

FIRST-RATE
ENERGY EFFICIENCY FOR YOUR HOME

# GROUND SOURCE HEAT PUMPS FROM SCANDINAVIA





#### **OUR STORY FROM THE NORTH**

This is Finland – the land of cold, dark, and snowy winters.

When the winter comes, we can say goodbye to the light and the warmth of the sun. And yet, life must, and does, go on.

The harsh winter conditions in these parts have taught us to use reliable, energy-efficient solutions for heating our homes.

Furthermore, we have deep respect for the nature surrounding us; we cherish the clean, fresh air we breathe and the stillness of our forests.

To preserve our shared home, we have developed heating solutions that utilize renewable energy sources instead of traditional fossil fuels.

We can proudly claim that our high-quality heating systems are already part of the solution for the challenges of climate change.

**OILON GROUP** 

Founded in 1961, Oilon is a Finnish family-owned energy and environmental technology company with global presence.

We specialize in environmental technology with a strong focus on product development. The key areas of our product development include improving energy efficiency, lowering emission levels, and developing solutions that utilize renewable energy sources.

Our products are used in power plants, waste management facilities, marine boiler systems, district heating plants, heating, cooling, and refrigeration solutions for large buildings, and heating systems used in private homes. We make our products locally in Finland, Russia, the United States, and China. We serve customers around the world.



## SOLUTIONS FOR HEAT PRODUCTION, COOLING, AND DOMESTIC HOT WATER HEATING

Our extensive range of high-quality geothermal heating solutions serves both the housing and the industrial sector.

We offer an extensive range of heat pumps for single-family homes, terraced houses, apartment buildings, public buildings, and industrial locations.

#### **BENEFITS**

Our ground source heat pumps offer many benefits over traditional heating systems:

#### HIGH ENERGY EFFICIENCY WITH LOW OPERATING COSTS

Being very efficient, our heat pump systems have low operating costs. Replacing or upgrading an existing heating system with a ground source heat pump will reduce operating costs by up to 75 per cent, which means that your investment will pay itself back in a couple of years.

#### AN ENVIRONMENTALLY FRIENDLY SOLUTION

Ground source heat pumps utilize renewable energy sources instead of fossil fuels. By utilizing geothermal heat, you can minimize your impact on the climate.

#### **ENJOY THE PEACE AND QUIET**

Our heat pumps make less noise than a dishwasher. Making the system as quiet as possible has been a priority in our product design.

#### MODERN DESIGN FROM SCANDINAVIA

Our heat pumps feature a straightforward, functional yet elegant Scandinavian design that works well in any interior setting.

#### **RELIABILITY**

As an owner of an Oilon or Lämpöässä heat pump, you will be entitled to professional support from our local dealer and our factory's customer support.

#### THE RIGHT SOLUTION FOR YOU

With Oilon Selection Tool, you can pick a heat pump that is best suited for your needs. Our factory representative and our dealers will also help you with selecting the right unit for your home.

#### **CUBE Inverter+**

#### Innovation in energy efficiency

Weather has a great impact on how much heating is required.

#### MODERN INVERTER

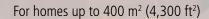
Thanks to the latest Inverter+ technology, Oilon CUBE Inverter+ adapts flexibly to your heating needs. When less heating is required, the system doesn't produce any excess heat, saving both energy and the environment.

#### **TOP QUALITY FROM SCANDINAVIA**

Oilon CUBE Inverter+ provides both domestic hot water and heating for your home. Thanks to its durable, nearly 200-liter stainless steel water tank, there is plenty of hot water to go around.

#### **SMART**

CUBE Inverter+ features a range of Smart Grid (SG) functions. These functions can be used to improve your home's energy efficiency even further. For example, you can set the heat pump to turn on the heating only at night, when electricity is cheaper.





High domestic hot water production



High domestic hot water temperature



Quiet operation

Online/mobile control







#### **ALWAYS WITH YOU**

Using a CUBE Inverter+ heat pump is effortless; you can install a mobile app on your phone to monitor and control your unit. The HomeControl IC app is available for both iOS and Android operating systems.



### BRINGING CONVENIENCE AND SUSTAINABILITY TO A NEW LEVEL

Choose a ground source heat pump that will take care of the heating for you economically. Now everyone in the household can manage your home's heating easily anyplace — also with a smartphone app. The system has lots of settings for accurate optimization and maximum savings. BOOST and AWAY modes are also available at a swipe of a finger.



