

Subtype MULTITHERMA 12 HD

Certificate Holder	IGLOO Sp. z o.o.
Address	Stary Wiśnicz 289
ZIP	32-720
City	Nowy Wiśnicz
Country	PL
Certification Body	SZU - Strojirensky zkusebni ustav (Engineering Test Institute, Public Enterprise)
Subtype title	MULTITHERMA 12 HD
Registration number	037-0187-24
Heat Pump Type	Outdoor Air/Water
Refrigerant	R290
Mass of Refrigerant	2 kg
Certification Date	10.12.2024
Testing basis	HP Keymark certification scheme rules rev. no.13

**Model MultiTherma 12 HD**

Model name	MultiTherma 12 HD
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	4.06 kW	3.55 kW
El input	0.79 kW	1.18 kW
COP	5.12	3.00

**EN 12102-1 | Average Climate**

	Low temperature	Medium temperature
Sound power level outdoor	52 dB(A)	53 dB(A)

**EN 14825 | Average Climate**

	Low temperature	Medium temperature
$\eta_s$	190 %	142 %
Prated	8.22 kW	7.49 kW
SCOP	4.83	3.63
Tbiv	-10 °C	-10 °C
TOL	-10 °C	-10 °C
Pdh Tj = -7°C	6.65 kW	6.59 kW
COP Tj = -7°C	3.15	2.23
Cdh Tj = -7 °C	0.900	0.900
Pdh Tj = +2°C	4.39 kW	3.86 kW
COP Tj = +2°C	4.61	3.48
Cdh Tj = +2 °C	0.900	0.900
Pdh Tj = +7°C	2.73 kW	2.57 kW

COP Tj = +7°C	6.47	4.93
Cdh Tj = +7 °C	0.900	0.900
Pdh Tj = 12°C	1.23 kW	1.19 kW
COP Tj = 12°C	7.24	6.02
Cdh Tj = +12 °C	0.900	0.900
Pdh Tj = Tbiv	8.22 kW	7.49 kW
COP Tj = Tbiv	2.58	1.71
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	8.22 kW	7.49 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.58	1.71
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	0.900	0.900
WTOL	70 °C	70 °C
Poff	23 W	23 W
PTO	22 W	22 W
PSB	23 W	23 W
PCK	0 W	0 W
Supplementary Heater: Type of energy input	n/a	n/a
Supplementary Heater: PSUP	0.00 kW	0.00 kW
Annual energy consumption Qhe	3514 kWh	4262 kWh

**Model MultiTherma 12 HD Cascade**

Model name	MultiTherma 12 HD Cascade
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	4.06 kW	3.55 kW
El input	0.79 kW	1.18 kW
COP	5.12	3.00

**EN 12102-1 | Average Climate**

	Low temperature	Medium temperature
Sound power level outdoor	52 dB(A)	53 dB(A)

**EN 14825 | Average Climate**

	Low temperature	Medium temperature
$\eta_s$	190 %	142 %
Prated	8.22 kW	7.49 kW
SCOP	4.83	3.63
Tbiv	-10 °C	-10 °C
TOL	-10 °C	-10 °C
Pdh Tj = -7°C	6.65 kW	6.59 kW
COP Tj = -7°C	3.15	2.23
Cdh Tj = -7 °C	0.900	0.900
Pdh Tj = +2°C	4.39 kW	3.86 kW
COP Tj = +2°C	4.61	3.48
Cdh Tj = +2 °C	0.900	0.900
Pdh Tj = +7°C	2.73 kW	2.57 kW

COP Tj = +7°C	6.47	4.93
Cdh Tj = +7 °C	0.900	0.900
Pdh Tj = 12°C	1.23 kW	1.19 kW
COP Tj = 12°C	7.24	6.02
Cdh Tj = +12 °C	0.900	0.900
Pdh Tj = Tbiv	8.22 kW	7.49 kW
COP Tj = Tbiv	2.58	1.71
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	8.22 kW	7.49 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.58	1.71
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	0.900	0.900
WTOL	70 °C	70 °C
Poff	23 W	23 W
PTO	22 W	22 W
PSB	23 W	23 W
PCK	0 W	0 W
Supplementary Heater: Type of energy input	n/a	n/a
Supplementary Heater: PSUP	0.00 kW	0.00 kW
Annual energy consumption Qhe	3514 kWh	4262 kWh

