PRODUCT CATALOGUE

PACKAGE
AIR CONDITIONING SYSTEMS

ROOFTOP UNITS PERSEUS

ROOFTOP UNITS HSE

imbat

2024

OCTOBER

imbat.com

WHO IS IMBAT

Our Story

Since our founding in 1991, Imbat has been on a journey of innovation and engineering excellence. What began with a passion for mechanical installations soon grew into the production of cooling units, as we manufactured our first designs in 1996. By 1999, we expanded our scope to include Chiller and Rooftop Units, positioning ourselves as a key player in the HVAC industry.

In 2001, we reached a major milestone by production of Close Control Units and by 2004, our efforts were recognized with our first R&D support from *TÜBİTAK. Two years later, in 2006. We took another leap forward by being the first in the world to implement inverter technology in cooling systems, a ground breaking achievement that placed us at the forefront of innovation in our field.

Our dedication to research and development continued to grow. In 2015, Imbat earned the distinction of being the seventh Eurovent-certified rooftop unit manufacturer globally and the first in Türkiye. This achievement was followed by the launch of new, cutting-edge products, including Portable Rooftop Units in 2018, and our Tropic Rooftop Units in 2019, which are specifically designed to perform in extreme desert conditions.

* TÜBİTAK is Turkey's leading scientific and technological institution, supporting scientific research, promoting technological development, and enhancing the country's innovation capacity.

WHO IS IMBAT

Our Story

In the same spirit of progress, we expanded further in 2021, developing solutions for Data Centers with the introduction of In-Row, In-Rack, Rear-Door and CRAC/CRAH unit. 2022 marked another pivotal moment when we partnered with EMPA as the only Turkish participant in the European Union's ECO CUBE project, which focused on zero-energy-input solutions for HVAC systems. That same year, we brought our Aircraft Air Conditioner R&D project to market. In 2023, our Free Cooling Chiller R&D project demonstrated our ongoing commitment to sustainability and energy efficiency, further establishing Imbat as a leader in environmental responsibility.

With each year, we've continued to push the boundaries of what's possible, driven by our belief that there is always room for improvement. In 2024, we proudly introduce the Perseus Rooftop Unit, designed to be a hero in the HVAC industry, a testament to our legacy of engineering and innovation.

Since 1991, our story has been about more than just products-it's about creating efficiency, reliability, and a sustainable future. And with each new innovation, we reaffirm our core belief: **Efficiency is designed here.**

Imbat has completed more than a quarter of its goal of being a 100 year old company...

WHO IS IMBAT

Leading with Precision and Purpose

Imbat combines cutting-edge engineering solutions with a commitment to sustainability and human-centered design. Our mission is to create products that not only excel in performance but also contribute to a more livable world for future generations. By focusing on innovation, precision, and sustainable engineering practices, Imbat aims to lead the HVAC industry and make a lasting positive impact.

INNOVATIVE

As a leading brand in the HVAC industry, Imbat is driven by a passion for R&D-focused solutions, constantly pioneering new and efficient designs.

ENVIROMENTALLY FRIENDLY

We utilize global resources responsibly, with a focus on high-performance, energy-efficient products that reduce environmental impact.

R&D POWER

Our highly skilled engineering team is dedicated to finding the most advanced solutions, leveraging years of expertise to push boundaries in product innovation.

INTERNATIONAL

Imbat is proud to be a trusted global brand, with our products being distributed to over 50 countries worldwide.

EXPERT

Our deep expertise in compressor-based HVAC and refrigeration solutions, established since 1991, ensures reliable, high-quality results.

ACCESSIBLE

We prioritize a customer-centric approach, offering professional, accessible, and reliable support from start to finish.

EFFICIENT

By integrating innovative technologies, Imbat maximizes value for our partners and promotes sustainable growth for the future.

RESPECTED

With a deep respect for our heritage and a focus on continuous development, Imbat is recognized as a leader in the industry.

FRIENDLY

Our global presence is built on strong relationships, with decades of trust and collaboration with clients across numerous markets.

AGILE

Imbat is responsive to the evolving needs of the industry, offering flexible and innovative solutions that meet diverse customer requirements with speed and precision.

WHERE IS IMBAT

Imbat to World

İmbat operates effectively across a broad global landscape. Our company has a strong presence in international markets, successfully exporting our products to numerous countries.

Our sustainable sales policy focuses on providing dedicated after-sales services, distributor agreements, and local support tailored to each country, ensuring the highest level of customer satisfaction. İmbat's global strategy is designed to meet regional needs, enabling us to deliver high standards of products and services everywhere. Our international achievements reinforce our position as a reliable partner worldwide and demonstrate our ability to provide effective solutions for diverse market demands.

WHERE IS IMBAT

OFFICE AND COMMERCIAL BUILDINGS

Package Air Conditioning
Precision Air Conditioning
Chiller

FACTORIES

Package Air Conditioning
Precision Air Conditioning
Chiller

GOVERMENT BUILDINGS

Package Air Conditioning
Precision Air Conditioning
Chiller

HOTELS

Package Air Conditioning
Precision Air Conditioning
Chiller

HOSPITALS

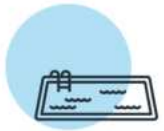
Package Air Conditioning
Precision Air Conditioning
Chiller

LABORATORIES

Precision Air Conditioning

SHOPPING MALLS

Package Air Conditioning
Precision Air Conditioning
Chiller



INDOOR POOLS

Package Air Conditioning
Pool Dehumidification Unit

DATA CENTERS

Precision Air Conditioning
Data Center Cooling
Chiller

FOOD INDUSTRY

Package Air Conditioning
Chiller

COMMUNITY AREAS

Package Air Conditioning
Precision Air Conditioning
Chiller

AIRPORTS

Passenger Boarding Bridge Rooftop
PCA Pre Conditioned Air Units
Precision Air Conditioning
Package Air Conditioning

OUR MILESTONES

What We Have Been
Through in 34 Years?

İmbat's 34-year journey has been shaped by continuous innovation and bold steps. From the beginning, we have pushed the boundaries of engineering and technology, redefining industry standards with every stride. Each milestone has not only marked a success but also signified a bold vision for the future. Our past innovations have crafted our present and opened doors to future opportunities. Now, building on this strong foundation, we will continue to lead in technology and innovation, shaping what's next.

1991 – Establishment

1997 – First Cold Storage Unit Production

1999 – First Rooftop Unit Production

1999 – First Chiller Production

2000 – First Pool Dehumidification Unit Production

2001 – First Precision Air Conditioning Unit Production

2003 – First Export

2004 – First R&D Project Supported by Third Parties

2006 – Adapted Invertor to the multicomprressor cooling units first in the world, supported by Third Parties

2008 – Start to use Asymmetric Cooling Technology for all unit with Scroll Comprresors

2010 – Start to use thermodynamic heat recovery in rooftop

2015 – 7th Eurovent Certification in the World

2018 – Portable Rooftop Unit Production

2019 – Establishment of the İmbat R&D Center

Production of Tropical Rooftop Unit

2021 – Data Center Cooling Units Production (In-Row, In-Rack, Rear-Door, CRAC/CRAH)

2022 – PCA Pre-Conditioned Air Units Production

Factory Expansion

R&D Partner of Zero Energy Input EMPA Facility ECO CUBE Project.

2024 – ***Perseus Rooftop Unit Production***

NEW

perseus

THIRD PARTY VALIDATIONS

Building For A Better World

At İmbat, we are committed to upholding the highest quality standards at every stage of our operations. Each year, we conduct numerous Factory Acceptance Tests at our facility, showcasing the excellence and reliability that our partners expect right before their eyes.

Our dedication to excellence is also reflected in our extensive range of third-party certifications, which highlight our adherence to international standards and HVAC regulations. Certifications from renowned global and national institutions, covering areas from manufacturing and documentation to data security and product quality, validate our robust quality management systems and innovative solutions. These third-party endorsements are a testament to our unwavering commitment to surpassing industry expectations and ensuring excellence in every product we deliver.

İmbat not only ensures compliance with performance and reliability standards in the HVAC sector but also plays a decisive role in setting the industry benchmarks. As a Eurovent Corporate Member and through our involvement in Eurovent's management, we are among the leading companies defining the standards for energy efficiency, performance, and environmental sensitivity in the HVAC sector.

EUROVENT CERTIFIED PERFORMANCE eurovent-certification.com

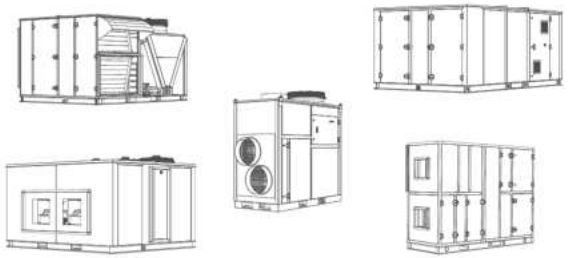
İmbat rooftops participates in the Eurovent certification programme. The models are listed in the Eurovent directory, please check website: **www.eurovent-certification.com**

ISO 45001 CERTIFIED · ISO 9001 CERTIFIED · ISO 14000 CERTIFIED · ISO 27001 CERTIFIED · ISO 45001 CERTIFIED · EAC · TSEK · CE

OUR PRODUCTS

PACKAGE AIR CONDITIONING SYSTEMS

NEW ROOFTOP UNITS *perseus*
WATER COOLED ROOFTOP UNITS
TROPICAL ROOFTOP UNITS
PORTABLE AIR CONDITIONERS
POOL DEHUMIDIFICATION UNITS

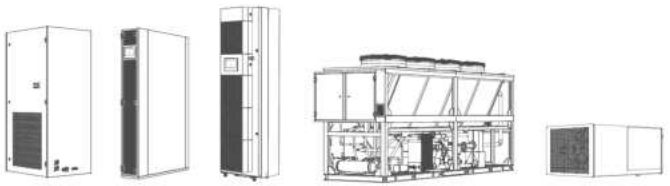


PRECISION AIR CONDITIONING SYSTEMS

IN-ROOM AIR CONDITIONERS

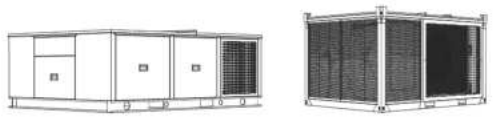
DATA CENTER COOLING SYSTEMS

IN-ROOM AIR CONDITIONERS
IN-ROW AIR CONDITIONERS
REAR DOOR AIR CONDITIONERS
FREE COOLING CHILLERS
IN-RACK AIR CONDITIONERS



AVIATION AIR CONDITIONING SYSTEMS

PASSENGER BOARDING BRIDGE AIR CONDITIONERS
PRE-CONDITIONED AIR (PCA) UNITS

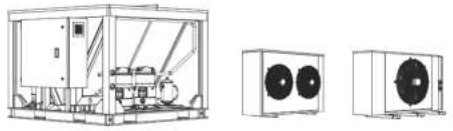


CHILLER SYSTEMS

AIR COOLED CHILLERS
WATER COOLED CHILLERS
FREE COOLING CHILLERS

OTHER SYSTEMS

CONDENSING UNITS
REMOTE CONDENSERS
MICROCHANNEL CONDENSERS



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PACKAGE AIR CONDITIONING SYSTEMS

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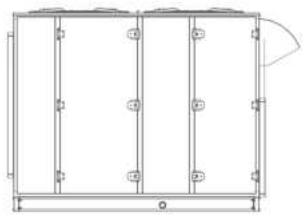
ROOFTOP UNITS PERSEUS

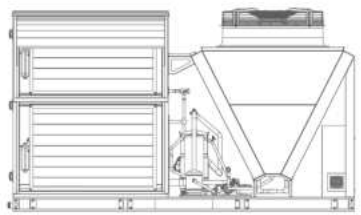
ROOFTOP UNITS HSE

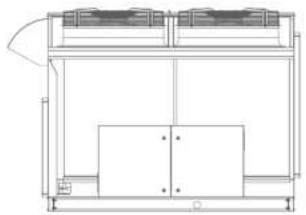
ROOFTOP UNITS *perseus*

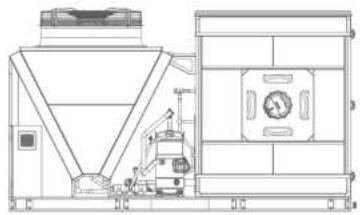
Perseus Rooftop Series is designed to exceed the latest EcoDesign+ requirements, ensuring superior energy efficiency and long-term sustainability. This rooftop unit is equipped with a robust double-skin 50 mm A1 class stone wool panel, 70 kg/m³ rockwool isolation enhancing insulation and fire resistance. The unit's use of R454B refrigerant, one of the most environmentally friendly and efficient options in its class, further reduces its carbon footprint.

Engineered for optimal performance, the rooftop unit offers an extensive airflow range of 3850 m³/h to 55,200 m³/h and cooling capacities from 60 to 360 kW. The universal design eliminates the need for roofcurb installations, saving costs and reducing installation time. Additionally, the rooftop series provides options such as a HEPA filter module to maximize indoor air quality and a thermodynamic heat recovery system that can achieve up to 30% energy savings, ensuring a healthier and more comfortable environment.









ROOFTOP UNITS *perseus*

- Low GWP Refrigerant
- EC Supply Fan
- Asymmetric Cooling System
- Scroll Compressor
- Plug & Play
- Free Cooling Thermal or *Entalphic
- Double Skinned Galvanised Sheet Casing 70 kg/m³ Rockwool Insulation
- Electronic Expansion Valve
- Smart Defrost
- Filter Clogging Alarm *Three Stage Filtration
- Thermodynamic Heat Recovery *Plate and Rotary Type Heat Recovery
- Wired Remote Controller *BMS Integration Over Bacnet/LonWorks/ TCP IP
- Wired Remote Controller *Remote Access Through Ethernet Connection
- *Touch Panel
- *High Indoor Air Quality
- Carbon Dioxide Sensor
- Heating Options *Gas Burner/*Hot Water Coil *Electrical Heater
- *HEPA Filter Module
- *Bag Filter Module
- *Low Noise Level
- *EC Axial Condenser Fan
- *Hydrophilic or Epoxy Coating
- *Inverter Scroll Compressor
- *Electric Pre-Heater
- Steam Humidifier
- *Supply Airflow Control

STANDARD FEATURES

NEW

MODULAR DESIGN

Unlike standard products, this system offers a modular design with various options. The modular structure allows for easy addition and removal of components, facilitating transportation. Additionally, optional features can be easily integrated into the system in the future due to its modularity.

INDOOR AIR QUALITY

Indoor air quality is maintained with high-efficiency filters, a filter pollution alarm, and a CO_2 indoor air quality sensor. The CO_2 sensor option monitors the return air for contamination, ensuring continuous indoor air quality control and energy savings by adjusting the intake of fresh air as needed.

COMPLIANCE WITH CURRENT REGULATIONS

Fully compliant with the latest ERP 2021 (European Energy Efficiency) regulations, the system meets maximum energy performance requirements, offering users economic operational costs and assurance in environmental sustainability.

ECO-FRIENDLY DESIGN

The Perseus rooftop series is designed with an environmentally conscious approach. By providing high energy efficiency, it minimizes the carbon footprint and aims to reduce environmental impact. The series utilizes eco-friendly refrigerants with low Global Warming Potential (GWP), such as R454B, to maximize energy performance. This allows our users to achieve energy savings while making an environmentally responsible choice.

CUSTOM AUTOMATION SOFTWARE

The Perseus rooftop series, with its advanced electronic control panel, provides daily and weekly programming options for user flexibility. It offers energy savings through fully automatic operation and easy access via remote control. Additionally, it can be integrated into building management systems via various protocols such as Modbus RTU, CANbus, or TCP/IP, ensuring the device's efficiency is optimized through automation software. The custom-developed automation software enhances the performance of rooftop HVAC units, helping users reduce operating costs.

ROOFTOP UNITS *perseus*

OPTIONAL FEATURES / 1

NEW

THREE DIFFERENT AUXILIARY HEATING
(GAS BURNER, HOT WATER COIL, ELECTRICAL HEATER)

The unit can be customized according to heating requirements with options for gas burner, hot water coil or electric heater, each available in different capacities. This ensures the most efficient solution is provided based on energy source and building needs, thereby increasing overall efficiency.

PROPORTIONAL HEATING CONTROL WITH 2-WAY OR 3-WAY VALVE SET

The 2-way or 3-way valve set, compatible with the hot water heating option, provides precise temperature control by proportionally adjusting the flow rate of the heating water. This enhances comfort while optimizing energy consumption.

ROTARY OR PLATE HEAT RECOVERY

Energy from the exhaust air is recovered using rotary (wheel) or plate heat recovery units, which pre-heat/cool the fresh air. This significantly improves energy savings, especially during the winter months, and reduces operating costs.

FRESH AIR DAMPER

The fresh air damper can be manually set to a fixed rate or adjusted proportionally according to external weather conditions. This improves indoor air quality while enhancing energy efficiency.

INVERTER SCROLL COMPRESSOR MODELS

Inverter scroll compressors, operating at variable speeds, minimize energy consumption under partial loads and adapt the system to capacity needs. This provides high efficiency, particularly at partial loads.

ENTHALPY CONTROLLED FREE COOLING

Free cooling mode is activated based on the enthalpy calculation of the outdoor air. When the outdoor temperature is suitable, the cooling cycle is bypassed, and outdoor air is used to achieve energy savings.

ELECTRIC PRE-HEATER

Under cold weather conditions, incoming fresh air is pre-heated by electric heaters before entering the space. This prevents freezing risks and maintains indoor comfort.

HUMIDITY AND DEHUMIDIFICATION CONTROL

Humidity and dehumidification systems are used to control the humidity levels in the environment. High-precision control ensures the desired humidity level, which is crucial for comfort and efficiency. Also, reheat with hot gas coil makes the dehumidification process more efficient and eco-friendly.

SUPPLY AIRFLOW CONTROL

The supply airflow can be automatically adjusted based on air demand, preventing unnecessary energy consumption and ensuring optimal air distribution.

AUTOMATIC ADJUSTMENT OF FRESH AIR RATIO BETWEEN 0%-100%:

Depending on indoor and outdoor conditions, the fresh air ratio can be automatically adjusted between 0% and 100%. This maximizes energy efficiency and air quality.

EC AXIAL CONDENSER FAN

Electronically commutated (EC) axial fans operate at variable speeds, providing low energy consumption and maintaining condenser temperature at optimal levels.

ROOFTOP UNITS *perseus*

OPTIONAL FEATURES / 2

NEW

ELECTRONIC EXPANSION VALVE

The electronic expansion valve precisely controls the refrigerant flow, providing higher efficiency and accurate superheat control.

ISO COARSE 30% (G2), ISO EPM10 50% (M5) AND ISO EPM1 50% (F7) PANEL FILTER

These panel filters, effective against various particle sizes, improve air quality and ensure cleaner operation of the system.

ISO EPM1 50% (F7) AND ISO EPM1 80% (F9) BAG FILTER MODULE

Bag filters provide high-efficiency filtration by capturing finer particles and are particularly preferred for sensitive indoor applications.

HEPA FILTER MODULE

HEPA filters, which provide high-efficiency particle filtration, are preferred in sterile areas or environments requiring high air quality.

LOW NOISE LEVEL

Fans and compressors with low noise levels enable quiet operation, which is particularly advantageous in applications where comfort is prioritized.

SMOKE DETECTOR

The unit ensures fire safety by detecting smoke. It senses the presence of smoke in the air ducts and takes necessary precautions.