#### **SUPERHEAT TECHNOLOGY**

AND MONITOR

system online.

Thanks to superheat technology, VSi has by far the highest domestic hot water output in its class. The unit has a built-in superheat tank with two sections (230 l total), maximizing the benefits of the technology.

ÄssäControl systems have a touch screen with function shortcuts, making it easy to control your heat pump. Thanks to LAN and WLAN connectivity, you can even control and monitor your

#### ÄSSÄ CONTROL



ÄssäControl is a control solution that allows users to remotely manage their entire geothermal energy system, including heating, cooling, and domestic hot water production. Thanks to its touch screen and versatile function shortcuts, an ÄssäControl control panel is very easy to use.

#### **VMi**

## First-rate domestic hot water production with superheat technology

VMi is a high-capacity solution especially suited as the main heating system for both new and renovated residential buildings and holiday homes, including apartment-specific heating in terraced houses or semi-detached houses. VMi is the best option for locations with a large floor area and very high domestic hot water usage.

Thanks to superheat technology, Lämpöässä VMi is able to provide both heating and cooling for living spaces as well as domestic hot water conveniently and sustainably all year round. The unit has the largest (430-l) built-in DHW tank in the market, guaranteeing that here is always plenty of hot water available.

VMi products have all the necessary fittings and heating circuits built in, making for a neat and tidy package after installation.

#### MANAGE YOUR HEAT PUMP WITH ÄSSÄ-CONTROL

ÄssäControl systems have a touch screen with function shortcuts, making it easy to control your heat pump. Thanks to LAN and WLAN connectivity, you can even control and monitor your system online. VMi heat pumps come with cooling and solar collector connections built in.

For homes up to 500 m<sup>2</sup> (5,400 ft2)

First-rate domestic hot water production with superheat technology



Geothermal cooling

Online control



Built-in installation fittings and accessories



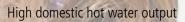


#### ÄSSÄ CONTROL



ÄssäControl is a control solution that allows users to remotely manage their entire geothermal energy system, including heating, cooling, and domestic hot water production. Thanks to its touch screen and versatile function shortcuts, an ÄssäControl control panel is very easy to use.

Especially for older, renovated buildings



Hybrid heating as an option



Online/mobile control







Quiet operation



#### **ECO Inverter+**

#### Environmentally friendly energy efficiency in a small package

Thanks to the latest Inverter+ technology, Oilon ECO Inverter+ will adapt flexibly to your heating needs. When less heating is required, the system doesn't produce any excess heat, saving both energy and the environment.

#### OUR SMALLEST INVERTER

Oilon ECO Inverter+ is an excellent option for older buildings with a higher-than-average demand for heating water. When combined with a buffer tank or a domestic hot water tank, ECO Inverter+ becomes a first-rate heating solution.

#### SMART CONTROL

Oilon ECO Inverter+ features a range of Smart Grid (SG) functions. These functions can be used to improve your home's energy efficiency even further. For example, you can set the heat pump to turn on the heating only at night, when electricity is at its cheapest.





#### **ALWAYS WITH YOU**

Oilon ECO Inverter+ heat pumps have a separate control panel, making them very simple and easy to use. You can even control and monitor the unit with your mobile phone. The HomeControl IC app is available for both iOS and Android operating systems.

## **ECO**Flexible, compact, and powerful

ECO's small exterior hides a serious little powerhouse. When combined with an external storage tank, ECO is a high-quality yet economical basic solution. ECO is easy to connect to an existing system, such as a wood-fired boiler, an oil heating system, or an electric storage heater.

#### **HIDDEN TECHNOLOGY**

Thanks to its small size, ECO can be easily installed in almost any building. The unit is easy to transport and move anywhere and it blends in well with utility room cabinets, for example.

**EASY-TO-USE EasyAce SMART CONTROL** 

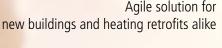
With decades of experience of the challenging heating conditions in Scandinavia, our experts have created a new, effortless way of managing heating to ensure maximum savings in heating costs. This makes heating

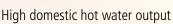
- Easier
- More economical
- Smarter

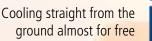
Wireless touch screen included in the delivery!

