

## Subtype S08L-M-CC

Certificate Holder	Heliotherm GmbH
Address	Sportplatzweg 18
ZIP	A-6336
City	Langkampfen
Country	AT
Certification Body	DIN CERTCO Gesellschaft für Konformitätsbewertung mbH
Subtype title	S08L-M-CC
Registration number	011-1W0477
Heat Pump Type	Outdoor Air/Water
Refrigerant	R410A
Mass of Refrigerant	4.9 kg
Certification Date	14.12.2017
Testing basis	HP KEYMARK certification scheme rules rev. 8

## Model HELIOTHERM - Luft/Wasserwärmepumpe modulierend Baureihe Sensor Comfort Compact

Model name	HELIOTHERM - Luft/Wasserwärmepumpe modulierend Baureihe Sensor Comfort Compact
Application	Heating (low temp)
Units	Outdoor
Climate zone (for heating)	Warmer Climate, Colder Climate
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 12102-1 | Average Climate

	Low temperature	Medium temperature
Sound power level outdoor	48 dB(A)	

#### EN 14825 | Average Climate

	Low temperature	Medium temperature
$\eta_s$	177 %	
Prated	10.00 kW	
SCOP	4.49	
Tbiv	-10 °C	
TOL	-10 °C	
Pdh Tj = -7°C	8.80 kW	
COP Tj = -7°C	2.70	
Cdh Tj = -7 °C	0.990	
Pdh Tj = +2°C	5.47 kW	
COP Tj = +2°C	4.55	
Cdh Tj = +2 °C	0.990	
Pdh Tj = +7°C	5.94 kW	
COP Tj = +7°C	5.65	
Cdh Tj = +7 °C	0.990	
Pdh Tj = 12°C	6.71 kW	
COP Tj = 12°C	7.03	
Cdh Tj = +12 °C	0.990	
Pdh Tj = Tbiv	10.15 kW	
COP Tj = Tbiv	2.20	

Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	10.15 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.20
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	0.990
WTOL	62 °C
Poff	1 W
PTO	7 W
PSB	7 W
PCK	6 W
Supplementary Heater: Type of energy input	Electricity
Supplementary Heater: PSUP	0.00 kW
Annual energy consumption Qhe	4600 kWh

#### EN 12102-1 | Colder Climate

	Low temperature	Medium temperature
Sound power level outdoor	48 dB(A)	

#### EN 14825 | Colder Climate

	Low temperature	Medium temperature
$\eta_s$	159 %	
Prated	10.00 kW	
SCOP	4.05	
Tbiv	-18 °C	
TOL	-22 °C	
Pdh Tj = -7°C	6.17 kW	
COP Tj = -7°C	3.65	
Cdh Tj = -7 °C	0.990	
Pdh Tj = +2°C	3.75 kW	
COP Tj = +2°C	4.81	
Cdh Tj = +2 °C	0.990	
Pdh Tj = +7°C	3.88 kW	
COP Tj = +7°C	5.32	
Cdh Tj = +7 °C	0.990	
Pdh Tj = 12°C	4.67 kW	
COP Tj = 12°C	6.36	
Cdh Tj = +12 °C	0.990	
Pdh Tj = Tbiv	8.87 kW	
COP Tj = Tbiv	2.12	
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	7.80 kW	
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	1.31	
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	0.990	

WTOL	62 °C
Poff	1 W
PTO	7 W
PSB	7 W
PCK	6 W
Supplementary Heater: Type of energy input	Electricity
Supplementary Heater: PSUP	2.20 kW
Annual energy consumption Q <sub>he</sub>	5185 kWh
P <sub>dh</sub> T <sub>j</sub> = -15°C (if TOL	8.18
COP T <sub>j</sub> = -15°C (if TOL	2.37
C <sub>dh</sub> T <sub>j</sub> = -15 °C	0.990

#### EN 12102-1 | Warmer Climate

	Low temperature	Medium temperature
Sound power level outdoor	48 dB(A)	

#### EN 14825 | Warmer Climate

	Low temperature	Medium temperature
η <sub>s</sub>	230 %	
Prated	10.00 kW	
SCOP	5.82	
T <sub>biv</sub>	2 °C	
TOL	2 °C	
P <sub>dh</sub> T <sub>j</sub> = +2°C	9.98 kW	
COP T <sub>j</sub> = +2°C	4.15	
C <sub>dh</sub> T <sub>j</sub> = +2 °C	0.990	
P <sub>dh</sub> T <sub>j</sub> = +7°C	6.42 kW	
COP T <sub>j</sub> = +7°C	5.68	
C <sub>dh</sub> T <sub>j</sub> = +7 °C	0.990	
P <sub>dh</sub> T <sub>j</sub> = 12°C	4.61 kW	
COP T <sub>j</sub> = 12°C	6.30	
C <sub>dh</sub> T <sub>j</sub> = +12 °C	0.990	
P <sub>dh</sub> T <sub>j</sub> = T <sub>biv</sub>	9.98 kW	
COP T <sub>j</sub> = T <sub>biv</sub>	4.15	
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>	9.98 kW	
COP T <sub>j</sub> = TOL or COP T <sub>j</sub> = T <sub>designh</sub> if TOL < T <sub>designh</sub>	4.15	
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>	0.990	
WTOL	62 °C	
Poff	1 W	
PTO	7 W	
PSB	7 W	
PCK	6 W	

Supplementary Heater: Type of energy input	Electricity
Supplementary Heater: PSUP	0.02 kW
Annual energy consumption Q <sub>he</sub>	2405 kWh