

This information was generated by the HP KEYMARK database on 18 Mar 2022

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Summary of	Mega XL	Reg. No.	012-SC0833-18
Certificate Holder			
Name	Thermia		
Address	Snickaregatan 1	Zip	
City	Arvika	Country	Sweden
Certification Body	RISE CERT		
Subtype title	Mega XL		
Heat Pump Type	Brine/Water and Water/Water		
Refrigerant	R410A		
Mass of Refrigerant	9 kg		
Certification Date	10.04.2019		

## Model: Thermia Mega XL 2020

Configure model	
Model name	Thermia Mega XL 2020
Application	Heating (medium temp)
Units	Indoor
Climate Zone	Colder Climate + Warmer Climate
Reversibility	No
Cooling mode application (optional)	n/a

General Data	
Power supply	3x400V 50Hz

Brine/Water Heat Pump

### Heating

EN 14511-4	
Operating range outdoor exchanger/indoor exchanger upper limit/upper limit	passed
Operating range outdoor exchanger/indoor exchanger lower limit/lower limit	passed
Shutting off the heat transfer medium flow	passed
Complete power supply failure	passed

EN 14511-2		
	Low temperature	Medium temperature
Heat output	52.18 kW	48.32 kW
El input	11.09 kW	17.02 kW
COP	4.71	2.84

### Average Climate

This information was generated by the HP KEYMARK database on 18 Mar 2022

### EN 12102-1

	Low temperature	Medium temperature
Sound power level indoor	50 dB(A)	50 dB(A)

### EN 14825

	Low temperature	Medium temperature
$\eta_s$	199 %	157 %
Prated	84.67 kW	79.00 kW
SCOP	5.17	4.13
Tbiv	-10 °C	-10 °C
TOL	-10 °C	-10 °C
Pdh Tj = -7°C	74.90 kW	69.88 kW
COP Tj = -7°C	4.26	3.00
Pdh Tj = +2°C	45.59 kW	42.54 kW
COP Tj = +2°C	5.14	4.08
Pdh Tj = +7°C	29.31 kW	27.35 kW
COP Tj = +7°C	5.81	4.94
Pdh Tj = 12°C	24.37 kW	24.08 kW
COP Tj = 12°C	5.65	5.16
Pdh Tj = Tbiv	84.67 kW	79.00 kW
COP Tj = Tbiv	3.97	2.72

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Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	84.67 kW	79.00 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	3.97	2.72
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	1.00	1.00
WTOL	65 °C	65 °C
Poff	9 W	9 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	0.00 kW
Annual energy consumption Qhe	33804 kWh	39457 kWh

## Warmer Climate

<b>EN 12102-1</b>		
	<b>Low temperature</b>	<b>Medium temperature</b>
Sound power level indoor	50 dB(A)	50 dB(A)

<b>EN 14825</b>		
	<b>Low temperature</b>	<b>Medium temperature</b>
$\eta_s$	202 %	160 %
Prated	84.67 kW	79.00 kW

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SCOP	5.25	4.21
Tbiv	2 °C	2 °C
TOL	2 °C	2 °C
Pdh Tj = +2°C	84.67 kW	79.00 kW
COP Tj = +2°C	3.97	2.72
Pdh Tj = +7°C	54.43 kW	50.79 kW
COP Tj = +7°C	4.85	3.60
Pdh Tj = 12°C	24.19 kW	24.07 kW
COP Tj = 12°C	5.85	5.16
Pdh Tj = Tbiv	84.67 kW	79.00 kW
COP Tj = Tbiv	3.97	2.72
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	84.67 kW	79.00 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	3.97	2.72
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	1.00	1.00
WTOL	65 °C	65 °C
Poff	9 W	9 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	0.00 kW

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Annual energy consumption $Q_{he}$	21524 kWh	23056 kWh
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## Colder Climate

<b>EN 12102-1</b>		
	<b>Low temperature</b>	<b>Medium temperature</b>
Sound power level indoor	50 dB(A)	50 dB(A)