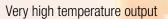


**NEW!** 











Wi-Fi control



Built-in switchboard



Quiet operation



Wireless touch screen included

callon





### BRINGING CONVENIENCE AND SUSTAINABILITY TO A NEW LEVEL

Choose a ground source heat pump that will take care of the heating for you economically. Now everyone in the household can manage your home's heating easily anyplace — also with a smartphone app. The system has lots of settings for accurate optimization and maximum savings. BOOST and AWAY modes are also available at a swipe of a finger.



#### **ESi**

#### Compact and flexible

E series heat pumps were designed for demanding use in buildings ranging from private homes to industrial buildings.

ESi heat pumps work well in both new and renovated homes, semi-detached and terraced houses, industrial buildings, and farms. Being small, an ESi unit fits well in a cramped space, such as a basement. ESi is the perfect solution for buildings where an existing heating system supplements the heat pump or serves as a backup.

#### COMPREHENSIVE CONTROL SYSTEM FOR GROUND SOURCE HEAT PUMPS

ÄssäControl systems have a touch screen with function shortcuts, making it easy to control your heat pump. You can even use a smartphone or tablet to control and monitor your system online. ESi heat pumps come with cooling and solar collector connections built in.

#### SUPERHEAT TECHNOLOGY

Thanks to superheat technology, ESi has a very high domestic hot water production. This technology works best with a two-section storage tank or two separate storage tanks (domestic hot water + heating). Superheat technology always delivers the best possible result.

For homes up to 500 m<sup>2</sup> (5,400 ft2)



Very high domestic hot water production



Geothermal cooling



Online control



**Built-in circulation pumps** 









ÄssäControl is a control solution that allows users to remotely manage their entire geothermal energy system, including heating, cooling, and domestic hot water production. Thanks to its touch screen and versatile function shortcuts, an ÄssäControl control panel is very easy to use.

## **EMi**Flexible solution

E series heat pumps were designed for demanding use in buildings ranging from private homes to industrial buildings.

EMi and ELi heat pumps are used for heating single-family homes, terraced houses, and apartment buildings. They are also well suited for providing heating for public buildings, industrial locations, and farms.

#### COMPREHENSIVE CONTROL SYSTEM FOR GROUND SOURCE HEAT PUMPS

AssaControl systems have a touch screen with function shortcuts, making it easy to control your heat pump. You can even use a smartphone or tablet to control and monitor your system online.

#### SUPERHEAT TECHNOLOGY

Thanks to superheat technology, EMi has a very high domestic hot water production. This technology works best with a two-section storage tank or two separate storage tanks (domestic hot water + heating). Superheat technology always delivers the best possible result.

For up to 800-m<sup>2</sup> (8,600-ft<sup>2</sup>) buildings



Very high domestic hot water production



Geothermal cooling



Online control



Built-in circulation pumps



#### ÄSSÄ CONTROL



ÄssäControl is a control solution that allows users to remotely manage their entire geothermal energy system, including heating, cooling, and domestic hot water production. Thanks to its touch screen and versatile function shortcuts, an ÄssäControl control panel is very easy to use.

## **ELi** Flexible solution

For up to 1,500-m<sup>2</sup> (16,000-ft<sup>2</sup>) buildings

ater

Very high domestic hot water production



Geothermal cooling



Online control



Built-in circulation pumps



#### GROUND SOURCE HEAT PUMP WITH SUPERHEAT TECHNOLOGY

E series heat pumps were designed for demanding use in buildings ranging from private homes to industrial buildings.

EMi and ELi heat pumps are used for heating single-family homes, terraced houses, and apartment buildings. They are also well suited for providing heating for public buildings, industrial locations, and farms.

#### COMPREHENSIVE CONTROL SYSTEM FOR GROUND SOURCE HEAT PUMPS

ÄssäControl systems have a touch screen with function shortcuts, making it easy to control your heat pump. You can even use a smartphone or tablet to control and monitor your system online.

#### SUPERHEAT TECHNOLOGY

Thanks to superheat technology, ELi has a very high domestic hot water production. This technology works best with a two-section storage tank or two separate storage tanks (domestic hot water + heating). Superheat technology always delivers the best possible result.





ÄssäControl is a control solution that allows users to remotely manage their entire geothermal energy system, including heating, cooling, and domestic hot water production. Thanks to its touch screen and versatile function shortcuts, an ÄssäControl control panel is very easy to use.

