

iMEX HP R454B RANGE

iMEX

*Air to water heat pump with inverter scroll compressors
from 24 up to 60 kW*



R454B

INVERTER
TECHNOLOGY

60°C

Main features



LCD screen with user friendly interface. As an option a second remote one is possible.



Smart grid ready



Expandable

Expansion kit to control up to 4 units in master /slave configuration

2 sound versions:

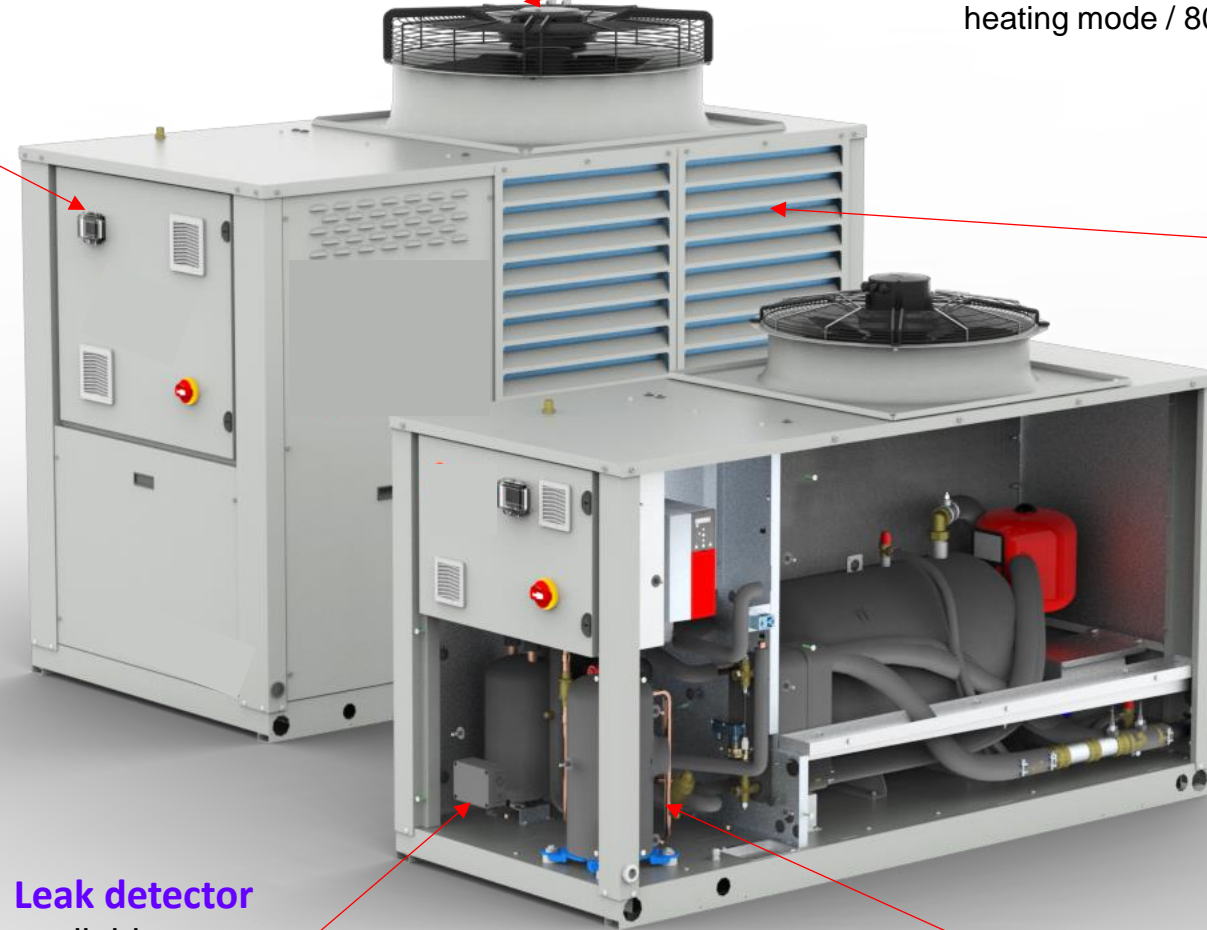
- SN= compressor with sound jacket
- XLN = compressor enclosure fully isolated (-3 dB(A) lower than SN).