<b>EN 14825</b>		
	<b>Low temperature</b>	<b>Medium temperature</b>
$\eta_s$	204 %	165 %
Prated	84.67 kW	79.00 kW
SCOP	5.30	4.32
Tbiv	-22 °C	-22 °C
TOL	-22 °C	-22 °C
Pdh Tj = -7°C	51.25 kW	48.52 kW
COP Tj = -7°C	5.06	3.85
Pdh Tj = +2°C	31.20 kW	29.11 kW
COP Tj = +2°C	5.81	4.83
Pdh Tj = +7°C	24.49 kW	24.11 kW
COP Tj = +7°C	5.85	5.20
Pdh Tj = 12°C	24.39 kW	24.22 kW

This information was generated by the HP KEYMARK database on 18 Mar 2022

COP Tj = 12°C	5.66	5.27
Pdh Tj = Tbiv	84.67 kW	79.00 kW
COP Tj = Tbiv	3.97	2.72
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	84.67 kW	79.00 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	3.97	2.72
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	1.00	1.00
WTOL	65 °C	65 °C
Poff	9 W	9 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	0.00 kW
Annual energy consumption Qhe	39378 kWh	45048 kWh

Water/Water Heat Pump

## Heating

<b>EN 14511-4</b>	
Operating range outdoor exchanger/indoor exchanger upper limit/upper limit	passed
Operating range outdoor exchanger/indoor exchanger lower limit/lower limit	passed
Shutting off the heat transfer medium flow	passed
Complete power supply failure	passed

<b>EN 14511-2</b>		
	<b>Low temperature</b>	<b>Medium temperature</b>
Heat output	69.37 kW	62.91 kW
El input	12.10 kW	16.47 kW
COP	5.73	3.82

## Average Climate

<b>EN 12102-1</b>		
	<b>Low temperature</b>	<b>Medium temperature</b>
Sound power level indoor	50 dB(A)	50 dB(A)

<b>EN 14825</b>		
	<b>Low temperature</b>	<b>Medium temperature</b>
$\eta_s$	277 %	210 %
Prated	66.39 kW	80.95 kW



This information was generated by the HP KEYMARK database on 18 Mar 2022

SCOP	7.12	5.40
Tbiv	-10 °C	-10 °C
TOL	-10 °C	-10 °C
Pdh Tj = -7°C	58.73 kW	71.61 kW
COP Tj = -7°C	6.01	4.08
Pdh Tj = +2°C	35.75 kW	43.59 kW
COP Tj = +2°C	7.29	5.37
Pdh Tj = +7°C	31.01 kW	28.02 kW
COP Tj = +7°C	7.49	6.28
Pdh Tj = 12°C	31.34 kW	31.22 kW
COP Tj = 12°C	7.74	6.48
Pdh Tj = Tbiv	66.39 kW	80.95 kW
COP Tj = Tbiv	5.65	3.71
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	66.39 kW	80.95 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	5.65	3.71
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	1.00	1.00
WTOL	65 °C	65 °C
Poff	9 W	9 W
PTO	11 W	11 W
PSB	11 W	11 W
PCK	0 W	0 W

This information was generated by the HP KEYMARK database on 18 Mar 2022

Supplementary Heater: Type of energy input	n/a	n/a
Supplementary Heater: PSUP	0.00 kW	0.00 kW
Annual energy consumption Q <sub>he</sub>	19268 kWh	30975 kWh

## Warmer Climate

<b>EN 12102-1</b>		
	<b>Low temperature</b>	<b>Medium temperature</b>
Sound power level indoor	50 dB(A)	50 dB(A)

<b>EN 14825</b>		
	<b>Low temperature</b>	<b>Medium temperature</b>
$\eta_s$	278 %	204 %
Prated	66.39 kW	80.95 kW
SCOP	7.16	5.29
T <sub>biv</sub>	2 °C	2 °C
TOL	2 °C	2 °C
P <sub>dh</sub> T <sub>j</sub> = +2°C	66.39 kW	80.95 kW
COP T <sub>j</sub> = +2°C	5.65	3.71
P <sub>dh</sub> T <sub>j</sub> = +7°C	42.68 kW	52.04 kW
COP T <sub>j</sub> = +7°C	7.02	4.65
P <sub>dh</sub> T <sub>j</sub> = 12°C	31.13 kW	31.03 kW