Designed with Finnish terraced houses, apartment buildings, and industrial properties in mind



Efficient hot water production



Hybrid and solar heat ready



Suitable for household cooling



EVI technology



Very high temperature output



### **RE**First-rate performa

## First-rate performance for large buildings

Oilon RE was designed with medium-sized and large buildings in mind, which makes it a perfect ground source heat pump for terraced houses, apartment buildings, public buildings, and industrial locations.

#### **FIRST-RATE EVI TECHNOLOGY**

Oilon RE maintains an excellent performance and reliability even in demanding conditions.

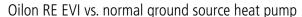
#### **SMALL AND POWERFUL**

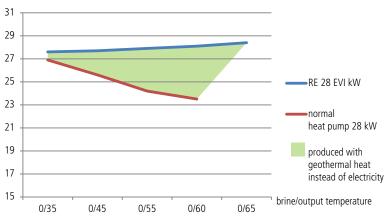
These small but extremely powerful heat pumps run very quietly and are easy to maintain and service.

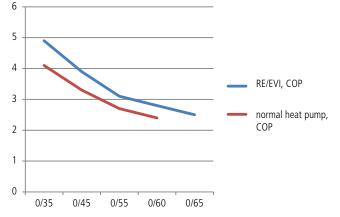
#### UNPARALLELED CONNECTIVITY

The RE heat pump family consists of compressor unit modules. Each module has a different capacity, and they can be combined freely to create an optimal solution for almost any need. Oilon RE heat pumps work very well with layered storage tanks. The necessary tanks and ports are selected based on heat pump performance and the required heating capacity.









#### **TECHNICAL DATA**

CUBE Inverter+		2–9	3–12		
Df	Heating capacity, kW	2–9	3–12		
Performance (EN 14511 0/35)	Coefficient of Performance (COP)	4.9	4.9		
Derformence (EN 14511 0/45)	Heating capacity, kW	2–9	3–12		
Performance (EN 14511 0/45)	Coefficient of Performance (COP)	3.8	3.8		
SCOP/SPF		5.4	5.4		
Energy efficiency class	Space heating	A+++	A+++		
Energy efficiency class	Domestic hot water heating	A+	A+		
Water from condenser*	°C	67	65		
Refrigerant		R-410A	R-410A		
GWP value		2,088	2,088		
Refrigerant charge	kg	1.2	1.2		
Refrigerant charge	CO <sub>2</sub> -eq t	2.5	2.5		
Electrical connection	_	3/N/PE 400	0 V 50 Hz		
Fuses	Fuse rating, A**	3 x	16		
Weight	Empty/filled with water, kg	256/456			
Dimensions	Height x width x depth, mm***	1,910 x 5	99 x 626		

<sup>\* ∆</sup>T 5 °C, brine circuit value −1 °C

Refrigerant circuit: contains fluorinated greenhouse gases, hermetically sealed

CUBE		6	8	10	13	
D ( /FN 44F44 0/2F)	Heating capacity, kW	5.6	7.4	10.0	12.7	
Performance (EN 14511 0/35)	Coefficient of performance (COP)	4.4	4.6	4.8	4.8	
Derformance (EN 14511 0/45)	Heating capacity, kW	5.4	7.1	9.6	12.2	
Performance (EN 14511 0/45)	Coefficient of Performance (COP)	3.4	3.5	3.7	3.7	
SCOP/SPF, EN 14825 (0/35)		5.1	5.6	5.6	5.6	
SCOP/SPF, EN 14825 (0/55)		3.9	4.0	4.2	4.2	Control methods:
SPF, domestic hot water (brine +3)		3.3	3.3	3.3	3.3	Mobile device, wireless touch screen
SPF, domestic hot water (brine –3)		3.1	3.1	3.1	3.1	delivered with the unit
Energy efficiency class	Space heating	A++	A++	A+++	A+++	Built-in Wi-Fi, wireless connection as
Energy efficiency class	Domestic hot water heating	А	А	A	А	standard
Water from condenser	°C	68	68	68	68	Con he set up for room
Refrigerant		R-410A	R-410A	R-410A	R-410A	Can be set up for room temperature control
GWP value		2,088	2,088	2,088	2,088	(with an additional
Refrigerant charge	kg	0.65	0.90	1.10	1.25	sensor)
Refrigerant charge	CO <sub>2</sub> equiv. t	1.357	1.879	2.297	2.610	
Electrical connection			3/N/	/PE 400 V 50 Hz		
Fuses	Fuse rating, A*	16	16/20	16/20	16/20	
Weight	Empty/filled with water, kg	243/431	244/432	245/433	255/443	
Dimensions	Height x width x depth, mm**		1,9	10 x 600 x 630		

<sup>\*</sup> The smaller fuse rating applies at max. capacity in configurations where the heat pump (compressor) and in-line heater are not simultaneously powered on. Always check the fuse rating from electric diagrams. \*\* Without model-specific pipe connections.