INDOOR AIR QUALITY CONTROL WITH CO2 SENSOR

CO_2 sensors monitor indoor air quality and optimize the amount of fresh air, ensuring both indoor air quality control and energy efficiency.

7" TOUCH PANEL

The user-friendly 7-inch touch screen, with a customizable interface, allows for monitoring and managing system settings and status.

HYDROPHILIC OR EPOXY COATING ON EVAPORATOR AND CONDENSER HEAT TRANSFER SURFACE

Hydrophilic coating allows water droplets to quickly coalesce and drain off the evaporator and condenser surfaces. Epoxy coating provides extra resistance to corrosion. Both coatings enhance heat transfer efficiency and can be chosen to protect heat exchangers from corrosive environments.

EPOXY COATED CONDENSER COIL

The condenser surface is shielded from outdoor weather conditions and pollutants, extending the unit's lifespan and maintaining its performance without degradation. The condenser surface protection option is a feature designed to safeguard heat exchangers from external environmental conditions and potential physical damage. This coating prevents damage and contamination caused by foreign substances on the condenser surface, thereby prolonging the equipment's lifespan and ensuring consistent performance.

BMS COMMUNICATION WITH DIFFERENT OPTIONS

The system can be fully integrated with building management systems, facilitating centralized management through data exchange via optional protocol options such as TCP/IP, Modbus, Bacnet, Canbus, or RS485.

SMART CLIMATISATION WITH IOT

The system can be monitored, controlled, and maintained remotely through Ethernet-based access, reducing service costs and time.

ROOFTOP UNITS *perseus*

WHAT MAKES İMBAT DIFFERENT / 1

NEW

IDV TECHNOLOGY

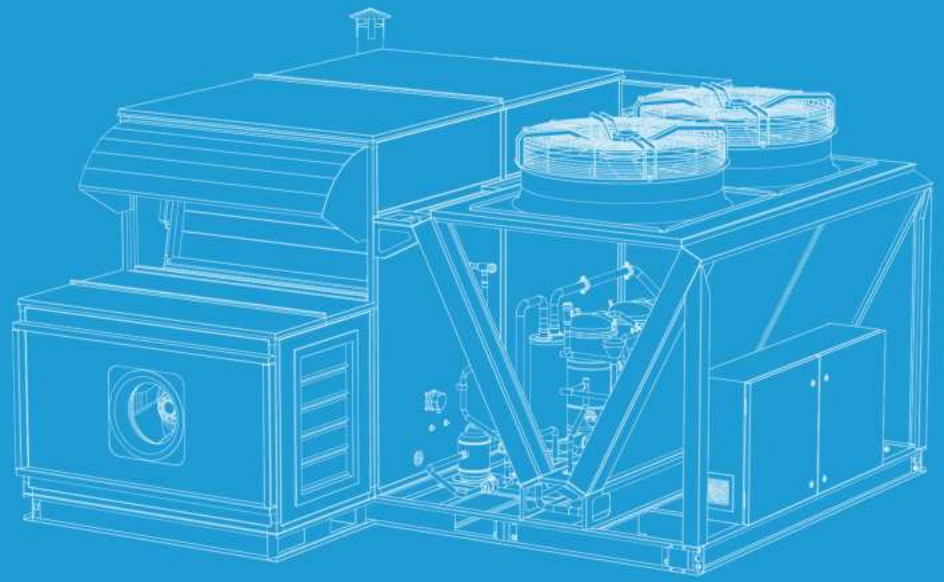
The Intermediate Discharge Valves (IDV) located in the middle sections of scroll sets allow refrigerant flow under low operating conditions, preventing excessive compression. This ensures that the compressor operates more efficiently under partial loads. Particularly during compressor start-up, the IDV automatically engages, reducing the current drawn by the compressor, thereby extending its lifespan. The combination of IDV technology and asymmetric compressor structure dynamically adjusts capacity according to the cooling demand in the system. The optimized operation of compressors with different capacities provides up to 30% energy savings, both under partial and full load conditions. Energy consumption is minimized, especially during long-term partial load operations, while maintaining high levels of cooling capacity and unit efficiency.

DOUBLE SKINNED GALVANIZED SHEET CASING

İmbat's double-skinned structure, featuring a 50 mm 70 kg/m³ rock wool construction, prevents thermal bridging, providing high-level heat insulation as well as sound insulation. This design minimizes the impact of external conditions on the unit, reducing energy loss indoors. This feature enhances the efficiency of the unit and ensures energy savings over prolonged use. Competing solutions may not offer this level of insulation.

HEPA FILTER MODULE

İmbat Rooftop units can optionally be equipped with a HEPA filter module, providing high-efficiency air cleaning with excellent particulate retention. This filter captures 99.97% of particles as small as 0.3 microns, making it ideal for projects requiring high indoor air quality.



ROOFTOP UNITS *perseus*

WHAT MAKES İMBAT DIFFERENT / 2

NEW

BUILDING MANAGEMENT SYSTEM (BMS) INTEGRATION VIA MODBUS TCP/IP

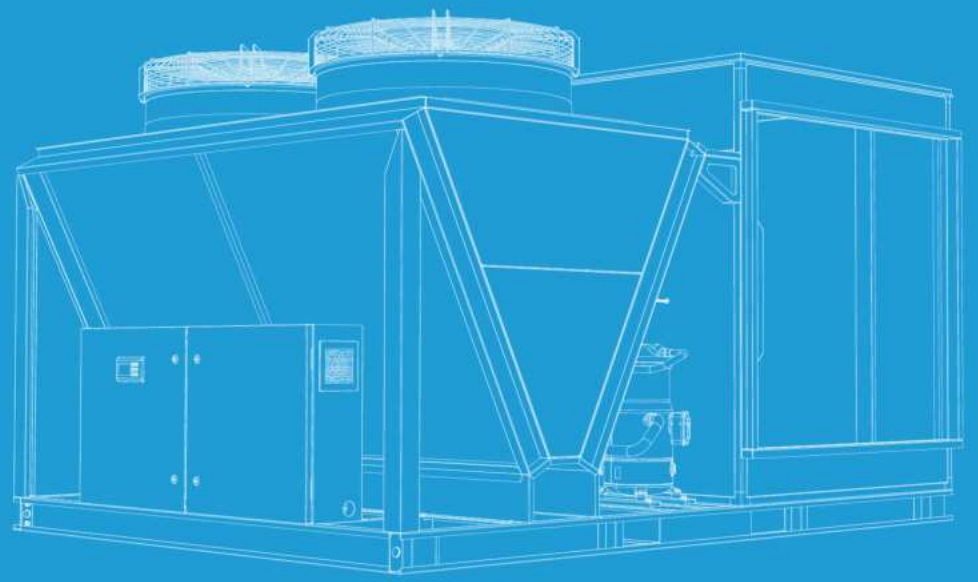
İmbat Rooftop units can be easily integrated with building management systems via the Modbus TCP/IP protocol. This feature allows for remote monitoring and control of the unit. System administrators can instantly access critical information such as energy consumption, fault detection and performance data, enabling proactive maintenance and reducing operating costs.

EC SUPPLY FAN

Radial fans provide high airflow with low energy consumption even under high static pressures. These fans work efficiently in systems with long ventilation ducts, optimizing air flow and minimizing energy loss. Thanks to EC motor radial fans, speed control is possible, allowing for perfect adaptation to variable airflow demands.

THERMODYNAMIC HEAT RECOVERY

The thermodynamic heat recovery achieved by passing exhaust air through the condenser reduces condenser temperatures and improves the compressor's operating conditions. This results in reduced energy consumption by the compressor, increased system performance, and up to 30% energy savings. This technological advantage creates a significant difference, especially in projects where energy costs are critical.
Thermodynamic heat recovery involves passing exhaust air through the condenser, reclaiming energy for heating or cooling processes. This technology reduces the load on the compressor, lowers condensation temperatures, and increases the system's EER (Energy Efficiency Ratio) by 10-15%. Particularly under heavy usage, this feature significantly lowers energy costs and minimizes the environmental impact of the system.



ROOFTOP UNITS *perseus*

WHAT MAKES İMBAT DIFFERENT / 3

NEW

HIGH ENERGY EFFICIENCY AND ECO DESIGN + COMPLIANT DESIGN

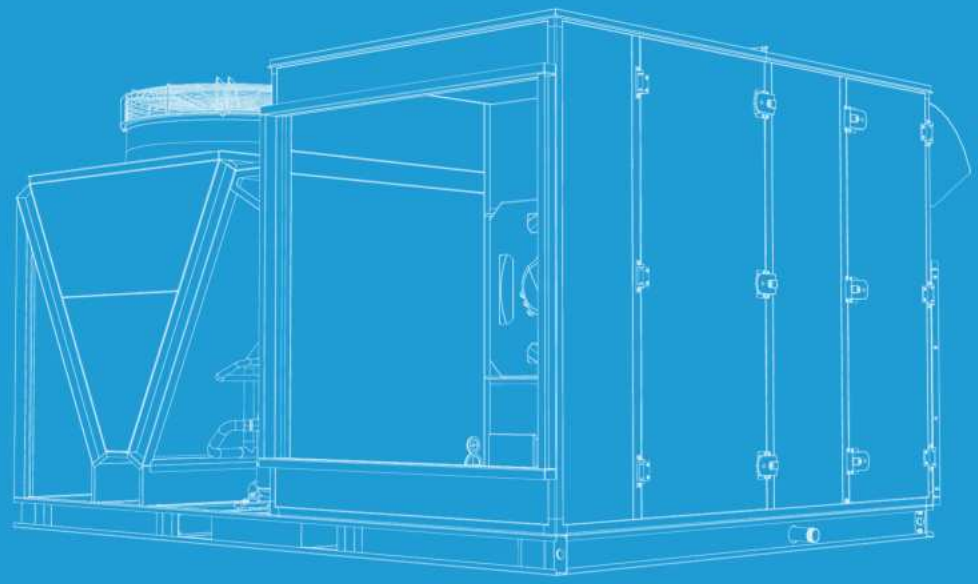
İmbat's Rooftop series adopts an eco-friendly approach that exceeds Eco Design criteria. The units offer high energy efficiency under both full and partial loads, minimizing annual energy consumption. Advanced compressor and fan technologies ensure low energy consumption.

SMART DEFROST SYSTEM

İmbat's smart defrost technology continuously monitors outdoor air temperature and humidity, optimizing defrost cycles. Unlike traditional defrost systems, this system only activates when necessary, minimizing energy losses during defrosting and maintaining maximum cooling efficiency. This technology ensures continuous and reliable operation, especially in low-temperature conditions.

ENERGY-EFFICIENT FAN AND COMPRESSOR OPTIONS

İmbat Rooftop units are equipped with EC motor fans and high-efficiency scroll compressors. EC motors optimize energy consumption based on variable airflow demands, while models equipped with inverter scroll compressors or asymmetric compressors continuously adjust capacity according to load demands, preventing unnecessary energy consumption. This combination ensures the system operates at maximum efficiency under all conditions, reducing total energy consumption by 25-30%.



ROOFTOP UNITS *perseus*

WHAT MAKES İMBAT DIFFERENT / 4

NEW

FREE COOLING AND ENTHALPY CONTROLLED FREE COOLING

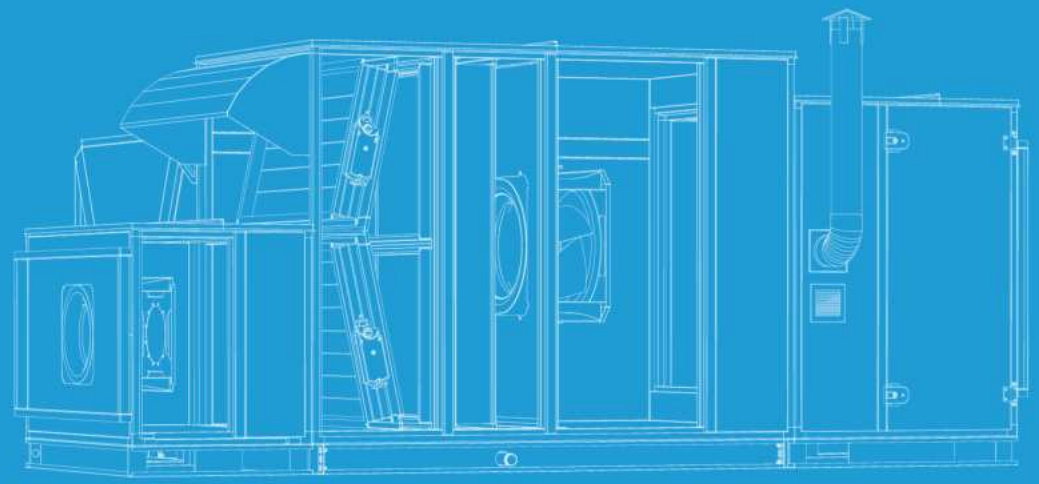
İmbat Rooftop units can be easily integrated with building management systems via the Modbus TCP/IP protocol. This feature allows for remote monitoring and control of the unit. System administrators can instantly access critical information such as energy consumption, fault detection and performance data, enabling proactive maintenance and reducing operating costs.

ELECTRONIC EXPANSION VALVE

The electronic expansion valve precisely controls the amount of refrigerant in the cooling cycle, ensuring optimal use of cooling capacity. This system, which responds faster than traditional thermostatic expansion valves, provides more stable and efficient cooling under varying load conditions. It also operates with low superheat values, extending compressor life and reducing operating costs.

ASYMMETRIC COMPRESSORS

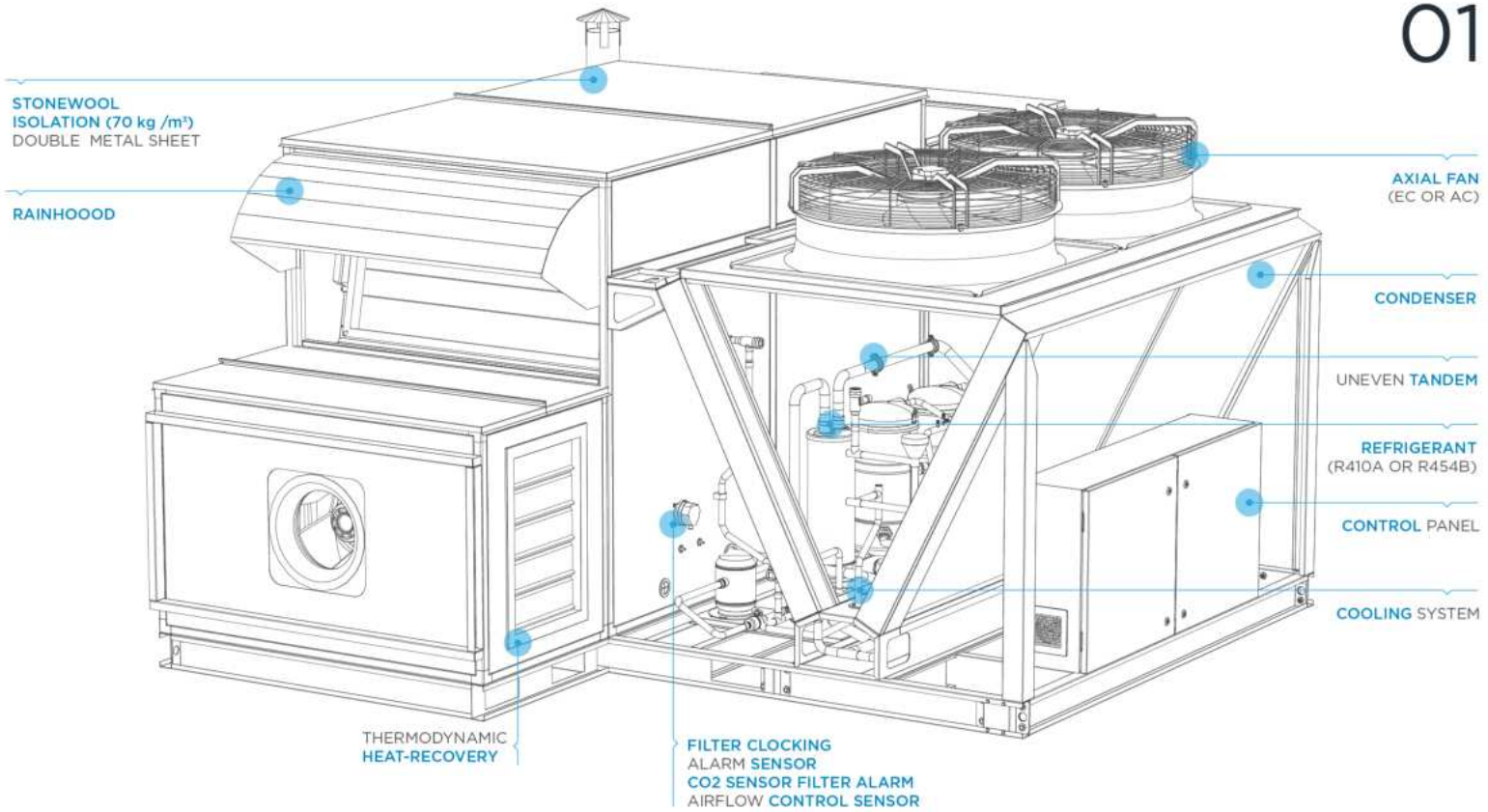
Asymmetric cooling enables the optimized engagement of compressors operating at different capacities, allowing the system to quickly respond to varying cooling loads. This setup prevents compressors from running at full capacity continuously, minimizing energy consumption. This highly efficient control method offers up to 20% energy savings, particularly under partial load conditions, while enhancing the system's flexibility and longevity.



ROOFTOP UNITS
perseus
NEW

MAIN SPESIFICATIONS

01



ENGINEERING
IS IN THE DETAILS

ROOFTOP UNITS
perseus
NEW

MAIN SPESIFICATIONS

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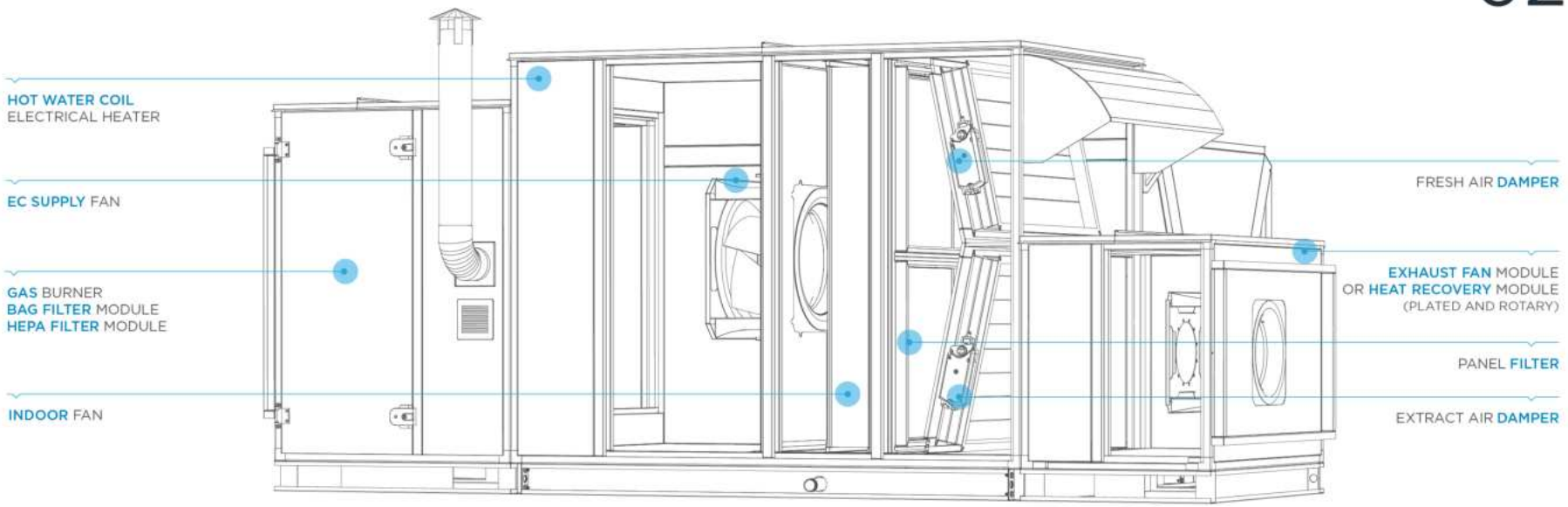


ENGINEERING
IS IN THE DETAILS

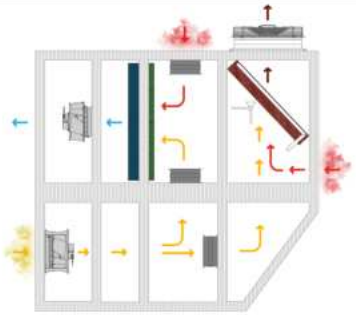
ROOFTOP UNITS *perseus*

AIRFLOW DIAGRAMS

NEW

SINGLE FAN

In single fan rooftop air conditioners, the air absorbed from the inside or outside air is first filtered to eliminate dust and particles. Then this air is passed through the cooler/heater direct expansion coil for air climatization and blown inside the area by a highly efficient fan.



