

## Subtype Buderus Logatherm WPS 22.2 HT

Certificate Holder	Bosch Thermotechnik GmbH (Buderus)
Address	Sophienstraße 30-32
ZIP	35576
City	Wetzlar
Country	DE
Certification Body	DIN CERTCO Gesellschaft für Konformitätsbewertung mbH
Subtype title	Buderus Logatherm WPS 22.2 HT
Registration number	011-1W0152
Heat Pump Type	Brine/Water
Refrigerant	R410A
Mass of Refrigerant	4.5 kg
Certification Date	09.10.2017

## Model Buderus Logatherm WPS 22.2 HT

Model name	Buderus Logatherm WPS 22.2 HT
Application	Heating (medium temp)
Units	Indoor
Climate zone (for heating)	n/a
Cooling mode application (optional)	n/a
Any additional heat sources	n/a

## General data

Power supply	3x400V 50Hz
Off-peak product	No

## Brine/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 indoor	56 dB(A)	56 dB(A)

### EN 14825 | Average Climate

	Low temperature	Medium temperature
$\eta_s$	198 %	153 %
Prated	22.9 kW	23.28 kW
SCOP	5.14	4.02
Tbiv	-10 °C	-10 °C
TOL	-10 °C	-10 °C
Pdh Tj = -7°C	20.26 kW	20.59 kW
COP Tj = -7°C	4.75	3.27
Cdh Tj = -7 °C	1.00	1.00
Pdh Tj = +2°C	11.78 kW	11.79 kW
COP Tj = +2°C	5.52	4.3
Cdh Tj = +2 °C	0.99	1.00
Pdh Tj = +7°C	11.76 kW	11.78 kW
COP Tj = +7°C	5.71	4.66
Cdh Tj = +7 °C	0.99	1.00
Pdh Tj = 12°C	11.75 kW	11.77 kW
COP Tj = 12°C	5.85	5.22
Cdh Tj = +12 °C	0.99	0.99
Pdh Tj = Tbiv	22.9 kW	23.28 kW
COP Tj = Tbiv	4.57	3.01

Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	22.90 kW	23.28 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	4.57	3.01
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	1.00	1.00
WTOL	68 °C	68 °C
Poff	11 W	11 W
PTO	11 W	11 W
PSB	11 W	11 W
PCK	0 W	0 W
Supplementary Heater: Type of energy input	n/a	n/a
Supplementary Heater: PSUP	0 kW	0 kW
Annual energy consumption Qhe	9208 kWh	11952 kWh

#### EN 12102-1 | Colder Climate

	Low temperature	Medium temperature
Sound power level indoor	56 dB(A)	56 dB(A)

#### EN 14825 | Colder Climate

	Low temperature	Medium temperature
$\eta_s$	212 %	163 %
Prated	18.00 kW	19.00 kW
SCOP	5.51	4.29
Tbiv	-22 °C	-22 °C
TOL	-22 °C	-22 °C
Pdh Tj = -7°C	11.78 kW	11.8 kW
COP Tj = -7°C	5.52	4.09
Cdh Tj = -7 °C	1.00	1.00
Pdh Tj = +2°C	11.77 kW	11.79 kW
COP Tj = +2°C	5.63	4.48
Cdh Tj = +2 °C	1.00	1.00
Pdh Tj = +7°C	11.75 kW	11.78 kW
COP Tj = +7°C	5.76	4.96
Cdh Tj = +7 °C	0.99	1.00
Pdh Tj = 12°C	11.76 kW	11.76 kW
COP Tj = 12°C	5.76	5.40
Cdh Tj = +12 °C	0.99	1.00
Pdh Tj = Tbiv	18 kW	19 kW
COP Tj = Tbiv	4.7	3.07
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	18 kW	19 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	4.7	3.07
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	1.00	1.00

WTOL	68 °C	68 °C
Poff	11 W	11 W
PTO	11 W	11 W
PSB	11 W	11 W
PCK	0 W	0 W
Supplementary Heater: Type of energy input	n/a	n/a
Supplementary Heater: PSUP	0.00 kW	0 kW
Annual energy consumption Q <sub>he</sub>	8056 kWh	10927 kWh
C <sub>dh</sub> T <sub>j</sub> = -15 °C	1.00	1.00

#### EN 12102-1 | Warmer Climate

	Low temperature	Medium temperature
Sound power level indoor	56 dB(A)	56 dB(A)

#### EN 14825 | Warmer Climate

	Low temperature	Medium temperature
η <sub>s</sub>	208 %	158 %
Prated	18.00 kW	18.00 kW
SCOP	5.39	4.15
T <sub>biv</sub>	2 °C	2 °C
TOL	2 °C	2 °C
P <sub>dh</sub> T <sub>j</sub> = +2°C	18.00 kW	18 kW
COP T <sub>j</sub> = +2°C	4.7	3.09
C <sub>dh</sub> T <sub>j</sub> = +2 °C	1.00	1.00
P <sub>dh</sub> T <sub>j</sub> = +7°C	11.79 kW	11.8 kW
COP T <sub>j</sub> = +7°C	5.39	3.88
C <sub>dh</sub> T <sub>j</sub> = +7 °C	1.00	1.00
P <sub>dh</sub> T <sub>j</sub> = 12°C	11.76 kW	11.78 kW
COP T <sub>j</sub> = 12°C	5.68	4.7
C <sub>dh</sub> T <sub>j</sub> = +12 °C	1.00	1.00
P <sub>dh</sub> T <sub>j</sub> = T <sub>biv</sub>	18 kW	18.00 kW
COP T <sub>j</sub> = T <sub>biv</sub>	4.7	3.09
P <sub>dh</sub> T <sub>j</sub> = TOL or P <sub>dh</sub> T <sub>j</sub> = T <sub>designh</sub> if TOL < T <sub>designh</sub>	18 kW	18 kW
COP T <sub>j</sub> = TOL or COP T <sub>j</sub> = T <sub>designh</sub> if TOL < T <sub>designh</sub>	4.7	3.09
C <sub>dh</sub> T <sub>j</sub> = TOL or P <sub>dh</sub> T <sub>j</sub> = T <sub>designh</sub> if TOL < T <sub>designh</sub>	1.00	1.00
WTOL	68 °C	68 °C
Poff	11 W	11 W
PTO	11 W	11 W
PSB	11 W	11 W
PCK	0 W	0 W
Supplementary Heater: Type of energy input	n/a	n/a
Supplementary Heater: PSUP	0.00 kW	0 kW

Annual energy consumption  $Q_{he}$ 

4459 kWh

5791 kWh

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