VSi		6	8	10	12	14
D ( /FN 44544 0/25)	Heating capacity, kW	6.14	8.44	10.44	11.84	15.04
Performance (EN 14511 0/35)	Coefficient of Performance (COP)	5	4.96	4.84	4.77	4.75
Davidance (EN 14511 0/55)	Heating capacity, kW	5.5	7.75	9.82	10.83	14.02
Performance (EN 14511 0/55)	Coefficient of Performance (COP)	3.19	3.3	3.17	3.14	3.25
SCOP/SPF		5.14	5.24	5.13	4.89	5.08
Energy efficiency class	Space heating	A+++	A+++	A+++	A+++	A+++
Energy efficiency class	Domestic hot water heating	A+	A+	A+	A+	A+
Max. domestic hot water	°C	60	60	60	60	60
Refrigerant		R407C	R407C	R407C	R407C	R407C
GWP value		1,774	1,774	1,774	1,774	1,774
Refrigerant charge	kg	1.4	1.4	1.8	1.8	1.8
Refrigerant charge	CO <sub>2</sub> equiv. t	0.00	0.00	0.00	0.00	0.00
Electrical connection			3	N/PE 400 V 50 H	z	
Fuses	Fuse rating, A*	3 x 10 (16)	3 x 16 (20)	3 x 16 (20)	3 x 16 (20)	3 x 16 (20)
Weight	Empty/filled with water, kg	330 / 590	332 / 592	334 / 594	338 / 598	340 / 600
Dimensions	Height x width x depth, mm		1	,830 x 595 x 68	0	

<sup>\*</sup>The smaller fuse rating is sufficient, when the system's nominal capacity has been determined, and the built-in electric immersion heater is reserved for backup use only. Refrigerant circuit: contains fluorinated greenhouse gases, hermetically sealed

<sup>\*\*</sup> Without simultaneous use of compressor and electric in-line heater

<sup>\*\*\*</sup> Dimensions without model-specific pipe connections.

VMi		6	9	11	14	17
D ( (5N 44544 0/25)	Heating capacity, kW	8.44	10.44	12.38	15.64	17.75
Performance (EN 14511 0/35)	Coefficient of Performance (COP)	4.96	4.84	4.97	4.88	4.84
Df (EN 14511 0/55)	Heating capacity, kW	7.75	9.82	11.45	14.47	16.71
Performance (EN 14511 0/55)	Coefficient of Performance (COP)	3.3	3.17	3.33	3.33	3.25
SCOP/SPF		5.24	5.13	5.29	5.31	5.22
Energy efficiency class	Space heating	A+++	A+++	A+++	A+++	A+++
Energy efficiency class	Domestic hot water heating	A+	A+	A+	A+	A+
Max. domestic hot water	°C	60	60	60	60	60
Refrigerant		R407C	R407C	R407C	R407C	R407C
GWP value		1,774	1,774	1,774	1,774	1,774
Refrigerant charge	kg	1.4	1.9	2.0	2.5	2.6
Refrigerant charge	CO, equiv. t	2.48	3.37	3.55	4.44	4.61
Electrical connection	-		3	/N/PE 400 V 50 I	z	
Fuses	Fuse rating, A*	3 x 10 (16)	3 x 16 (20)	3 x 16 (20)	3 x 16 (20)	3 x 16 (20)
Weight	Empty/filled with water, kg	422 / 842	426 / 846	440 / 860	450 / 870	458 / 878
Dimensions	Height x width x depth, mm		1,	,830 x 1,020 x 7	00	

<sup>\*</sup>The smaller fuse rating is sufficient, when the system's nominal capacity has been determined, and the built-in electric immersion heater is reserved for backup use only.