DUAL FAN / FREE COOLING

Enthalpic or thermal free cooling (economizer) is standard in all dual fan models. If the outside temperature is low enough, air units make climatization by using 100% fresh air without cooling, saving energy.

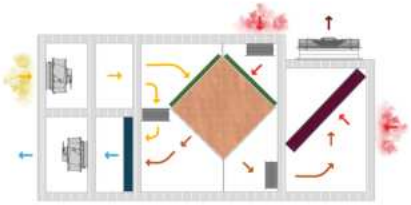
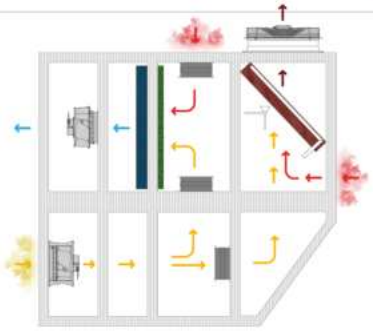


PLATE TYPE HEAT RECOVERY

The heat of exhaust air is transferred to fresh air by the high efficiency plate heat recovery exchanger and energy recovery is obtained as a result.

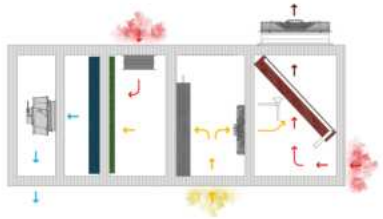


THERMODYNAMIC HEAT RECOVERY

On units with mixed air, heat recovery is provided by transmitting all the exhaust air over the condenser.

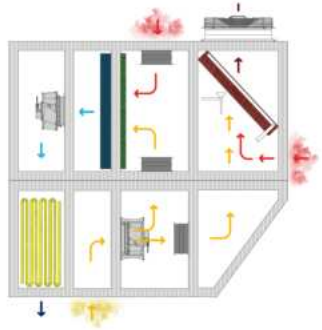
ROTARY TYPE HEAT RECOVERY

The heat of exhaust air is transferred to fresh air by the high efficiency enthalpic, condensation or sorption type rotary heat recovery exchanger and energy recovery is obtained as a result.



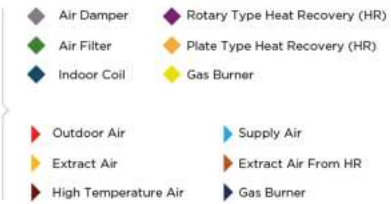
POWER EXHAUST FAN

Power exhaust fan are used to pressurize the exhaust air on the return side. Power exhaust fans are enabled when there is positive pressure in the area and when air intake is above a certain level.



GAS BURNER HEATING

The rooftop air conditioners with gas burner provides independent heating without the necessity of any connection to a central system, even at the lowest climates.



ROOFTOP UNITS *perseus*

IoT AND AUTOMATION / 1

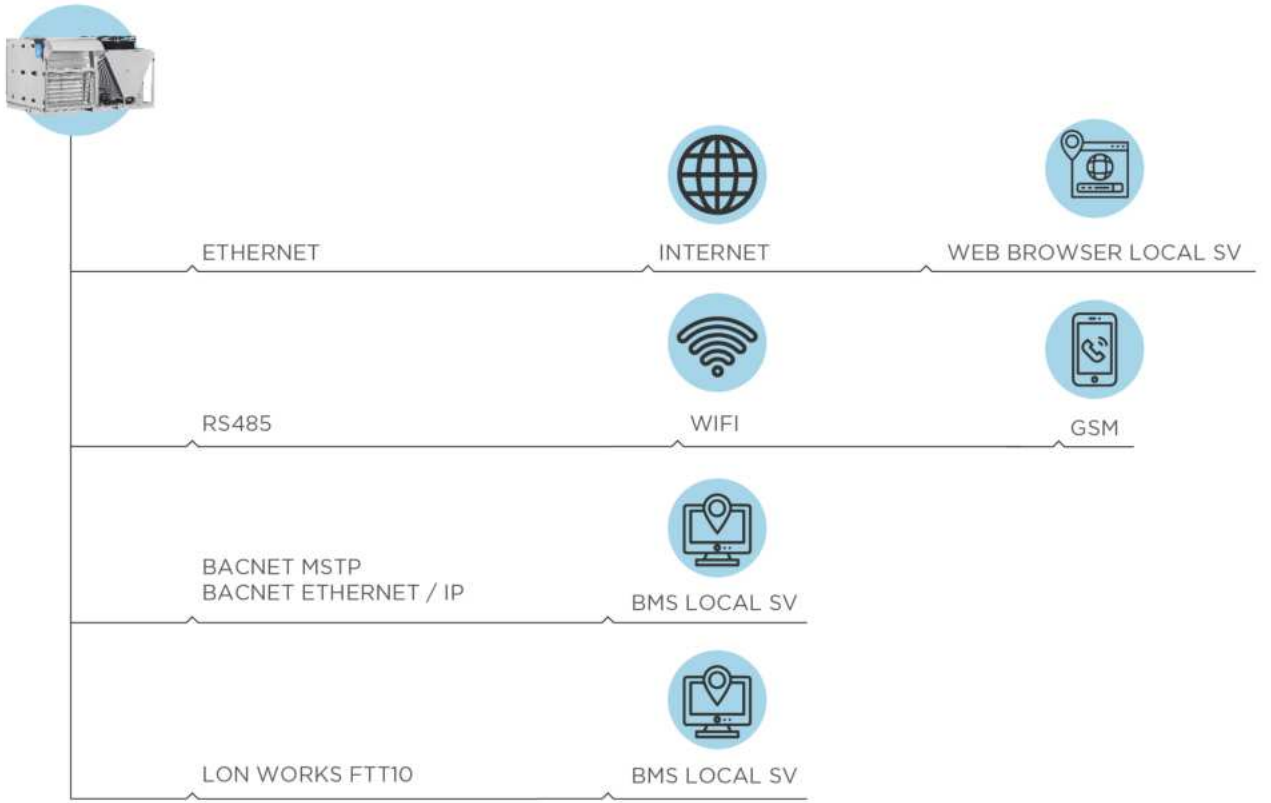
NEW

IoT TECHNOLOGY

Real-time data recording enables the analysis of collected values. The recorded values are used to revise the unit's parameters, ensuring optimal usage. Collected data archives are also used for designing better units.

Through the IoT application, various physical parameters are measured, transmitted over the internet and recorded in real-time. The recorded data facilitates better service, easier maintenance, and reduced energy consumption by enabling informed decision-making.

- Measurement
- Transmission
- Recording
- Analysis
- Decision-making
- Implementation



ROOFTOP UNITS *perseus*

IoT AND AUTOMATION / 2

NEW

AUTOMATION TECHNOLOGY

IMBAT Rooftop air conditioners are equipped with an advanced electronic control panel that supports daily and weekly programming, offering fully automatic operation. These units can be integrated with building management systems with MODBUS and BACNET communication protocols. Also remote control is availabile for units.

Automation System Features

Compressor Equal Aging: Ensures balanced usage of compressors over time.

Low and High Pressure Control: Monitors and manages pressure levels to maintain system safety.

BMS Interface: Integration with Building Management Systems.

Weekly and Monthly Programming: Offers flexible scheduling options.

Up to 100 Alarm Records: Provides comprehensive monitoring capabilities.

4 Custom Alarm Options: Allows for personalized alert settings.

Touchscreen Display: Enhances user interaction with intuitive controls.

Tandem Compressor Control: Manages multiple compressors efficiently.

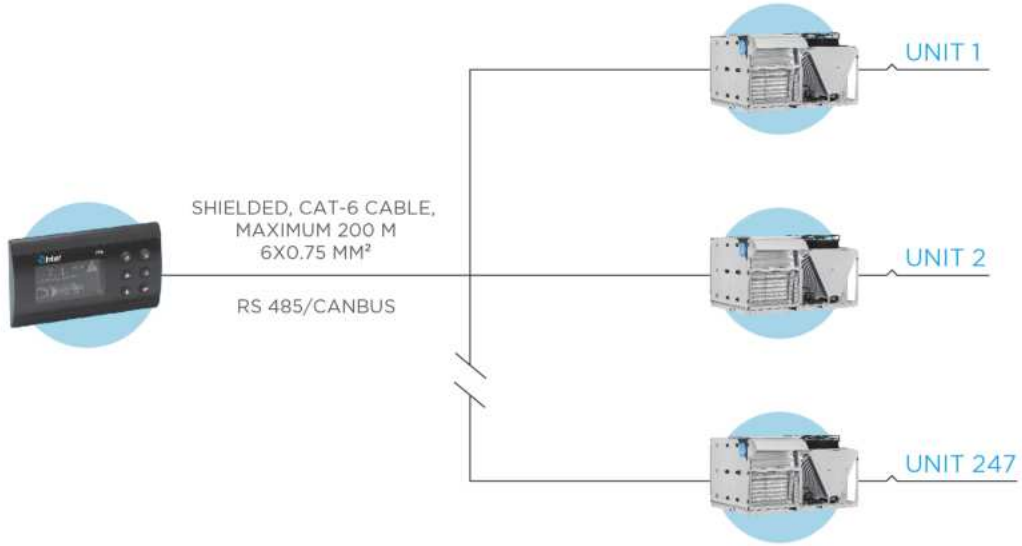
4-Stage Heater and Supply Temperature Control: Ensures excellent temperature regulation.

Proportional Valve Control: Provides accurate control of fluid flow.

Weekly/Monthly Programming: Offers advanced scheduling features.

Built-in Modbus RTU and RTC: Ensures reliable communication and control.

Condenser and Fan Control: Optimizes cooling and ventilation performance.



ROOFTOP UNITS *perseus*

IoT AND AUTOMATION / 3

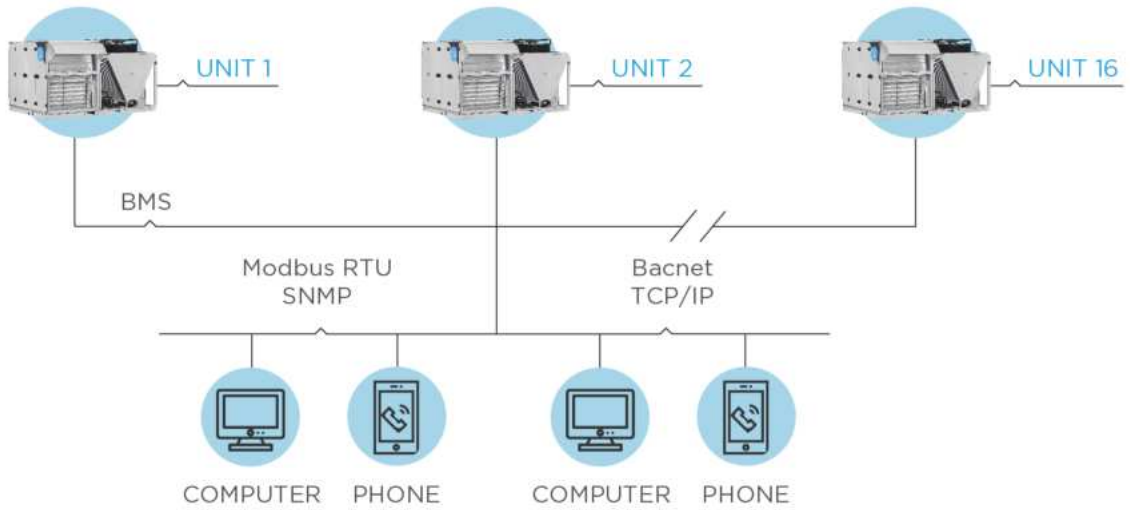
NEW

MASTER-SLAVE ADVANTAGES

Supports Up to 16 Units: Enables scalable system configurations.
Automatic Master Assignment: Automatically identify the primary unit if there is a error in master unit.
Backup Unit Assignment: Activation of second standby unit if there is fault in unit for continuous operation.
Sequential Operation: Allows for staggered operation of units.
Emergency Operation Mode: Activates all backup units in case of emergencies.
Alarm Switching Feature: Provides flexibility in managing alerts.
Extra Capacity Feature: Offers additional cooling capacity when needed.

IOT AND AUTOMATION OPTIONS

Room Temperature Sensor: Area control temperature control can be provided with the Room Temperature Sensor.
Combined Sensor Option: Enables both humidity and temperature control within the room.
Portable Rooftop Display Device: Available in portable rooftop units as a standart.
TCP/IP or SNMP Card Support: Communication protocols can be supported upon request.
High-Resolution Touch Panels: Optional 4.3-inch or 7-inch touch panels are available upon customer request.



ROOFTOP UNITS *perseus*

SYSTEM SOLUTIONS / 1

NEW

EFFICIENCY JUST BY ONE

Rooftop units offer a comprehensive solution for the climate control needs of large-scale spaces with a single unit. Compared to systems that use multiple units such as AHUs with water chillers or condensing units, Rooftop provide ease of application and use with the simplicity and efficiency of a single device.

WHY CHOOSE ROOFTOP UNITS?

INDEPENDENT OPERATION

Rooftop units can independently perform all ventilation and air conditioning functions. There's no need for additional devices like AHUs or VRFs.

EASY INSTALLATION

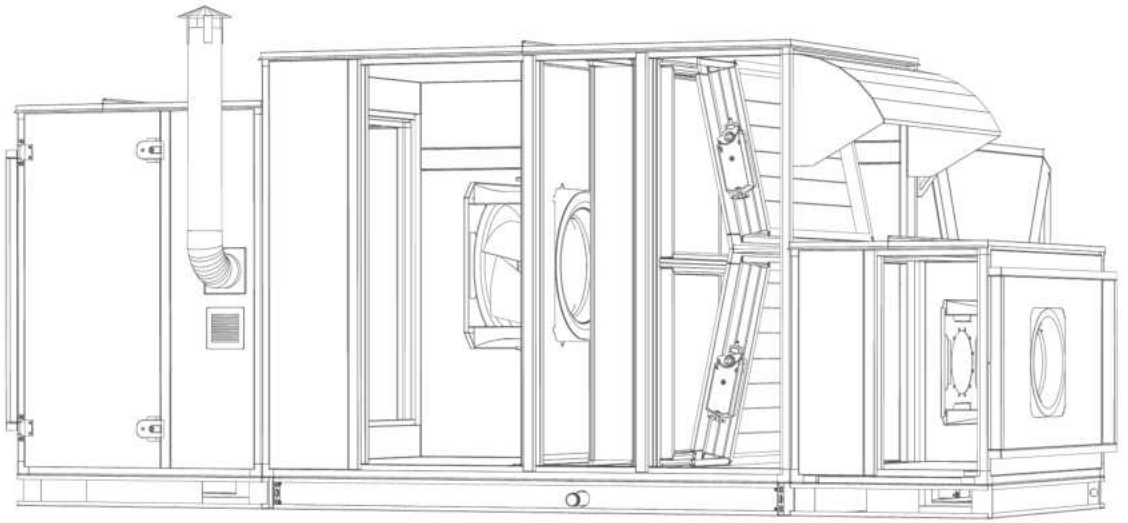
Provides a comprehensive air conditioning solution with a single device. The installation and maintenance processes are simpler.

HIGH EFFICIENCY

Imbat Rooftop units meet high standards for energy efficiency and performance, reducing costs in the long run.

LONG-TERM RELIABILITY

Built with robust construction and advanced technology, offering long-lasting performance.

