



sendo
FEELING COOL

HEAT PUMPS *HERO* X



▶ WELCOME

FEELING COOL

here we are again!

identifying Sendo
by Michalis Gavriilopoulos

Sendo in Japanese means freshness, and that was our basic inspiration to start working on our dream. The challenge was one from the beginning: how to bring this freshness into your home and workplace. Today Sendo changes the quality of the air that we live in and breathe. Using innovative technology, Sendo's products offers you unique value solutions providing superior air quality to your everyday life.



 SENDO

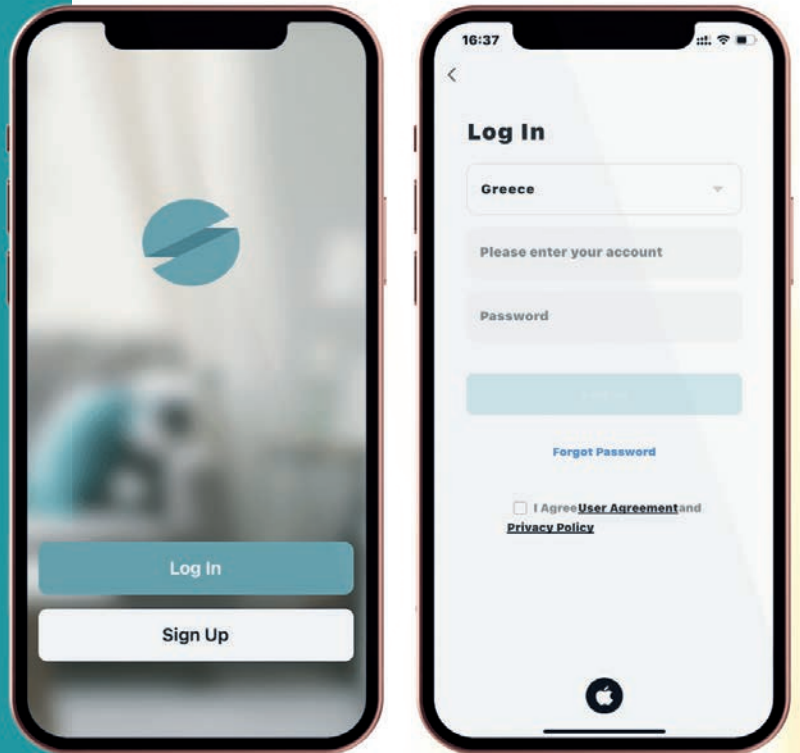
Sendo gives you quality in your life.

► SPECIAL FEATURES

SENDO SMART APP

Google assistant
& Alexa AC control

New Warranty
Activation Procedure:
Scan – insert serial
number – activate



With the new, updated Sendo Smart App, the home control of air conditioning is possible from anywhere. The application gives the advantage to control multiple devices, set a timer to start or stop your AC units and perform all actions a remote control can do. Easy to use and connect to all Sendo devices, this app is turning every space into a smart home. Download Sendo Smart App free from Google Play or App Store.



VOICE CONTROL



▶ BACKSTAGE

BRAND VALUES

answer to 5W

who
why
what
when
where

Sendo's "5W" have long been answered (1.who - 2.why - 3. what - 4.when - 5.where).

These 5 brand values are the values that preceded. They are the roots we have created to offer respect to you, the environment and the well-being you deserve! The tree is growing!



**PREMIUM
AIR QUALITY**



**WELLNESS &
HEALTHY LIVING**



**UNIQUE CUSTOMER
EXPERIENCE**



**INSPIRED
BY NATURE**



**PRODUCT
EFFICIENCY**



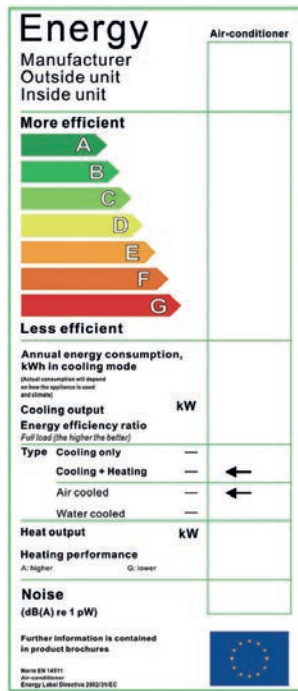
A world of solutions!



