

# **Oilon ChillHeat Product Family**



### **Product series**

Туре	P-series	S-series	RE-series
Compressor	Piston	Screw	Scroll
Refrigerant	R134a and Low-GWP	R134a	R410A
Heating power, Ground source	150 – 450 kW	180 – 2000 kW	210 – 420 kW
Max. temperature	R134a = 80 °C Low-GWP = 90 °C	67 °C	63 °C

All ChillHeat heat pumps are water/water heat pumps

#### **Abbreviations in the product names**

P=	<b>P</b> iston	MC=	<b>M</b> edium <b>c</b> apacity
S=	Screw	HC=	High capacity
RE=	Real estate	DS=	<b>D</b> e <b>s</b> uperheater
SU=	Subcooler	VFD=	Variable frequency drive
ECO=	<b>Eco</b> nomizer	AD=	Aditional cooling



#### **P-series**

#### TECHNICAL SPECIFICATIONS

		P 150	P 220	P 300	P 380	P 450
No. of compressors, compressor type		piston, 2	piston, 3	piston, 4	piston, 5	piston, 6
No. of refrigerant circuits		1	2	2	1	1
Dimensions, without cover and extra legs *	Height mm	2056	2056	2056	2056	2056
	Width mm	1550	2676	2676	3841	3841
	Depth mm	900	900	900	900	900
Refrigerant		R134A	R134A	R134A	R134A	R134A
Heat output, kW (ground source heating)	EN 14511 0/35 °C	145	218	290	363	435
COP	EN 14511 0/35 °C	4,0	4,0	4,0	4,0	4,0
Heat output, kW (heating network)	18/8 °C, 40/55 °C	197	296	395	493	592
COP	18/8 °C, 40/55 °C	3,7	3,7	3,7	3,7	3,7
Heat output, kW	18/8 °C, 50/65 °C	174	263	350	437	525
COP	18/8 °C, 50/65 °C	3,1	3,1	3,1	3,1	3,1
Heat output, kW (heating network, high temperature)	18/8 °C, 55/75 °C	159	238	317	396	475
COP	18/8 °C, 55/75 °C	2,7	2,7	2,7	2,7	2,7
Cooling output, kW (air conditioning)	12/7 °C, 36/42 °C	157	234	313	391	469
COPc	12/7 °C, 36/42 °C	3,4	3,4	3,4	3,4	3,4
Fuses **	A, 3/N/PE 400 V 50 Hz	3x200A	3x250A	3x400A	3x500A	3x630A
Weight	kg	1600	2300	2600	3100	3700

Performances calculated with the most suitable options and presented in accordance with EN 14511.

COPc= cooling coefficient of performance

Temperatures are evaporator and condenser line in and line out temperatures.

Using this table to estimate heating or cooling output under other operating conditions is not allowed. Contact manufacturer for final specifications for your application.

<sup>\*)</sup> Dimensions without frequency converter.

<sup>\*\*)</sup> Fuse size dimensioned in the most demanding conditions. Request a review dimensioning from the supplier.



### **S-series**

#### TECHNICAL SPECIFICATIONS

		S 180	S 280	S 380	S 490
No. of compressors, compressor type		screw, 1	screw, 1	screw, 1	screw, 1
No. of refrigerant circuits		1	1	1	1
Dimensions, without cover and extra legs *	Height mm	2056	2056	2056	2056
	Width mm	2676	2676	2676	2676
	Depth mm	900	900	900	900
Refrigerant		R134A	R134A	R134A	R134A
Heat output, kW (ground source heating)	EN 14511 0/35 °C	191	300	404	516
COP	EN 14511 0/35 °C	4,1	4,2	4,3	4,4
Heat output, kW (heating network)	18/8 °C, 40/55 °C	241	379	506	665
COP	18/8 °C, 40/55 °C	3,6	3,6	3,7	3,8
Heat output, kW (heating network, high temperature)	18/8 °C, 50/65 °C	226	364	473	623
COP	18/8 °C, 50/65 °C	2,7	2,8	2,9	3,0
Cooling output kW (air conditioning)	12/7 °C, 36/42 °C	201	315	394	549
COPc	12/7 °C, 36/42 °C	3,6	3,6	3,7	3,8
Fuses **	A, 3/N/PE 400 V 50 Hz	3x250A	3x355A	3x400A	3x500A
Weight	kg	2300	2900	3600	4000

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<sup>\*)</sup> Dimensions without frequency converter.

<sup>\*\*)</sup> Fuse size dimensioned in the most demanding conditions. Request a review dimensioning from the supplier.