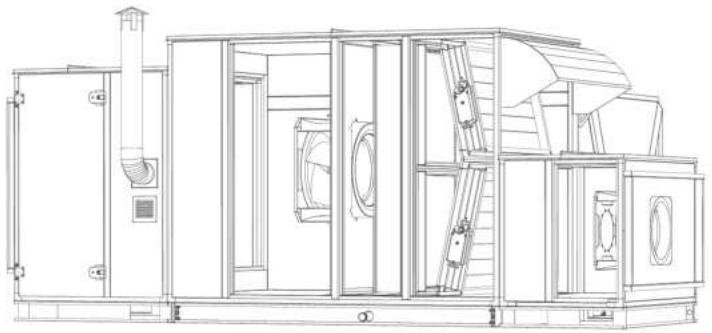


ROOFTOP UNITS *perseus*

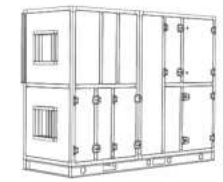
SYSTEM SOLUTIONS / 2

NEW

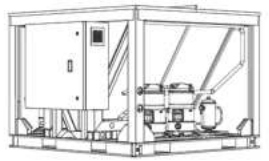
EFFICIENCY JUST BY ONE



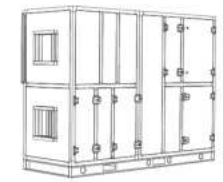
ROOFTOP UNIT



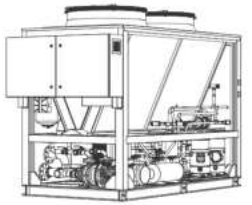
AIR HANDING UNIT



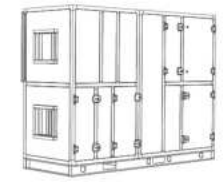
CONDENSING UNIT



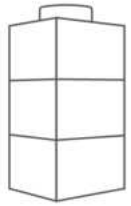
AIR HANDING UNIT



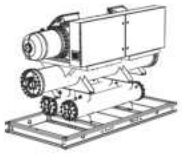
AIR COOLED CHILER



AIR HANDING UNIT



COOLING TOWER



WATER COOLED CHILER

ROOFTOP UNITS *perseus*

CAPACITY RANGES

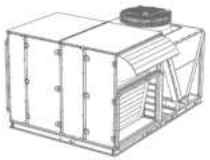
NEW

MODEL	Airflow Range [m³/h]	Type of refrigerant	COOLING/HEATING CAPACITY RANGE							
			0-50 kW	51-100 kW	101-150 kW	151-200 kW	201-250 kW	251-300 kW	301-350 Kw	351-400 kW
PERSEUS										
PERS 052G-072G	5200-7200	R410A								
PERS 095G-122G-144G	9500-14400	R410A								
PERS 167G-192G-217G	16700-21700	R410A								
PERS 253G-288G-332G-374G	25300-37400	R410A								
PERS 416G-500G	41600-50000	R410A								

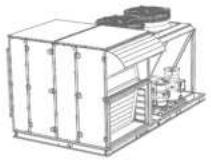
MODEL	Airflow Range [m³/h]	Type of refrigerant	COOLING/HEATING CAPACITY RANGE							
			0-50 kW	51-100 kW	101-150 kW	151-200 kW	201-250 kW	251-300 kW	301-350 Kw	351-400 kW
PERSEUS										
PERS 052M-072M	5200-7200	R454B								
PERS 095M-122M-144M	9500-14400	R454B								
PERS 167M-192M-217M	16700-21700	R454B								
PERS 253M-288M-332M-374M	25300-37400	R454B								
PERS 416M-500M	41600-50000	R454B								

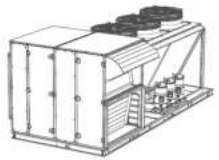
Cooling Capacity Heating Capacity

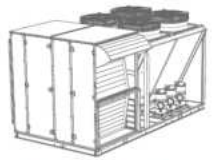

PERS 052-PERS 072

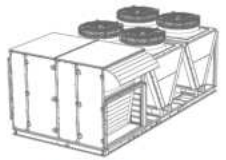

PERS 095

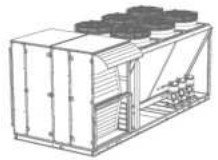

PERS 122

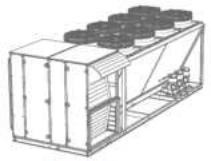

PERS 144-PERS 167


PERS 192


PERS 217-PERS 253-PERS 288


PERS 332-PERS 374


PERS 416

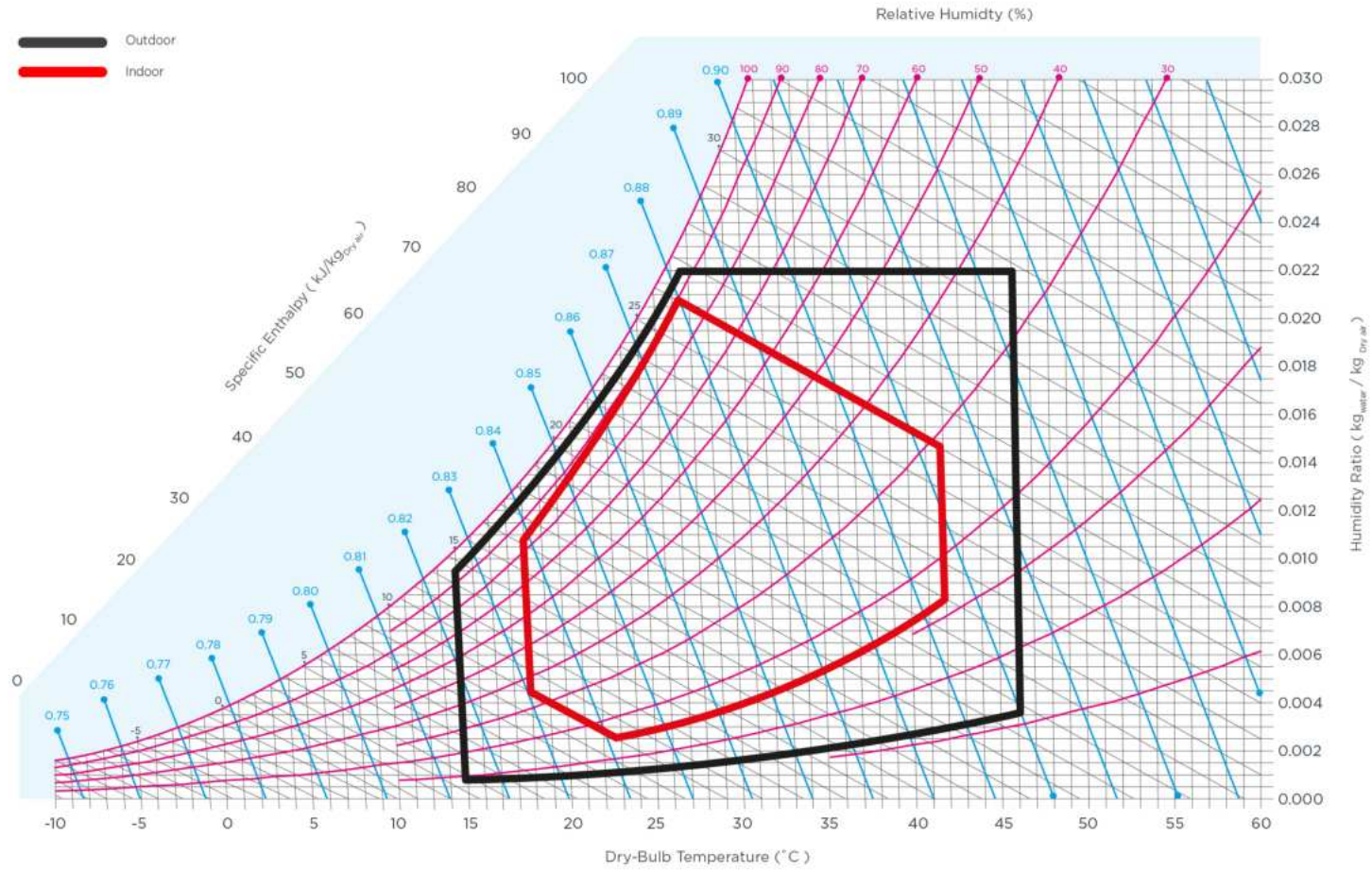

PERS 500

Imbat reserves the right to make changes in model, capacity, dimensions, and specifications without prior notice.

ROOFTOP UNITS *perseus*

OPERATING LIMITS COOLING R410-A / 1

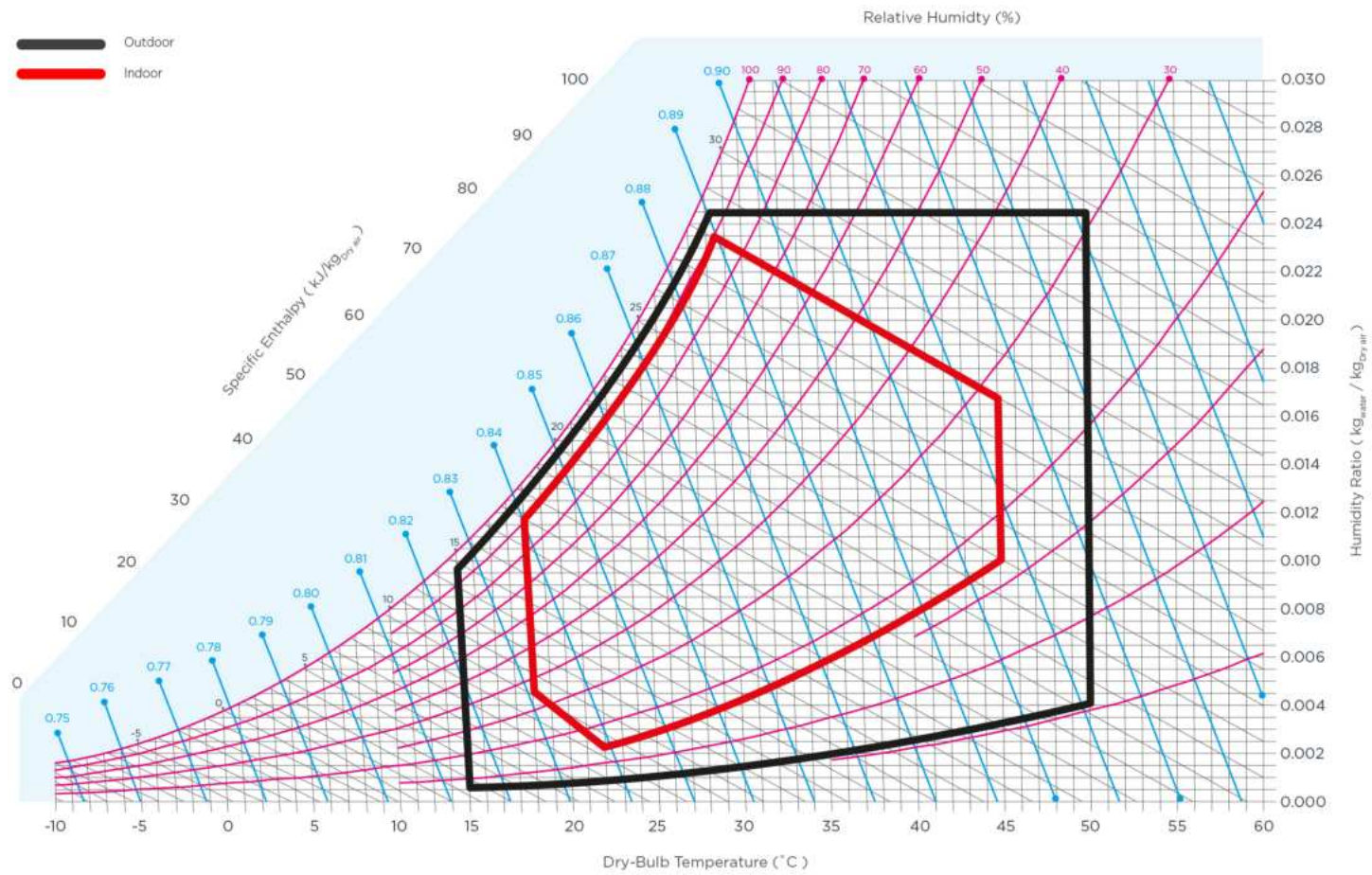
NEW



ROOFTOP UNITS *perseus*

OPERATING LIMITS COOLING R454-B / 2

NEW



ROOFTOP UNITS *perseus*

PERFORMANCE DATA FOR R410-A / 1

NEW

TECHNICAL SPECIFICATIONS		MODEL													
		PERS052G	PERS072G	PERS095G	PERS122G	PERS144G	PERS167G	PERS192G	PERS217G	PERS253G	PERS288G	PERS332G	PERS374G	PERS416G	PERS500G
AIRFLOW DATA															
Fan Type		EC PLUG													
Minimum Air Flow Rate	m^3/h	3850	5350	7100	9200	10800	12575	14700	16500	18200	21550	24800	28050	31200	37500
Nominal Air Flow Rate	m^3/h	5200	7200	9500	12200	14400	16700	19200	21700	25300	28800	33200	37400	41600	50000
Maximum Air Flow Rate	m^3/h	5720	7920	10450	13400	15890	18370	21170	23870	27780	31780	36620	41140	45860	55200
COOLING MODE															
Cooling Capacity (1)	kW	31,98	43,88	58,75	76,53	92,64	106,95	122,94	138,18	162,54	185,65	214,25	241,44	275,93	358,05
Sensible Cooling Capacity	kW	24,59	34	45,22	58,86	70,4	81,46	93,59	105,2	123,76	141,04	163,53	183,45	207,21	261,97
Total Absorbed Power	kW	10,53	14,42	17,95	23,52	28,66	33,33	37,21	42,67	50,71	57,41	66,4	73,61	86,03	114,29
EER (1)		3,1	3,11	3,37	3,34	3,34	3,31	3,44	3,36	3,34	3,37	3,36	3,42	3,34	3,24
HEATING-HEAT PUMP MODE															
Heating Capacity (2)	kW	33,17	46,43	61,59	79,78	96,58	110,85	127,03	142,03	168,1	193,44	223,33	251,64	285,63	379,53
Total Absorbed Power	kW	9,98	13,78	17,15	22,74	27,55	31,95	35,71	40,86	48,6	55,09	64	70,42	83,76	114,36
COP (2)		3,4	3,44	3,7	3,61	3,62	3,59	3,71	3,6	3,62	3,67	3,65	3,74	3,55	3,44
SEASONAL EFFICIENCIES (3)															
SEER		4,79	5,11	5,14	4,99	5,17	4,94	5,27	4,95	5,2	5,66	5,13	5,33	5,08	5,21
$\eta_{s,c}$		188,76	201,54	202,61	196,55	203,69	194,75	207,82	195,1	204,84	223,39	202	210,15	200,35	205,46
Cooling Mode Eurovent Energy Class		A	A	A	A	A+	A	A+	A	A+	A+	A	A+	A	A+
SCOP		3,54	3,67	3,76	3,65	3,68	3,54	3,74	3,58	3,73	3,81	3,82	3,93	3,68	3,7
$\eta_{s,h}$		138,44	143,87	147,22	143,18	144,29	138,76	146,54	140,26	146,11	149,52	149,65	154,38	144,31	144,81
Heating Mode Eurovent Energy Class		B	A	A	A	A	B	A	B	A	A+	A+	A+	A	A

(1) **Cooling Mode:** Outdoor temperature 35°C DB - Indoor temperature 27°C DB / 19°C WB
(2) **Heating Mode:** Outdoor temperature 7°C DB / 6°C WB - Indoor temperature 20°C DB
(3) **Seasonal Efficiencies:** In accordance with standard EN14825, space cooling energy efficiency following Ecodesign regulation EU 2016/2281

ROOFTOP UNITS *perseus*

PERFORMANCE DATA FOR R410-A / 2

NEW

TECHNICAL SPECIFICATIONS		MODEL													
		PERS052G	PERS072G	PERS095G	PERS122G	PERS144G	PERS167G	PERS192G	PERS217G	PERS253G	PERS288G	PERS332G	PERS374G	PERS416G	PERS500G
ADDITIONAL HEATER OPTIONS															
Gas Burner (Low/Medium/High)	kW	19,5/25,5/31,5	25,5/40,5/50,5	31,5/50,5/64,4	40,5/64,4/84	50,5/64,4/84	64,4/84/101	64,4/101/128,8	84/114,9/148,4	84/128,8/168	114,9/148,4/202	114,9/168/229,8	114,9/202/257,6	148,4/229,8/296,8	202/296,8/336
Electrical Heater Heating Capacity (Low/Medium/High)	kW	10,0/21,0/31,0	14,0/29,0/43,0	19,0/38,0/57,0	24,0/49,0/73,0	29,0/58,0/87,0	34,0/67,0/101,0	39,0/77,0/116,0	44,0/87,0/131,0	51,0/102,0/152,0	58,0/116,0/173,0	67,0/133,0/200,0	75,0/150,0/225,0	83,0/167,0/250,0	100,0/201,0/301,0
Hot Water Coil Heating Capacity (Low/Medium/High)	kW	28,2/49/66,7	39,6/68,7/92,34	51,7/89,7/119	67,5/117/158,65	79,88/138,5/183,4	93/161,2/213,4	94,4/167,36/226	105,46/187/252,9	122,44/217/301	141/250/338	163/289/390,54	183,24/325/439,4	206,8/366,4/494,7	245,7/435,6/588,5
COOLING CIRCUIT															
Refrigerant Type	kW	R410A													
Compressor Type	kW	Inverter Scroll		Scroll											
Number of Compressors	kW	1	1	2	2	2	3	3	3	4	4	4	4	6	6
Number of Cooling Circuits		1	1	1	1	1	1	1	1	2	2	2	2	2	2
ELECTRICAL DATA															
Power Supply		380-400 V / 3 / 50 Hz													
Maximum Current	A	32	38	55	48	85	102	110	131	151	170	203	217	257	341
SOUND DATA															
Sound Pressure Level [4]	dB(A)	61	60	56	58	60	61	61	60	60	62	64	64	63	61
DIMENSIONS															
Width	mm	1930	2100	2210	2240	2100	2100	2280	2320	2340	2370	2360	2360	2350	2350
Height	mm	1680	1830	1750	1760	1900	2020	2190	2270	2370	2340	2370	2370	2500	2500
Lenght	mm	2180	2330	2830	3015	3650	3970	4850	4090	4270	5040	5650	6540	6400	9500
Weight	kg	< 1250				< 1750		< 2500			< 3000			< 4000	

[4] **Sound pressure level at direction factor Q:** 2 and 5 meters away from the source.

ROOFTOP UNITS *perseus*

PERFORMANCE DATA FOR R454-B / 1

NEW

TECHNICAL SPECIFICATIONS		MODEL													
		PERS052M	PERS072M	PERS095M	PERS122M	PERS144M	PERS167M	PERS192M	PERS217M	PERS253M	PERS288M	PERS332M	PERS374M	PERS416M	PERS500M
AIRFLOW DATA															
Fan Type		EC PLUG													
Minimum Air Flow Rate	m^3/h	3850	5350	7100	9200	10800	12575	14700	16500	18200	21550	24800	28050	31200	37500
Nominal Air Flow Rate	m^3/h	5200	7200	9500	12200	14400	16700	19200	21700	25300	28800	33200	37400	41600	50000
Maximum Air Flow Rate	m^3/h	5720	7920	10450	13400	15890	18370	21170	23870	27780	31780	36620	41140	45860	55200
COOLING MODE															
Cooling Capacity [1]	kW	31,27	42,87	57,6	74,79	90,85	105,25	120,49	134,17	158,87	182,06	209,38	236,3	267,88	351,42
Sensible Cooling Capacity	kW	24,19	33,42	44,55	57,82	69,34	80,43	92,16	103,03	121,63	138,92	160,58	180,43	202,81	257,91
Total Absorbed Power	kW	10,01	13,44	16,94	22,1	26,87	31,39	34,99	40,2	47,76	53,81	62,38	69,23	81,08	107,14
EER [1]		3,19	3,26	3,5	3,48	3,5	3,47	3,59	3,48	3,48	3,54	3,51	3,57	3,45	3,41
HEATING-HEAT PUMP MODE															
Heating Capacity [2]	kW	32,05	44,48	59,84	77,01	93,31	107,98	122,89	136,67	162,73	194	215,52	243,09	275,03	367,45
Total Absorbed Power	kW	9,35	12,73	16,4	21,22	25,69	30,41	33,44	38,09	45,73	54,21	59,65	65,68	78,17	106,36
COP [2]		3,51	3,58	3,76	3,74	3,76	3,68	3,84	3,75	3,73	3,74	3,79	3,88	3,68	3,59
SEASONAL EFFICIENCIES [3]															
SEER		4,76	5,21	5,28	5,11	5,29	5,04	5,43	5	5,2	5,79	5,23	5,48	5,16	5,38
$\eta_{s,c}$		187,58	205,56	208,27	201,38	208,73	198,45	214,38	197,15	204,84	228,56	206,26	216,21	203,33	212
Cooling Mode Eurovent Energy Class		A	A+	A+	A	A+	A	A+	A	A+	A+	A+	A+	A+	A+
SCOP		3,53	3,7	3,79	3,74	3,75	3,58	3,8	3,68	3,73	3,95	3,86	4,01	3,76	3,75
$\eta_{s,h}$		138,24	145,08	148,68	146,55	146,87	140,34	149,13	144,11	146,11	154,92	151,57	157,48	147,27	147,17
Heating Mode Eurovent Energy Class		B	A	A	A	A	B	A+	A	A	A+	A+	A+	A	A

[1] **Cooling Mode:** Outdoor temperature 35°C DB - Indoor temperature 27°C DB / 19°C WB
[2] **Heating Mode:** Outdoor temperature 7°C DB / 6°C WB - Indoor temperature 20°C DB
[3] **Seasonal Efficiencies:** In accordance with standard EN14825, space cooling energy efficiency following Ecodesign regulation EU 2016/2281

LOW GWP

ROOFTOP UNITS *perseus*

PERFORMANCE DATA FOR R454B / 2

NEW

TECHNICAL SPECIFICATIONS		MODEL													
		PERS052M	PERS072M	PERS095M	PERS122M	PERS144M	PERS167M	PERS192M	PERS217M	PERS253M	PERS288M	PERS332M	PERS374M	PERS416M	PERS500M
ADDITIONAL HEATER OPTIONS															
Gas Burner (Low/Medium/High)	kW	19,5/25,5/31,5	25,5/40,5/50,5	31,5/50,5/64,4	40,5/64,4/84	50,5/64,4/84	64,4/84/101	64,4/101/128,8	84/114,9/148,4	84/128,8/168	114,9/148,4/202	114,9/168/229,8	114,9/202/257,6	148,4/229,8/296,8	202/296,8/336
Electrical Heater Heating Capacity (Low/Medium/High)	kW	10,0/21,0/31,0	14,0/29,0/43,0	19,0/38,0/57,0	24,0/49,0/73,0	29,0/58,0/87,0	34,0/67,0/101,0	39,0/77,0/116,0	44,0/87,0/131,0	51,0/102,0/152,0	58,0/116,0/173,0	67,0/133,0/200,0	75,0/150,0/225,0	83,0/167,0/250,0	100,0/201,0/301,0
Hot Water Coil Heating Capacity (Low/Medium/High)	kW	28,2/49/66,7	39,6/68,7/92,34	51,7/89,7/119	67,5/117/158,65	79,88/138,5/183,4	93/161,2/213,4	94,4/167,36/226	105,46/187/252,9	122,44/217/301	141/250/338	163/289/390,54	183,24/325/439,4	206,8/366,4/494,7	245,7/435,6/588,5
COOLING CIRCUIT															
Refrigerant Type	kW	R410A													
Compressor Type	kW	Inverter Scroll		Scroll											
Number of Compressors	kW	1	1	2	2	2	3	3	3	4	4	4	4	6	6
Number of Cooling Circuits		1	1	1	1	1	1	1	1	2	2	2	2	2	2
ELECTRICAL DATA															
Power Supply		380-400 V / 3 / 50 Hz													
Maximum Current	A	32	38	55	48	85	102	110	131	151	170	203	217	257	341
SOUND DATA															
Sound Pressure Level [4]	dB(A)	61	60	56	58	60	61	61	60	60	62	64	64	63	61
DIMENSIONS															
Width	mm	1930	2100	2210	2240	2100	2100	2280	2320	2340	2370	2360	2360	2350	2350
Height	mm	1680	1830	1750	1760	1900	2020	2190	2270	2370	2340	2370	2370	2500	2500
Lenght	mm	2180	2330	2830	3015	3650	3970	4850	4090	4270	5040	5650	6540	6400	9500
Weight	kg	< 1250				< 1750		< 2500			< 3000			< 4000	

[4] **Sound pressure level at direction factor Q:** 2 and 5 meters away from the source.