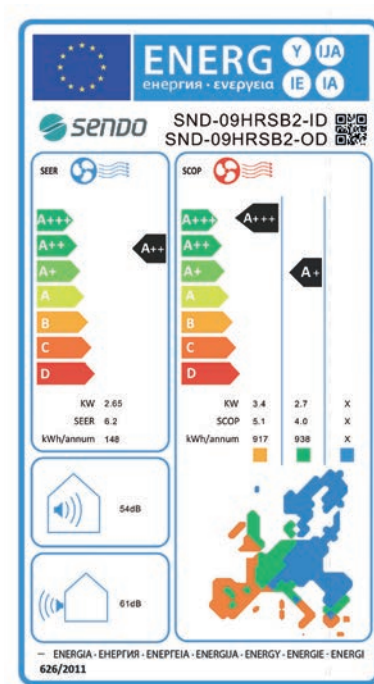
▶ ENERGY LABEL

ENERGY SAVING

Old label



New label



New Requirement for Energy Marking (EU) 626/2011

Three climatic zones for heating (The middle zone is necessary, while the hot and cold zones are optional).

Seasonal performance (performance based on multiple partial load calculations). Sound power level.

The nominal performance concerns only one nominal condition.

Seasonal performance concerns a whole heating and cooling period and indicates more accurately the actual operation.

ENERGY CLASSES

Energy Efficiency Class	SEER	SCOP
A+++	SEER \geq 8,50	SCOP \geq 5,10
A++	6,10 \leq SEER $<$ 8,50	4,60 \leq SCOP $<$ 5,10
A+	5,60 \leq SEER $<$ 6,10	4,00 \leq SCOP $<$ 4,60
A	5,10 \leq SEER $<$ 5,60	3,40 \leq SCOP $<$ 4,00
B	4,60 \leq SEER $<$ 5,10	3,10 \leq SCOP $<$ 3,40
C	4,10 \leq SEER $<$ 4,60	2,80 \leq SCOP $<$ 3,10
D	3,60 \leq SEER $<$ 4,10	2,50 \leq SCOP $<$ 2,80
E	3,10 \leq SEER $<$ 3,60	2,20 \leq SCOP $<$ 2,50
F	2,60 \leq SEER $<$ 3,10	1,90 \leq SCOP $<$ 2,20
G	SEER $<$ 2,60	SCOP $<$ 1,90

COMPARISON OF REFRIGERANT'S PROPERTIES:

	R22	R410A	R32
ODP	0,05	0	0
GWP	1700	2088	675
Toxicity	Non-toxic	Non-toxic	Non-toxic
Flammability	A1	A1	A2
Availability	High	High	High
C	1,0	0,8	0,56
[GWP] More enviroment friendly	[CHARGE VOLUME] Less refrigerant		



More eco-friendly

The global warming coefficient of the refrigerant R32 is equal to 1/3 of the R410A. Compared to the traditional R410A, the R32 is more environmentally friendly. It is a one-component refrigerant and is thus easier to manage and recycle.

Higher efficiency

Under the same conditions and operating frequency of the compressor, R32's cooling efficiency and energy efficiency is about 5% higher than R410A's. Therefore, R32 products are more energy efficient.

Smaller filling volume

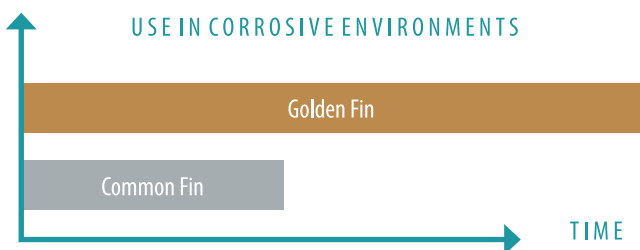
Compared to R410A and R22, refrigerant R32 requires a smaller filling volume.

The F-Gas European regulation (517/2014) has been in force since 1st January 2015 and will progressively cease the use of hydrofluorocarbons (HFCs) in future cooling and heating systems. Sendo already offers a new cooling and heating system that operates with R32 refrigerant, which will be the alternative to the R410A in the coming years.

► SPECIAL FEATURES

GOLDEN FIN

It withstands rain, sea air and other corrosive environments.



