

Subtype S-Therm Ontario SMH-160

Certificate Holder	SINCLAIR Global Group s.r.o.
Address	Purkyňova 45
ZIP	61200
City	Brno
Country	CZ
Certification Body	BRE Global Limited
Subtype title	S-Therm Ontario SMH-160
Registration number	041-K037-16
Heat Pump Type	Outdoor Air/Water
Refrigerant	R32
Mass of Refrigerant	2.2 kg
Certification Date	28.02.2023
Testing basis	Heat Pump Keymark Scheme Rules Rev 11

Model SMH-160IRB2

Model name	SMH-160IRB2
Application	Heating + DHW
Units	Outdoor
Climate zone (for heating)	n/a
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 16147 | Average Climate

Declared load profile	XL
Efficiency η_{DHW}	110 %
COP	2.62
Heating up time	1:52 h:min
Standby power input	62.6 W
Reference hot water temperature	52.8 °C
Mixed water at 40°C	372 l

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 14511-2 | Heating

	Low temperature	Medium temperature
Heat output	16.71 kW	
El input	5.90 kW	
COP	2.83	

EN 12102-1 | Average Climate

	Low temperature	Medium temperature
Sound power level outdoor	72 dB(A)	

EN 14825 | Average Climate

	Low temperature	Medium temperature
η_s	126 %	
Prated	13.00 kW	
SCOP	3.24	

Tbiv	-7 °C
TOL	-10 °C
Pdh Tj = -7°C	11.98 kW
COP Tj = -7°C	2.05
Cdh Tj = -7 °C	0.98
Pdh Tj = +2°C	7.41 kW
COP Tj = +2°C	3.19
Cdh Tj = +2 °C	0.98
Pdh Tj = +7°C	5.70 kW
COP Tj = +7°C	4.18
Cdh Tj = +7 °C	0.98
Pdh Tj = 12°C	6.38 kW
COP Tj = 12°C	5.14
Cdh Tj = +12 °C	0.98
Pdh Tj = Tbiv	11.98 kW
COP Tj = Tbiv	2.05
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	10.41 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	1.78
WTOL	55 °C
Poff	18 W
PTO	18 W
PSB	18 W
PCK	0 W
Supplementary Heater: Type of energy input	Electricity
Supplementary Heater: PSUP	2.59 kW
Annual energy consumption Qhe	8292 kWh

Model SMH-160IRB2-3

Model name	SMH-160IRB2-3
Application	Heating + DHW
Units	Outdoor
Climate zone (for heating)	n/a
Reversibility	Yes
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 16147 | Average Climate

Declared load profile	XL
Efficiency η_{DHW}	110 %
COP	2.62
Heating up time	1:52 h:min
Standby power input	62.6 W
Reference hot water temperature	52.8 °C
Mixed water at 40°C	372 l

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 14511-2 | Heating

	Low temperature	Medium temperature
Heat output	16.71 kW	
El input	5.90 kW	
COP	2.83	

EN 12102-1 | Average Climate

	Low temperature	Medium temperature
Sound power level outdoor	72 dB(A)	

EN 14825 | Average Climate

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TOL	-10 °C
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COP Tj = -7°C	2.05
Cdh Tj = -7 °C	0.98
Pdh Tj = +2°C	7.41 kW
COP Tj = +2°C	3.19
Cdh Tj = +2 °C	0.98
Pdh Tj = +7°C	5.70 kW
COP Tj = +7°C	4.18
Cdh Tj = +7 °C	0.98
Pdh Tj = 12°C	6.38 kW
COP Tj = 12°C	5.14
Cdh Tj = +12 °C	0.98
Pdh Tj = Tbiv	11.98 kW
COP Tj = Tbiv	2.05
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	10.41 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	1.78
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Poff	18 W
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PSB	18 W
PCK	0 W
Supplementary Heater: Type of energy input	Electricity
Supplementary Heater: PSUP	2.59 kW
Annual energy consumption Qhe	8292 kWh