

## Subtype Tri-Thermal monobloc series 8 10 kW

Certificate Holder	GD TCL Intelligent Heating & Ventilating Equipment Co., Ltd.
Address	No. 7 Yuanlin Road,
ZIP	
City	Guangdong
Country	CN
Certification Body	BRE Global Limited
Subtype title	Tri-Thermal monobloc series 8 10 kW
Registration number	041-K051-04
Heat Pump Type	Outdoor Air/Water
Refrigerant	R32
Mass of Refrigerant	1.5 kg
Certification Date	29.08.2023
Testing basis	Heat Pump Keymark Scheme Rules Rev 12

## Model THMLd-8D/3HBp-A

Model name	THMLd-8D/3HBp-A
Application	Heating (medium temp)
Units	Outdoor
Climate zone (for heating)	Colder, Warmer, Warmer Climate, Colder Climate
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 12102-1 | Average Climate

	Low temperature	Medium temperature
Sound power level outdoor	60 dB(A)	60 dB(A)

### EN 14825 | Average Climate

	Low temperature	Medium temperature
$\eta_s$	200 %	136 %
Prated	8.00 kW	7.00 kW
SCOP	5.07	3.47
Tbiv	-7 °C	-7 °C
TOL	-10 °C	-10 °C
Pdh Tj = -7°C	7.10 kW	5.80 kW
COP Tj = -7°C	3.12	2.20
Cdh Tj = -7 °C	0.900	0.900
Pdh Tj = +2°C	4.70 kW	3.70 kW
COP Tj = +2°C	4.99	3.37
Cdh Tj = +2 °C	0.900	0.900
Pdh Tj = +7°C	3.00 kW	2.40 kW
COP Tj = +7°C	6.81	4.57
Cdh Tj = +7 °C	0.900	0.900
Pdh Tj = 12°C	1.70 kW	1.60 kW
COP Tj = 12°C	8.00	5.87
Cdh Tj = +12 °C	0.900	0.900
Pdh Tj = Tbiv	7.10 kW	5.80 kW
COP Tj = Tbiv	3.12	2.20

Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	6.50 kW	5.00 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.84	1.84
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	0.900	0.900
WTOL	65 °C	65 °C
Poff	14 W	14 W
PTO	24 W	24 W
PSB	14 W	14 W
PCK	0 W	0 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	1.50 kW	2.00 kW
Annual energy consumption Qhe	3276 kWh	3937 kWh

#### EN 12102-1 | Colder Climate

	Low temperature	Medium temperature
Sound power level outdoor	60 dB(A)	60 dB(A)

#### EN 14825 | Colder Climate

	Low temperature	Medium temperature
$\eta_s$	167 %	115 %
Prated	7.00 kW	6.00 kW
SCOP	4.26	2.96
Tbiv	-15 °C	-15 °C
TOL	-22 °C	-22 °C
Pdh Tj = -7°C	4.40 kW	3.80 kW
COP Tj = -7°C	3.59	2.48
Cdh Tj = -7 °C	0.900	0.900
Pdh Tj = +2°C	2.60 kW	2.20 kW
COP Tj = +2°C	5.30	3.59
Cdh Tj = +2 °C	0.900	0.900
Pdh Tj = +7°C	1.60 kW	1.40 kW
COP Tj = +7°C	5.98	4.08
Cdh Tj = +7 °C	0.900	0.900
Pdh Tj = 12°C	1.90 kW	1.50 kW
COP Tj = 12°C	8.42	6.01
Cdh Tj = +12 °C	0.900	0.900
Pdh Tj = Tbiv	5.70 kW	4.80 kW
COP Tj = Tbiv	2.61	1.87
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	4.00 kW	3.20 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	1.93	1.31
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	0.900	0.900

WTOL	65 °C	65 °C
Poff	14 W	14 W
PTO	24 W	24 W
PSB	14 W	14 W
PCK	0 W	0 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	3.00 kW	2.80 kW
Annual energy consumption Qhe	4044 kWh	4891 kWh
Pdh Tj = -15°C (if TOL	5.70	4.80
COP Tj = -15°C (if TOL	2.61	1.87
Cdh Tj = -15 °C	0.900	0.900

#### EN 12102-1 | Warmer Climate

	Low temperature	Medium temperature
Sound power level outdoor	60 dB(A)	60 dB(A)