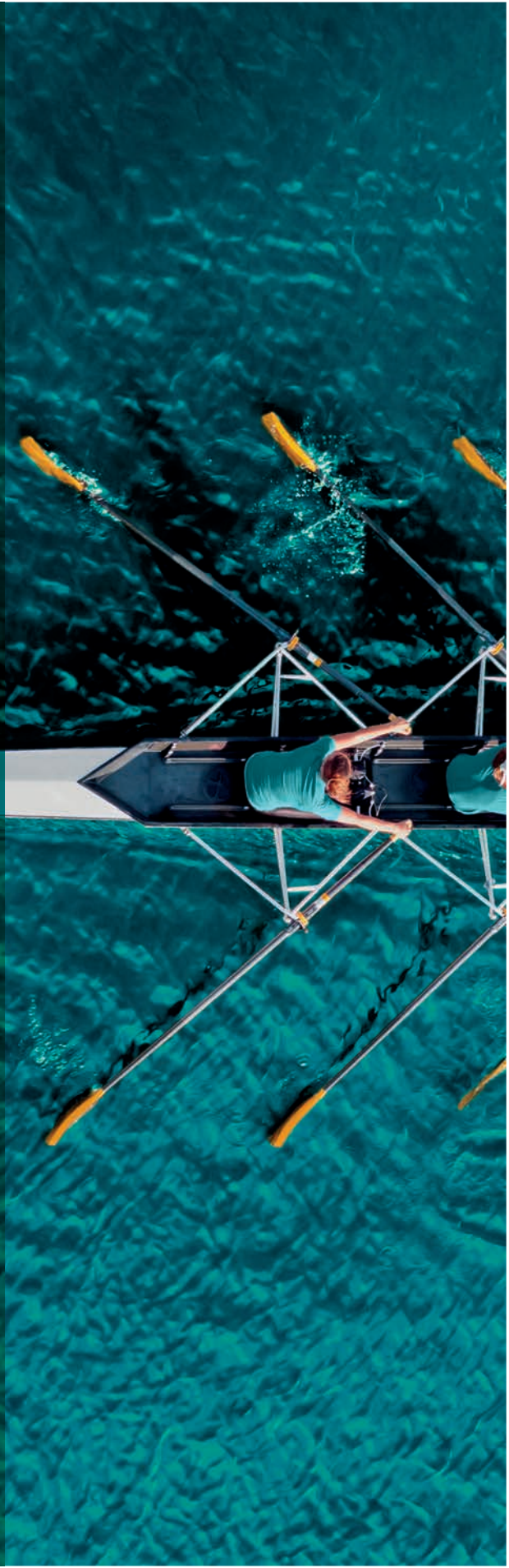


Function
mark icon

The golden hydrophilic fin can improve heating efficiency as it accelerates the process of defrosting. The unique anti-corrosion gold coating on the condenser can withstand rain, sea air and other corrosive environments.

▶ SPECIAL FEATURES

HIGH RESISTANCE DESIGN





**stable and reliable
operation at -25°C**

▶ SPECIAL FEATURES

ALMOST QUIET

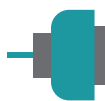


noise reduction technology

SENDO created super quiet running environment for its products



DC Inverter
circulation
water pump



Stepless DC
Inverter
fan motor



High quality
sound absorbing
material



High efficiency
hot refrigerant
gas silencer

▶ HEAT PUMPS

MONOBLOCK type

HERO - XR *pg. 20*

HERO - XS *pg. 24*

TECHNICAL DATA SHEET *pg. 28*

SMART TOUCH DISPLAY *pg. 30*



HEAT PUMPS

HERO X_R



INVERTER



R32



Wi-Fi

4.72
SCOP

A
+++

55°C



8KW – 23KW

Heating - Cooling & DHW



Integrated
circulator



gauge



Smart Touch
Display

ELEVATING
TO NEW
HEIGHTS



EFFICIENT

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data sheet
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HEAT PUMPS

