

# KRONOTERM

Smart heating solutions

## AIRLINE - commercial heat pumps

Air / water heat pump for heating, cooling and DHW production - commercial use



EFFICIENT  
SOLUTION with  
EASY OPERATION

**COP 4.62\***

\*A7/W35; WPL-45-K1 HT

Model: WPL-45-K1 HT; System: AIR /WATER

**PREMIUM  
BRAND**



TESTED  
MATERIALS



REMOTE  
MANAGEMENT



SAVING UP  
TO 10%  
HEATING COSTS

**THE HEART OF YOUR COMFORT**

**PREMIUM  
BRAND**

## Heat pump for industrial use **AIR / WATER**

WPL-45-K1 HT  
WPL-70-K1 HTT  
WPL-90-K1 HTT

**COP**

**4.62\***

\*A7/W35; WPL-45-K1 HT



WPL-45-K1 HT



WPL-70-K1 HTT / WPL-90-K1 HTT



## Main characteristics

- robust and compact device,
- **high efficiency** - heating capacity,
- suitable for larger objects, such as eg. large residential buildings, commercial and industrial buildings, educational institutions, etc.,
- **low noise** - extremely quiet operation care anti-vibration mount compressor, a double sound insulation equipment and bionics shaped fan blades,
- reversible version (**heating and cooling**),
- outlet water temperature to 65 ° C,
- the operation of the outside temperature till -23 ° C,
- soft-start option,
- option to connect to the **BMS** (Building Management System),
- **stage capacity controll** (at WPL-70-K1-HTT and WPL-90-K1-HTT; 2 x compressor),
- the possibility of **remote monitoring and management services** through [Home.KRONOTERM](#),
- spiral (scroll) compressor COPELAND EVI technology,
- **EC** (electronically commutated) fan,
- electronic expansion valve,
- increased protection against external weather conditions,
- controlling the main circulation pump,
- **AUTO-OPTI ADAPT** algorithm (extremely efficient operation of the heat pump; allows weather-dependent adjustment of the temperature of the exit water needs of the facility),
- **AUTO-OPTI DEFROST** system (system evaporator defrosting, sinks and drain condensate ensuring the effective functioning of the system in all weather conditions - even at low external temperatures and higher humidity),
- **compact design for outdoor installation** (control unit is installed in the facility).

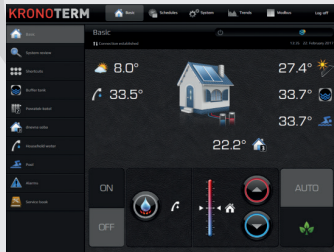


- Possibility of connecting several heat pumps in a cascade (up to 8).



## Home.KRONOTERM

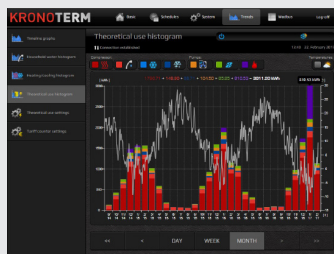
### Functions



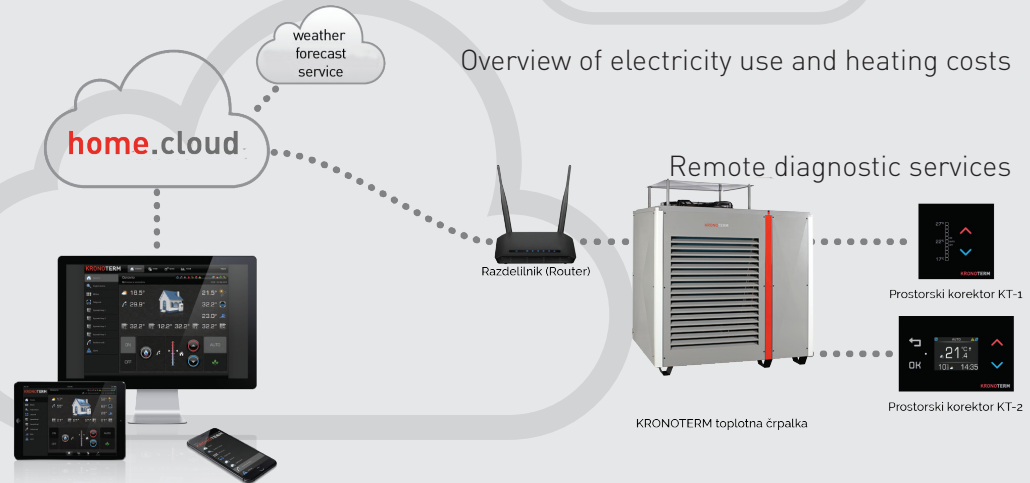
Access to data and managing the heat pump in real time from anywhere and anytime