#### EN 14825 | Warmer Climate

	Low temperature	Medium temperature
$\eta_s$	278 %	171 %
Prated	8.00 kW	8.00 kW
SCOP	7.02	4.35
Tbiv	7 °C	7 °C
TOL	2 °C	2 °C
Pdh Tj = +2°C	7.70 kW	7.40 kW
COP Tj = +2°C	3.82	2.52
Cdh Tj = +2 °C	0.900	0.900
Pdh Tj = +7°C	5.00 kW	4.90 kW
COP Tj = +7°C	6.12	3.60
Cdh Tj = +7 °C	0.900	0.900
Pdh Tj = 12°C	2.60 kW	2.20 kW
COP Tj = 12°C	9.15	5.80
Cdh Tj = +12 °C	0.900	0.900
Pdh Tj = Tbiv	5.00 kW	4.90 kW
COP Tj = Tbiv	6.12	3.60
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	7.70 kW	7.40 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	3.82	2.52
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	0.900	0.900
WTOL	65 °C	65 °C
Poff	14 W	14 W
PTO	24 W	24 W
PSB	14 W	14 W
PCK	0 W	0 W

Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	0.30 kW	0.60 kW
Annual energy consumption Q <sub>he</sub>	1492 kWh	2347 kWh

## Model THML-8D/HBp-A

Model name	THML-8D/HBp-A
Application	Heating (medium temp)
Units	Outdoor
Climate zone (for heating)	Colder, Warmer, Warmer Climate, Colder Climate
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 12102-1 | Average Climate

	Low temperature	Medium temperature
Sound power level outdoor	60 dB(A)	60 dB(A)

### EN 14825 | Average Climate

	Low temperature	Medium temperature
$\eta_s$	200 %	136 %
Prated	8.00 kW	7.00 kW
SCOP	5.07	3.47
Tbiv	-7 °C	-7 °C
TOL	-10 °C	-10 °C
Pdh Tj = -7°C	7.10 kW	5.80 kW
COP Tj = -7°C	3.12	2.20
Cdh Tj = -7 °C	0.900	0.900
Pdh Tj = +2°C	4.70 kW	3.70 kW
COP Tj = +2°C	4.99	3.37
Cdh Tj = +2 °C	0.900	0.900
Pdh Tj = +7°C	3.00 kW	2.40 kW
COP Tj = +7°C	6.81	4.57
Cdh Tj = +7 °C	0.900	0.900
Pdh Tj = 12°C	1.70 kW	1.60 kW
COP Tj = 12°C	8.00	5.87
Cdh Tj = +12 °C	0.900	0.900
Pdh Tj = Tbiv	7.10 kW	5.80 kW
COP Tj = Tbiv	3.12	2.20

Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	6.50 kW	5.00 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.84	1.84
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	0.900	0.900
WTOL	65 °C	65 °C
Poff	14 W	14 W
PTO	24 W	24 W
PSB	14 W	14 W
PCK	0 W	0 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	1.50 kW	2.00 kW
Annual energy consumption Qhe	3276 kWh	3937 kWh

#### EN 12102-1 | Colder Climate

	Low temperature	Medium temperature
Sound power level outdoor	60 dB(A)	60 dB(A)

#### EN 14825 | Colder Climate

	Low temperature	Medium temperature
$\eta_s$	167 %	115 %
Prated	7.00 kW	6.00 kW
SCOP	4.26	2.96
Tbiv	-15 °C	-15 °C
TOL	-22 °C	-22 °C
Pdh Tj = -7°C	4.40 kW	3.80 kW
COP Tj = -7°C	3.59	2.48
Cdh Tj = -7 °C	0.900	0.900
Pdh Tj = +2°C	2.60 kW	2.20 kW
COP Tj = +2°C	5.30	3.59
Cdh Tj = +2 °C	0.900	0.900
Pdh Tj = +7°C	1.60 kW	1.40 kW
COP Tj = +7°C	5.98	4.08
Cdh Tj = +7 °C	0.900	0.900
Pdh Tj = 12°C	1.90 kW	1.50 kW
COP Tj = 12°C	8.42	6.01
Cdh Tj = +12 °C	0.900	0.900
Pdh Tj = Tbiv	5.70 kW	4.80 kW
COP Tj = Tbiv	2.61	1.87
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	4.00 kW	3.20 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	1.93	1.31
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	0.900	0.900

