

## Subtype Heat pump-R290 KS-160\*

Certificate Holder	GZ AXEN Heat Pump Technology Co., Ltd.
Address	No.22, Lianyun Erheng Road, Shiqi Village, Shiqi Town, Panyu District
ZIP	511450
City	Guangzhou
Country	CN
Certification Body	DIN CERTCO Gesellschaft für Konformitätsbewertung mbH
Subtype title	Heat pump-R290 KS-160*
Registration number	011-1W0795
Heat Pump Type	Outdoor Air/Water
Refrigerant	R290
Mass of Refrigerant	1.65 kg
Certification Date	13.06.2024
Testing basis	European KEYMARK Scheme for Heat Pumps Rev. 14 (as of 2024-04)

## Model KS-160W/EN7BP

Model name	KS-160W/EN7BP
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	16.10 kW	15.90 kW
El input	3.39 kW	5.60 kW
COP	4.75	2.84

### EN 12102-1 | Average Climate

	Low temperature	Medium temperature
Sound power level outdoor	62 dB(A)	63 dB(A)

### EN 14825 | Average Climate

	Low temperature	Medium temperature
$\eta_s$	181 %	133 %
Prated	14.90 kW	14.00 kW
SCOP	4.63	3.40
Tbiv	-7 °C	-7 °C
TOL	-10 °C	-10 °C
Pdh Tj = -7°C	13.24 kW	12.39 kW
COP Tj = -7°C	2.42	1.82
Cdh Tj = -7 °C	0.990	0.990
Pdh Tj = +2°C	8.09 kW	7.70 kW
COP Tj = +2°C	4.59	3.39
Cdh Tj = +2 °C	0.990	0.990
Pdh Tj = +7°C	5.71 kW	5.18 kW

COP Tj = +7°C	6.32	4.73
Cdh Tj = +7 °C	0.990	0.990
Pdh Tj = 12°C	4.52 kW	3.49 kW
COP Tj = 12°C	8.28	5.64
Cdh Tj = +12 °C	0.990	0.990
Pdh Tj = Tbiv	13.24 kW	12.39 kW
COP Tj = Tbiv	2.42	1.82
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	12.07 kW	11.78 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.22	1.90
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	0.990	0.990
WTOL	75 °C	75 °C
Poff	9 W	9 W
PTO	30 W	30 W
PSB	9 W	9 W
PCK	0 W	0 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	2.83 kW	2.22 kW
Annual energy consumption Qhe	6685 kWh	8519 kWh

## Model KS-160W/EN7SBP

Model name	KS-160W/EN7SBP
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	16.10 kW	15.90 kW
El input	3.39 kW	5.60 kW
COP	4.75	2.84

### EN 12102-1 | Average Climate

	Low temperature	Medium temperature
Sound power level outdoor	62 dB(A)	63 dB(A)

### EN 14825 | Average Climate

	Low temperature	Medium temperature
$\eta_s$	181 %	133 %
Prated	14.90 kW	14.00 kW
SCOP	4.63	3.40
Tbiv	-7 °C	-7 °C
TOL	-10 °C	-10 °C
Pdh Tj = -7°C	13.24 kW	12.39 kW
COP Tj = -7°C	2.42	1.82
Cdh Tj = -7 °C	0.990	0.990
Pdh Tj = +2°C	8.09 kW	7.70 kW
COP Tj = +2°C	4.59	3.39
Cdh Tj = +2 °C	0.990	0.990
Pdh Tj = +7°C	5.71 kW	5.18 kW

COP Tj = +7°C	6.32	4.73
Cdh Tj = +7 °C	0.990	0.990
Pdh Tj = 12°C	4.52 kW	3.49 kW
COP Tj = 12°C	8.28	5.64
Cdh Tj = +12 °C	0.990	0.990
Pdh Tj = Tbiv	13.24 kW	12.39 kW
COP Tj = Tbiv	2.42	1.82
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	12.07 kW	11.78 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.22	1.90
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	0.990	0.990
WTOL	75 °C	75 °C
Poff	9 W	9 W
PTO	30 W	30 W
PSB	9 W	9 W
PCK	0 W	0 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	2.83 kW	2.22 kW
Annual energy consumption Qhe	6685 kWh	8519 kWh