High efficiency EC fan

Total control of the fan speed for optimum performance, at any condition.

Option **HESP** fan is available, granting up to **140 Pa AESP** in heating mode / 80 Pa in cooling.

Optional grills Robust and effective in protecting the air side coils during transportation, installation and extreme weather conditions



Leak detector available as an option.

Variable speed scroll compressor

Optimized for R454B with continuous capacity modulation for ultimate efficiency.

Unit preliminary performance

Mod.	Vers.		007	009	011	013	017
Refrigerazione <i>Cooling</i> ⁽¹⁾							
CC	H	kW	18,5	23,4	30,5	37,2	49,5
PI		kW	7,6	9,8	11,9	15,0	20,0
EER			2,44	2,38	2,57	2,48	2,48
WF		m³/h	3,18	4,02	5,25	6,40	8,51
WPD		kPa	19,6	22,0	32,4	33,1	19,7
Riscaldamento <i>Heating</i> ⁽²⁾							
HC	H	kW	18,6	23,6	29,9	37,4	48,1
PI		kW	7,3	8,8	11,5	14,3	18,5
COP			3,19	3,35	3,16	3,26	3,18
EC			A++	A++	A+	A++	A++
WF		m³/h	4,03	5,13	6,34	8,07	10,32
WPD		kPa	27,1	31,1	42,1	47,2	44,3
Riscaldamento <i>Heating</i> ⁽³⁾							
P rated		kW	18,6	31,4	38,7	48,1	61,2
ηs,h		%	156	162	146	154	155
SCOP			3,98	4,12	3,72	3,92	3,94
EC			A++	A++	A+	A++	A++

1) Outdoor temperature 35°C - chilled water temperature in/out 12/7°C. Technical data in accordance to EN 14511.

(2) Outdoor temperature 7°C - 90% U.R. - hot water temperature in/out 40/45°C). Technical data in accordance to EN 14511.

(3) Ecodesign rating at low temperature conditions. Outdoor temperature: 7°C dry bulb/6°C wet bulb and hot water temperature in/out: 30°C/35°C. ηs,h / SCOP as defined in Directive 2009/125/EC of the European Parliament and of the Council with regard to Ecodesign requirements for Space heaters and combination heaters with Prated < 400kW - COMMISSION REGULATION (EU) N° 813/2013 of 2 August 2013.

Dimensions and weights

Mod.	Vers.		007	009	011	013	017
A		mm	2013	2013	2167	2167	2167
B		mm	838	838	1117	1117	1117
C		mm	1333	1333	1802	1802	1802
SW		kg	310	325	455	484	500