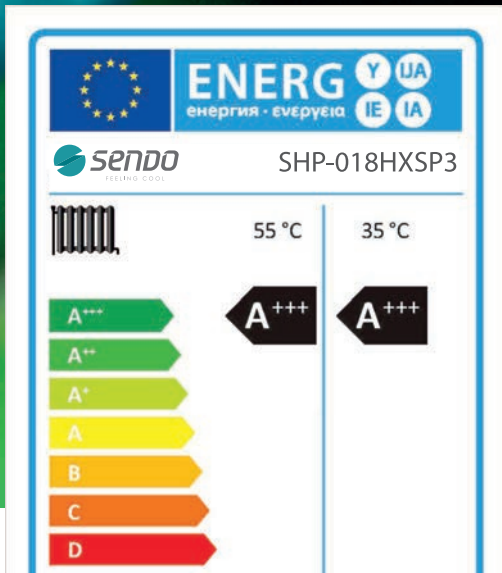
Environmental Refrigerant

R290

**R290 refrigerant
recognized as a refrigerant with
the most development potential
in the industry**



Super High Efficiency A+++



HERO XS Air to water heat pump is developed with the most cutting edge technology and design to meet the most high efficiency requirements performance and quietness HERO XS use R290 green gas and full inverter technology capable to meet the A+++ energy efficiency rating offering low energy consumption to the users

HEAT PUMPS

HERO X_S



8KW – 22KW

Heating - Cooling & DHW



Integrated circulator



gauge



Smart Touch Display


THE POWER
OF NATURE



PO WER

Table of technical
data sheet
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HEAT PUMPS



▶ TABLES
OF TECHNICAL
DATA
MONOBLOCK type





DC Inverter Heat Pump for cooling heating and DHW (R32)						
Model	SHP-08HXR P1	SHP-013HXR P1	SHP-018HXR P1	SHP-013HXR P3	SHP-018HXR P3	SHP-023HXR P3
Heating Condition - Ambient Temp. DB/WB) : 7/6°C, Water Temp. (In/Out) : 30/35°C						
Heating Capacity Range (kW)	1.57~8.40	4.40~13.00	5.9~18.2	4.40~13.00	5.9~18.2	7.5~23.0
Heating Power Input Range (kW)	0.37~1.97	0.95~3.12	1.28~4.26	0.95~3.12	1.28~4.26	1.61~5.38
COP Range	4.26~4.24	4.17~4.63	4.27~4.61	4.17~4.63	4.27~4.61	4.28~4.66
DHW Condition-Ambient Temp. (DB/WB) : 7/6°C, Water Temp. (In/Out) : 15/55°C						
Heating Capacity Range (kW)	1.28~6.81	3.52~10.50	4.80~14.72	3.52~10.50	4.80~14.72	6.1~18.5
Heating Power Input Range (kW)	0.36~2.23	0.93~3.49	1.25~4.75	0.93~3.49	1.25~4.75	1.61~6.12
COP Range	3.05~3.56	3.01~3.78	3.10~3.84	3.01~3.78	3.10~3.84	3.02~3.79
Cooling Condition - Ambient Temp. (DB/WB) :35/24°C, Water Temp. (In/Out) : 12/7°C						
Cooling Capacity Range (kW)	0.99~6.22	2.80~8.20	3.81~11.53	2.80~8.20	3.81~11.53	4.73~14.6
Cooling Power Input Range(kW)	0.34~2.28	0.90~3.41	1.19~4.20	0.90~3.41	1.19~4.20	1.47~5.29
EER Range	2.73~2.91	2.40~3.11	2.75~3.20	2.40~3.11	2.75~3.20	2.76~3.22
ErP Level (35°C)	A+++	A+++	A+++	A+++	A+++	A+++
ErP Level (55°C)	A++	A++	A++	A++	A++	A++
Power supply	230V/1Ph/50Hz/60Hz			380V/3Ph/50-60Hz		
Diameter of pipe (mm)	DN25	DN25	DN25	DN25	DN25	DN25
Water Flow(m3/h)	1,5	2,2	3,2	2,2	3,2	3,9
Water Pressure Drop (max) kPa	30	35	40	35	40	45
Water pump (m)	9	9	12	9	12	12
Noise dB(A)	≤53	≤55	≤57	≤55	≤57	≤58
Net Weight (kg)	105	115	160	115	160	165
Net Dimension (L/W/H) mm	970×475×820	1100×475×970	1050×480×1380	1100×475×970	1050×480×1380	1050×480×1380
Operation Ambient Temp (°C)	-30~43°C					
Operating water Temp. (°C)	20~55°C (DHW)					
Operating water Temp. (°C)	20~50°C (Heating)					
Operating water Temp. (°C)	7~35°C (Cooling)					