**Model MultiTherma 12 HD + ElectroBox**

Model name	MultiTherma 12 HD + ElectroBox
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 14511-2 | Heating**

	Low temperature	Medium temperature
Heat output	4.06 kW	3.55 kW
El input	0.79 kW	1.18 kW
COP	5.12	3.00

**EN 12102-1 | Average Climate**

	Low temperature	Medium temperature
Sound power level indoor	0 dB(A)	0 dB(A)
Sound power level outdoor	52 dB(A)	53 dB(A)

**EN 14825 | Average Climate**

	Low temperature	Medium temperature
$\eta_s$	190 %	142 %
Prated	8.22 kW	7.49 kW
SCOP	4.83	3.63
Tbiv	-10 °C	-10 °C
TOL	-10 °C	-10 °C
Pdh Tj = -7°C	6.65 kW	6.59 kW
COP Tj = -7°C	3.15	2.23
Cdh Tj = -7 °C	0.900	0.900
Pdh Tj = +2°C	4.39 kW	3.86 kW
COP Tj = +2°C	4.61	3.48
Cdh Tj = +2 °C	0.900	0.900

Pdh Tj = +7°C	2.73 kW	2.57 kW
COP Tj = +7°C	6.47	4.93
Cdh Tj = +7 °C	0.900	0.900
Pdh Tj = 12°C	1.23 kW	1.19 kW
COP Tj = 12°C	7.24	6.02
Cdh Tj = +12 °C	0.900	0.900
Pdh Tj = Tbiv	8.22 kW	7.49 kW
COP Tj = Tbiv	2.58	1.71
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	8.22 kW	7.49 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.58	1.71
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	0.900	0.900
WTOL	70 °C	70 °C
Poff	23 W	23 W
PTO	22 W	22 W
PSB	23 W	23 W
PCK	0 W	0 W
Supplementary Heater: Type of energy input	n/a	n/a
Supplementary Heater: PSUP	0.00 kW	0.00 kW
Annual energy consumption Qhe	3514 kWh	4262 kWh

**Model MultiTherma 12 HD Cascade + ElectroBox**

Model name	MultiTherma 12 HD Cascade + ElectroBox
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 14511-2 | Heating**

	Low temperature	Medium temperature
Heat output	4.06 kW	3.55 kW
El input	0.79 kW	1.18 kW
COP	5.12	3.00

**EN 12102-1 | Average Climate**

	Low temperature	Medium temperature
Sound power level indoor	0 dB(A)	0 dB(A)
Sound power level outdoor	52 dB(A)	53 dB(A)

**EN 14825 | Average Climate**

	Low temperature	Medium temperature
$\eta_s$	190 %	142 %
Prated	8.22 kW	7.49 kW
SCOP	4.83	3.63
Tbiv	-10 °C	-10 °C
TOL	-10 °C	-10 °C
Pdh Tj = -7°C	6.65 kW	6.59 kW
COP Tj = -7°C	3.15	2.23
Cdh Tj = -7 °C	0.900	0.900
Pdh Tj = +2°C	4.39 kW	3.86 kW
COP Tj = +2°C	4.61	3.48
Cdh Tj = +2 °C	0.900	0.900

Pdh Tj = +7°C	2.73 kW	2.57 kW
COP Tj = +7°C	6.47	4.93
Cdh Tj = +7 °C	0.900	0.900
Pdh Tj = 12°C	1.23 kW	1.19 kW
COP Tj = 12°C	7.24	6.02
Cdh Tj = +12 °C	0.900	0.900
Pdh Tj = Tbiv	8.22 kW	7.49 kW
COP Tj = Tbiv	2.58	1.71
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	8.22 kW	7.49 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.58	1.71
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	0.900	0.900
WTOL	70 °C	70 °C
Poff	23 W	23 W
PTO	22 W	22 W
PSB	23 W	23 W
PCK	0 W	0 W
Supplementary Heater: Type of energy input	n/a	n/a
Supplementary Heater: PSUP	0.00 kW	0.00 kW
Annual energy consumption Qhe	3514 kWh	4262 kWh