This information was generated by the HP KEYMARK database on 18 Mar 2022

COP Tj = 12°C	7.58	6.27
Pdh Tj = Tbiv	66.39 kW	80.95 kW
COP Tj = Tbiv	5.65	3.71
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	66.39 kW	80.95 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	5.65	3.71
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	1.00	1.00
WTOL	65 °C	65 °C
Poff	9 W	9 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	0.00 kW
Annual energy consumption Qhe	12392 kWh	20426 kWh

## Colder Climate

<b>EN 12102-1</b>		
	<b>Low temperature</b>	<b>Medium temperature</b>
Sound power level indoor	50 dB(A)	50 dB(A)

<b>EN 14825</b>
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This information was generated by the HP KEYMARK database on 18 Mar 2022

	<b>Low temperature</b>	<b>Medium temperature</b>
$\eta_s$	285 %	215 %
Prated	66.39 kW	80.95 kW
SCOP	7.32	5.57
Tbiv	-22 °C	-22 °C
TOL	-22 °C	-22 °C
Pdh Tj = -7°C	40.18 kW	49.00 kW
COP Tj = -7°C	7.28	5.06
Pdh Tj = +2°C	31.09 kW	29.83 kW
COP Tj = +2°C	7.55	6.11
Pdh Tj = +7°C	31.30 kW	31.18 kW
COP Tj = +7°C	7.70	6.43
Pdh Tj = 12°C	31.16 kW	31.37 kW
COP Tj = 12°C	7.60	6.66
Pdh Tj = Tbiv	66.39 kW	80.95 kW
COP Tj = Tbiv	5.65	3.71
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	66.39 kW	80.95 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	5.65	3.71
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	1.00	1.00
WTOL	65 °C	65 °C
Poff	9 W	9 W

This information was generated by the HP KEYMARK database on 18 Mar 2022

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	0.00 kW
Annual energy consumption Q <sub>he</sub>	22343 kWh	35849 kWh

## Model: Thermia Mega XL

Configure model	
Model name	Thermia Mega XL
Application	Heating (medium temp)
Units	Indoor
Climate Zone	Colder Climate + Warmer Climate
Reversibility	No
Cooling mode application (optional)	n/a

General Data	
Power supply	3x400V 50Hz

Brine/Water Heat Pump

### Heating

EN 14511-4	
Operating range outdoor exchanger/indoor exchanger upper limit/upper limit	passed
Operating range outdoor exchanger/indoor exchanger lower limit/lower limit	passed
Shutting off the heat transfer medium flow	passed
Complete power supply failure	passed

EN 14511-2		
	Low temperature	Medium temperature
Heat output	52.18 kW	48.32 kW
El input	11.09 kW	17.02 kW
COP	4.71	2.84

### Average Climate

### EN 12102-1

	Low temperature	Medium temperature
Sound power level indoor	50 dB(A)	50 dB(A)

### EN 14825

	Low temperature	Medium temperature
$\eta_s$	199 %	157 %
Prated	84.67 kW	79.00 kW
SCOP	5.17	4.13
Tbiv	-10 °C	-10 °C
TOL	-10 °C	-10 °C
Pdh Tj = -7°C	74.90 kW	69.88 kW
COP Tj = -7°C	4.26	3.00
Pdh Tj = +2°C	45.59 kW	42.54 kW
COP Tj = +2°C	5.14	4.08
Pdh Tj = +7°C	29.31 kW	27.35 kW
COP Tj = +7°C	5.81	4.94
Pdh Tj = 12°C	24.37 kW	24.08 kW
COP Tj = 12°C	5.65	5.16
Pdh Tj = Tbiv	84.67 kW	79.00 kW
COP Tj = Tbiv	3.97	2.72