Specifications are subject to change without prior notification

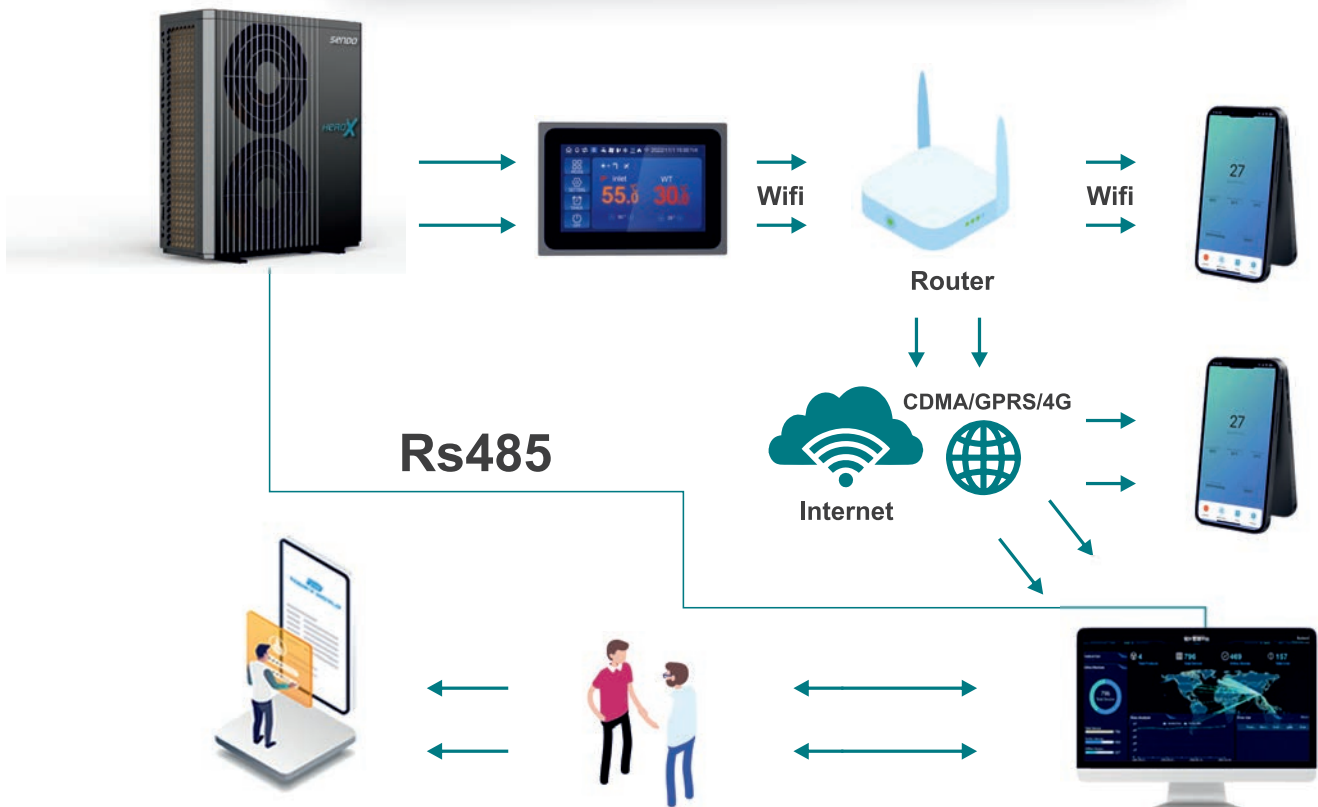


DC Inverter Heat Pump for cooling heating and DHW (R290)