**Model MultiTherma 12 HD + MultiTherma BASIC 5-15**

Model name	MultiTherma 12 HD + MultiTherma BASIC 5-15
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 14511-2 | Heating**

	Low temperature	Medium temperature
Heat output	4.06 kW	3.55 kW
El input	0.82 kW	1.22 kW
COP	4.97	2.91

**EN 12102-1 | Average Climate**

	Low temperature	Medium temperature
Sound power level indoor	28 dB(A)	28 dB(A)
Sound power level outdoor	52 dB(A)	53 dB(A)

**EN 14825 | Average Climate**

	Low temperature	Medium temperature
$\eta_s$	184 %	137 %
Prated	8.22 kW	7.49 kW
SCOP	4.66	3.50
Tbiv	-10 °C	-10 °C
TOL	-10 °C	-10 °C
Pdh Tj = -7°C	6.65 kW	6.59 kW
COP Tj = -7°C	3.10	2.20
Cdh Tj = -7 °C	0.900	0.900
Pdh Tj = +2°C	4.39 kW	3.86 kW
COP Tj = +2°C	4.42	3.34
Cdh Tj = +2 °C	0.900	0.900

Pdh Tj = +7°C	2.73 kW	2.57 kW
COP Tj = +7°C	6.22	4.74
Cdh Tj = +7 °C	0.900	0.900
Pdh Tj = 12°C	1.23 kW	1.19 kW
COP Tj = 12°C	6.96	5.78
Cdh Tj = +12 °C	0.900	0.900
Pdh Tj = Tbiv	8.22 kW	7.49 kW
COP Tj = Tbiv	2.55	1.69
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	8.22 kW	7.49 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.55	1.69
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	0.900	0.900
WTOL	70 °C	70 °C
Poff	23 W	23 W
PTO	22 W	22 W
PSB	23 W	23 W
PCK	0 W	0 W
Supplementary Heater: Type of energy input	n/a	n/a
Supplementary Heater: PSUP	0.00 kW	0.00 kW
Annual energy consumption Qhe	3641 kWh	4418 kWh

**Model MultiTherma 12 HD Cascade + MultiTherma BASIC 5-15**

Model name	MultiTherma 12 HD Cascade + MultiTherma BASIC 5-15
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 14511-2 | Heating**

	Low temperature	Medium temperature
Heat output	4.06 kW	3.55 kW
El input	0.82 kW	1.22 kW
COP	4.97	2.91

**EN 12102-1 | Average Climate**

	Low temperature	Medium temperature
Sound power level indoor	28 dB(A)	28 dB(A)
Sound power level outdoor	52 dB(A)	53 dB(A)

**EN 14825 | Average Climate**

	Low temperature	Medium temperature
$\eta_s$	184 %	137 %
Prated	8.22 kW	7.49 kW
SCOP	4.66	3.50
Tbiv	-10 °C	-10 °C
TOL	-10 °C	-10 °C
Pdh Tj = -7°C	6.65 kW	6.59 kW
COP Tj = -7°C	3.10	2.20
Cdh Tj = -7 °C	0.900	0.900
Pdh Tj = +2°C	4.39 kW	3.86 kW
COP Tj = +2°C	4.42	3.34
Cdh Tj = +2 °C	0.900	0.900

Pdh Tj = +7°C	2.73 kW	2.57 kW
COP Tj = +7°C	6.22	4.74
Cdh Tj = +7 °C	0.900	0.900
Pdh Tj = 12°C	1.23 kW	1.19 kW
COP Tj = 12°C	6.96	5.78
Cdh Tj = +12 °C	0.900	0.900
Pdh Tj = Tbiv	8.22 kW	7.49 kW
COP Tj = Tbiv	2.55	1.69
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	8.22 kW	7.49 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.55	1.69
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	0.900	0.900
WTOL	70 °C	70 °C
Poff	23 W	23 W
PTO	22 W	22 W
PSB	23 W	23 W
PCK	0 W	0 W
Supplementary Heater: Type of energy input	n/a	n/a
Supplementary Heater: PSUP	0.00 kW	0.00 kW
Annual energy consumption Qhe	3641 kWh	4418 kWh

