

## Subtype HPM-Nd2 series 12kW

Certificate Holder	Qingdao Economic & Technology Development Zone Haier Water Heater Co., Ltd.
Address	Haier Industry Park Qingdao Economic & Technology District
ZIP	
City	Shandong
Country	CN
Certification Body	DIN CERTCO Gesellschaft für Konformitätsbewertung mbH
Subtype title	HPM-Nd2 series 12kW
Registration number	011-1W0700
Heat Pump Type	Outdoor Air/Water
Refrigerant	R290
Mass of Refrigerant	1.35 kg
Certification Date	06.10.2023
Testing basis	HP KEYMARK certification scheme rules V12

## Model HPM12-Nd2

Model name	HPM12-Nd2
Application	Heating (medium temp)
Units	Outdoor
Climate zone (for heating)	n/a
Reversibility	Yes
Cooling mode application (optional)	+7°C/12°C, +18°C/+23°C
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 outdoor	68 dB(A)	68 dB(A)

### EN 14825 | Average Climate

	Low temperature	Medium temperature
$\eta_s$	193 %	151 %
Prated	12.00 kW	12.00 kW
SCOP	4.90	3.85
Tbiv	-10 °C	-10 °C
TOL	-10 °C	-10 °C
Pdh Tj = -7°C	10.87 kW	10.90 kW
COP Tj = -7°C	3.15	2.42
Cdh Tj = -7 °C	0.900	0.900
Pdh Tj = +2°C	6.78 kW	6.71 kW
COP Tj = +2°C	4.92	3.86
Cdh Tj = +2 °C	0.900	0.900
Pdh Tj = +7°C	4.31 kW	4.45 kW
COP Tj = +7°C	6.80	5.16
Cdh Tj = +7 °C	0.900	0.900
Pdh Tj = 12°C	4.55 kW	4.42 kW
COP Tj = 12°C	8.40	6.80
Cdh Tj = +12 °C	0.900	0.900
Pdh Tj = Tbiv	12.08 kW	12.38 kW
COP Tj = Tbiv	2.76	2.12

Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	12.08 kW	12.38 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.76	2.12
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	0.900	0.900
WTOL	75 °C	75 °C
Poff	10 W	10 W
PTO	40 W	40 W
PSB	10 W	10 W
PCK	18 W	18 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	0.00 kW	0.00 kW
Annual energy consumption Qhe	4931 kWh	6499 kWh