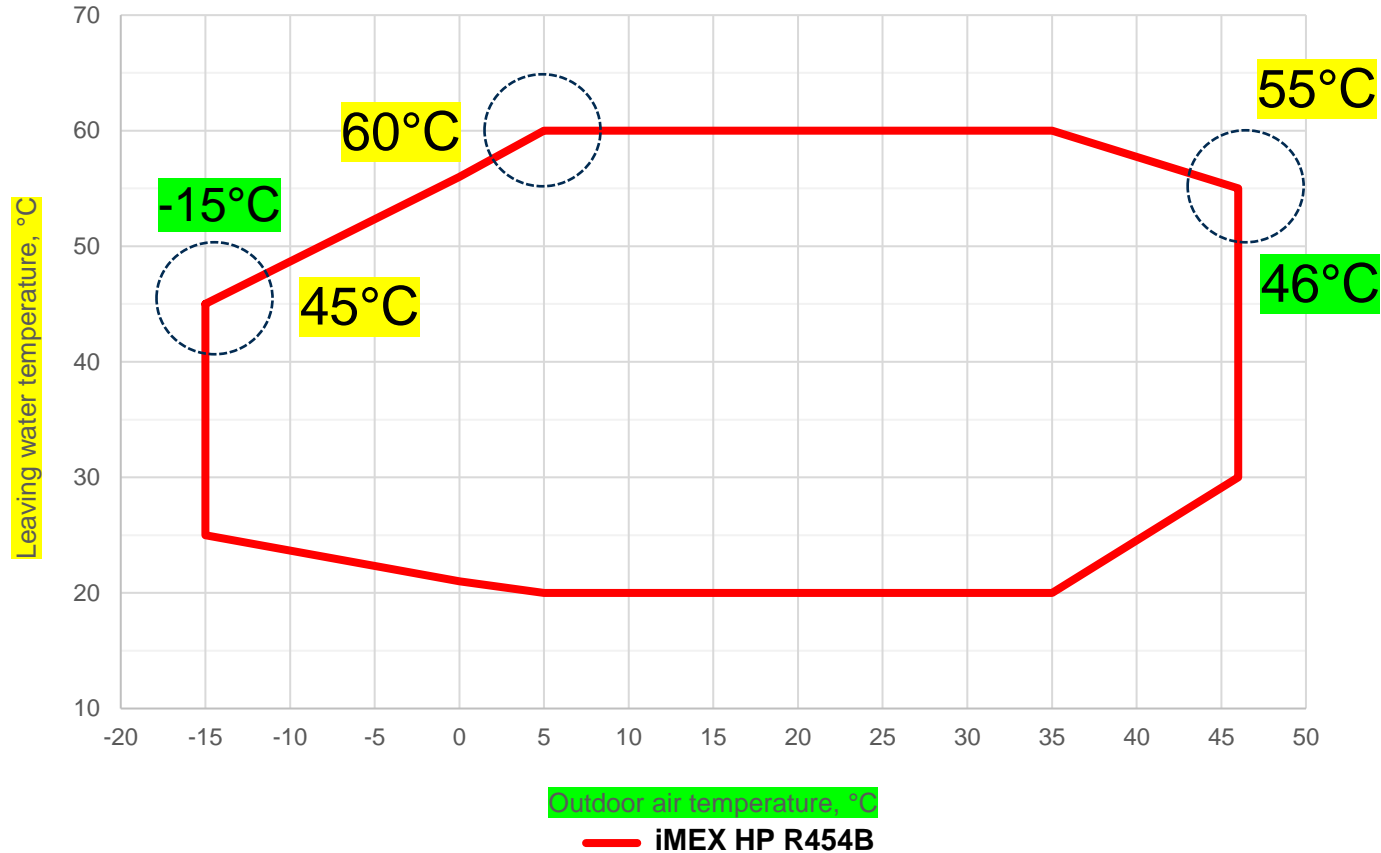
1 Configurazione per tutti i modelli della gamma iMEX HP R454B fino alla 009.
Configuration for all models of the iMEX HP R454B range up to 009.

2 Configurazione per tutti i modelli della gamma iMEX HP R454B a partire dalla 011.
Configuration for all models of the iMEX HP R454B range starting from 011.

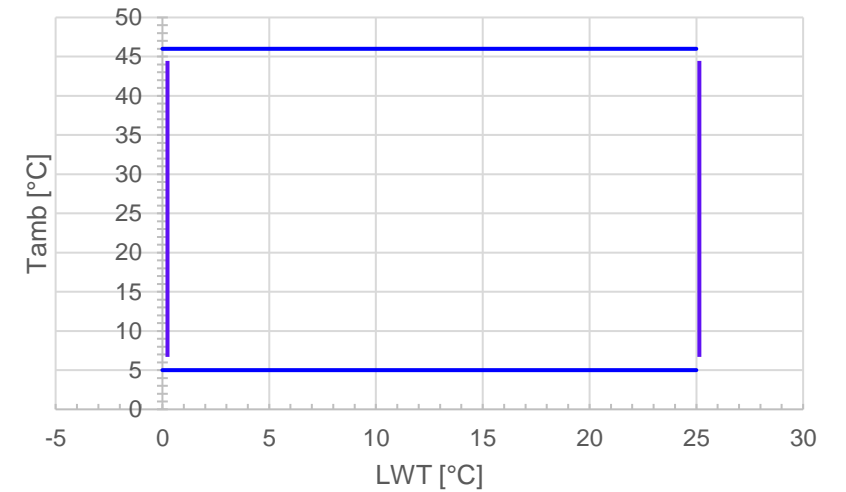
A Lunghezza - *length*
B Profondità - *width*
C Altezza - *height*
SW Peso di Spedizione - *shipping weight*