This information was generated by the HP KEYMARK database on 18 Mar 2022

$P_{dh} T_j = TOL$ or $P_{dh} T_j = T_{designh}$ if $TOL < T_{designh}$	84.67 kW	79.00 kW
$COP T_j = TOL$ or $COP T_j = T_{designh}$ if $TOL < T_{designh}$	3.97	2.72
$C_{dh} T_j = TOL$ or $P_{dh} T_j = T_{designh}$ if $TOL < T_{designh}$	1.00	1.00
WTOL	65 °C	65 °C
Poff	9 W	9 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	0.00 kW
Annual energy consumption $Q_{he}$	33804 kWh	39457 kWh

## Warmer Climate

<b>EN 12102-1</b>		
	<b>Low temperature</b>	<b>Medium temperature</b>
Sound power level indoor	50 dB(A)	50 dB(A)

<b>EN 14825</b>		
	<b>Low temperature</b>	<b>Medium temperature</b>
$\eta_s$	202 %	160 %
Prated	84.67 kW	79.00 kW



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SCOP	5.25	4.21
Tbiv	2 °C	2 °C
TOL	2 °C	2 °C
Pdh Tj = +2°C	84.67 kW	79.00 kW
COP Tj = +2°C	3.97	2.72
Pdh Tj = +7°C	54.43 kW	50.79 kW
COP Tj = +7°C	4.85	3.60
Pdh Tj = 12°C	24.19 kW	24.07 kW
COP Tj = 12°C	5.85	5.16
Pdh Tj = Tbiv	84.67 kW	79.00 kW
COP Tj = Tbiv	3.97	2.72
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	84.67 kW	79.00 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	3.97	2.72
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	1.00	1.00
WTOL	65 °C	65 °C
Poff	9 W	9 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	0.00 kW

This information was generated by the HP KEYMARK database on 18 Mar 2022

Annual energy consumption $Q_{he}$	21524 kWh	23056 kWh
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## Colder Climate

<b>EN 12102-1</b>		
	<b>Low temperature</b>	<b>Medium temperature</b>
Sound power level indoor	50 dB(A)	50 dB(A)

<b>EN 14825</b>		
	<b>Low temperature</b>	<b>Medium temperature</b>
$\eta_s$	204 %	165 %
Prated	84.67 kW	79.00 kW
SCOP	5.30	4.32
Tbiv	-22 °C	-22 °C
TOL	-22 °C	-22 °C
Pdh Tj = -7°C	51.25 kW	48.52 kW
COP Tj = -7°C	5.06	3.85
Pdh Tj = +2°C	31.20 kW	29.11 kW
COP Tj = +2°C	5.81	4.83
Pdh Tj = +7°C	24.49 kW	24.11 kW
COP Tj = +7°C	5.85	5.20
Pdh Tj = 12°C	24.39 kW	24.22 kW

This information was generated by the HP KEYMARK database on 18 Mar 2022

COP Tj = 12°C	5.66	5.27
Pdh Tj = Tbiv	84.67 kW	79.00 kW
COP Tj = Tbiv	3.97	2.72
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	84.67 kW	79.00 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	3.97	2.72
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	1.00	1.00
WTOL	65 °C	65 °C
Poff	9 W	9 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	0.00 kW
Annual energy consumption Qhe	39378 kWh	45048 kWh

Water/Water Heat Pump

## Heating

<b>EN 14511-4</b>	
Operating range outdoor exchanger/indoor exchanger upper limit/upper limit	passed
Operating range outdoor exchanger/indoor exchanger lower limit/lower limit	passed
Shutting off the heat transfer medium flow	passed
Complete power supply failure	passed

<b>EN 14511-2</b>		
	<b>Low temperature</b>	<b>Medium temperature</b>
Heat output	69.37 kW	62.91 kW
El input	12.10 kW	16.47 kW
COP	5.73	3.82

## Average Climate

<b>EN 12102-1</b>		
	<b>Low temperature</b>	<b>Medium temperature</b>
Sound power level indoor	50 dB(A)	50 dB(A)

<b>EN 14825</b>		
	<b>Low temperature</b>	<b>Medium temperature</b>
$\eta_s$	277 %	210 %
Prated	66.39 kW	80.95 kW