History of heat pump operation



Managing the electricity use and heating cost



### Features

Controlling the heat pump from anywhere and at any time



Schedules and weekly planner



Timeline of system operation



Overview of electricity use and heating costs



Remote diagnostic services



With **KT-1 and KT-2**, we set the **desired room temperature** and they use the two-way ModBus communication to report the measured and desired temperature to the Kronoterm heat pump. Based on the gathered information of the corrector and measured outside temperature, the regulation of the heat pump uses special algorithms to determine the optimal needed temperature of heating water of the heating system at any moment. **This connection of all elements of the heating system significantly raises the efficiency of the whole system and with it also savings.** The market is full of systems which, despite good equipment, function wastefully and badly because they do not adapt to the actual needs and every element of the system functions on its own, with wrong settings.



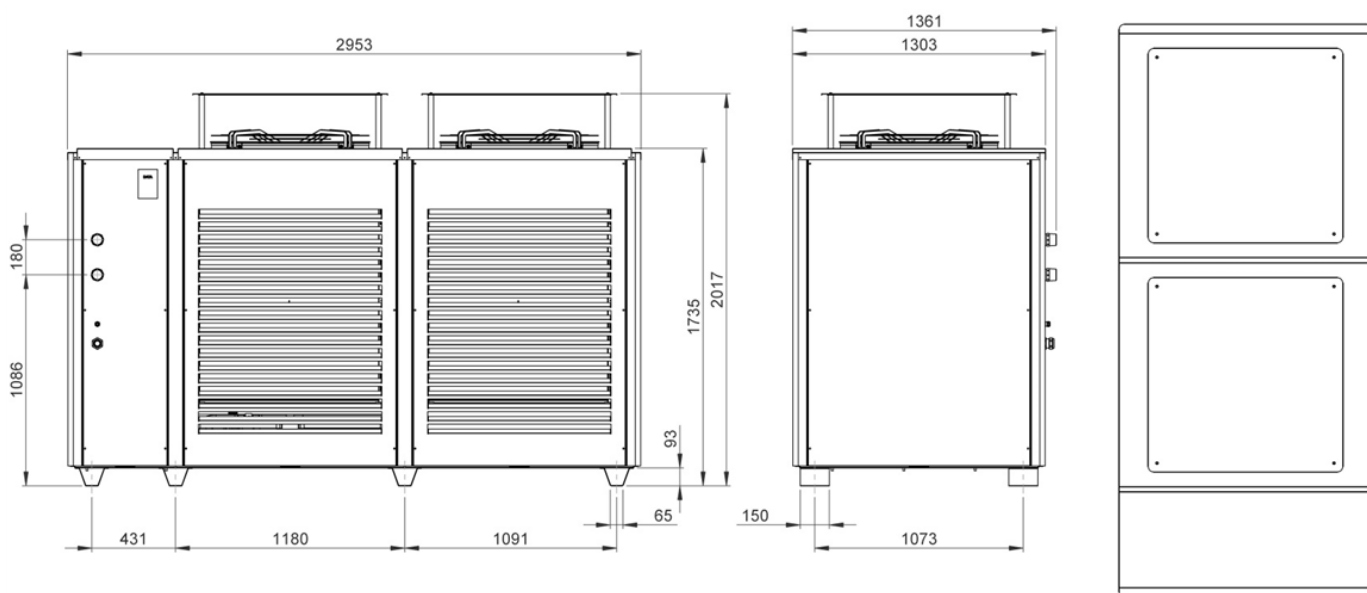
The **Termotronic 3000 WEB** regulation with room temperature corrector KT-1 or KT-2 and Home.KRONOTERM technology **ensures easy, modern and very economical operation of the whole system.** KT-2 offers more functions (setting the room temperature, setting DHW temperature, weather forecast). KT-1 and KT-2 operate only with the KRONOTERM heating heat pump and Termotronic WEB regulation.

