

## Subtype Air to Water Heat Pump- R290- 90

Certificate Holder	Guangdong New Energy Technology Co., Ltd.
Address	NO.125, Chuangyou Road
ZIP	511340
City	Guangdong
Country	CN
Certification Body	BRE Global Limited
Subtype title	Air to Water Heat Pump- R290- 90
Registration number	041-K054-05
Heat Pump Type	Outdoor Air/Water
Refrigerant	R290
Mass of Refrigerant	0.78 kg
Certification Date	28.11.2024
Testing basis	Heat Pump KEYMARK certification Scheme rules v12
Testing laboratory	TÜV SÜD Certification and Testing Co., Ltd. Guangzhou Branch, CN

## Model NE-F90HCR5INVM

Model name	NE-F90HCR5INVM
Application	Heating (medium temp)
Units	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 14511-2 | Heating

	Low temperature	Medium temperature
Heat output	8.71 kW	7.95 kW
El input	1.86 kW	2.49 kW
COP	4.69	3.20

### EN 12102-1 | Average Climate

	Low temperature	Medium temperature
Sound power level outdoor	63 dB(A)	64 dB(A)

### EN 14825 | Average Climate

	Low temperature	Medium temperature
$\eta_s$	191 %	144 %
Prated	6.16 kW	5.85 kW
SCOP	4.84	3.67
Tbiv	-7 °C	-7 °C
TOL	-25 °C	-25 °C
Pdh Tj = -7°C	5.45 kW	5.18 kW
COP Tj = -7°C	2.99	2.33
Cdh Tj = -7 °C	0.900	0.900
Pdh Tj = +2°C	3.39 kW	3.17 kW
COP Tj = +2°C	4.69	3.54
Cdh Tj = +2 °C	0.900	0.900
Pdh Tj = +7°C	2.53 kW	2.35 kW

COP Tj = +7°C	6.95	4.91
Cdh Tj = +7 °C	0.900	0.900
Pdh Tj = 12°C	2.87 kW	2.80 kW
COP Tj = 12°C	9.99	7.38
Cdh Tj = +12 °C	0.900	0.900
Pdh Tj = Tbiv	5.45 kW	5.18 kW
COP Tj = Tbiv	2.99	2.33
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	4.02 kW	5.16 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.23	2.09
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	0.900	0.900
WTOL	74 °C	74 °C
Poff	10 W	10 W
PTO	14 W	14 W
PSB	10 W	10 W
PCK	45 W	45 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	2.14 kW	0.70 kW
Annual energy consumption Qhe	2627 kWh	3296 kWh

## Model NE-F90HCR5TINVM

Model name	NE-F90HCR5TINVM
Application	Heating (medium temp)
Units	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 14511-2 | Heating

	Low temperature	Medium temperature
Heat output	8.50 kW	7.91 kW
El input	1.94 kW	2.59 kW
COP	4.39	3.05

### EN 12102-1 | Average Climate

	Low temperature	Medium temperature
Sound power level outdoor	63 dB(A)	64 dB(A)

### EN 14825 | Average Climate

	Low temperature	Medium temperature
$\eta_s$	188 %	138 %
Prated	6.30 kW	5.78 kW
SCOP	4.78	3.51
Tbiv	-7 °C	-7 °C
TOL	-25 °C	-25 °C
Pdh Tj = -7°C	5.57 kW	5.11 kW
COP Tj = -7°C	3.02	2.18
Cdh Tj = -7 °C	0.900	0.900
Pdh Tj = +2°C	3.40 kW	3.15 kW
COP Tj = +2°C	4.58	3.44
Cdh Tj = +2 °C	0.900	0.900
Pdh Tj = +7°C	2.44 kW	2.23 kW

COP Tj = +7°C	6.67	4.62
Cdh Tj = +7 °C	0.900	0.900
Pdh Tj = 12°C	2.72 kW	2.64 kW
COP Tj = 12°C	8.56	6.79
Cdh Tj = +12 °C	0.900	0.900
Pdh Tj = Tbiv	5.57 kW	5.11 kW
COP Tj = Tbiv	3.02	2.18
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	5.54 kW	5.07 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.77	2.01
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	13 W	12 W
PSB	10 W	10 W
PCK	45 W	45 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	0.76 kW	0.71 kW
Annual energy consumption Qhe	2726 kWh	3400 kWh