LOW GWP

Imbat reserves the right to make changes in model, capacity, dimensions, and specifications without prior notice.

ROOFTOP UNITS *perseus*

GAS BURNER

NEW

MODEL	PERS052G			PERS072G			PERS095G			PERS122G			PERS144G			PERS167G			PERS192G			PERS217G			PERS253G			PERS288G			PERS332G			PERS374G			PERS416G			PERS500G		
INDOOR COIL AIR INLET TEMPERATURE [°C]	5200			7200			9500			12200			14400			16700			19200			21700			25300			28800			33200			37400			41600			50000		
CAPACITY RANGES	Low (kW)	Medium (kW)	High (kW)	Low (kW)	Medium (kW)	High (kW)	Low (kW)	Medium (kW)	High (kW)	Low (kW)	Medium (kW)	High (kW)	Low (kW)	Medium (kW)	High (kW)	Low (kW)	Medium (kW)	High (kW)	Low (kW)	Medium (kW)	High (kW)	Low (kW)	Medium (kW)	High (kW)	Low (kW)	Medium (kW)	High (kW)	Low (kW)	Medium (kW)	High (kW)	Low (kW)	Medium (kW)	High (kW)	Low (kW)	Medium (kW)	High (kW)	Low (kW)	Medium (kW)	High (kW)	Low (kW)	Medium (kW)	High (kW)
Capacity [kW]	19,5	25,5	31,5	25,5	40,5	50,5	31,5	50,5	64,4	40,5	64,4	84	50,5	64,4	84	64,4	84	101	64,4	101	128,8	84	114,9	148,4	84	128,8	168	114,9	148,4	202	114,9	168	229,8	114,9	202	257,6	148,4	229,8	296,8	168	257,6	336
Airflow Rate [m³/h]	2,12	2,96	3,7	2,96	4,76	5,82	3,7	5,82	7,4	4,76	7,4	10	5,82	7,4	10	7,4	10	11,64	7,4	11,64	20	10	14,8	23,28	10	20	29,6	14,8	23,28	40	14,8	29,6	46,56	14,8	40	59,2	23,28	46,56	80	29,6	59,2	93,12
ΔT [K]	11,21	14,66	18,11	10,59	16,82	20,97	9,91	15,89	20,27	9,92	15,78	20,58	10,48	13,37	17,44	11,53	15,04	18,08	10,03	15,73	20,05	11,57	15,83	20,44	9,93	15,22	19,85	11,93	15,40	20,97	10,35	15,13	20,69	9,18	16,15	20,59	10,66	16,51	21,33	10,04	15,40	20,09
Fumes Diameter [mm]	80	80	80	80	100	130	80	130	130	100	130	130	130	130	130	130	130	130	130	130	130	130	130	130	130	130	130	130	130	130	130	130	130	130	130	130	130	130	130	130	130	130
Gas Pressure [mbar]	20			20			20			20			20			20			20			20			20			20			20			20			20			20		
Gas Connection Diameters [inch]	1/2"	1/2"	1/2"	1/2"	1/2"	1/2"	1/2"	1/2"	3/4"	1/2"	3/4"	3/4"	1/2"	3/4"	3/4"	3/4"	3/4"	1/2"	3/4"	1/2"	3/4"	3/4"	1/2" 3/4"	3/4"	3/4"	3/4"	3/4"	1/2" 3/4"	3/4"	1/2"	1/2" 3/4"	3/4"	1/2" 3/4"	1/2" 3/4"	1/2"	3/4"	3/4"	1/2" 3/4"	3/4"	3/4"	3/4"	3/4"	3/4"

ELECTRICAL HEATER

MODEL	PERS052G	PERS072G	PERS095G	PERS122G	PERS144G	PERS167G	PERS192G	PERS217G	PERS253G	PERS288G	PERS332G	PERS374G	PERS416G	PERS500G
Low (kW)	10	14	19	24	29	34	39	44	51	58	67	75	83	100
Medium (kW)	21	29	38	49	58	67	77	87	102	116	133	150	167	201
High (kW)	31	43	57	73	87	101	116	131	152	173	200	225	250	301

ROOFTOP UNITS *perseus*

HOT WATER COIL

NEW

MODEL				PERS052G			PERS072G			PERS095G			PERS122G			PERS144G			PERS167G			PERS192G			PERS217G			PERS253G			PERS288G			PERS332G			PERS374G			PERS416G			PERS500G		
AIRFLOW RATE [m³/h]				5200			7200			9500			12200			14400			16700			19200			21700			25300			28800			33200			37400			41600			50000		
HEATING CAPACITY [kW]				-15	0	20	-15	0	20	-15	0	20	-15	0	20	-15	0	20	-15	0	20	-15	0	20	-15	0	20	-15	0	20	-15	0	20	-15	0	20	-15	0	20	-15	0	20	-15	0	20
Water Inlet/Outlet [°C]	90/70	Heating Capacity [kW]	Low (kW)	59,40	48,48	34,65	83,08	67,85	48,57	108,74	88,76	63,47	141,35	115,47	82,71	167,03	136,49	97,82	194,17	158,70	113,80	196,11	160,63	115,46	219,92	180,01	129,20	256,22	209,59	150,23	293,12	239,89	172,13	338,82	277,51	199,45	380,09	311,41	223,96	427,66	350,58	252,43	481,22	403,11	299,15
			Medium (kW)	103,22	83,90	59,85	144,22	117,31	83,80	188,93	153,60	109,61	245,29	199,57	142,64	289,86	235,89	168,69	336,88	274,22	196,20	348,44	284,17	203,76	390,96	318,63	228,14	455,38	370,92	265,25	520,80	424,39	303,79	602,04	490,96	352,00	675,80	551,30	395,50	759,59	619,95	445,25	843,61	708,35	528,51
			High (kW)	138,78	112,69	80,67	192,43	156,19	111,73	250,44	202,97	144,71	332,58	269,51	192,32	383,63	311,19	222,31	445,76	361,66	258,49	471,12	382,91	274,10	529,00	429,68	307,16	624,29	507,79	364,13	704,19	571,89	408,73	814,08	661,61	473,56	975,19	793,18	568,22	1026,54	834,91	598,58	1127,66	949,17	711,86
	80/60	Heating Capacity [kW]	Low (kW)	52,59	41,83	28,20	73,61	58,61	39,60	96,29	76,62	51,69	125,28	99,80	67,50	148,09	118,01	79,88	172,19	137,26	92,99	173,98	139,01	94,42	194,95	155,61	105,46	226,98	181,02	122,44	259,81	207,34	140,47	300,56	240,13	163,07	337,28	269,57	183,24	379,91	303,74	206,84	428,21	350,15	245,70
			Medium (kW)	91,53	72,49	48,97	127,99	101,60	68,70	167,57	132,93	89,74	217,76	172,92	117,03	257,40	204,47	138,50	299,23	237,78	161,18	309,52	246,40	167,36	347,02	276,00	187,05	403,95	321,02	217,06	462,22	367,56	249,01	534,75	425,67	289,07	600,43	478,16	325,00	675,31	538,16	366,43	751,74	616,29	435,60
			High (kW)	123,64	98,12	66,72	171,37	135,93	92,34	222,64	176,21	119,08	295,95	234,31	158,65	341,42	270,58	183,43	396,82	314,57	213,41	419,22	332,86	226,08	470,37	373,14	252,90	556,01	441,96	300,97	626,09	496,59	336,47	724,35	575,09	390,54	867,73	689,46	468,61	914,19	726,58	494,66	1006,28	827,34	588,50
	70/50	Heating Capacity [kW]	Low (kW)	45,75	35,16	21,70	64,12	49,35	30,58	83,81	64,44	39,82	109,18	84,08	52,19	129,11	99,48	61,84	150,18	115,77	72,08	151,89	117,33	73,25	170,01	131,14	81,56	197,77	152,36	94,46	226,54	174,70	108,60	262,38	202,65	126,49	294,55	227,54	142,29	331,92	256,80	161,01	374,96	296,71	191,94
			Medium (kW)	79,81	61,23	37,96	111,73	85,83	53,43	146,17	112,18	69,64	190,18	146,19	91,15	224,88	172,95	107,99	261,53	201,23	125,80	270,53	208,53	130,62	302,98	233,22	145,54	352,39	270,93	168,54	403,52	310,54	193,68	467,35	360,21	225,56	524,96	404,84	253,87	590,95	456,22	286,93	659,37	523,67	341,92
			High (kW)	108,47	83,50	52,63	150,28	115,60	72,75	194,73	149,31	93,11	259,22	198,95	124,59	299,10	229,79	144,11	347,75	267,29	167,83	367,22	282,63	177,58	411,59	316,37	198,05	487,66	375,95	237,27	547,79	420,97	263,41	634,44	488,26	306,70	760,08	585,41	368,09	801,70	617,95	389,83	884,24	704,75	464,11

ROOFTOP UNITS *perseus*

COOLING PERFORMANCE 410-A / 1

NEW

MODEL			PERS052G												PERS072G												PERS095G											
INDOOR COIL AIR INLET TEMPERATURE [°C]		WB	16				19				22				16				19				22				16				19				22			
		DB	21	24	27	30	21	24	27	30	21	24	27	30	21	24	27	30	21	24	27	30	21	24	27	30	21	24	27	30	21	24	27	30	21	24	27	30
Outdoor Temperature, DB [°C]	35	Cooling Capacity [kW]	29,06	29,09	29,33	30,91	31,87	31,93	31,95	31,95	31,87	34,94	35,00	35,02	39,99	40,04	40,36	42,47	43,69	43,79	43,83	43,86	43,69	47,77	47,87	47,92	53,56	53,62	53,94	56,71	58,51	58,63	58,69	58,72	58,51	63,94	64,08	64,13
		Sensible Cooling Capacity [kW]	20,22	24,77	29,18	30,91	14,98	20,07	24,65	29,21	14,98	14,74	19,83	24,42	28,03	34,33	40,36	42,47	20,56	27,76	34,08	40,39	20,56	20,18	27,37	33,71	37,35	45,67	53,79	56,71	27,48	36,98	45,33	53,67	27,48	26,96	36,46	44,82
		Compressor Absorbed Power [kW]	8,53	8,53	8,54	8,64	8,69	8,69	8,70	8,70	8,69	8,86	8,86	8,86	12,04	12,04	12,05	12,15	12,20	12,20	12,20	12,21	12,20	12,36	12,36	12,36	14,97	14,97	14,99	15,12	15,20	15,21	15,21	15,21	15,20	15,43	15,43	15,43
	40	Cooling Capacity [kW]	27,46	27,49	27,83	29,53	30,16	30,21	30,23	30,24	30,16	33,09	33,15	33,17	38,19	38,24	38,62	40,89	41,72	41,81	41,86	41,88	41,72	45,60	45,71	45,75	50,96	51,03	51,44	54,44	55,67	55,79	55,85	55,87	55,67	60,84	60,97	61,03
		Sensible Cooling Capacity [kW]	19,48	24,04	27,83	29,53	14,34	19,36	23,93	28,50	14,34	14,12	19,15	23,74	27,20	33,50	38,62	40,89	19,81	26,94	33,26	39,57	19,81	19,44	26,57	32,91	36,15	44,46	51,44	54,44	26,40	35,80	44,14	52,48	26,40	25,91	35,30	43,67
		Compressor Absorbed Power [kW]	9,36	9,36	9,39	9,50	9,54	9,54	9,54	9,54	9,54	9,73	9,73	9,73	13,15	13,15	13,17	13,29	13,33	13,34	13,34	13,34	13,33	13,52	13,53	13,53	16,58	16,59	16,61	16,79	16,86	16,87	16,87	16,87	16,86	17,13	17,14	17,14
	45	Cooling Capacity [kW]	25,76	25,79	26,42	28,09	28,33	28,38	28,41	28,41	28,33	31,13	31,19	31,21	36,29	36,34	37,02	39,23	39,64	39,74	39,78	39,81	39,64	43,33	43,44	43,49	48,23	48,29	49,15	52,07	52,68	52,81	52,86	52,89	52,68	57,59	57,72	57,78
		Sensible Cooling Capacity [kW]	18,66	23,22	26,42	28,09	13,62	18,57	23,14	27,71	13,62	13,43	18,39	22,98	26,30	32,59	37,02	39,23	18,99	26,05	32,37	38,69	18,99	18,64	25,70	32,04	34,84	43,15	49,15	52,07	25,22	34,51	42,85	51,19	25,22	24,76	34,05	42,41
		Compressor Absorbed Power [kW]	10,28	10,28	10,33	10,44	10,46	10,46	10,47	10,47	10,46	10,66	10,66	10,67	14,34	14,34	14,39	14,52	14,54	14,55	14,55	14,55	14,54	14,75	14,76	14,76	18,35	18,35	18,41	18,61	18,65	18,66	18,66	18,66	18,65	18,96	18,97	18,97
	50	Cooling Capacity [kW]	23,93	23,96	24,91	26,53	26,38	26,43	26,45	26,73	26,38	29,04	29,10	29,12	34,26	34,32	35,31	37,45	37,43	37,53	37,58	37,74	37,43	40,93	41,04	41,09	45,32	45,38	46,69	49,52	49,52	49,64	49,70	49,91	49,52	54,15	54,29	54,34
		Sensible Cooling Capacity [kW]	17,80	22,35	24,91	26,53	12,86	17,74	22,31	26,70	12,86	12,70	17,59	22,18	25,35	31,64	35,31	37,45	18,13	25,12	31,44	37,65	18,13	17,81	24,80	31,13	33,46	41,77	46,69	49,52	23,98	33,16	41,50	49,70	23,98	23,56	32,74	41,10
		Compressor Absorbed Power [kW]	11,30	11,30	11,37	11,49	11,48	11,48	11,48	11,50	11,48	11,68	11,68	11,68	15,62	15,62	15,69	15,84	15,84	15,84	15,85	15,86	15,84	16,06	16,07	16,07	20,29	20,29	20,39	20,60	20,60	20,61	20,61	20,63	20,60	20,93	20,94	20,94

ROOFTOP UNITS *perseus*

COOLING PERFORMANCE 410-A / 2

NEW

MODEL			PERS122G												PERS144G												PERS167G											
INDOOR COIL AIR INLET TEMPERATURE [°C]	WB		16				19				22				16				19				22				16				19				22			
	DB		21	24	27	30	21	24	27	30	21	24	27	30	21	24	27	30	21	24	27	30	21	24	27	30	21	24	27	30	21	24	27	30	21	24	27	30
Outdoor Temperature, DB [°C]	35	Cooling Capacity [kW]	69,74	69,87	70,00	73,54	76,12	76,33	76,45	76,52	76,12	83,19	83,43	83,54	84,47	84,58	84,62	88,70	92,24	92,44	92,54	92,60	92,24	100,78	101,00	101,10	97,41	97,55	97,59	102,44	106,47	106,71	106,83	106,90	106,47	116,44	116,71	116,84
		Sensible Cooling Capacity [kW]	48,79	59,45	70,00	73,54	35,69	48,31	59,00	69,69	35,69	35,01	47,62	58,34	58,42	71,10	83,84	88,70	43,09	57,83	70,56	83,29	43,09	42,25	56,99	69,76	67,50	82,22	97,01	102,44	49,76	66,87	81,64	96,41	49,76	48,84	65,96	80,77
		Compressor Absorbed Power [kW]	19,25	19,25	19,26	19,39	19,48	19,49	19,50	19,50	19,48	19,71	19,72	19,72	23,62	23,63	23,63	23,81	23,96	23,97	23,97	23,97	23,96	24,28	24,29	24,29	26,82	26,82	26,83	27,07	27,25	27,26	27,27	27,27	27,25	27,67	27,68	27,68
	40	Cooling Capacity [kW]	66,32	66,44	67,05	70,56	72,39	72,59	72,71	72,77	72,39	79,11	79,34	79,46	80,33	80,45	80,95	85,12	87,72	87,92	88,02	88,07	87,72	95,83	96,06	96,16	92,73	92,86	93,50	98,38	101,34	101,58	101,71	101,77	101,34	110,84	111,11	111,23
		Sensible Cooling Capacity [kW]	47,18	57,83	67,05	70,56	34,26	46,73	57,41	68,11	34,26	33,62	46,08	56,79	56,47	69,16	80,95	85,12	41,35	55,92	68,65	81,37	41,35	40,56	55,13	67,89	65,30	80,02	93,50	98,38	47,78	64,71	79,48	94,24	47,78	46,92	63,85	78,66
		Compressor Absorbed Power [kW]	21,33	21,33	21,36	21,53	21,61	21,62	21,62	21,63	21,61	21,89	21,89	21,90	26,18	26,19	26,21	26,44	26,57	26,58	26,59	26,59	26,57	26,97	26,98	26,98	29,63	29,64	29,68	29,97	30,14	30,16	30,16	30,17	30,14	30,66	30,67	30,68
	45	Cooling Capacity [kW]	62,73	62,85	63,70	67,46	68,47	68,68	68,79	68,85	68,47	74,85	75,08	75,19	75,99	76,10	76,90	81,39	82,98	83,18	83,28	83,33	82,98	90,67	90,90	91,00	87,82	87,95	88,93	94,18	95,99	96,23	96,36	96,42	95,99	105,01	105,28	105,40
		Sensible Cooling Capacity [kW]	45,44	56,08	63,70	67,46	32,71	45,01	55,69	66,39	32,71	32,11	44,41	55,12	54,36	67,05	76,90	81,39	39,45	53,84	66,57	79,29	39,45	38,72	53,10	65,87	62,93	77,64	88,93	94,18	45,64	62,38	77,14	91,90	45,64	44,84	61,57	76,38
		Compressor Absorbed Power [kW]	23,60	23,60	23,65	23,85	23,91	23,92	23,93	23,93	23,91	24,23	24,24	24,24	28,97	28,98	29,03	29,31	29,41	29,42	29,42	29,43	29,41	29,85	29,87	29,87	32,70	32,70	32,77	33,13	33,25	33,27	33,27	33,28	33,25	33,83	33,85	33,86
	50	Cooling Capacity [kW]	58,91	59,02	60,48	64,13	64,32	64,53	64,64	64,69	64,32	70,34	70,57	70,68	71,38	71,48	73,02	77,39	77,96	78,16	78,25	78,30	77,96	85,21	85,44	85,53	82,62	82,75	84,57	89,67	90,33	90,57	90,69	90,76	90,33	98,86	99,13	99,25
		Sensible Cooling Capacity [kW]	43,61	54,25	60,48	64,13	31,08	43,22	53,90	64,59	31,08	30,54	42,67	53,37	52,15	64,83	73,02	77,39	37,47	51,68	64,40	77,13	37,47	36,80	51,00	63,76	60,44	75,15	84,57	89,67	43,41	59,94	74,70	89,46	43,41	42,67	59,21	74,01
		Compressor Absorbed Power [kW]	26,08	26,08	26,18	26,40	26,41	26,42	26,43	26,43	26,41	26,76	26,77	26,78	32,03	32,04	32,15	32,45	32,49	32,50	32,51	32,51	32,49	32,97	32,98	32,99	36,06	36,07	36,20	36,57	36,62	36,64	36,65	36,65	36,62	37,24	37,26	37,27