Operating maps

Heating mode

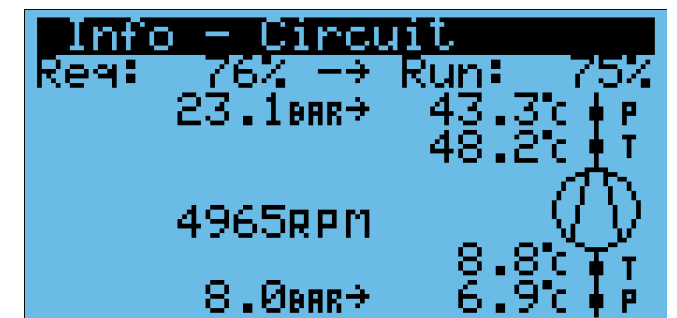
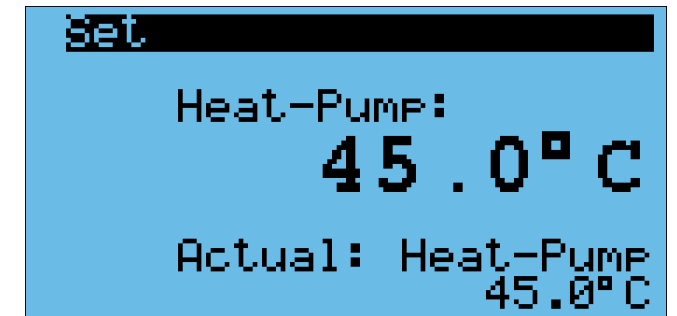
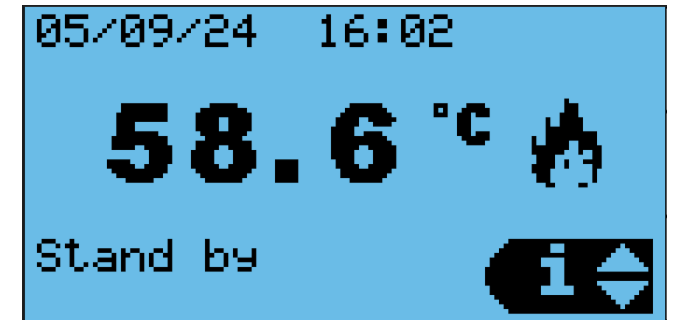


Cooling mode



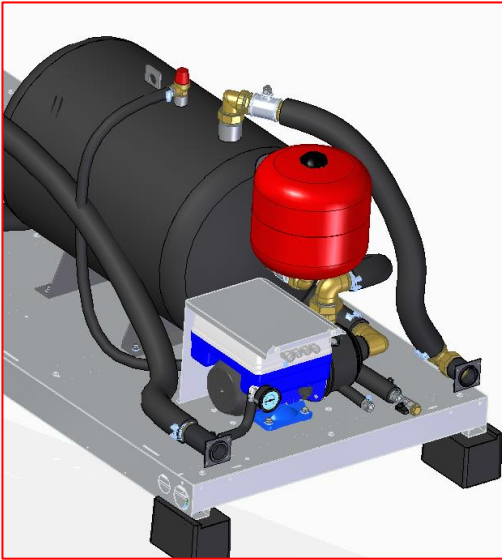
Electronic controller

- **Carel uPC3 electronic unit controller** (shared with iMEX HP-N range with R290);
- Software algorithm developed internally (shared with iMEX HP-N range with R290);
- User friendly **LCD interface**;
- Possibility to remote control / management / monitoring with xVISION;
- Heating and Cooling capacities measurements and COP (visible to Service);
- Setpoint management via climatic curves;
- **“Smart Grid Ready” Management**;
- DHW with anti-legionella management (customer care electrical heater required);
- **Modularity solution up to 4 units** (additional option supplied loose).
- **Integration with different sources** (El. Heaters) (Expansion module required);
- BMS connectivity via **MODBUS TCP/IP or RTU**.



Hydraulic modules

- All Hydraulic modules (options) installed inside the unit
 - Pump P1 w/wo Water Tank
 - Pump P2 w/wo Water Tank
 - Pump P1 with VSD w/wo Water Tank
 - Pump P2 with VSD w/wo Water Tank
- Water tank capacities:
 - 100 liters for sizes 007, 009
 - 150 liters for sizes 011, 013, 017



Pictures from case: Pump with VSD + Tank

Further features / options

Outdoor coils drain pan



Sloped drain pan to collect condensate during defrost.
As an option an electric heater can be placed in the tray to avoid ice accumulation, for harsh climate.