This information was generated by the HP KEYMARK database on 18 Mar 2022

SCOP	7.12	5.40
Tbiv	-10 °C	-10 °C
TOL	-10 °C	-10 °C
Pdh Tj = -7°C	58.73 kW	71.61 kW
COP Tj = -7°C	6.01	4.08
Pdh Tj = +2°C	35.75 kW	43.59 kW
COP Tj = +2°C	7.29	5.37
Pdh Tj = +7°C	31.01 kW	28.02 kW
COP Tj = +7°C	7.49	6.28
Pdh Tj = 12°C	31.34 kW	31.22 kW
COP Tj = 12°C	7.74	6.48
Pdh Tj = Tbiv	66.39 kW	80.95 kW
COP Tj = Tbiv	5.65	3.71
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	66.39 kW	80.95 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	5.65	3.71
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	1.00	1.00
WTOL	65 °C	65 °C
Poff	9 W	9 W
PTO	11 W	11 W
PSB	11 W	11 W
PCK	0 W	0 W

This information was generated by the HP KEYMARK database on 18 Mar 2022

Supplementary Heater: Type of energy input	n/a	n/a
Supplementary Heater: PSUP	0.00 kW	0.00 kW
Annual energy consumption Q <sub>he</sub>	19268 kWh	30975 kWh

## Warmer Climate

<b>EN 12102-1</b>		
	<b>Low temperature</b>	<b>Medium temperature</b>
Sound power level indoor	50 dB(A)	50 dB(A)

<b>EN 14825</b>		
	<b>Low temperature</b>	<b>Medium temperature</b>
$\eta_s$	278 %	204 %
Prated	66.39 kW	80.95 kW
SCOP	7.16	5.29
T <sub>biv</sub>	2 °C	2 °C
TOL	2 °C	2 °C
P <sub>dh</sub> T <sub>j</sub> = +2°C	66.39 kW	80.95 kW
COP T <sub>j</sub> = +2°C	5.65	3.71
P <sub>dh</sub> T <sub>j</sub> = +7°C	42.68 kW	52.04 kW
COP T <sub>j</sub> = +7°C	7.02	4.65
P <sub>dh</sub> T <sub>j</sub> = 12°C	31.13 kW	31.03 kW

This information was generated by the HP KEYMARK database on 18 Mar 2022

COP Tj = 12°C	7.58	6.27
Pdh Tj = Tbiv	66.39 kW	80.95 kW
COP Tj = Tbiv	5.65	3.71
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	66.39 kW	80.95 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	5.65	3.71
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	1.00	1.00
WTOL	65 °C	65 °C
Poff	9 W	9 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	0.00 kW
Annual energy consumption Qhe	12392 kWh	20426 kWh

## Colder Climate

<b>EN 12102-1</b>		
	<b>Low temperature</b>	<b>Medium temperature</b>
Sound power level indoor	50 dB(A)	50 dB(A)

<b>EN 14825</b>
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This information was generated by the HP KEYMARK database on 18 Mar 2022

	<b>Low temperature</b>	<b>Medium temperature</b>
$\eta_s$	285 %	215 %
Prated	66.39 kW	80.95 kW
SCOP	7.32	5.57
Tbiv	-22 °C	-22 °C
TOL	-22 °C	-22 °C
Pdh Tj = -7°C	40.18 kW	49.00 kW
COP Tj = -7°C	7.28	5.06
Pdh Tj = +2°C	31.09 kW	29.83 kW
COP Tj = +2°C	7.55	6.11
Pdh Tj = +7°C	31.30 kW	31.18 kW
COP Tj = +7°C	7.70	6.43
Pdh Tj = 12°C	31.16 kW	31.37 kW
COP Tj = 12°C	7.60	6.66
Pdh Tj = Tbiv	66.39 kW	80.95 kW
COP Tj = Tbiv	5.65	3.71
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	66.39 kW	80.95 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	5.65	3.71
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	1.00	1.00
WTOL	65 °C	65 °C
Poff	9 W	9 W



This information was generated by the HP KEYMARK database on 18 Mar 2022

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	0.00 kW
Annual energy consumption Q <sub>he</sub>	22343 kWh	35849 kWh