WTOL	65 °C	65 °C
Poff	14 W	14 W
PTO	24 W	24 W
PSB	14 W	14 W
PCK	0 W	0 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	3.00 kW	2.80 kW
Annual energy consumption Qhe	4044 kWh	4891 kWh
Pdh Tj = -15°C (if TOL	5.70	4.80
COP Tj = -15°C (if TOL	2.61	1.87
Cdh Tj = -15 °C	0.900	0.900

#### EN 12102-1 | Warmer Climate

	Low temperature	Medium temperature
Sound power level outdoor	60 dB(A)	60 dB(A)

#### EN 14825 | Warmer Climate

	Low temperature	Medium temperature
$\eta_s$	278 %	171 %
Prated	8.00 kW	8.00 kW
SCOP	7.02	4.35
Tbiv	7 °C	7 °C
TOL	2 °C	2 °C
Pdh Tj = +2°C	7.70 kW	7.40 kW
COP Tj = +2°C	3.82	2.52
Cdh Tj = +2 °C	0.900	0.900
Pdh Tj = +7°C	5.00 kW	4.90 kW
COP Tj = +7°C	6.12	3.60
Cdh Tj = +7 °C	0.900	0.900
Pdh Tj = 12°C	2.60 kW	2.20 kW
COP Tj = 12°C	9.15	5.80
Cdh Tj = +12 °C	0.900	0.900
Pdh Tj = Tbiv	5.00 kW	4.90 kW
COP Tj = Tbiv	6.12	3.60
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	7.70 kW	7.40 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	3.82	2.52
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	0.900	0.900
WTOL	65 °C	65 °C
Poff	14 W	14 W
PTO	24 W	24 W
PSB	14 W	14 W
PCK	0 W	0 W

Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	0.30 kW	0.60 kW
Annual energy consumption Q <sub>he</sub>	1492 kWh	2347 kWh

## Model THMLd-10D/3HBp-A

Model name	THMLd-10D/3HBp-A
Application	Heating (medium temp)
Units	Outdoor
Climate zone (for heating)	Colder, Warmer, Warmer Climate, Colder Climate
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 12102-1 | Average Climate

	Low temperature	Medium temperature
Sound power level outdoor	61 dB(A)	61 dB(A)

### EN 14825 | Average Climate

	Low temperature	Medium temperature
$\eta_s$	199 %	138 %
Prated	9.00 kW	8.00 kW
SCOP	5.05	3.51
Tbiv	-7 °C	-7 °C
TOL	-10 °C	-10 °C
Pdh Tj = -7°C	8.00 kW	6.80 kW
COP Tj = -7°C	2.99	2.10
Cdh Tj = -7 °C	0.900	0.900
Pdh Tj = +2°C	5.00 kW	4.20 kW
COP Tj = +2°C	4.97	3.44
Cdh Tj = +2 °C	0.900	0.900
Pdh Tj = +7°C	3.10 kW	2.60 kW
COP Tj = +7°C	6.78	4.74
Cdh Tj = +7 °C	0.900	0.900
Pdh Tj = 12°C	2.00 kW	1.80 kW
COP Tj = 12°C	9.10	6.22
Cdh Tj = +12 °C	0.900	0.900
Pdh Tj = Tbiv	8.00 kW	6.80 kW
COP Tj = Tbiv	2.99	2.10

Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	7.30 kW	5.20 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.72	1.83
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	0.900	0.900
WTOL	65 °C	65 °C
Poff	14 W	14 W
PTO	24 W	24 W
PSB	14 W	14 W
PCK	0 W	0 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	1.70 kW	2.80 kW
Annual energy consumption Qhe	3702 kWh	4537 kWh

#### EN 12102-1 | Colder Climate

	Low temperature	Medium temperature
Sound power level outdoor	61 dB(A)	61 dB(A)