ROOFTOP UNITS *perseus*

COOLING PERFORMANCE 410-A / 3

NEW

MODEL			PERS192G												PERS217G												PERS253G											
INDOOR COIL AIR INLET TEMPERATURE [°C]	WB		16				19				22				16				19				22				16				19				22			
	DB		21	24	27	30	21	24	27	30	21	24	27	30	21	24	27	30	21	24	27	30	21	24	27	30	21	24	27	30	21	24	27	30	21	24	27	30
Outdoor Temperature, DB [°C]	35	Cooling Capacity [kW]	112,02	112,17	112,22	117,82	122,42	122,68	122,82	122,88	122,42	133,85	134,14	134,27	125,95	126,09	126,23	132,64	137,65	137,90	138,03	138,08	137,65	150,49	150,78	150,89	148,09	148,31	148,39	155,59	161,79	162,17	162,37	162,48	161,79	176,88	177,32	177,51
		Sensible Cooling Capacity [kW]	77,56	94,48	111,48	117,82	57,21	76,82	93,80	110,78	57,21	56,13	75,74	92,78	87,06	106,22	125,37	132,64	64,38	86,20	105,43	124,65	64,38	63,17	84,98	104,27	102,65	124,94	147,34	155,59	75,59	101,67	124,04	146,41	75,59	74,17	100,25	122,69
		Compressor Absorbed Power [kW]	30,39	30,40	30,40	30,64	30,82	30,83	30,84	30,84	30,82	31,23	31,24	31,25	34,11	34,12	34,12	34,39	34,58	34,59	34,60	34,60	34,58	35,03	35,04	35,04	40,72	40,73	40,74	41,07	41,34	41,35	41,36	41,37	41,34	41,94	41,96	41,96
	40	Cooling Capacity [kW]	106,57	106,72	107,49	113,09	116,45	116,72	116,85	116,92	116,45	127,33	127,63	127,76	119,70	119,84	120,86	127,21	130,82	131,07	131,20	131,25	130,82	143,03	143,32	143,43	140,84	141,05	141,94	149,31	153,86	154,24	154,44	154,55	153,86	168,23	168,65	168,85
		Sensible Cooling Capacity [kW]	75,00	91,92	107,49	113,09	54,91	74,30	91,28	108,25	54,91	53,90	73,29	90,32	84,13	103,29	120,86	127,21	61,74	83,33	102,55	121,77	61,74	60,61	82,18	101,47	99,24	121,52	141,94	149,31	72,53	98,31	120,67	143,04	72,53	71,20	96,98	119,41
		Compressor Absorbed Power [kW]	33,71	33,72	33,76	34,05	34,21	34,23	34,23	34,24	34,21	34,71	34,73	34,73	37,78	37,79	37,84	38,16	38,33	38,34	38,35	38,35	38,33	38,88	38,89	38,89	45,05	45,06	45,11	45,52	45,77	45,79	45,80	45,80	45,77	46,50	46,52	46,53
	45	Cooling Capacity [kW]	100,84	100,98	102,16	108,17	110,20	110,46	110,59	110,66	110,20	120,52	120,82	120,94	113,13	113,26	114,81	121,58	123,66	123,91	124,03	124,08	123,66	135,23	135,52	135,64	133,23	133,44	134,85	142,78	145,56	145,94	146,14	146,24	145,56	159,19	159,62	159,81
		Sensible Cooling Capacity [kW]	72,22	89,14	102,16	108,17	52,41	71,56	88,54	105,52	52,41	51,47	70,62	87,65	80,95	100,11	114,81	121,58	58,88	80,21	99,43	118,65	58,88	57,83	79,15	98,43	95,53	117,82	134,85	142,78	69,21	94,68	117,03	139,40	69,21	67,97	93,43	115,86
		Compressor Absorbed Power [kW]	37,29	37,30	37,38	37,74	37,86	37,87	37,88	37,88	37,86	38,43	38,44	38,45	41,81	41,82	41,91	42,31	42,43	42,44	42,45	42,45	42,43	43,05	43,07	43,07	49,79	49,80	49,90	50,40	50,58	50,60	50,61	50,62	50,58	51,40	51,43	51,44
	50	Cooling Capacity [kW]	94,73	94,87	97,03	102,88	103,56	103,82	103,95	104,01	103,56	113,30	113,59	113,72	106,15	106,28	108,95	115,53	116,07	116,32	116,44	116,51	116,07	127,00	127,28	127,40	125,15	125,35	128,08	135,79	136,78	137,15	137,34	137,44	136,78	149,64	150,07	150,26
		Sensible Cooling Capacity [kW]	69,30	86,21	97,03	102,88	49,79	68,70	85,68	102,65	49,79	48,94	67,84	84,87	77,63	96,79	108,95	115,53	55,89	76,96	96,18	115,37	55,89	54,94	75,99	95,27	91,66	113,94	128,08	135,79	65,75	90,88	113,23	135,60	65,75	64,61	89,75	112,16
		Compressor Absorbed Power [kW]	41,19	41,20	41,35	41,74	41,79	41,80	41,81	41,82	41,79	42,40	42,42	42,43	46,27	46,28	46,46	46,89	46,93	46,94	46,95	46,96	46,93	47,61	47,63	47,64	55,01	55,03	55,22	55,77	55,84	55,86	55,88	55,89	55,84	56,73	56,76	56,77

ROOFTOP UNITS *perseus*

COOLING PERFORMANCE 410-A / 4

NEW

MODEL			PERS288G												PERS332G												PERS374G											
INDOOR COIL AIR INLET TEMPERATURE [°C]	WB		16				19				22				16				19				22				16				19				22			
	DB		21	24	27	30	21	24	27	30	21	24	27	30	21	24	27	30	21	24	27	30	21	24	27	30	21	24	27	30	21	24	27	30	21	24	27	30
Outdoor Temperature, DB [°C]	35	Cooling Capacity [kW]	169,26	169,49	169,57	177,65	184,85	185,25	185,46	185,57	184,85	201,98	202,43	202,63	195,24	195,61	195,77	204,70	213,05	213,67	214,03	214,24	213,05	232,80	233,48	233,85	220,22	220,55	220,66	230,94	240,35	240,90	241,19	241,35	240,35	262,53	263,15	263,43
		Sensible Cooling Capacity [kW]	117,03	142,43	167,94	177,65	86,33	115,86	141,35	166,83	86,33	84,66	114,18	139,75	135,33	165,14	194,46	204,70	99,50	134,06	163,89	193,18	99,50	97,57	132,28	162,05	152,36	185,33	218,43	230,94	112,24	150,79	183,86	216,93	112,24	110,04	148,57	181,75
		Compressor Absorbed Power [kW]	47,29	47,30	47,30	47,67	47,96	47,98	47,99	47,99	47,96	48,61	48,62	48,63	53,99	54,01	54,02	54,43	54,80	54,82	54,84	54,85	54,80	55,59	55,62	55,63	60,33	60,35	60,35	60,89	61,37	61,39	61,41	61,42	61,37	62,41	62,44	62,45
	40	Cooling Capacity [kW]	160,96	161,19	162,11	170,46	175,76	176,16	176,37	176,48	175,76	192,04	192,49	192,69	185,64	186,00	186,84	196,38	202,56	203,18	203,53	203,73	202,56	221,33	222,02	222,38	209,37	209,68	210,77	221,52	228,47	229,03	229,31	229,47	228,47	249,56	250,17	250,45
		Sensible Cooling Capacity [kW]	113,13	138,53	162,11	170,46	82,83	112,02	137,50	162,99	82,83	81,25	110,44	136,00	131,20	160,57	186,84	196,38	95,45	130,00	159,39	188,68	95,45	93,64	128,33	157,66	147,25	180,21	210,77	221,52	107,66	145,75	178,82	211,90	107,66	105,59	143,66	176,84
		Compressor Absorbed Power [kW]	52,41	52,42	52,48	52,93	53,20	53,22	53,23	53,24	53,20	53,99	54,01	54,02	59,81	59,83	59,88	60,41	60,75	60,79	60,81	60,82	60,75	61,71	61,75	61,76	66,84	66,86	66,93	67,60	68,02	68,05	68,07	68,08	68,02	69,23	69,27	69,28
	45	Cooling Capacity [kW]	152,23	152,45	153,99	162,98	166,24	166,65	166,85	166,95	166,24	181,67	182,12	182,32	175,54	175,89	177,36	187,72	191,56	192,16	192,51	192,70	191,56	209,34	210,02	210,38	197,94	198,25	200,11	211,72	216,02	216,57	216,85	217,00	216,02	235,99	236,60	236,88
		Sensible Cooling Capacity [kW]	108,89	134,28	153,99	162,98	79,02	107,85	133,33	158,81	79,02	77,55	106,37	131,93	126,45	155,59	177,36	187,72	91,04	125,27	154,51	183,80	91,04	89,36	123,58	152,90	141,68	174,63	200,11	211,72	102,68	140,29	173,34	206,42	102,68	100,75	138,34	171,50
		Compressor Absorbed Power [kW]	58,00	58,01	58,11	58,67	58,87	58,90	58,91	58,91	58,87	59,77	59,79	59,80	66,22	66,25	66,34	67,01	67,26	67,30	67,32	67,33	67,26	68,35	68,39	68,41	74,00	74,02	74,16	74,98	75,29	75,32	75,34	75,35	75,29	76,63	76,67	76,69
	50	Cooling Capacity [kW]	142,97	143,18	146,20	154,94	156,16	156,56	156,76	156,86	156,16	170,71	171,16	171,35	164,79	165,13	168,35	178,40	179,87	180,47	180,81	180,99	179,87	196,65	197,32	197,66	185,79	186,08	189,89	201,18	202,83	203,37	203,64	203,79	202,83	221,63	222,23	222,51
		Sensible Cooling Capacity [kW]	104,45	129,83	146,20	154,94	75,03	103,50	128,97	154,45	75,03	73,69	102,15	127,70	121,24	150,38	168,35	178,40	86,43	120,17	149,40	178,69	86,43	84,89	118,63	147,94	135,84	168,78	189,89	201,18	97,45	134,56	167,62	200,69	97,45	95,69	132,78	165,93
		Compressor Absorbed Power [kW]	64,12	64,14	64,35	64,95	65,04	65,06	65,08	65,08	65,04	66,00	66,03	66,04	73,31	73,33	73,56	74,30	74,41	74,45	74,47	74,49	74,41	75,58	75,63	75,65	81,89	81,91	82,22	83,12	83,23	83,28	83,30	83,31	83,23	84,69	84,74	84,76

ROOFTOP UNITS *perseus*

COOLING PERFORMANCE 410-A / 5

NEW

MODEL			PERS416G												PERS500G											
INDOOR COIL AIR INLET TEMPERATURE [°C]		WB	16				19				22				16				19				22			
		DB	21	24	27	30	21	24	27	30	21	24	27	30	21	24	27	30	21	24	27	30	21	24	27	30
Outdoor Temperature, DB [°C]	35	Cooling Capacity [kW]	251,31	251,62	251,69	262,79	274,86	275,37	275,64	275,76	274,86	300,74	301,32	301,57	326,15	326,61	326,77	335,46	356,51	357,24	357,67	357,90	356,51	389,93	390,77	391,17
		Sensible Cooling Capacity [kW]	172,13	209,10	246,22	262,79	127,91	170,55	207,67	244,76	127,91	125,55	168,24	205,48	218,67	264,40	309,04	335,46	164,67	216,62	262,52	307,13	164,67	161,55	213,75	259,64
		Compressor Absorbed Power [kW]	67,89	67,90	67,90	68,36	68,83	68,85	68,86	68,87	68,83	69,75	69,76	69,77	94,08	94,10	94,11	94,59	95,67	95,70	95,73	95,74	95,67	97,23	97,26	97,28
	40	Cooling Capacity [kW]	238,93	239,22	239,87	252,15	261,30	261,81	262,07	262,19	261,30	285,91	286,49	286,74	310,41	310,86	311,01	322,11	339,28	340,01	340,42	340,64	339,28	371,04	371,88	372,27
		Sensible Cooling Capacity [kW]	166,27	203,24	239,85	252,15	122,62	164,78	201,89	238,99	122,62	120,41	162,61	199,84	211,71	256,80	301,43	322,11	157,82	209,79	255,02	299,62	157,82	154,88	207,08	252,29
		Compressor Absorbed Power [kW]	75,19	75,21	75,24	75,86	76,30	76,33	76,34	76,35	76,30	77,41	77,44	77,45	104,24	104,27	104,28	105,01	106,06	106,10	106,13	106,14	106,06	107,90	107,95	107,97
	45	Cooling Capacity [kW]	225,89	226,18	227,73	241,07	247,07	247,59	247,84	247,95	247,07	270,39	270,98	271,22	293,83	294,27	294,42	308,24	321,15	321,90	322,30	322,51	321,15	351,26	352,11	352,50
		Sensible Cooling Capacity [kW]	159,91	196,87	227,73	241,07	116,88	158,53	195,63	232,71	116,88	114,83	156,51	193,72	204,09	248,51	293,13	308,24	150,37	202,25	246,84	291,42	150,37	147,62	199,57	244,30
		Compressor Absorbed Power [kW]	83,24	83,25	83,35	84,14	84,48	84,51	84,52	84,53	84,48	85,75	85,78	85,79	115,46	115,49	115,51	116,52	117,43	117,48	117,51	117,52	117,43	119,48	119,54	119,56
	50	Cooling Capacity [kW]	212,03	212,30	216,17	229,17	231,98	232,49	232,73	232,85	231,98	253,98	254,56	254,79	276,15	276,57	278,66	293,33	301,87	302,62	303,01	303,22	301,87	330,28	331,12	331,51
		Sensible Cooling Capacity [kW]	153,25	190,21	216,17	229,17	110,87	151,99	189,08	226,15	110,87	109,00	150,15	187,36	195,39	239,80	278,66	293,33	142,55	193,71	238,28	282,86	142,55	140,03	191,24	235,95
		Compressor Absorbed Power [kW]	92,13	92,15	92,42	93,28	93,46	93,50	93,51	93,52	93,46	94,85	94,89	94,90	127,88	127,92	128,08	129,24	129,92	129,98	130,01	130,02	129,92	132,11	132,17	132,20

ROOFTOP UNITS *perseus*

COOLING PERFORMANCE 454-B / 1

NEW

MODEL			PERS052M												PERS072M												PERS095M											
INDOOR COIL AIR INLET TEMPERATURE [°C]		WB	16				19				22				16				19				22				16				19				22			
		DB	21	24	27	30	21	24	27	30	21	24	27	30	21	24	27	30	21	24	27	30	21	24	27	30	21	24	27	30	21	24	27	30	21	24	27	30
Outdoor Temperature, DB [°C]	35	Cooling Capacity [kW]	28,43	28,45	28,68	30,40	31,19	31,22	31,24	31,23	31,19	34,17	34,22	34,22	39,04	39,08	39,40	41,72	42,72	42,79	42,82	42,83	42,72	46,74	46,82	46,84	52,50	52,55	53,07	55,88	57,41	57,50	57,54	57,55	57,41	62,76	62,86	62,90
		Sensible Cooling Capacity [kW]	19,82	24,39	28,68	30,40	14,70	19,67	24,25	28,82	14,70	14,45	19,42	24,02	27,42	33,73	39,40	41,72	20,16	27,16	33,50	39,83	20,16	19,80	26,80	33,15	36,65	44,98	52,95	55,88	27,02	36,29	44,66	53,01	27,02	26,51	35,78	44,17
		Compressor Absorbed Power [kW]	7,98	7,98	8,00	8,12	8,17	8,17	8,17	8,17	8,17	8,37	8,37	8,37	11,09	11,09	11,10	11,20	11,23	11,24	11,24	11,24	11,23	11,37	11,37	11,38	14,14	14,14	14,15	14,19	14,21	14,21	14,21	14,21	14,21	14,26	14,26	14,26
	40	Cooling Capacity [kW]	27,26	27,28	27,70	29,39	29,93	29,97	29,99	29,98	29,93	32,84	32,88	32,89	37,61	37,65	38,19	40,46	41,14	41,21	41,25	41,26	41,14	45,00	45,09	45,12	50,18	50,23	50,86	53,85	54,87	54,96	55,00	55,01	54,87	59,98	60,09	60,12
		Sensible Cooling Capacity [kW]	19,29	23,85	27,70	29,39	14,22	19,15	23,73	28,31	14,22	13,99	18,93	23,53	26,76	33,07	38,19	40,46	19,55	26,52	32,85	39,18	19,55	19,20	26,17	32,52	35,57	43,90	50,86	53,85	26,05	35,23	43,59	51,95	26,05	25,57	34,75	43,13
		Compressor Absorbed Power [kW]	8,70	8,70	8,73	8,86	8,90	8,90	8,90	8,90	8,90	9,12	9,12	9,12	12,13	12,13	12,16	12,28	12,31	12,31	12,31	12,31	12,31	12,48	12,48	12,48	15,81	15,81	15,82	15,89	15,92	15,92	15,92	15,92	15,92	16,00	16,01	16,01
	45	Cooling Capacity [kW]	26,04	26,06	26,69	28,36	28,63	28,67	28,69	28,69	28,63	31,45	31,50	31,51	36,11	36,15	36,93	39,15	39,49	39,57	39,60	39,61	39,49	43,20	43,29	43,32	47,73	47,77	48,79	51,72	52,19	52,28	52,32	52,33	52,19	57,07	57,17	57,21
		Sensible Cooling Capacity [kW]	18,71	23,27	26,69	28,36	13,70	18,60	23,18	27,75	13,70	13,50	18,41	23,00	26,06	32,37	36,93	39,15	18,90	25,82	32,15	38,48	18,90	18,57	25,49	31,84	34,39	42,73	48,79	51,72	24,99	34,08	42,44	50,79	24,99	24,54	33,62	42,01
		Compressor Absorbed Power [kW]	9,51	9,51	9,56	9,69	9,71	9,71	9,72	9,72	9,71	9,94	9,94	9,94	13,26	13,26	13,31	13,44	13,46	13,46	13,46	13,46	13,46	13,66	13,66	13,66	17,59	17,60	17,63	17,72	17,74	17,74	17,74	17,74	17,74	17,86	17,86	17,86
	50	Cooling Capacity [kW]	24,75	24,77	25,63	27,28	27,27	27,31	27,33	27,49	27,27	30,00	30,05	30,06	34,52	34,56	35,58	37,75	37,76	37,83	37,87	38,04	37,76	41,31	41,40	41,44	45,10	45,15	46,58	49,42	49,34	49,43	49,47	49,79	49,34	53,97	54,07	54,11
		Sensible Cooling Capacity [kW]	18,11	22,67	25,63	27,28	13,17	18,03	22,61	27,08	13,17	13,00	17,87	22,46	25,32	31,63	35,58	37,75	18,23	25,10	31,43	37,64	18,23	17,91	24,79	31,13	33,15	41,48	46,58	49,42	23,88	32,86	41,22	49,35	23,88	23,47	32,44	40,83
		Compressor Absorbed Power [kW]	10,45	10,45	10,51	10,63	10,63	10,63	10,63	10,64	10,63	10,85	10,85	10,85	14,48	14,48	14,55	14,69	14,69	14,70	14,70	14,71	14,69	14,91	14,92	14,92	19,51	19,51	19,58	19,69	19,68	19,69	19,69	19,70	19,68	19,84	19,84	19,84

LOW GWP

Imbat reserves the right to make changes in model, capacity, dimensions, and specifications without prior notice.