Refrigerant circuit: contains fluorinated greenhouse gases, hermetically sealed

ECO Inverter+		2–9	3–12	7–25
Performance (EN 14511 0/35)	Heating capacity, kW	2–9	3–12	7–25
	Coefficient of Performance (COP)	4.9	4.9	4.9
Performance (EN 14511 0/45)	Heating capacity, kW	2–9	3–12	7–25
	Coefficient of Performance (COP)	3.8	3.8	3.8
SCOP/SPF		5.4	5.4	5.4
Energy efficiency class	Space heating	A+++	A+++	A+++
Energy efficiency class	Domestic hot water heating	A+	A+	A+
Water from condenser*	°C	67	65	65
Refrigerant		R-410A	R-410A	R-410A
GWP value		2,088	2,088	2,088
Refrigerant charge	kg	1.2	1.2	1.5
Refrigerant charge	CO, equiv. t	2.5	2.5	3.13
Electrical connection			3/N/PE 400 V 50 Hz	
Fuses	Fuse rating, A**	3 x 16	3 x 16	3 x 32
Weight	kg	1.	48	160
Dimensions	Height x width x depth, mm***		655 x 525 x 562	

<sup>\*</sup> ΔT 5 °C, brine circuit value −1 °C

<sup>\*\*\*</sup> Dimensions without model-specific pipe connections.

ECO		6	8	10	13	17	21	
Performance (EN 14511 0/35)	Heating capacity, kW	5.6	7.4	10.0	12.7	17.0	21.1	
	Coefficient of Performance (COP)	4.4	4.6	4.8	4.8	4.7	4.8	
Performance (EN 14511 0/45)	Heating capacity, kW	5.4	7.1	9.6	12.2	16.2	20.1	
	Coefficient of performance (COP)	3.4	3.5	3.7	3.7	3.7	3.7	
SCOP/SPF, EN 14825 (0/35)		5.1	5.6	5.6	5.6	5.5	5.6	Control methods: Mobile device.
SCOP/SPF, EN 14825 (0/55)		3.9	4.0	4.2	4.2	4.1	4.2	wireless touch screen
SPF, domestic hot water (brine +3)		3.3	3.3	3.3	3.3	3.3	3.3	delivered with the unit
SPF, domestic hot water (brine –3)		3.1	3.1	3.1	3.1	3.1	3.1	Built-in Wi-Fi,
Energy efficiency class	Space heating	A++	A++	A+++	A+++	A+++	A+++	wireless connection as
Energy efficiency class	Domestic hot water	А	А	Α	А	А	А	standard
Water from condenser	°C	68	68	68	68	68	68	Can be set up for room
Refrigerant		R-410A	R-410A	R-410A	R-410A	R-410A	R-410	temperature control (with an additional sensor)
GWP value		2,088	2,088	2,088	2,088	2,088	2,088	Can be set up to control a
Refrigerant charge	kg	0.65	0.90	1.10	1.25	2.00	2.10	6-kW in-line heater (con-
Refrigerant charge	CO <sub>2</sub> equiv. t	1.357	1.879	2.297	2.610	4.176	4.385	tactors ready in the unit)
Electrical connection				3/N/PE 4	00 V 50 Hz			
Fuses	Fuse rating, A*	10/16	10/20	16/20	16/20	20/25	20/25	
Weight	kg	126	128	129	140	145	150	
Dimensions	Height x width x depth, mm**		<u> </u>	638 x 5	525 x 562			

<sup>\*</sup> The smaller fuse rating applies, if an in-line heater hasn't been installed or the heater is powered on only during a fault. Always check the fuse rating from electric diagrams.

<sup>\*\*</sup> Without simultaneous use of compressor and electric in-line heater.

<sup>\*\*</sup> Without model-specific pipe connections.

ESi		6	9	11	14	17				
Dayfarran (EN 14511 0/25)	Heating capacity, kW	8.44	10.44	12.38	15.64	17.75				
Performance (EN 14511 0/35)	Coefficient of Performance (COP)	4.96	4.84	4.97	4.88	4.84				
D ( /FN 44544 0/55)	Heating capacity, kW	7.75	9.82	11.45	14.47	16.71				
Performance (EN 14511 0/55)	Coefficient of Performance (COP)	3.3	3.17	3.33	3.33	3.25				
SCOP/SPF		5.24	5.13	5.29	5.31	5.22				
Energy efficiency class	Space heating	A+++	A+++	A+++	A+++	A+++				
Max. domestic hot water	°C	60	60	60	60	60				
Refrigerant		R407C	R407C	R407C	R407C	R407C				
GWP value		1,774	1,774	1,774	1,774	1,774				
Refrigerant charge	kg	1.4	1.9	2.0	2.5	2.6				
Refrigerant charge	CO <sub>2</sub> equiv. t	2.48	3.37	3.55	4.44	4.61				
Electrical connection	2 -		3	/N/PE 400 V 50 H	- z	1				
Fuses	Fuse rating, A**	3 x 10 (16)	3 x 16 (20)	3 x 16 (20)	3 x 16 (20)	3 x 16 (20)				
Weight	Empty/filled with water, kg	174	178	192	202	210				
Dimensions	Height x width x depth, mm***		1,450 x 595 x 680							

