

# KVV

## HIGH TEMPERATURE HEAT PUMPS WITH TWO-STAGE COMPRESSORS

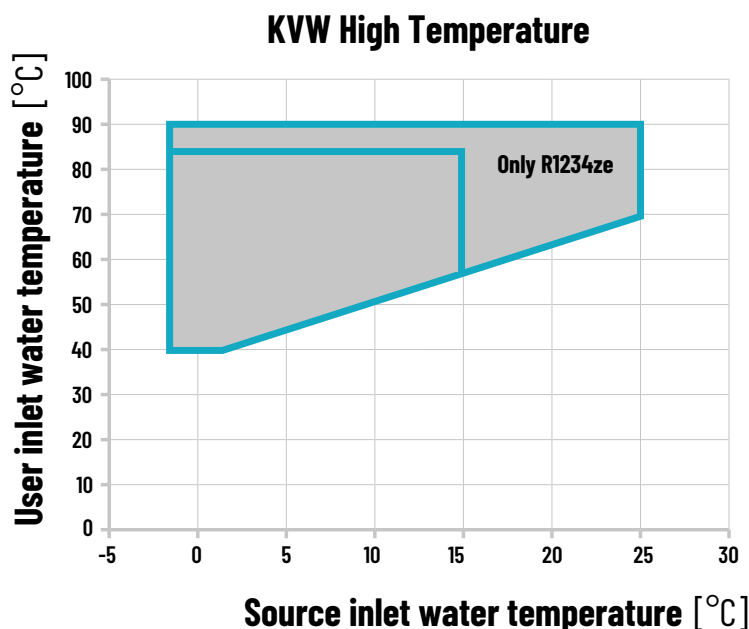
535-2208 kW



 MULTI-PROTOCOL COMMUNICATION INTERFACE	 SCREW COMPRESSORS
 FAST RESTART	 CORROSION RESISTANT MATERIAL
 CLASS A	 LOW GWP REFRIGERANT
 SPRAY FLOODED SHELL AND TUBE	

KVV is HiRef's range of water-condensed high-temperature heat pumps with **two-stage screw compressors**, **spray flooded shell and tube evaporator** and **shell and tube condenser**. The units are available with traditional refrigerant R134a or R1234ze, with a **very low GWP** (Global Warming Potential) value. The range covers the thermal power range from 400 to 2000kW\* and reaches COP values of 2.2 producing water at +90°C (with R1234ze) from a source at -2°C. The **KVV extra high temperature heat pump series is ideally suitable for low-medium temperature heat recovery to produce hot water for district heating networks or industrial processes.**

- Refrigerant R1234ze and R515B
- Available in version: heating only heat pumps for high temperatures and chiller with total high temperature recovery.
- Monitoring and limitation of the maximum absorbed power
- Available with screw compressors driven by inverters
- Thermal insulation hoods on the compressors for the high temperature heat pump versions (optional)
- Modulation and supervision managed by the software
- Available in a single-circuit version with a single compressor and a dual-circuit version with two compressors
- External inverter for compressor modulation from 50% to 100%





### Power and flexibility

Screw compressor allows achievement of **high cooling capacities** with load modulation via the special slide valve, **with obvious advantages in terms of energy efficiency.**



### Two-level evaporation

The unit is equipped with a flooded evaporator with spray technology and double water-side passage. With this technology, **the refrigerant charge is reduced by 30% compared to a standard flooded bundle.**



### Standard touch screen display

The KVV series comes with a **touch screen display and customized software and screens as standard.** On request, total web monitoring can be integrated through an Ethernet card

### Production of hot water up to 90°C

The units of the KVV range **can produce water at a temperature of 90°C even from a very cold source.** Thanks to this feature, the heat pumps can be integrated into the **district heating circuits** even in replacement of traditional heat generators.

### Optimised installation space

The unit is available in both standard and 'mirrored' layout versions. When ordered together, the two versions **can be placed adjacent to each other on the long side** in order to occupy **as little space as possible in the heating plant and facilitate maintenance operations.**

### Economiser, power and flexibility

The integration of the refrigeration circuit with the economiser allows **the heat output of the heat pump and also the efficiency (COP) to be increased.**



KVV		500K	1001K	2001K
<b>User water temperature 65/85°C, Source water temperature 4/1°C 20% ethylene glycol</b>				
<b>Thermal power</b>	kW	535	1104	2208
<b>Total absorbed power</b>	kW	227.6	460	920
<b>Sound power</b>	dB(A)	96	99	102
<b>Dimensions [LxHxD]</b>	mm	3045X2574X1800	5180X2574X1800	5180X2574X3600

The 2000kW unit includes two 1000kW modules.