

## Subtype Buderus Logatherm WPS 10-1

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 10-1
Registration number	011-1W0182
Heat Pump Type	Brine/Water
Refrigerant	R410A
Mass of Refrigerant	2.4 kg
Certification Date	17.11.2017

## Model Buderus Logatherm WPS 10-1

Model name	Buderus Logatherm WPS 10-1
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	51 dB(A)	51 dB(A)

### EN 14825 | Average Climate

	Low temperature	Medium temperature
$\eta_s$	191 %	141 %
Prated	11 kW	11 kW
SCOP	4.97	3.72
Tbiv	-7 °C	-6 °C
TOL	-10 °C	-10 °C
Pdh Tj = -7°C	10.1 kW	9.46 kW
COP Tj = -7°C	4.72	3.14
Cdh Tj = -7 °C	1.00	1.00
Pdh Tj = +2°C	10.17 kW	9.69 kW
COP Tj = +2°C	4.96	3.71
Cdh Tj = +2 °C	1.00	1.00
Pdh Tj = +7°C	10.24 kW	9.84 kW
COP Tj = +7°C	5.21	4.11
Cdh Tj = +7 °C	1.00	1.00
Pdh Tj = 12°C	10.31 kW	9.98 kW
COP Tj = 12°C	5.49	4.55
Cdh Tj = +12 °C	1.00	1.00
Pdh Tj = Tbiv	10.1 kW	9.5 kW
COP Tj = Tbiv	4.72	3.22

Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	10.08 kW	9.37 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	4.63	2.93
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	1.00	1.00
WTOL	62 °C	62 °C
Poff	6 W	6 W
PTO	6 W	6 W
PSB	6 W	6 W
PCK	0 W	0 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	0.92 kW	1.63 kW
Annual energy consumption Qhe	4570 kWh	6110 kWh

#### EN 12102-1 | Colder Climate

	Low temperature	Medium temperature
Sound power level indoor	51 dB(A)	51 dB(A)

#### EN 14825 | Colder Climate

	Low temperature	Medium temperature
$\eta_s$	196 %	145 %
Prated	11.00 kW	11.00 kW
SCOP	5.09	3.81
Tbiv	-18 °C	-16 °C
TOL	-22 °C	-22 °C
Pdh Tj = -7°C	10.18 kW	9.65 kW
COP Tj = -7°C	5.01	3.59
Cdh Tj = -7 °C	1.00	1.00
Pdh Tj = +2°C	10.24 kW	9.81 kW
COP Tj = +2°C	5.23	4.03
Cdh Tj = +2 °C	1.00	1.00
Pdh Tj = +7°C	10.29 kW	9.94 kW
COP Tj = +7°C	5.41	4.41
Cdh Tj = +7 °C	1.00	1.00
Pdh Tj = 12°C	10.3 kW	10.04 kW
COP Tj = 12°C	5.45	4.72
Cdh Tj = +12 °C	1.00	1.00
Pdh Tj = Tbiv	10.11 kW	9.5 kW
COP Tj = Tbiv	4.76	3.23
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	10.08 kW	9.37 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	4.63	2.93
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	1.00	1.00

WTOL	62 °C	62 °C
Poff	6 W	6 W
PTO	6 W	6 W
PSB	6 W	6 W
PCK	0 W	0 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	0.92 kW	1.63 kW
Annual energy consumption Q <sub>he</sub>	5322 kWh	7111 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	51 dB(A)	51 dB(A)

#### EN 14825 | Warmer Climate

	Low temperature	Medium temperature
η <sub>s</sub>	192 %	141 %
Prated	11.00 kW	11.00 kW
SCOP	5.01	3.73
T <sub>biv</sub>	4 °C	4 °C
TOL	2 °C	2 °C
P <sub>dh</sub> T <sub>j</sub> = +2°C	10.08 kW	9.37 kW
COP T <sub>j</sub> = +2°C	4.63	2.93
C <sub>dh</sub> T <sub>j</sub> = +2 °C	1.00	1.00
P <sub>dh</sub> T <sub>j</sub> = +7°C	10.15 kW	9.59 kW
COP T <sub>j</sub> = +7°C	4.91	3.45
C <sub>dh</sub> T <sub>j</sub> = +7 °C	1.00	1.00
P <sub>dh</sub> T <sub>j</sub> = 12°C	10.26 kW	9.89 kW
COP T <sub>j</sub> = 12°C	5.30	4.25
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>	10.11 kW	9.48 kW
COP T <sub>j</sub> = T <sub>biv</sub>	4.77	3.19
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>	10.08 kW	9.37 kW
COP T <sub>j</sub> = TOL or COP T <sub>j</sub> = T <sub>designh</sub> if TOL < T <sub>designh</sub>	4.63	2.93
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	62 °C	62 °C
Poff	6 W	6 W
PTO	6 W	6 W
PSB	6 W	6 W
PCK	0 W	0 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	0.92 kW	1.63 kW

Annual energy consumption  $Q_{he}$ 

2935 kWh

3936 kWh

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