

## Subtype Grant Aerona HPR29012

Certificate Holder	Grant Engineering (UK) Ltd
Address	Frankland Road Blagrove
ZIP	SN5 8YG
City	Swindon
Country	GB
Certification Body	BRE Global Limited
Subtype title	Grant Aerona HPR29012
Registration number	041-K006-08
Heat Pump Type	Outdoor Air/Water
Refrigerant	R290
Mass of Refrigerant	1.2 kg
Certification Date	14.01.2025
Testing basis	Heat Pump Keymark Scheme Rules Rev 15

## Model Grant Aerona HPR29012

Model name	Grant Aerona HPR29012
Application	Heating + DHW + low temp
Units	Outdoor
Climate zone (for heating)	n/a
Cooling mode application (optional)	n/a
Any additional heat sources	n/a

## General data

Power supply	1x230V 50Hz
Off-peak product	n/a

## Outdoor Air/Water

### EN 16147 | Average Climate

Declared load profile	L
Efficiency $\eta_{DHW}$	123.1 %
COP	2.89
Heating up time	01:59 h:min
Standby power input	46 W
Reference hot water temperature	55.4 °C
Mixed water at 40°C	331 l

### 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 14511-2 | Heating

	Low temperature	Medium temperature
Heat output	12.18 kW	12.21 kW
El input	2.53 kW	3.79 kW
COP	4.81	3.22

### EN 12102-1 | Average Climate

	Low temperature	Medium temperature
Sound power level outdoor	49 dB(A)	52 dB(A)

### EN 14825 | Average Climate

	Low temperature	Medium temperature
$\eta_s$	190 %	150 %
Prated	11.2 kW	11.2 kW
SCOP	4.82	3.81

T <sub>biv</sub>	-9 °C	-9 °C
TOL	-10 °C	-10 °C
P <sub>dh</sub> T <sub>j</sub> = -7°C	10.47 kW	10.43 kW
COP T <sub>j</sub> = -7°C	3.12	2.32
C <sub>dh</sub> T <sub>j</sub> = -7 °C	0.9	0.9
P <sub>dh</sub> T <sub>j</sub> = +2°C	7.18 kW	6.56 kW
COP T <sub>j</sub> = +2°C	4.58	3.76
C <sub>dh</sub> T <sub>j</sub> = +2 °C	0.9	0.9
P <sub>dh</sub> T <sub>j</sub> = +7°C	4.56 kW	4.57 kW
COP T <sub>j</sub> = +7°C	6.66	5.06
C <sub>dh</sub> T <sub>j</sub> = +7 °C	0.9	0.9
P <sub>dh</sub> T <sub>j</sub> = 12°C	3.4 kW	3.2 kW
COP T <sub>j</sub> = 12°C	9.01	6.83
C <sub>dh</sub> T <sub>j</sub> = +12 °C	0.9	0.9
P <sub>dh</sub> T <sub>j</sub> = T <sub>biv</sub>	11.12 kW	10.81 kW
COP T <sub>j</sub> = T <sub>biv</sub>	3.01	2.23
P <sub>dh</sub> T <sub>j</sub> = TOL or P <sub>dh</sub> T <sub>j</sub> = T <sub>designh</sub> if TOL < T <sub>designh</sub>	10.86 kW	10.58 kW
COP T <sub>j</sub> = TOL or COP T <sub>j</sub> = T <sub>designh</sub> if TOL < T <sub>designh</sub>	2.89	2.15
C <sub>dh</sub> T <sub>j</sub> = TOL or P <sub>dh</sub> T <sub>j</sub> = T <sub>designh</sub> if TOL < T <sub>designh</sub>	0.9	0.9
WTOL	60 °C	60 °C
P <sub>off</sub>	7 W	7 W
PTO	27 W	27 W
PSB	7 W	7 W
PCK	21 W	21 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	0.32 kW	0.58 kW
Annual energy consumption Q <sub>he</sub>	4803 kWh	6069 kWh