### **S-series**

#### TECHNICAL SPECIFICATIONS

		S 600	S 800	S 1000	S 1200	S 1500	S 2000
No. of compressors, compressor type		screw, 2					
No. of refrigerant circuits		2	2	2	2	2	2
Dimensions, without cover and extra legs *	Height mm	2071	2071	2071	2071	2200	2200
	Width mm	4246	4246	4246	4246	4500	4500
	Depth mm	1005	1005	1005	1005	1200	1200
Refrigerant		R134A	R134A	R134A	R134A	R134A	R134A
Heat output, kW (ground source heating)	EN 14511 0/35 °C	638	889	1105	1306	1697	2298
COP	EN 14511 0/35 °C	4,2	4,3	4,4	4,4	4,4	4,4
Heat output, kW (heating network)	18/8 °C, 40/55 °C	740	1032	1283	1516	1971	2668
COP	18/8 °C, 40/55 °C	3,6	3,7	3,8	3,8	3,8	3,8
Heat output, kW (heating network, high temperature)	18/8 °C, 50/65 °C	729	1014	1259	1488	1934	2619
COP	18/8 °C, 50/65 °C	2,8	2,9	3,0	3,0	3,0	3,0
Cooling output kW (air conditioning)	12/7 °C, 36/42 °C	696	971	1211	1432	1862	2521
COPc	12/7 °C, 36/42 °C	3,6	3,7	3,8	3,8	3,8	3,8
Fuses **	A, 3/N/PE 400 V 50 Hz	2x 3x400A	2x 3x400A	2x 3x630A	2x 3x630A	2x 3x800A	2x 3x1000A
Weight	kg	3700	4500	5300	5900	7800	10400

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COPc= cooling coefficient of performance

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<sup>\*)</sup> Dimensions without frequency converter.

<sup>\*\*)</sup> Fuse size dimensioned in the most demanding conditions. Request a review dimensioning from the supplier.



### **RE-series**

#### TECHNICAL SPECIFICATIONS

		RE 110	RE 140	RE 170	RE 210	RE 330	RE 420
No. of compressors, compressor type		scroll, 2	scroll, 2	scroll, 2	scroll, 2	scroll, 3	scroll, 4
No. of refrigerant circuits		2	2	2	1	2	2
Dimensions without cover and extra legs	Height mm	1798	1798	1798	2056	2056	2056
	Width mm	1746	1746	1746	1550	2676	2676
	Depth mm	863	863	863	900	900	900
Refrigerant		R410A	R410A	R410A	R410A	R410A	R410A
Heat output, kW (ground source heating)	EN 14511 0/35 °C	107	134	168	205	308	410
COP	EN 14511 0/35 °C	3,7	3,6	3,7	4,2	4,2	4,2
Heat output, kW (heating network)	18/8 °C, 40/55 °C	136	168	208	272	409	546
COP	18/8 °C, 40/55 °C	2,8	2,8	2,8	3,6	3,6	3,6
Cooling output, kW (air conditioning)	12/7 °C, 36/42 °C	103	128	158	209	314	418
COPc	12/7 °C, 36/42 °C	2,7	2,7	2,7	3,6	3,6	3,6
Fuses *	A, 3/N/PE 400 V 50 Hz	3x125 A	3x160 A	3x200 A	3x200A	3x400A	3x400A
Weight	kg	800	900	1000	1700	2400	2600

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\*) Fuse size dimensioned in the most demanding conditions. Request a review dimensioning from the supplier.

COPc=cooling coefficient of performance

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#### 2xP300 SU VFDx2



#### S600 ECO AD VFDx2



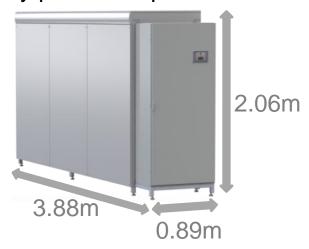




## Standard delivery

- √ 3 different standard sizes
  - ✓ P-, RE- and S-series up to S490
- ✓ Electrical cabin and acoustic enclosure
- ✓ Comprehensive automation
- Factory acceptance test (FAT) including test run in test-bench for each delivery prior to shipment











# **Options for standard delivery**

- ✓ Optimal efficiency
  - Subcooler or economiser (S-series) for highest efficiency
  - Desuperheater for high temperatures



- Higher capacity
- Precise control



- Energy metering
- COP
- Cost and CO2 reductions



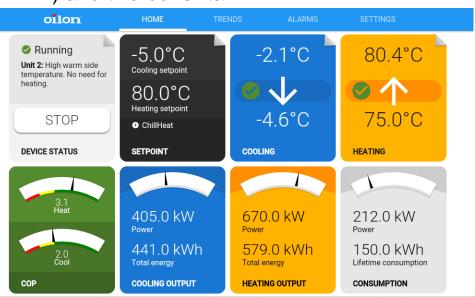






#### **ChillHeat MobileDrive**

- ✓ Logical and clear automation with a wide language selection.
- ✓ Start-up assistant
- ✓ Easy to monitor and view heat pump start-up, set-up, operation trends and history
- ✓ Can be controlled and monitored
  - ✓ Cooling side water pump (on/off or VFD) and buffer tank
  - ✓ Heating side water pump (on/off or VFD) and two buffer tank
- ✓ Available on Android and iOS





# ChillHeat heat pump benefits

- ✓ Three heat pump series, P, S and RE, for a variety of cooling, heating and combined cooling&heating applications in real-estates and industry
- ✓ Capacity range 100-2000 kW by one unit and with serial connection up to several megawatts
- ✓ Professional assistance for selection of heat pumps, start-up and optimization for smooth and solid solution
- ✓ Heat pumps are designed to meet the requirements of i.e. challenging industrial processes
- ✓ Reliability and high efficiency in various conditions through design and self-learning refrigerant feed control
- ✓ Up to 90 °C hot water possible with P-series with full load
- ✓ Low GWP refrigerant option
- ✓ Flexible automation enables to produce cooling and heating at the same time in set temperature point
- ✓ Good part load and capacity control possibility with optional frequency drives.
- ✓ One design goal for heat pumps has been compact size
- ✓ All manufactured heat pumps are factory tested and customer is welcome to witness test run prior to delivery when preferred