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	5716 kWh	7568 kWh
Pdh Tj = -15°C (if TOL<-20°C)	0.01	0.01
COP Tj = -15°C (if TOL<-20°C)	0.01	0.01
Cdh Tj = -15 °C	1.00	1.00