<sup>\*</sup>The smaller fuse rating is sufficient, when the system's nominal capacity has been determined, and the built-in electric immersion heater is reserved for backup use only.

Refrigerant circuit: contains fluorinated greenhouse gases, hermetically sealed

EMi		22	22P	28	28P	43	43P
D ( /FN 44544 0/25)	Heating capacity, kW	22.42	22.42	29.52	29.52	46.19	46.19
Performance (EN 14511 0/35)	Coefficient of Performance (COP)	4.49	4.49	4.56	4.56	4.50	4.50
D ( /FN 44544 0/55)	Heating capacity, kW	20.71	20.71	26.75	26.75	42.83	42.83
Performance (EN 14511 0/55)	Coefficient of Performance (COP)	3.16	3.16	3.10	3.10	3.22	3.22
SCOP/SPF		4.98	4.98	5.09	5.09	5.06	5.06
Energy efficiency class	Space heating	A+++	A+++	A+++	A+++	A+++	A+++
Domestic hot water, max.	°C	60	60	60	60	60	60
Refrigerant		R407C	R407C	R407C	R407C	R407C	R407C
GWP value		1,774	1,774	1,774	1,774	1,774	1,774
Refrigerant charge	kg	4.9	4.7	5.0	4.8	5.9	5.7
Refrigerant charge	CO <sub>2</sub> equiv. t	8.69	8.34	8.87	8.52	10.47	10.11
Electrical connection	2			/N/PE 400 V 50 F	łz		
Fuses	Fuse rating (A)	3 x 25	3 x 25	3 x 25	3 x 25	3 x 50	3 x 50
Weight	kg	395	387	395	387	420	412
Dimensions	Height x width x depth, mm			1,450 x 9	920 x 680		

Refrigerant circuit: contains fluorinated greenhouse gases, hermetically sealed

ELi		60	60P	90	90P			
D ( /5N 44544 0/25)	Heating capacity, kW	60.69	60.69	91.03	91.03			
Performance (EN 14511 0/35)	Coefficient of Performance (COP)	4.64	4.64	4.51	4.51			
D ( /FN 44544 0/55)	Heating capacity, kW	58.13	58.13	86.24	86.24			
Performance (EN 14511 0/55)	Coefficient of Performance (COP)	3.08	3.08	3.05	3.05			
SCOP/SPF		5.05	5.05	-	-			
Energy efficiency class	Space heating	A+++	A+++	-	-			
Max. domestic hot water	°C	60	60	60	60			
Refrigerant		R410A	R410A	R410A	R410A			
GWP value		2,088	2,088	2,088	2,088			
Refrigerant charge	kg	8.7	8.5	10.0	9.8			
Refrigerant charge	CO <sub>2</sub> equiv. t	18.17	17.75	20.88	20.46			
Electrical connection	2 .		3/N/PE 40	0 V 50 Hz	1			
Fuses	Fuse rating, A**	3 x 63	3 x 63	3 x 100	3 x 100			
Weight	kg	515	505	605	595			
Dimensions	Height x width x depth, mm***		1,450 x 1,200 x 680					