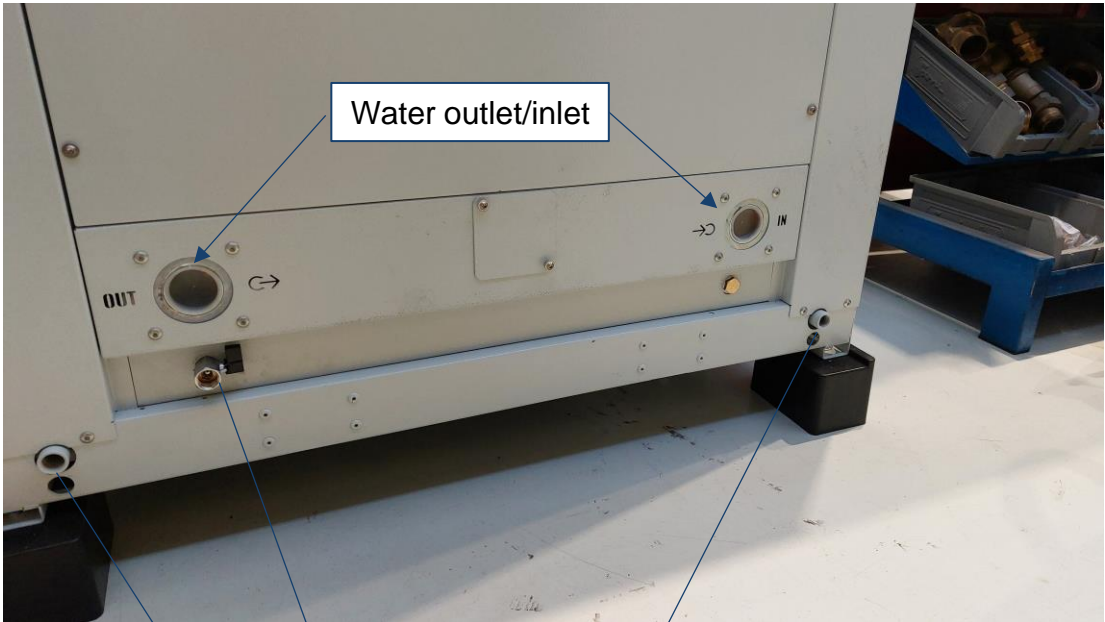
View from below



Water gauge

It's a standard, mounted on the rear of the unit.

All connections from the rear



Water outlet/inlet

Circuit drainage

Condensate tray

Further features / options

Further options

- **Electromagnetic filters** suitable for residential application
- **Antivibration** rubber isolators
- Victaulic connection kit (std: treated)
- 3-way valve kit for hot sanitary water production
- Anti freeze kit for hydraulic modules
- Container kit (wooden cage)

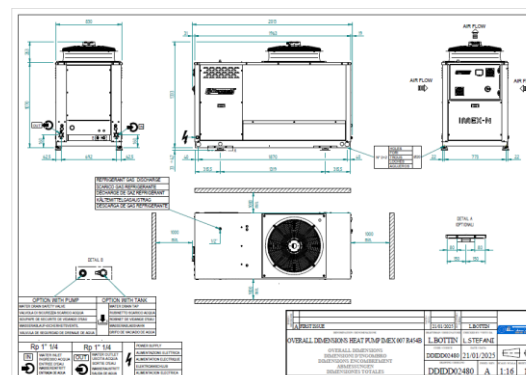
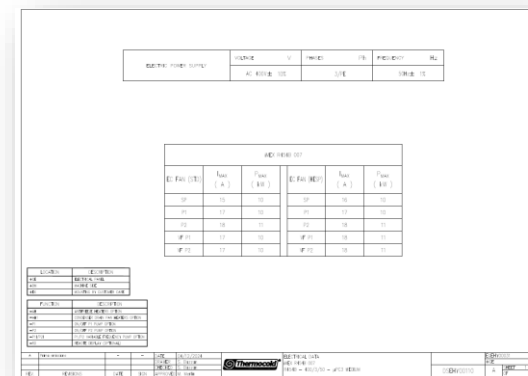
iMEX HP R454B – Documentation available in “Download Area” on our website www.thermocold.it



Technical data sheet



Presentation



COMING SOON additional docs on product page in the website: consult it to keep always updated!

Thank you for your kind attention!