ROOFTOP UNITS *perseus*

COOLING PERFORMANCE 454-B / 2

NEW

MODEL			PERS122M												PERS144M												PERS167M											
INDOOR COIL AIR INLET TEMPERATURE [°C]	WB		16				19				22				16				19				22				16				19				22			
	DB		21	24	27	30	21	24	27	30	21	24	27	30	21	24	27	30	21	24	27	30	21	24	27	30	21	24	27	30	21	24	27	30	21	24	27	30
Outdoor Temperature, DB [°C]	35	Cooling Capacity [kW]	68,21	68,30	68,76	72,30	74,46	74,63	74,71	74,75	74,46	81,34	81,52	81,61	82,80	82,88	83,12	87,39	90,52	90,68	90,75	90,78	90,52	98,97	99,15	99,22	95,87	95,98	96,26	101,23	104,86	105,05	105,14	105,18	104,86	114,69	114,90	114,99
		Sensible Cooling Capacity [kW]	47,73	58,41	68,76	72,30	35,00	47,23	57,95	68,67	35,00	34,31	46,54	57,29	57,29	70,01	82,59	87,39	42,38	56,74	69,50	82,25	42,38	41,58	55,94	68,74	66,42	81,18	95,78	101,23	49,09	65,80	80,61	95,40	49,09	48,18	64,90	79,75
		Compressor Absorbed Power [kW]	17,87	17,87	17,89	18,00	18,07	18,07	18,08	18,08	18,07	18,25	18,26	18,26	21,89	21,89	21,90	22,06	22,17	22,17	22,17	22,17	22,17	22,42	22,43	22,43	25,13	25,14	25,14	25,26	25,33	25,33	25,34	25,34	25,33	25,49	25,50	25,50
	40	Cooling Capacity [kW]	65,32	65,42	65,95	69,78	71,30	71,46	71,55	71,58	71,30	77,87	78,05	78,14	79,19	79,28	80,00	84,26	86,57	86,72	86,80	86,82	86,57	94,64	94,82	94,88	91,67	91,77	92,55	97,58	100,24	100,43	100,52	100,56	100,24	109,63	109,85	109,93
		Sensible Cooling Capacity [kW]	46,38	57,05	65,95	69,78	33,78	45,90	56,61	67,33	33,78	33,12	45,23	55,98	55,60	68,32	80,00	84,26	40,85	55,07	67,83	80,58	40,85	40,09	54,31	67,11	64,44	79,20	91,88	97,58	47,31	63,85	78,65	93,44	47,31	46,44	62,99	77,83
		Compressor Absorbed Power [kW]	19,95	19,95	19,98	20,14	20,20	20,20	20,21	20,21	20,20	20,44	20,44	20,45	24,34	24,35	24,38	24,58	24,69	24,69	24,70	24,70	24,69	25,02	25,03	25,03	28,06	28,06	28,09	28,24	28,32	28,32	28,32	28,32	28,32	28,55	28,56	28,56
	45	Cooling Capacity [kW]	62,27	62,36	63,39	67,12	67,96	68,12	68,20	68,24	67,96	74,23	74,40	74,49	75,37	75,45	76,47	80,97	82,38	82,54	82,61	82,64	82,38	90,07	90,25	90,31	87,20	87,30	88,50	93,74	95,36	95,55	95,64	95,67	95,36	104,30	104,51	104,60
		Sensible Cooling Capacity [kW]	44,90	55,58	63,39	67,12	32,45	44,45	55,16	65,87	32,45	31,84	43,82	54,56	53,75	66,47	76,47	80,97	39,18	53,25	66,00	78,75	39,18	38,47	52,53	65,32	62,28	77,03	88,50	93,74	45,36	61,72	76,52	91,31	45,36	44,55	60,91	75,75
		Compressor Absorbed Power [kW]	22,21	22,22	22,27	22,46	22,51	22,51	22,52	22,52	22,51	22,80	22,80	22,81	26,99	27,00	27,06	27,32	27,39	27,40	27,41	27,41	27,39	27,79	27,80	27,81	31,24	31,24	31,29	31,49	31,55	31,55	31,56	31,56	31,55	31,84	31,85	31,85
	50	Cooling Capacity [kW]	59,02	59,11	60,65	64,27	64,41	64,57	64,65	64,79	64,41	70,36	70,54	70,62	71,28	71,36	73,04	77,42	77,93	78,08	78,15	78,17	77,93	85,22	85,39	85,46	82,43	82,53	84,50	89,60	90,16	90,34	90,43	90,46	90,16	98,64	98,84	98,93
		Sensible Cooling Capacity [kW]	43,35	54,03	60,65	64,27	31,06	42,92	53,63	64,26	31,06	30,49	42,33	53,07	51,80	64,51	73,04	77,42	37,42	51,33	64,09	76,83	37,42	36,76	50,67	63,46	60,00	74,75	84,50	89,60	43,31	59,48	74,28	89,07	43,31	42,56	58,73	73,57
		Compressor Absorbed Power [kW]	24,68	24,69	24,79	25,01	25,01	25,02	25,03	25,04	25,01	25,35	25,36	25,36	29,87	29,87	29,99	30,28	30,31	30,32	30,33	30,33	30,31	30,76	30,77	30,78	34,71	34,71	34,80	35,03	35,05	35,06	35,06	35,06	35,05	35,38	35,39	35,40

LOW GWP

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ROOFTOP UNITS *perseus*

COOLING PERFORMANCE 454-B / 3

NEW

MODEL			PERS192M												PERS217M												PERS253M											
INDOOR COIL AIR INLET TEMPERATURE [°C]	WB		16				19				22				16				19				22				16				19				22			
	DB		21	24	27	30	21	24	27	30	21	24	27	30	21	24	27	30	21	24	27	30	21	24	27	30	21	24	27	30	21	24	27	30	21	24	27	30
Outdoor Temperature, DB [°C]	35	Cooling Capacity [kW]	109,78	109,90	110,32	116,03	120,26	120,26	120,36	120,40	120,06	131,30	131,54	131,62	122,54	122,64	123,41	129,76	133,77	133,96	134,03	134,05	133,77	146,01	146,22	146,28	144,91	145,08	145,54	152,98	158,27	158,56	158,71	158,76	158,27	172,90	173,23	173,36
		Sensible Cooling Capacity [kW]	76,07	93,03	109,73	116,03	75,34	75,34	92,37	109,38	56,24	55,19	74,30	91,38	84,95	104,16	122,76	129,76	62,78	84,00	103,27	122,52	62,78	61,51	82,70	102,04	100,52	122,87	144,96	152,98	74,14	99,48	121,91	144,32	74,14	72,69	98,02	120,51
		Compressor Absorbed Power [kW]	28,28	28,29	28,30	28,50	28,63	28,63	28,63	28,63	28,62	28,93	28,93	28,93	31,67	31,67	31,71	31,96	32,11	32,12	32,12	32,12	32,11	32,53	32,54	32,54	37,97	37,97	37,99	38,24	38,41	38,42	38,42	38,42	38,41	38,82	38,83	38,83
	40	Cooling Capacity [kW]	105,00	105,11	105,85	111,88	115,02	115,02	115,12	115,15	114,82	125,56	125,79	125,88	117,29	117,39	118,38	125,17	128,00	128,18	128,26	128,28	128,00	139,68	139,88	139,95	138,64	138,80	139,91	147,51	151,38	151,67	151,81	151,87	151,38	165,34	165,66	165,80
		Sensible Cooling Capacity [kW]	73,82	90,79	105,74	111,88	73,13	73,13	90,15	107,16	54,21	53,21	72,14	89,21	82,50	101,71	118,38	125,17	60,55	81,58	100,85	120,09	60,55	59,33	80,33	99,66	97,57	119,92	139,91	147,51	71,47	96,57	118,99	141,40	71,47	70,08	95,17	117,65
		Compressor Absorbed Power [kW]	31,52	31,53	31,56	31,83	31,95	31,95	31,96	31,96	31,95	32,35	32,36	32,36	35,30	35,30	35,35	35,69	35,83	35,84	35,84	35,84	35,83	36,35	36,36	36,36	42,34	42,35	42,40	42,72	42,88	42,89	42,90	42,90	42,88	43,40	43,41	43,42
	45	Cooling Capacity [kW]	99,95	100,06	101,52	107,54	109,49	109,49	109,59	109,62	109,29	119,53	119,75	119,84	111,74	111,84	113,73	120,34	121,92	122,10	122,17	122,19	121,92	133,02	133,22	133,28	131,99	132,15	133,95	141,77	144,11	144,39	144,53	144,58	144,11	157,38	157,70	157,84
		Sensible Cooling Capacity [kW]	71,39	88,35	101,52	107,54	70,73	70,73	87,75	104,76	52,01	51,07	69,79	86,86	79,85	99,05	113,73	120,34	58,13	78,96	98,23	117,47	58,13	56,98	77,77	97,10	94,36	116,70	133,95	141,77	68,57	93,40	115,81	138,23	68,57	67,26	92,07	114,55
		Compressor Absorbed Power [kW]	35,03	35,04	35,12	35,44	35,54	35,54	35,54	35,54	35,53	36,01	36,02	36,02	39,26	39,27	39,38	39,77	39,87	39,88	39,88	39,88	39,87	40,47	40,48	40,48	47,11	47,12	47,21	47,62	47,73	47,74	47,75	47,75	47,73	48,35	48,36	48,37
	50	Cooling Capacity [kW]	94,57	94,68	97,01	102,86	103,62	103,62	103,72	103,75	103,43	113,13	113,36	113,45	105,84	105,93	108,74	115,15	115,46	115,64	115,71	116,01	115,46	125,96	126,17	126,23	124,91	125,06	127,98	135,59	136,37	136,64	136,78	136,83	136,37	148,94	149,26	149,39
		Sensible Cooling Capacity [kW]	68,82	85,78	97,01	102,86	68,21	68,21	85,23	102,24	49,70	48,83	67,34	84,40	77,06	96,26	108,74	115,15	55,60	76,22	95,48	114,48	55,60	54,51	75,09	94,41	90,98	113,32	127,98	135,59	65,52	90,07	112,48	134,89	65,52	64,30	88,83	111,30
		Compressor Absorbed Power [kW]	38,85	38,85	39,00	39,36	39,40	39,40	39,41	39,41	39,39	39,94	39,95	39,95	43,59	43,60	43,80	44,24	44,26	44,27	44,28	44,30	44,26	44,94	44,95	44,95	52,32	52,33	52,51	52,96	53,01	53,02	53,03	53,03	53,01	53,70	53,72	53,72

LOW GWP

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ROOFTOP UNITS *perseus*

COOLING PERFORMANCE 454-B / 4

NEW

MODEL			PERS288M												PERS332M												PERS374M											
INDOOR COIL AIR INLET TEMPERATURE [°C]		WB	16				19				22				16				19				22				16				19				22			
		DB	21	24	27	30	21	24	27	30	21	24	27	30	21	24	27	30	21	24	27	30	21	24	27	30	21	24	27	30	21	24	27	30	21	24	27	30
Outdoor Temperature, DB [°C]	35	Cooling Capacity [kW]	165,91	166,09	166,48	175,03	181,40	181,72	181,87	181,93	181,40	198,36	198,72	198,86	190,95	191,24	191,53	201,22	208,41	208,89	209,16	209,29	208,41	227,62	228,17	228,43	215,67	215,91	216,32	227,26	235,42	235,84	236,05	236,14	235,42	257,03	257,51	257,71
		Sensible Cooling Capacity [kW]	114,78	140,25	165,52	175,03	84,91	113,68	139,23	164,76	84,91	83,31	112,09	137,72	132,98	162,23	191,46	201,22	97,58	131,60	160,94	190,31	97,58	95,65	129,66	159,10	149,29	182,34	215,22	227,26	110,20	147,69	180,84	213,98	110,20	107,99	145,46	178,71
		Compressor Absorbed Power [kW]	43,82	43,83	43,85	44,16	44,38	44,39	44,39	44,39	44,38	44,89	44,90	44,90	50,06	50,07	50,08	50,50	50,79	50,81	50,82	50,82	50,79	51,49	51,51	51,52	56,07	56,09	56,11	56,64	57,01	57,03	57,04	57,05	57,01	57,94	57,96	57,97
	40	Cooling Capacity [kW]	158,67	158,84	160,28	168,75	173,46	173,77	173,92	173,98	173,46	189,65	190,01	190,15	182,65	182,94	184,41	193,99	199,29	199,77	200,03	200,16	199,29	217,62	218,15	218,42	206,28	206,52	208,27	219,09	225,12	225,54	225,75	225,83	225,12	245,75	246,22	246,42
		Sensible Cooling Capacity [kW]	111,38	136,84	160,28	168,75	81,83	110,32	135,86	161,40	81,83	80,31	108,81	134,43	129,05	158,29	184,41	193,99	94,04	127,71	157,04	186,41	94,04	92,20	125,85	155,28	144,88	177,92	208,27	219,09	106,21	143,33	176,47	209,61	106,21	104,10	141,20	174,45
		Compressor Absorbed Power [kW]	48,74	48,75	48,82	49,22	49,43	49,44	49,45	49,45	49,43	50,10	50,11	50,11	55,63	55,65	55,73	56,24	56,51	56,53	56,55	56,55	56,51	57,38	57,41	57,42	62,30	62,31	62,42	63,06	63,41	63,43	63,44	63,45	63,41	64,53	64,55	64,56
	45	Cooling Capacity [kW]	150,99	151,16	153,12	162,14	165,05	165,36	165,51	165,57	165,05	180,47	180,82	180,96	173,84	174,12	176,15	186,38	189,65	190,12	190,38	190,49	189,65	207,06	207,59	207,85	196,33	196,56	198,97	210,50	214,24	214,65	214,85	214,93	214,24	233,86	234,33	234,52
		Sensible Cooling Capacity [kW]	107,66	133,12	153,12	162,14	78,48	106,66	132,20	157,73	78,48	77,05	105,23	130,85	124,75	153,99	176,15	186,38	90,20	123,47	152,80	182,16	90,20	88,45	121,70	151,12	140,06	173,09	198,97	210,50	101,86	138,59	171,72	204,86	101,86	99,87	136,56	169,80
		Compressor Absorbed Power [kW]	54,04	54,05	54,17	54,69	54,85	54,86	54,87	54,88	54,85	55,65	55,66	55,67	61,67	61,69	61,82	62,47	62,68	62,70	62,72	62,73	62,68	63,69	63,72	63,74	69,09	69,11	69,28	70,08	70,34	70,36	70,38	70,38	70,34	71,62	71,65	71,66
	50	Cooling Capacity [kW]	142,79	142,95	146,24	155,02	156,11	156,41	156,55	156,61	156,11	170,72	171,07	171,21	164,43	164,70	168,22	178,18	179,38	179,83	180,08	180,19	179,38	195,86	196,38	196,62	185,70	185,92	190,03	201,25	202,65	203,05	203,25	203,33	202,65	221,23	221,70	221,89
		Sensible Cooling Capacity [kW]	103,75	129,20	146,24	155,02	74,95	102,81	128,35	153,88	74,95	73,62	101,48	127,09	120,22	149,45	168,22	178,18	86,15	119,01	148,33	177,70	86,15	84,52	117,35	146,76	134,98	168,00	190,03	201,25	97,30	133,59	166,73	199,86	97,30	95,44	131,70	164,94
		Compressor Absorbed Power [kW]	59,80	59,81	60,04	60,62	60,69	60,71	60,72	60,72	60,69	61,59	61,61	61,62	68,25	68,27	68,53	69,26	69,34	69,38	69,39	69,40	69,34	70,48	70,51	70,53	76,52	76,53	76,87	77,76	77,87	77,90	77,91	77,92	77,87	79,28	79,31	79,33

LOW GWP

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ROOFTOP UNITS *perseus*

COOLING PERFORMANCE 454-B / 5

NEW

MODEL			PERS416G												PERS500G											
INDOOR COIL AIR INLET TEMPERATURE [°C]	WB		16				19				22				16				19				22			
	DB		21	24	27	30	21	24	27	30	21	24	27	30	21	24	27	30	21	24	27	30	21	24	27	30
Outdoor Temperature, DB [°C]	35	Cooling Capacity [kW]	244,47	244,68	244,76	257,09	267,06	267,44	267,60	267,65	267,06	291,74	292,17	292,30	320,07	320,42	320,48	330,74	350,16	350,75	351,04	351,17	350,16	383,15	383,82	384,09
		Sensible Cooling Capacity [kW]	167,86	204,92	242,04	257,09	124,66	166,07	203,28	240,43	124,66	122,20	163,60	200,93	215,70	260,26	304,99	330,74	161,95	213,73	258,46	303,16	161,95	158,92	210,79	255,66
		Compressor Absorbed Power [kW]	63,03	63,03	63,04	63,54	63,92	63,93	63,94	63,94	63,92	64,76	64,78	64,78	87,16	87,18	87,18	87,67	88,55	88,57	88,59	88,59	88,55	89,87	89,90	89,91
	40	Cooling Capacity [kW]	234,07	234,27	235,87	248,07	255,61	255,98	256,14	256,19	255,61	279,14	279,56	279,70	306,18	306,51	306,58	318,96	334,87	335,45	335,74	335,88	334,87	366,33	367,00	367,26
		Sensible Cooling Capacity [kW]	162,97	200,01	235,76	248,07	120,18	161,22	198,41	235,57	120,18	117,81	158,84	196,15	209,00	253,55	298,27	318,96	155,87	207,08	251,81	296,48	155,87	152,97	204,26	249,11
		Compressor Absorbed Power [kW]	70,26	70,27	70,35	70,97	71,33	71,35	71,36	71,36	71,33	72,37	72,39	72,40	96,61	96,63	96,64	97,37	98,26	98,29	98,31	98,32	98,26	99,90	99,93	99,95
	45	Cooling Capacity [kW]	223,06	223,25	225,58	238,60	243,51	243,88	244,04	244,09	243,51	265,88	266,30	266,43	291,39	291,72	291,80	306,55	318,66	319,23	319,51	319,64	318,66	348,56	349,22	349,48
		Sensible Cooling Capacity [kW]	157,66	194,70	225,58	238,60	115,33	155,97	193,16	230,30	115,33	113,07	153,69	190,98	201,65	246,20	290,88	306,55	149,22	199,81	244,51	289,19	149,22	146,48	197,12	241,95
		Compressor Absorbed Power [kW]	78,16	78,17	78,32	79,10	79,39	79,41	79,42	79,42	79,39	80,60	80,63	80,63	106,83	106,85	106,86	107,88	108,69	108,72	108,74	108,75	108,69	110,57	110,61	110,63
	50	Cooling Capacity [kW]	211,32	211,52	215,72	228,40	230,66	231,02	231,18	231,22	230,66	251,82	252,24	252,38	275,54	275,85	277,67	293,13	301,33	301,89	302,16	302,27	301,33	329,63	330,27	330,53
		Sensible Cooling Capacity [kW]	152,06	189,11	215,72	228,40	110,24	150,45	187,63	224,76	110,24	108,10	148,29	185,58	193,87	238,40	276,82	293,13	142,21	192,13	236,81	281,49	142,21	139,64	189,61	234,43
		Compressor Absorbed Power [kW]	86,82	86,83	87,13	88,02	88,17	88,19	88,20	88,21	88,17	89,53	89,56	89,57	117,91	117,93	118,08	119,29	119,92	119,96	119,98	119,99	119,92	121,99	122,04	122,05

LOW GWP

Imbat reserves the right to make changes in model, capacity, dimensions, and specifications without prior notice.

