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Summary of	LWC 60	Reg. No.	041-K001-27
Certificate Holder			
Name	ait-deutschland GmbH		
Address	Industriestr. 3	Zip	95359
City	Kasendorf	Country	Germany
Certification Body	BRE Global Limited		
Subtype title	LWC 60		
Heat Pump Type	Outdoor Air/Water		
Refrigerant	R407c		
Mass of Refrigerant	2.95 kg		
Certification Date	06.09.2019		

## Model: LWC 60

Configure model	
Model name	LWC 60
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 14511-4	
Shutting off the heat transfer medium flow	passed
Complete power supply failure	passed
Starting and operating test	passed

EN 14511-2		
	Low temperature	Medium temperature
Heat output	7.00 kW	6.30 kW
El input	1.67 kW	2.74 kW
COP	4.20	2.30

### Average Climate

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### EN 12102-1

	Low temperature	Medium temperature
Sound power level indoor	55 dB(A)	55 dB(A)

### EN 14825

	Low temperature	Medium temperature
$\eta_s$	148 %	120 %
Prated	6.29 kW	5.90 kW
SCOP	3.78	3.08
Tbiv	-5 °C	-5 °C
TOL	-10 °C	-10 °C
Pdh Tj = -7°C	4.74 kW	4.42 kW
COP Tj = -7°C	2.91	2.02
Cdh Tj = -7 °C	1.00	1.00
Pdh Tj = +2°C	6.23 kW	6.02 kW
COP Tj = +2°C	3.79	3.07
Cdh Tj = +2 °C	0.99	1.00
Pdh Tj = +7°C	7.11 kW	6.99 kW
COP Tj = +7°C	4.78	4.16
Cdh Tj = +7 °C	0.99	0.99
Pdh Tj = 12°C	8.09 kW	8.08 kW

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COP Tj = 12°C	5.09	4.96
Cdh Tj = +12 °C	0.99	0.99
Pdh Tj = Tbiv	5.08 kW	4.77 kW
COP Tj = Tbiv	3.14	2.23
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	4.27 kW	3.92 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.63	1.76
WTOL	60 °C	60 °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	2.02 kW	1.98 kW
Annual energy consumption Qhe	3435 kWh	3957 kWh

## Warmer Climate

<b>EN 14825</b>		
	<b>Low temperature</b>	<b>Medium temperature</b>
$\eta_s$	180 %	146 %
Prated	7.63 kW	7.18 kW
SCOP	4.57	3.72

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Tbiv	4 °C	4 °C
TOL	2 °C	2 °C
Pdh Tj = +2°C	6.17 kW	5.74 kW
COP Tj = +2°C	3.57	2.44
Cdh Tj = +2 °C	1.00	1.00
Pdh Tj = +7°C	7.06 kW	6.77 kW
COP Tj = +7°C	4.59	3.37
Cdh Tj = +7 °C	0.99	1.00
Pdh Tj = 12°C	8.07 kW	8.00 kW
COP Tj = 12°C	5.10	4.64
Cdh Tj = +12 °C	0.99	0.99
Pdh Tj = Tbiv	6.54 kW	6.15 kW
COP Tj = Tbiv	4.00	2.77
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	6.17 kW	5.74 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	3.57	2.44
WTOL	60 °C	60 °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

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Supplementary Heater: PSUP	1.46 kW	1.44 kW
Annual energy consumption Q <sub>he</sub>	2229 kWh	2579 kWh

## Colder Climate

<b>EN 14825</b>		
	<b>Low temperature</b>	<b>Medium temperature</b>
$\eta_s$	130 %	106 %
Prated	5.46 kW	5.09 kW
SCOP	3.32	2.73
T <sub>biv</sub>	-12 °C	-12 °C
TOL	-20 °C	-20 °C
P <sub>dh</sub> T <sub>j</sub> = -7°C	4.79 kW	4.56 kW
COP T <sub>j</sub> = -7°C	3.11	2.35
C <sub>dh</sub> T <sub>j</sub> = -7 °C	0.99	1.00
P <sub>dh</sub> T <sub>j</sub> = +2°C	6.28 kW	6.13 kW
COP T <sub>j</sub> = +2°C	3.93	3.38
C <sub>dh</sub> T <sub>j</sub> = +2 °C	0.99	0.99
P <sub>dh</sub> T <sub>j</sub> = +7°C	7.14 kW	7.08 kW
COP T <sub>j</sub> = +7°C	4.88	4.52
C <sub>dh</sub> T <sub>j</sub> = +7 °C	0.99	0.99
P <sub>dh</sub> T <sub>j</sub> = 12°C	8.09 kW	8.12 kW

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COP Tj = 12°C	4.88	5.01
Cdh Tj = +12 °C	0.99	0.99
Pdh Tj = Tbiv	4.03 kW	3.75 kW
COP Tj = Tbiv	2.68	1.89
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	2.78 kW	2.63 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	1.86	1.29
WTOL	60 °C	60 °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	5.46 kW	5.09 kW
Annual energy consumption Qhe	4060 kWh	4592 kWh
Pdh Tj = -15°C (if TOL<-20°C)	3.56	3.27
COP Tj = -15°C (if TOL<-20°C)	2.37	1.63
Cdh Tj = -15 °C	1.00	1.00