

Product information

as required by the Regulation UE Nr 811/2013 i 813/2013

Product card (in accordance with the Regulation UE Nr 811/2013)

Heat pump, 35°C flow temperature

(a) Supplier's name or trademark	HKS Lazar			
(b) Supplier's model identifier	HTi 20/12			
(c) Seasonal space heating energy efficiency class (temperate climate), (*)	A++	Seasonal space heating energy efficiency class (temperate climate), (**)	A+++	
(d) Rated heat output, including rated heat output of all supplementary heaters (temperate climate)	12	kW		
(e) Seasonal space heating energy efficiency (temperate climate)	176,6	%		
(f) Annual energy consumption (temperate climate)	3627	kWh		
(g) The sound power level in the room	45	dB(A)		
(h) Special precautions to be taken during assembly, installation and maintenance	Before assembling and installing the device, read the supplied instruction manual			
(i) <i>Not applicable</i>				
(j) Rated heat output, including rated heat output of all supplementary heaters (cold climate)	-	kW		
Rated heat output, including rated heat output of all supplementary heaters (warm climate)	-	kW		
(k) Seasonal space heating energy efficiency (cold climate)	-	%		
Seasonal space heating energy efficiency (warm climate)	-	%		
(l) Annual energy consumption (cold climate)	-	kWh		
Annual energy consumption (warm climate)	-	kWh		
(m) Outdoor sound power level	45	dB(A)		

(when used at medium temperature

(when used at low temperature

Model	HTi 20/12
-------	-----------

Air-to-water heat pump	yes
Water / water heat pump	no
Brine / water heat pump	no

Low temperature heat pump	no
Equipped with a supplementary heater	no
Combination heater with heat pump	no

Parameter	Symbol	Value	Unit
Rated thermal power (*)	<i>Prated</i>	12	kW

Declared capacity for heating at part load, 20°C room temperature and outdoor temperature Tj

Tj = -7 °C	<i>Pdh</i>	6,97	kW
Tj = +2 °C	<i>Pdh</i>	4,34	kW
Tj = +7 °C	<i>Pdh</i>	3,68	kW
Tj = +12 °C	<i>Pdh</i>	4,08	kW
Tj = bivalent temperature	<i>Pdh</i>	6,97	kW
Tj = operating temperature limit	<i>Pdh</i>	7,60	kW
For air-to-water heat pumps: Tj = -15°C (if TOL < -20°C)	<i>Pdh</i>	-	kW
bivalent temperature	<i>Tbiv</i>	-7	°C
Cycling interval capacity for heating	<i>Pcyh</i>	-	kW
Loss factor (**)	<i>Cdh</i>	0,96	-

Power consumption in modes other than active			
Off mode	<i>Poff</i>	0,017	kW
Thermostat-off mode	<i>Pto</i>	0,017	kW
Standby power consumption	<i>Psb</i>	0,017	kW
In the crankcase heater off mode	<i>Pck</i>	0,000	kW

Other parameters			
Capacity control	Variable performance		
Indoor / outdoor sound power level	<i>LWA</i>	40/45	dB
Emission of nitrogen oxides	<i>NOx</i>	-	mg/ kWh

Parameter	Symbol	Value	Unit
Seasonal energy efficiency space heating	η_s	176,6	%

Declared efficiency index or primary energy consumption index at part load at 20 ° C room temperature and outdoor temperature Tj

Tj = -7 °C	<i>COPd</i>	2,6	-
Tj = +2 °C	<i>COPd</i>	4,5	-
Tj = +7 °C	<i>COPd</i>	6,26	-
Tj = +12 °C	<i>COPd</i>	6,58	-
Tj = bivalent temperature	<i>COPd</i>	2,6	-
Tj = operating temperature limit	<i>COPd</i>	2,33	-
For air-to-water heat pumps: Tj = -15°C (if TOL < -20°C)	<i>COPd</i>	-	-
For air-to-water heat pumps: Operating limit temperature	<i>TOL</i>	-10	°C
Cycle energy efficiency	<i>COPcyc</i>	-	-
Operating limit temperature for water heating	<i>WTOL</i>	62	°C

Additional heater			
Rated thermal power (*)	<i>Psup</i>	0,28	kW
Type of energy consumed	electricity		

For air-to-water heat pumps: Rated air flow, outside	-	5000	m³/h
For brine / water heat pumps Nominal brine or water flow, external heat exchanger	-	-	m³/h

Contact details HKS Lazar Sp. z o. o Jastrzębie-Zdrój 44-335 ul. Wodzisławska 15B

Special precautions to be taken during assembly, installation or maintenance of the heater; Relevant information regarding disassembly, recycling and / or disposal at end-of-life

Before any assembly, installation or maintenance, carefully read the operating and assembly instructions and follow the indications contained therein

- (For heat pump space heaters and heat pump combination heaters, the rated heat output P_{rated} equals the design load for heating $P_{designh}$ and the rated heat output of the supplementary heater P_{sup} equals the additional heat output for heating $sup (T_j)$.
- (If C_{dh} has not been determined by measurement, the loss factor defaults to $C_{dh} = 0.9$. Parameters are given for medium temperature applications, except for low temperature pumps. For low temperature heat pumps the parameters are given for low temperature applications. All parameters are given for temperate climate conditions.