Refrigerant circuit: contains fluorinated greenhouse gases, hermetically sealed

Oilon RE		RE 28 04	RE 28 HT 04	RE 33 04	RE 38 04	RE 42 04	RE 48 04	RE 56 04	RE 56 HT 04	RE 66 04	RE 76 04	RE 84 04	RE 96 04
Performance EN 14511 0/35	Heating capacity, kW	27.6	27.7	32.3	36.5	41.5	47.7	55.2	55.4	64.6	73.0	83.0	95.4
	COP	4.9	4.4	4.8	4.7	4.8	4.8	4.9	4.4	4.8	4.7	4.8	4.8
Performance EN 14511 0/60	Heating capacity, kW	28.1	24.4	33.9	38.1	42.5	49.1	56.2	48.8	67.8	76.2	85.0	98.2
SCOP (EN 14825)		5.4	4.8	5.4	5.3	5.4	5.4	5.4	4.8	5.4	5.3	5.4	5.4
SPF		5.6	4.8	5.6	5.5	5.6	5.6	5.6	4.8	5.6	5.5	5.6	5.6
Brine circuit ΔT 3 °C,													
design flow rate for the	m³/h	6.66	6.48	7.76	8.69	9.94	11.40	13.31	12.96	15.52	17.37	19.88	22.81
brine circuit  Brine circuit ΔT 5 °C.													
min. allowed flow rate for	m³/h	3.99	3.89	4.66	5.21	5.96	6.84	7.99	7.77	9.31	10.42	11.93	13.68
the brine circuit		3.55	3.03	4.00	3.21	3.50							
Energy efficiency	Space heating (2019)	A+++	A+++	A+++	A+++	A+++	A+++	A+++	A+++	A+++	A+++	A+++	A+++
Water from condenser	Max °C	68	75	68	68	68	68	68	75	68	68	68	68
Refrigerant		R-410A	R-134a	R-410A	R-410A	R-410A	R-410A	R-410A	R-134a	R-410A	R-410A	R-410A	R-410A
GWP value		2,088	1,430	2,088	2,088	2,088	2,088	2,088	1,430	2,088	2,088	2,088	2,088
Electrical connection							3 x 4	100 V					
Fuses	Input fuse rating, A***	3 x 25	3 x 40	3 x 32	3 x 40	3 x 40	3 x 50	3 x 80	3 x 63	3 x 80	3 x 80	3 x 80	3 x 100
Ground source heat pump connections	Condenser connections, ISO 228 outer thread Evaporator connections,		G 11/4										
	ISO 228 outer thread						G	2					
Weight	kg		_	2	80					5	30		
Dimensions	Height x width x depth, mm**			930 x 9	70 x 710					1,830 x	970 x 710		

<sup>\*</sup> Units up to 70 kW BO/W35

For more detailed information, see the heat pump installation and operating manual.

To ensure that the heat pump's stated heating capacity and COP can be achieved, use a brine pump with sufficient capacity.

When you know the loop field's pressure loss, you can select a brine pump with sufficient capacity.

If necessary, contact our regional sales team. We will help you with the choice.

<sup>\*\*</sup> Dimensions without model-specific pipe connections.

<sup>\*\*\*</sup> Rating stated in the compressor type plate + standard condenser circuit pumps, 1~ + default brine circuit pump + automation system.

#### STORAGE TANKS









#### **Storage tank selection:**

- Storage tank volume: 200–2,000 l, available with or without coils. Some models feature soft detachable insulation segments.
- Several coil sizes available (LK35–LK120).
- Stainless steel domestic hot water tanks with or without electric immersion heaters.
- Both round and square tanks available.
- Superheat tanks with baffles.

#### **ÄSSÄCOOLING**



#### Two wall-mounted options: ÄssäCooling Cs4 and Cs6

Cooling capacity Cs4: 3,760 W Cs6: 6,340 W Main dimensions, mm (H x W x D) Cs4: 315 x 824 x 245 Cs6: 315 x 1,147 x 245 Cooled floor area, m<sup>2</sup> Cs4: 80–200 Cs6: 200–300

#### Two ceiling-mounted options: ÄssäCooling Ck5 and CK9

Cooling capacity Ck5: 5,380 W Ck9: 8,800 W Main dimensions, mm (H x W x D) Ck5: 40 x 720 x 720 Ck9: 55 x 950 x 950 Cooled floor area, m<sup>2</sup> Ck5: 80–200 Ck9: 200–300



#### Oilon Selection Tool

#### **OILON SELECTION TOOL**

Oilon Selection Tool makes it easy and simple to browse through our wide product selection and to select the right product and accessories for your needs. With our user-friendly software, you can select several products for quick comparison and perform advanced system calculations. The software allows you to view extensive product information and calculation results and create detailed technical specifications.

Download Oilon Selection Tool for Windows, Mac, or Linux from the Oilon website, address: www.oilon.com/oilon-selection-tool.

#### CONTACT US

We cooperate with our partners through an extensive sales and service network. To find the best heating solution for your needs, please contact one of our partners.

To ask for a quote or contact the dealer nearest you, visit: https://oilon.com/en-gb/contact-us/dealers-and-maintenance-companies/