Model	SHP-08HXSP1	SHP-011HXSP1	SHP-014HXSP1	SHP-014HXSP3	SHP-022HXSP3
Heating Condition - Ambient Temp. (DB/WB) : 7/6°C, Water Temp. (In/Out) : 30°C/35°C					
Heating Capacity Range (kW)	3.3~8.3	4.5~11.4	5.9~14.8	5.9~14.8	8.8~22.0
Heating Power Input Range (kW)	0.64~2.18	0.85~2.95	1.13~3.83	1.13~3.83	1.68~5.77
COP Range	3.81~5.17	3.86~5.29	3.86~5.22	3.86~5.22	3.81~5.24
DHW Condition-Ambient Temp. (DB/WB) : 7/6°C, Water Temp. (In/Out) : 15°C/55°C					
Heating Capacity Range (kW)	2.4~5.8	3.3~8.2	4.3~10.8	4.3~10.8	6.2~15.3
Heating Power Input Range. (kW)	0.79~2.19	1.08~3.07	1.39~3.99	1.39~3.99	1.99~5.60
COP Range	2.65~3.04	2.67~3.06	2.71~3.10	2.71~3.10	2.73~3.12
Cooling Condition - Ambient Temp. (DB/WB) : 12/7°C, Water Temp. (In/Out) : 35°C/24°C					
Cooling Capacity Range (kW)	2.4~5.8	3.3~8.2	4.3~10.8	4.3~10.8	6.2~15.3
Cooling Power Input Range(kW)	0.79~2.19	1.08~3.07	1.39~3.99	1.39~3.99	1.99~5.60
EER Range	2.65~3.04	2.67~3.06	2.71~3.10	2.71~3.10	2.73~3.12
ErP Level (35°C)	A+++	A+++	A+++	A+++	A+++
Refrigerant	R290	R290	R290	R290	R290
Power supply	230V/1Ph/50Hz/60Hz			380V/3Ph/50-60Hz	
Diameter of pipe (mm)	DN25	DN25	DN25	DN25	DN25
Water Flow(m3/h)	1,5	2,2	3,2	2,2	3,2
Water Pressure Drop (max) kPa	30	35	40	35	40
Water pump (m)	9	9	12	9	12
Noise dB(A)	≤47	≤50	≤52	≤50	≤52
Net Weight (kg)	106	115	160	115	160
Net Dimension (L/W/H) mm	1080×460×820	1080×460×960	1080×480×1060	1080×480×1060	1080×480×1372
Operation Ambient Temp (°C)	-25~43°C				
Operating water Temp (°C)	20~65°C (DHW)				
Operating water Temp. (°C)	20~70°C (Heating)				
Operating water Temp. (°C)	7~35°C (Cooling)				

Specifications are subject to change without prior notification

▶ SMART TOUCH DISPLAY & SENDO Smart App Control





01. ON/OFF
Air conditioner activation
& deactivation.



02. MODE
Operating mode
selection.



03. TIMER
Start / end
timer.



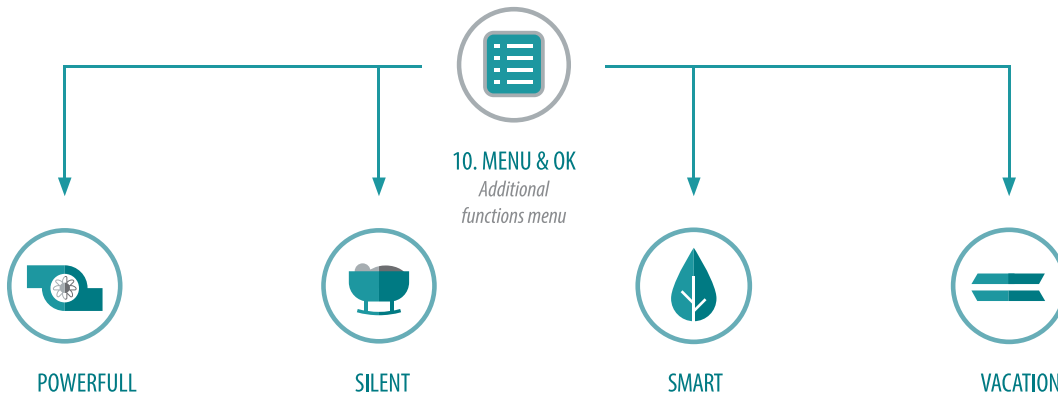
07. HEAT
Heating mode
selection.



08. COOL
Cooling mode
selection.



09. DHW
Temperature
adjustment.





The products characteristics described in the list may change without prior notice in our effort for continuous improvement.
The company has no responsibility for any typographical errors.

www.sendo.world