

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
Testing laboratory	TÜV SÜD Certification and Testing Co., Ltd. Guangzhou Branch, CN

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

	Low temperature	Medium temperature
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Prated	13.00 kW	

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Tbiv	-7 °C
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
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