## Technical data

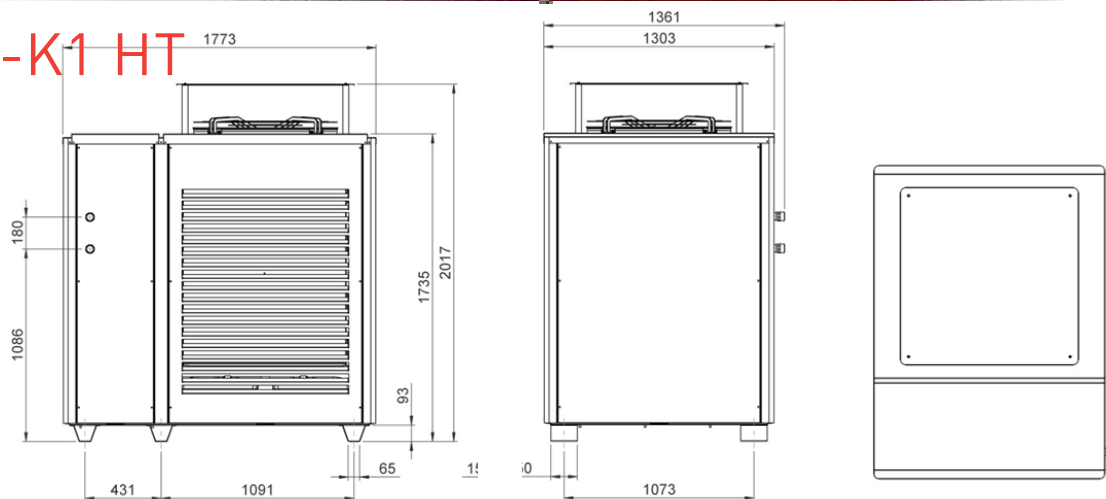
Model	WPL-45-K1 HT	WPL-70-K1 HTT	WPL-90-K1 HTT
Version			
Heat source	Outside air	Outside air	Outside air
HP positioning	Outdoor	Outdoor	Outdoor
Defrost	Passiv and active	Passiv and active	Passiv and active
Electric heater	/	/	/
Operating envelope			
<b>Heating</b>			
Water	20 °C - 63 °C	25 °C - 63 °C	25 °C - 63 °C
Air	-23 °C - 40 °C	-23 °C - 40 °C	-23 °C - 40 °C
<b>Cooling</b>			
Water	7 °C - 25 °C	7 °C - 25 °C	7 °C - 25 °C
Air	10 °C - 40 °C	10 °C - 40 °C	10 °C - 40 °C
Rated flow			
Air	10.400 m³/h	20.200 m³/h	20.800 m³/h
Water	7,4 m³/h	12,1 m³/h	14,9 m³/h
Pressure drop			
At rated flow 4,9 m³/h	14 kPa	17 kPa	25 kPa
Pipe connections			
Return / Delivery	G 1/2" (DN40), external unit	G2" (DN50), external unit	G2" (DN50), external unit
Noise			
Sound pressure level (5m)	53 dBA	54 dBA	55 dBA
Dimension and weight			
Dimensions (W x H x D)	1773 x 1735 (2017) x 1361	2953 x 1735 (2017) x 1361	2953 x 1735 (2017) x 1361
Weight	802 kg	1315 kg	1361 kg
Cooling system data			
Refrigerant	R407C	R407C	R407C
Refrigerant - amount	32,7 kg	58 kg	57,5 kg
Electrical data			
Rated voltage	3 x 400 Vac	3 x 400 Vac	3 x 400 V
Fuse	3 x 32 A	3 x 50 A	3 x 63 A
Miscellaneous - Outdoor unit	IPX4	IPX4	IPX4
Max. electrical power	17,1 kW	27,4 kW	34,0 kW
PERFORMANCE - Heating			
<b>A7 / W35</b>			
Heating capacity	44,8 kW	70,3 kW	86,8 kW
Electrical power	9,7 kW	15,6 kW	19,7 kW
COP	4,62	4,51	4,40
<b>A2 / W35</b>			
Heating capacity	38,3 kW	60,5 kW	74,1 kW
Electrical power	9,3 kW	15,0 kW	18,8 kW
COP	4,13	4,02	3,94 kW
<b>A2 / W55</b>			
Heating capacity	33,1 kW	53,6 kW	65,6 kW
Electrical power	12,3 kW	20,1 kW	25,0 kW
COP	2,69	2,67	2,62
<b>A-10 / W35</b>			
Heating capacity	28,2 kW	46,1 kW	55,7 kW
Electrical power	8,5 kW	13,9 kW	17,3 kW
COP	3,32	3,31	3,22
PERFORMANCE - Cooling			
<b>A35 / W12-7</b>			
Heating capacity	33,6 kW	52,8 kW	66,0 kW
Electrical power	11,5 kW	18,9 kW	23,8 kW
COP	2,92	2,79	2,77
Communication			
Controler	TERMOTRONIC 3000 WEB		
Control unit positioning	Indoor		
Connection between ext. and	UTP cable		
Connection to internet	UTP cable		
Connection to BMS/CMS	MODBUS protocol (RS485)		

## Dimensions

### WPL-70-K1 HTT / WPL-90-K1 HTT



### WPL-45-K1 HT



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BRAND**

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MADE**

**25**  
YEARS

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SOLUTIONS**

**60.000**  
CUSTOMERS