Product information

as required by the Regulation UE Nr 811/2013 i 813/2013

Product card (in accordance with the Regulation UE Nr 811/2013)

Heat pump, 55°C flow temperature

(a) Supplier's name or trademark	HKS Lazar			
(b) Supplier's model identifier	HTi 20/12			
(c) Seasonal space heating energy efficiency class (temperate climate), (*)	A++	Seasonal space heating energy efficiency class (temperate climate), (**)	A+++	
(d) Rated heat output, including rated heat output of all supplementary heaters (temperate climate)	12	kW		
(e) Seasonal space heating energy efficiency (temperate climate)	129,4	%		
(f) Annual energy consumption (temperate climate)	3485	kWh		
(g) The sound power level in the room	45	dB(A)		
(h) Special precautions to be taken during assembly, installation and maintenance	Before assembling and installing the device, read the supplied instruction manual			
(i) <i>Not applicable</i>				
(j) Rated heat output, including rated heat output of all supplementary heaters (cold climate)	-	kW		
Rated heat output, including rated heat output of all supplementary heaters (warm climate)	-	kW		
(k) Seasonal space heating energy efficiency (cold climate)	-	%		
Seasonal space heating energy efficiency (warm climate)	-	%		
(l) Annual energy consumption (cold climate)	-	kWh		
Annual energy consumption (warm climate)	-	kWh		
(m) Outdoor sound power level	45	dB(A)		

(when used at medium temperature

(when used at low temperature

Model	HTi 20/12
-------	-----------

Air-to-water heat pump	yes
Water / water heat pump	no
Brine / water heat pump	no

Low temperature heat pump	no
Equipped with a supplementary heater	no
Combination heater with heat pump	no

Parameter	Symbol	Value	Unit
Rated thermal power (*)	<i>Prated</i>	12	kW

Declared capacity for heating at part load, 20°C room temperature and outdoor temperature Tj

Tj = -7 °C	<i>Pdh</i>	4,94	kW
Tj = +2 °C	<i>Pdh</i>	3,04	kW
Tj = +7 °C	<i>Pdh</i>	3,47	kW
Tj = +12 °C	<i>Pdh</i>	4,12	kW
Tj = bivalent temperature	<i>Pdh</i>	4,94	kW
Tj = operating temperature limit	<i>Pdh</i>	4,23	kW
For air-to-water heat pumps: Tj = -15°C (if TOL < -20°C)	<i>Pdh</i>	-	kW
bivalent temperature	<i>Tbiv</i>	-7	°C
Cycling interval capacity for heating	<i>Pcych</i>	-	kW
Loss factor (**)	<i>Cdh</i>	0,96	-

Power consumption in modes other than active

Off mode	<i>Poff</i>	0,017	kW
Thermostat-off mode	<i>Pto</i>	0,015	kW
Standby power consumption	<i>Psb</i>	0,015	kW
In the crankcase heater off mode	<i>Pck</i>	0,000	kW

Other parameters

Capacity control	Variable performance		
Indoor / outdoor sound power level	<i>LWA</i>	40/45	dB
Emission of nitrogen oxides	<i>NOx</i>	-	mg/ kWh

Parameter	Symbol	Value	Unit
Seasonal energy efficiency space heating	η_s	129,4	%

Declared efficiency index or primary energy consumption index at part load at 20 ° C room temperature and outdoor temperature Tj

Tj = -7 °C	<i>COPd</i>	2,08	-
Tj = +2 °C	<i>COPd</i>	3,23	-
Tj = +7 °C	<i>COPd</i>	4,52	-
Tj = +12 °C	<i>COPd</i>	5,98	-
Tj = bivalent temperature	<i>COPd</i>	2,08	-
Tj = operating temperature limit	<i>COPd</i>	1,8	-
For air-to-water heat pumps: Tj = -15°C (if TOL < -20°C)	<i>COPd</i>	-	-
For air-to-water heat pumps: Operating limit temperature	<i>TOL</i>	-10,0	°C
Cycle energy efficiency	<i>COPcyc</i>	-	-
Operating limit temperature for water heating	<i>WTOL</i>	62	°C

Additional heater

Rated thermal power (*)	<i>Psup</i>	1,36	kW
Type of energy consumed	electricity		

For air-to-water heat pumps: Rated air flow, outside	-	5000	m³/h
For brine / water heat pumps Nominal brine or water flow, external heat exchanger	-	-	m³/h

Contact details

HKS Lazar Sp. z o. o Jastrzębie-Zdrój 44-335 ul. Wodzisławska 15B

Special precautions to be taken during assembly, installation or maintenance of the heater; Relevant information regarding disassembly, recycling and / or disposal at end-of-life

Before any assembly, installation or maintenance, carefully read the operating and assembly instructions and follow the indications contained therein..

- (For heat pump space heaters and heat pump combination heaters, the rated heat output P_{rated} equals the design load for heating $P_{designh}$ and the rated heat output of the supplementary heater P_{sup} equals the additional heat output for heating $sup (T_j)$.
- (If C_{dh} has not been determined by measurement, the loss factor defaults to $C_{dh} = 0.9$. Parameters are given for medium temperature applications, except for low temperature pumps. For low temperature heat pumps the parameters are given for low temperature applications. All parameters are given for temperate climate conditions.