#### EN 14825 | Colder Climate

	Low temperature	Medium temperature
$\eta_s$	170 %	116 %
Prated	8.00 kW	7.00 kW
SCOP	4.33	2.98
Tbiv	-15 °C	-15 °C
TOL	-22 °C	-22 °C
Pdh Tj = -7°C	4.70 kW	4.10 kW
COP Tj = -7°C	3.50	2.53
Cdh Tj = -7 °C	0.900	0.900
Pdh Tj = +2°C	3.00 kW	2.60 kW
COP Tj = +2°C	5.51	3.51
Cdh Tj = +2 °C	0.900	0.900
Pdh Tj = +7°C	2.00 kW	1.70 kW
COP Tj = +7°C	6.63	4.52
Cdh Tj = +7 °C	0.900	0.900
Pdh Tj = 12°C	1.90 kW	1.70 kW
COP Tj = 12°C	8.58	6.51
Cdh Tj = +12 °C	0.900	0.900
Pdh Tj = Tbiv	6.30 kW	5.50 kW
COP Tj = Tbiv	2.56	1.92
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	4.60 kW	2.80 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	1.99	1.24
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	0.900	0.900

WTOL	65 °C	65 °C
Poff	14 W	14 W
PTO	24 W	24 W
PSB	14 W	14 W
PCK	0 W	0 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	3.40 kW	4.20 kW
Annual energy consumption Q <sub>he</sub>	4417 kWh	5613 kWh
P <sub>dh</sub> T <sub>j</sub> = -15°C (if TOL	6.30	5.50
COP T <sub>j</sub> = -15°C (if TOL	2.56	1.92
C <sub>dh</sub> T <sub>j</sub> = -15 °C	0.900	0.900

#### EN 12102-1 | Warmer Climate

	Low temperature	Medium temperature
Sound power level outdoor	61 dB(A)	61 dB(A)

#### EN 14825 | Warmer Climate

	Low temperature	Medium temperature
η <sub>s</sub>	268 %	179 %
Prated	9.00 kW	8.00 kW
SCOP	6.78	4.55
T <sub>biv</sub>	7 °C	7 °C
TOL	2 °C	2 °C
P <sub>dh</sub> T <sub>j</sub> = +2°C	8.40 kW	7.60 kW
COP T <sub>j</sub> = +2°C	3.67	2.27
C <sub>dh</sub> T <sub>j</sub> = +2 °C	0.900	0.900
P <sub>dh</sub> T <sub>j</sub> = +7°C	5.50 kW	5.20 kW
COP T <sub>j</sub> = +7°C	5.99	3.92
C <sub>dh</sub> T <sub>j</sub> = +7 °C	0.900	0.900
P <sub>dh</sub> T <sub>j</sub> = 12°C	2.40 kW	2.50 kW
COP T <sub>j</sub> = 12°C	8.73	6.17
C <sub>dh</sub> T <sub>j</sub> = +12 °C	0.900	0.900
P <sub>dh</sub> T <sub>j</sub> = T <sub>biv</sub>	5.50 kW	5.20 kW
COP T <sub>j</sub> = T <sub>biv</sub>	5.99	3.92
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>	8.40 kW	7.60 kW
COP T <sub>j</sub> = TOL or COP T <sub>j</sub> = T <sub>designh</sub> if TOL < T <sub>designh</sub>	3.67	2.27
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>	0.900	0.900
WTOL	65 °C	65 °C
Poff	14 W	14 W
PTO	24 W	24 W
PSB	14 W	14 W
PCK	0 W	0 W

Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	0.60 kW	0.40 kW
Annual energy consumption Q <sub>he</sub>	1694 kWh	2353 kWh

## Model THML-10D/HBp-A

Model name	THML-10D/HBp-A
Application	Heating (medium temp)
Units	Outdoor
Climate zone (for heating)	Colder, Warmer, Warmer Climate, Colder Climate
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 12102-1 | Average Climate

	Low temperature	Medium temperature
Sound power level outdoor	61 dB(A)	61 dB(A)

### EN 14825 | Average Climate

	Low temperature	Medium temperature
$\eta_s$	199 %	138 %
Prated	9.00 kW	8.00 kW
SCOP	5.05	3.51
Tbiv	-7 °C	-7 °C
TOL	-10 °C	-10 °C
Pdh Tj = -7°C	8.00 kW	6.80 kW
COP Tj = -7°C	2.99	2.10
Cdh Tj = -7 °C	0.900	0.900
Pdh Tj = +2°C	5.00 kW	4.20 kW
COP Tj = +2°C	4.97	3.44
Cdh Tj = +2 °C	0.900	0.900
Pdh Tj = +7°C	3.10 kW	2.60 kW
COP Tj = +7°C	6.78	4.74
Cdh Tj = +7 °C	0.900	0.900
Pdh Tj = 12°C	2.00 kW	1.80 kW
COP Tj = 12°C	9.10	6.22
Cdh Tj = +12 °C	0.900	0.900
Pdh Tj = Tbiv	8.00 kW	6.80 kW
COP Tj = Tbiv	2.99	2.10

Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	7.30 kW	5.20 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.72	1.83
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	0.900	0.900
WTOL	65 °C	65 °C
Poff	14 W	14 W
PTO	24 W	24 W
PSB	14 W	14 W
PCK	0 W	0 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	1.70 kW	2.80 kW
Annual energy consumption Qhe	3702 kWh	4537 kWh

#### EN 12102-1 | Colder Climate

	Low temperature	Medium temperature
Sound power level outdoor	61 dB(A)	61 dB(A)

#### EN 14825 | Colder Climate

	Low temperature	Medium temperature
ηs	170 %	116 %
Prated	8.00 kW	7.00 kW
SCOP	4.33	2.98
Tbiv	-15 °C	-15 °C
TOL	-22 °C	-22 °C
Pdh Tj = -7°C	4.70 kW	4.10 kW
COP Tj = -7°C	3.50	2.53
Cdh Tj = -7 °C	0.900	0.900
Pdh Tj = +2°C	3.00 kW	2.60 kW
COP Tj = +2°C	5.51	3.51
Cdh Tj = +2 °C	0.900	0.900
Pdh Tj = +7°C	2.00 kW	1.70 kW
COP Tj = +7°C	6.63	4.52
Cdh Tj = +7 °C	0.900	0.900
Pdh Tj = 12°C	1.90 kW	1.70 kW
COP Tj = 12°C	8.58	6.51
Cdh Tj = +12 °C	0.900	0.900
Pdh Tj = Tbiv	6.30 kW	5.50 kW
COP Tj = Tbiv	2.56	1.92
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	4.60 kW	2.80 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	1.99	1.24
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	0.900	0.900

WTOL	65 °C	65 °C
Poff	14 W	14 W
PTO	24 W	24 W
PSB	14 W	14 W
PCK	0 W	0 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	3.40 kW	4.20 kW
Annual energy consumption Q <sub>he</sub>	4417 kWh	5613 kWh
P <sub>dh</sub> T <sub>j</sub> = -15°C (if TOL	6.30	5.50
COP T <sub>j</sub> = -15°C (if TOL	2.56	1.92
C <sub>dh</sub> T <sub>j</sub> = -15 °C	0.900	0.900

#### EN 12102-1 | Warmer Climate

	Low temperature	Medium temperature
Sound power level outdoor	61 dB(A)	61 dB(A)

#### EN 14825 | Warmer Climate

	Low temperature	Medium temperature
η <sub>s</sub>	268 %	179 %
Prated	9.00 kW	8.00 kW
SCOP	6.78	4.55
T <sub>biv</sub>	7 °C	7 °C
TOL	2 °C	2 °C
P <sub>dh</sub> T <sub>j</sub> = +2°C	8.40 kW	7.60 kW
COP T <sub>j</sub> = +2°C	3.67	2.27
C <sub>dh</sub> T <sub>j</sub> = +2 °C	0.900	0.900
P <sub>dh</sub> T <sub>j</sub> = +7°C	5.50 kW	5.20 kW
COP T <sub>j</sub> = +7°C	5.99	3.92
C <sub>dh</sub> T <sub>j</sub> = +7 °C	0.900	0.900
P <sub>dh</sub> T <sub>j</sub> = 12°C	2.40 kW	2.50 kW
COP T <sub>j</sub> = 12°C	8.73	6.17
C <sub>dh</sub> T <sub>j</sub> = +12 °C	0.900	0.900
P <sub>dh</sub> T <sub>j</sub> = T <sub>biv</sub>	5.50 kW	5.20 kW
COP T <sub>j</sub> = T <sub>biv</sub>	5.99	3.92
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>	8.40 kW	7.60 kW
COP T <sub>j</sub> = TOL or COP T <sub>j</sub> = T <sub>designh</sub> if TOL < T <sub>designh</sub>	3.67	2.27
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>	0.900	0.900
WTOL	65 °C	65 °C
Poff	14 W	14 W
PTO	24 W	24 W
PSB	14 W	14 W
PCK	0 W	0 W

Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	0.60 kW	0.40 kW
Annual energy consumption Q <sub>he</sub>	1694 kWh	2353 kWh