**Model MultiTherma 12 HD + MultiTherma PRO 5-15**

Model name	MultiTherma 12 HD + MultiTherma PRO 5-15
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 14511-2 | Heating**

	Low temperature	Medium temperature
Heat output	4.06 kW	3.55 kW
El input	0.84 kW	1.26 kW
COP	4.81	2.82

**EN 12102-1 | Average Climate**

	Low temperature	Medium temperature
Sound power level indoor	29 dB(A)	29 dB(A)
Sound power level outdoor	52 dB(A)	53 dB(A)

**EN 14825 | Average Climate**

	Low temperature	Medium temperature
$\eta_s$	178 %	133 %
Prated	8.22 kW	7.49 kW
SCOP	4.53	3.41
Tbiv	-10 °C	-10 °C
TOL	-10 °C	-10 °C
Pdh Tj = -7°C	6.65 kW	6.59 kW
COP Tj = -7°C	3.10	2.20
Cdh Tj = -7 °C	0.900	0.900
Pdh Tj = +2°C	4.39 kW	3.86 kW
COP Tj = +2°C	4.27	3.23
Cdh Tj = +2 °C	0.900	0.900

Pdh Tj = +7°C	2.73 kW	2.57 kW
COP Tj = +7°C	5.99	4.57
Cdh Tj = +7 °C	0.900	0.900
Pdh Tj = 12°C	1.23 kW	1.19 kW
COP Tj = 12°C	6.71	5.58
Cdh Tj = +12 °C	0.900	0.900
Pdh Tj = Tbiv	8.22 kW	7.49 kW
COP Tj = Tbiv	2.55	1.69
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	8.22 kW	7.49 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.55	1.69
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	0.900	0.900
WTOL	70 °C	70 °C
Poff	23 W	23 W
PTO	22 W	22 W
PSB	23 W	23 W
PCK	0 W	0 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	0.00 kW	0.00 kW
Annual energy consumption Qhe	3747 kWh	4541 kWh

**Model MultiTherma 12 HD Cascade + MultiTherma PRO 5-15**

Model name	MultiTherma 12 HD Cascade + MultiTherma PRO 5-15
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 14511-2 | Heating**

	Low temperature	Medium temperature
Heat output	4.06 kW	3.55 kW
El input	0.84 kW	1.26 kW
COP	4.81	2.82

**EN 12102-1 | Average Climate**

	Low temperature	Medium temperature
Sound power level indoor	29 dB(A)	29 dB(A)
Sound power level outdoor	52 dB(A)	53 dB(A)

**EN 14825 | Average Climate**

	Low temperature	Medium temperature
$\eta_s$	178 %	133 %
P <sub>rated</sub>	8.22 kW	7.49 kW
SCOP	4.53	3.41
T <sub>biv</sub>	-10 °C	-10 °C
T <sub>OL</sub>	-10 °C	-10 °C
P <sub>dh</sub> T <sub>j</sub> = -7°C	6.65 kW	6.59 kW
COP T <sub>j</sub> = -7°C	3.10	2.20
C <sub>dh</sub> T <sub>j</sub> = -7 °C	0.900	0.900
P <sub>dh</sub> T <sub>j</sub> = +2°C	4.39 kW	3.86 kW
COP T <sub>j</sub> = +2°C	4.27	3.23
C <sub>dh</sub> T <sub>j</sub> = +2 °C	0.900	0.900

Pdh Tj = +7°C	2.73 kW	2.57 kW
COP Tj = +7°C	5.99	4.57
Cdh Tj = +7 °C	0.900	0.900
Pdh Tj = 12°C	1.23 kW	1.19 kW
COP Tj = 12°C	6.71	5.58
Cdh Tj = +12 °C	0.900	0.900
Pdh Tj = Tbiv	8.22 kW	7.49 kW
COP Tj = Tbiv	2.55	1.69
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	8.22 kW	7.49 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.55	1.69
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	0.900	0.900
WTOL	70 °C	70 °C
Poff	23 W	23 W
PTO	22 W	22 W
PSB	23 W	23 W
PCK	0 W	0 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	0.00 kW	0.00 kW
Annual energy consumption Qhe	3747 kWh	4541 kWh