

Subtype DC Inverter Air to Water Heat Pump Thermal Plus 06

Certificate Holder	REFSYSTEM Sp. z o.o.
Address	Street Metalowców 5,
ZIP	86-300
City	Grudziądz
Country	PL
Certification Body	BRE Global Limited
Subtype title	DC Inverter Air to Water Heat Pump Thermal Plus 06
Registration number	041-K053-06
Heat Pump Type	Outdoor Air/Water
Refrigerant	R32
Mass of Refrigerant	0.9 kg
Certification Date	12.05.2023
Testing basis	Heat Pump Keymark Scheme Rules Rev 11

Model Thermal(b) Plus 6 / Thermal(b) Plus 6

Model name	Thermal(b) Plus 6 / Thermal(b) Plus 6
Application	Heating (medium temp)
Units	Indoor, Outdoor
Climate zone (for heating)	n/a
Reversibility	Yes
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 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 indoor	44 dB(A)	45 dB(A)
Sound power level outdoor	52 dB(A)	54 dB(A)

EN 14825 | Average Climate

	Low temperature	Medium temperature
η_s	180 %	133 %
Prated	4.13 kW	4.56 kW
SCOP	4.58	3.40
Tbiv	-7 °C	-7 °C
TOL	-10 °C	-10 °C
Pdh Tj = -7°C	3.66 kW	4.04 kW
COP Tj = -7°C	3.15	2.03
Cdh Tj = -7 °C	0.900	0.900
Pdh Tj = +2°C	2.30 kW	2.49 kW
COP Tj = +2°C	4.45	3.39
Cdh Tj = +2 °C	0.900	0.900
Pdh Tj = +7°C	2.66 kW	2.49 kW
COP Tj = +7°C	6.43	4.88
Cdh Tj = +7 °C	0.900	0.900
Pdh Tj = 12°C	3.15 kW	3.02 kW
COP Tj = 12°C	8.64	6.83
Cdh Tj = +12 °C	0.900	0.900
Pdh Tj = Tbiv	3.66 kW	4.04 kW

COP $T_j = T_{biv}$	3.15	2.03
$P_{dh} T_j = TOL$ or $P_{dh} T_j = T_{designh}$ if $TOL < T_{designh}$	4.15 kW	3.48 kW
COP $T_j = TOL$ or COP $T_j = T_{designh}$ if $TOL < T_{designh}$	2.80	1.71
$C_{dh} T_j = TOL$ or $P_{dh} T_j = T_{designh}$ if $TOL < T_{designh}$	0.900	0.900
WTOL	58 °C	58 °C
P _{off}	13 W	10 W
PTO	31 W	31 W
PSB	13 W	10 W
PCK	44 W	44 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	0.00 kW	1.08 kW
Annual energy consumption Q _{he}	1865 kWh	2770 kWh