

Subtype BoxAir Inverter BA45IS-1

Certificate Holder	Master Therm tepelna cerpadla s.r.o.
Address	Vaclavske namesti 819/43
ZIP	110 00
City	Praha
Country	CZ
Certification Body	SZU - Strojirensky zkusebni ustav (Engineering Test Institute, Public Enterprise)
Subtype title	BoxAir Inverter BA45IS-1
Registration number	037-0071-21
Heat Pump Type	Outdoor Air/Water
Refrigerant	R410A
Mass of Refrigerant	4.7 kg
Certification Date	26.01.2021
Testing basis	HP Keymark scheme rules rev. no. 7

Model BoxAir Inverter BA45IS-1

Model name	BoxAir Inverter BA45IS-1
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	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 indoor	48 dB(A)	48 dB(A)
Sound power level outdoor	62 dB(A)	62 dB(A)

EN 14825 | Average Climate

	Low temperature	Medium temperature
η_s	176 %	136 %
Prated	13.37 kW	12.05 kW
SCOP	4.46	3.48
Tbiv	-7 °C	-7 °C
TOL	-10 °C	-10 °C
Pdh Tj = -7°C	11.83 kW	10.66 kW
COP Tj = -7°C	2.77	2.10
Cdh Tj = -7 °C	0.90	0.90
Pdh Tj = +2°C	7.91 kW	6.82 kW
COP Tj = +2°C	4.17	3.28
Cdh Tj = +2 °C	0.90	0.90
Pdh Tj = +7°C	4.88 kW	4.38 kW
COP Tj = +7°C	6.44	5.00
Cdh Tj = +7 °C	0.90	0.90
Pdh Tj = 12°C	5.73 kW	4.83 kW
COP Tj = 12°C	7.93	6.13
Cdh Tj = +12 °C	0.97	0.98
Pdh Tj = Tbiv	11.83 kW	10.66 kW

COP $T_j = T_{biv}$	2.77	2.10
$P_{dh} T_j = TOL$ or $P_{dh} T_j = T_{designh}$ if $TOL < T_{designh}$	10.96 kW	9.57 kW
COP $T_j = TOL$ or COP $T_j = T_{designh}$ if $TOL < T_{designh}$	2.32	1.77
WTOL	60 °C	60 °C
P _{off}	19 W	19 W
PTO	19 W	19 W
PSB	19 W	19 W
PCK	0 W	0 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	2.42 kW	2.48 kW
Annual energy consumption Q _{he}	6190 kWh	7160 kWh