ROOFTOP UNITS *perseus*

HEATING PERFORMANCE 410-A / 1

NEW

MODEL			PERS052G						PERS072G						PERS095G						PERS122G						PERS144G					
OUTDOOR COIL AIR INLET TEMPERATURE [°C]	DB		-10	-5	0	7	12	15	-10	-5	0	7	12	15	-10	-5	0	7	12	15	-10	-5	0	7	12	15	-10	-5	0	7	12	15
Indoor Temperature, DB [°C]	0	Heating Capacity [kW]	22,35	25,79	29,65	35,79	40,59	43,67	30,71	35,36	40,53	48,87	55,44	59,68	40,83	47,15	54,19	65,49	74,37	80,06	53,56	61,70	70,74	85,10	96,32	103,52	64,69	74,52	85,44	102,77	116,34	125,04
		Compressor Absorbed Power [kW]	4,72	4,96	5,23	5,67	6,02	6,25	6,81	7,14	7,48	8,03	8,46	8,74	7,96	8,37	8,79	9,44	9,93	10,25	10,28	10,84	11,43	12,34	13,05	13,51	12,45	13,14	13,88	15,02	15,90	16,47
	5	Heating Capacity [kW]	22,13	25,49	29,28	35,27	39,93	42,93	30,65	35,20	40,24	48,36	54,72	58,82	40,54	46,74	53,64	64,64	73,28	78,80	53,22	61,14	69,96	83,89	94,76	101,72	64,31	73,90	84,55	101,39	114,54	122,96
		Compressor Absorbed Power [kW]	5,18	5,44	5,75	6,26	6,66	6,93	7,49	7,86	8,26	8,88	9,37	9,68	8,80	9,30	9,83	10,65	11,27	11,68	11,47	12,11	12,79	13,85	14,67	15,20	13,87	14,67	15,54	16,89	17,93	18,59
	10	Heating Capacity [kW]	21,84	25,12	28,81	34,64	39,17	42,06	30,56	34,99	39,90	47,77	53,91	57,87	40,19	46,27	52,99	63,69	72,05	77,39	52,84	60,53	69,08	82,57	93,08	99,79	63,77	73,19	83,54	99,87	112,58	120,70
		Compressor Absorbed Power [kW]	5,67	5,95	6,29	6,85	7,31	7,61	8,20	8,61	9,05	9,75	10,29	10,64	9,69	10,26	10,89	11,86	12,61	13,09	12,73	13,43	14,20	15,40	16,33	16,93	15,37	16,27	17,26	18,79	19,98	20,75
	15	Heating Capacity [kW]	21,52	24,69	28,29	33,93	38,31	41,11	30,45	34,74	39,51	47,12	53,04	56,85	39,93	45,80	52,31	62,66	70,73	75,88	52,48	59,89	68,17	81,19	91,31	97,76	63,36	72,45	82,48	98,25	110,50	118,32
		Compressor Absorbed Power [kW]	6,22	6,51	6,87	7,48	7,97	8,30	8,95	9,39	9,88	10,64	11,24	11,62	10,70	11,32	12,01	13,11	13,97	14,52	14,08	14,84	15,69	17,02	18,06	18,73	17,03	17,99	19,07	20,78	22,12	22,97
	20	Heating Capacity [kW]	21,21	24,25	27,73	33,17	37,40	40,09	30,35	34,49	39,10	46,43	52,12	55,78	39,75	45,36	51,63	61,59	69,35	74,30	52,17	59,27	67,25	79,78	89,49	95,67	63,05	71,76	81,39	96,58	108,36	115,86
		Compressor Absorbed Power [kW]	6,86	7,14	7,51	8,15	8,68	9,03	9,76	10,23	10,76	11,59	12,22	12,63	11,86	12,50	13,23	14,44	15,39	16,00	15,59	16,39	17,30	18,75	19,89	20,62	18,88	19,90	21,05	22,91	24,37	25,30

ROOFTOP UNITS *perseus*

HEATING PERFORMANCE 410-A / 2

NEW

MODEL			PERS167G						PERS192G						PERS217G						PERS253G						PERS288G					
OUTDOOR COIL AIR INLET TEMPERATURE [°C]	DB		-10	-5	0	7	12	15	-10	-5	0	7	12	15	-10	-5	0	7	12	15	-10	-5	0	7	12	15	-10	-5	0	7	12	15
Indoor Temperature, DB [°C]	0	Heating Capacity [kW]	74,53	85,78	98,33	118,29	133,98	144,06	84,40	97,47	111,96	135,04	153,17	164,78	96,07	110,44	126,45	151,85	171,63	184,36	113,53	130,56	149,50	179,56	202,99	218,11	129,52	149,19	171,08	205,80	232,97	250,40
		Compressor Absorbed Power [kW]	14,31	15,08	15,90	17,12	18,06	18,67	15,69	16,60	17,57	19,07	20,26	21,03	18,31	19,27	20,31	21,89	23,12	23,93	21,81	23,00	24,26	26,17	27,65	28,62	24,86	26,24	27,72	29,98	31,74	32,87
	5	Heating Capacity [kW]	73,71	84,85	97,14	116,62	131,89	141,68	83,97	96,73	110,86	133,29	150,86	162,09	95,41	109,39	124,97	149,63	168,79	181,11	112,45	129,23	147,73	176,96	199,72	214,36	128,77	147,95	169,30	203,05	229,38	246,24
		Compressor Absorbed Power [kW]	15,79	16,73	17,72	19,25	20,42	21,17	17,60	18,64	19,77	21,53	22,90	23,79	20,34	21,44	22,62	24,45	25,87	26,79	24,15	25,53	27,01	29,28	31,04	32,19	27,71	29,30	31,04	33,72	35,79	37,12
	10	Heating Capacity [kW]	73,06	83,87	95,84	114,78	129,59	139,08	83,45	95,86	109,59	131,34	148,31	159,15	94,64	108,19	123,32	147,21	165,73	177,61	111,52	127,79	145,77	174,14	196,17	210,32	127,71	146,53	167,27	200,00	225,46	241,74
		Compressor Absorbed Power [kW]	17,40	18,44	19,59	21,37	22,76	23,64	19,61	20,77	22,04	24,04	25,60	26,60	22,47	23,68	25,01	27,07	28,69	29,74	26,64	28,17	29,84	32,45	34,48	35,79	30,71	32,50	34,46	37,53	39,91	41,43
	15	Heating Capacity [kW]	72,49	82,91	94,50	112,83	127,15	136,31	82,93	94,92	108,22	129,22	145,59	156,02	93,87	106,94	121,59	144,65	162,52	173,96	110,64	126,32	143,73	171,15	192,43	206,07	126,88	145,07	165,14	196,75	221,31	236,98
		Compressor Absorbed Power [kW]	19,20	20,30	21,56	23,56	25,13	26,14	21,79	23,04	24,44	26,65	28,39	29,50	24,76	26,07	27,54	29,85	31,65	32,83	29,38	31,01	32,85	35,76	38,04	39,52	34,01	35,94	38,10	41,51	44,17	45,88
	20	Heating Capacity [kW]	72,10	82,04	93,20	110,85	124,63	133,45	82,48	93,99	106,81	127,03	142,74	152,75	93,17	105,72	119,84	142,03	159,22	170,21	109,93	124,95	141,71	168,10	188,58	201,70	126,25	143,67	162,99	193,44	217,01	232,05
		Compressor Absorbed Power [kW]	21,29	22,40	23,72	25,88	27,61	28,72	24,20	25,52	27,02	29,42	31,31	32,52	27,30	28,70	30,30	32,83	34,82	36,11	32,48	34,18	36,14	39,30	41,80	43,43	37,72	39,74	42,05	45,76	48,67	50,54

ROOFTOP UNITS *perseus*

HEATING PERFORMANCE 410-A / 3

NEW

MODEL			PERS332G						PERS374G						PERS416G						PERS500G					
OUTDOOR COIL AIR INLET TEMPERATURE [°C]	DB		-10	-5	0	7	12	15	-10	-5	0	7	12	15	-10	-5	0	7	12	15	-10	-5	0	7	12	15
Indoor Temperature, DB [°C]	0	Heating Capacity [kW]	150,54	173,19	198,41	238,44	269,81	289,93	169,11	194,84	223,27	269,02	304,98	328,04	193,35	222,36	254,85	306,05	345,93	371,66	257,16	295,46	337,61	404,75	456,64	489,80
		Compressor Absorbed Power [kW]	28,90	30,52	32,25	34,94	37,03	38,40	32,02	33,79	35,73	38,87	41,42	43,12	37,04	39,06	41,25	44,62	47,26	48,99	51,84	55,15	58,79	64,61	69,22	72,23
	5	Heating Capacity [kW]	149,52	171,59	196,16	235,04	265,43	284,89	167,97	193,01	220,68	265,05	299,84	322,11	191,93	220,11	251,73	301,38	339,99	364,83	255,47	292,74	333,86	398,93	449,17	481,20
		Compressor Absorbed Power [kW]	32,07	33,92	35,92	39,05	41,49	43,07	35,55	37,56	39,77	43,36	46,26	48,18	41,13	43,40	45,89	49,75	52,77	54,75	57,37	61,08	65,21	71,83	77,07	80,49
	10	Heating Capacity [kW]	148,11	169,77	193,64	231,30	260,68	279,46	166,69	190,96	217,81	260,75	294,33	315,79	190,31	217,59	248,27	296,33	333,61	357,56	253,17	289,75	329,64	392,65	441,17	472,05
		Compressor Absorbed Power [kW]	35,39	37,46	39,71	43,27	46,06	47,86	39,30	41,52	44,00	48,03	51,29	53,43	45,40	47,91	50,70	55,05	58,46	60,69	63,28	67,39	71,95	79,34	85,20	89,02
	15	Heating Capacity [kW]	146,96	167,87	190,98	227,35	255,68	273,76	165,18	188,83	214,82	256,24	288,57	309,21	188,69	214,97	244,66	291,02	326,96	350,00	251,56	286,76	325,30	386,10	432,84	462,54
		Compressor Absorbed Power [kW]	39,04	41,27	43,75	47,71	50,83	52,84	43,39	45,81	48,53	52,98	56,58	58,94	50,02	52,74	55,81	60,64	64,44	66,92	69,94	74,30	79,25	87,35	93,78	97,96
	20	Heating Capacity [kW]	146,01	166,04	188,31	223,33	250,54	267,89	164,07	186,77	211,80	251,64	282,66	302,46	187,24	212,43	241,02	285,63	320,14	342,25	250,37	284,03	321,09	379,53	424,37	452,87
		Compressor Absorbed Power [kW]	43,15	45,50	48,17	52,49	55,90	58,11	47,98	50,55	53,49	58,33	62,24	64,80	55,15	58,05	61,38	66,67	70,83	73,54	77,56	82,09	87,35	96,04	102,97	107,47

ROOFTOP UNITS *perseus*

HEATING PERFORMANCE 454-B / 1

NEW

MODEL			PERS052M						PERS072M						PERS095M						PERS122M						PERS144M					
OUTDOOR COIL AIR INLET TEMPERATURE [°C]	DB		-10	-5	0	7	12	15	-10	-5	0	7	12	15	-10	-5	0	7	12	15	-10	-5	0	7	12	15	-10	-5	0	7	12	15
Indoor Temperature, DB [°C]	0	Heating Capacity [kW]	21,48	24,71	28,32	34,09	38,60	41,52	28,58	33,04	38,12	46,11	52,51	56,64	38,62	44,71	51,60	62,45	71,17	76,75	50,13	57,81	66,44	80,35	91,27	98,31	60,35	69,89	80,46	97,50	110,89	119,52
		Compressor Absorbed Power [kW]	4,55	4,79	5,04	5,40	5,68	5,85	6,09	6,39	6,70	7,14	7,49	7,71	7,41	7,68	7,97	8,41	8,78	9,02	9,19	9,61	10,08	10,83	11,43	11,83	11,35	11,89	12,45	13,34	14,04	14,50
	5	Heating Capacity [kW]	21,17	24,35	27,93	33,65	38,12	41,00	28,55	32,94	37,87	45,75	52,00	56,03	38,57	44,56	51,32	61,88	70,33	75,74	50,08	57,60	66,06	79,62	90,24	97,07	60,30	69,67	80,04	96,66	109,68	118,06
		Compressor Absorbed Power [kW]	4,89	5,16	5,46	5,93	6,28	6,51	6,72	7,08	7,44	7,98	8,39	8,65	8,37	8,72	9,09	9,64	10,09	10,38	10,37	10,87	11,43	12,32	13,03	13,49	12,71	13,37	14,08	15,17	16,03	16,60
	10	Heating Capacity [kW]	20,86	23,97	27,50	33,14	37,55	40,40	28,52	32,81	37,65	45,35	51,45	55,37	38,52	44,37	50,98	61,25	69,43	74,65	50,00	57,34	65,60	78,80	89,11	95,72	60,30	69,67	80,04	96,66	109,68	118,06
		Compressor Absorbed Power [kW]	5,27	5,55	5,89	6,43	6,86	7,14	7,37	7,76	8,18	8,81	9,28	9,59	9,37	9,80	10,25	10,92	11,46	11,80	11,60	12,18	12,82	13,86	14,68	15,22	12,71	13,37	14,08	15,17	16,03	16,60
	15	Heating Capacity [kW]	20,58	23,59	27,06	32,60	36,93	39,74	28,48	32,68	37,41	44,92	50,86	54,67	38,45	44,16	50,60	60,57	68,47	73,50	49,93	57,07	65,11	77,92	87,90	94,29	60,04	68,94	78,82	94,53	106,75	114,58
		Compressor Absorbed Power [kW]	5,73	6,00	6,35	6,95	7,44	7,75	8,04	8,48	8,95	9,66	10,20	10,54	10,43	10,94	11,48	12,27	12,88	13,28	12,91	13,57	14,30	15,49	16,42	17,03	15,67	16,54	17,50	19,00	20,16	20,92
	20	Heating Capacity [kW]	20,36	23,26	26,63	32,05	36,30	39,05	28,48	32,56	37,17	44,48	50,25	53,95	38,39	43,94	50,20	59,84	67,47	72,30	49,90	56,81	64,62	77,01	86,65	92,82	59,93	68,54	78,12	93,31	105,11	112,66
		Compressor Absorbed Power [kW]	6,31	6,55	6,89	7,52	8,04	8,39	8,77	9,24	9,76	10,54	11,14	11,52	11,57	12,16	12,78	13,69	14,39	14,83	14,35	15,07	15,90	17,23	18,27	18,95	17,35	18,31	19,37	21,05	22,36	23,20

LOW GWP

ROOFTOP UNITS *perseus*

HEATING PERFORMANCE 454-B / 2

NEW

MODEL			PERS167M						PERS192M						PERS217M						PERS253M						PERS288M					
OUTDOOR COIL AIR INLET TEMPERATURE [°C]	DB		-10	-5	0	7	12	15	-10	-5	0	7	12	15	-10	-5	0	7	12	15	-10	-5	0	7	12	15	-10	-5	0	7	12	15
Indoor Temperature, DB [°C]	0	Heating Capacity [kW]	69,93	80,93	93,17	112,90	128,39	138,37	79,80	92,30	106,30	128,84	146,58	157,98	89,44	102,97	118,25	142,79	161,92	174,25	106,00	122,41	140,68	170,03	192,93	207,73	126,04	145,70	167,65	202,94	230,57	248,35
		Compressor Absorbed Power [kW]	13,22	13,77	14,35	15,26	15,98	16,47	14,40	15,12	15,89	17,09	18,02	18,64	15,92	16,70	17,59	19,02	20,17	20,92	19,50	20,41	21,41	23,01	24,28	25,13	24,15	25,37	26,69	28,77	30,44	31,56
	5	Heating Capacity [kW]	69,83	80,63	92,64	111,86	126,90	136,57	79,56	91,82	105,56	127,56	144,81	155,87	89,36	102,59	117,54	141,43	160,02	171,98	105,88	121,95	139,84	168,45	190,69	205,03	125,70	145,23	166,73	201,13	227,95	245,17
		Compressor Absorbed Power [kW]	14,85	15,52	16,25	17,38	18,26	18,85	16,21	17,07	18,00	19,45	20,59	21,33	18,01	18,90	19,93	21,60	22,91	23,78	21,97	23,04	24,23	26,13	27,63	28,62	26,98	28,46	30,06	32,58	34,57	35,88
	10	Heating Capacity [kW]	69,68	80,23	91,96	110,66	125,24	134,59	79,29	91,26	104,68	126,10	142,85	153,56	89,23	102,12	116,70	139,92	157,95	169,53	105,70	121,38	138,84	166,65	188,22	202,09	125,42	144,52	165,52	198,97	224,96	241,60
		Compressor Absorbed Power [kW]	16,56	17,36	18,23	19,57	20,62	21,30	18,11	19,10	20,18	21,89	23,22	24,08	20,18	21,19	22,35	24,26	25,76	26,75	24,56	25,79	27,17	29,37	31,10	32,23	29,97	31,69	33,54	36,48	38,78	40,29
	15	Heating Capacity [kW]	69,52	79,79	91,22	109,35	123,45	132,47	79,03	90,67	103,73	124,53	140,75	151,10	89,10	101,62	115,80	138,32	155,77	166,95	105,51	120,76	137,75	164,73	185,59	198,99	125,14	143,71	164,14	196,56	221,68	237,73
		Compressor Absorbed Power [kW]	18,40	19,32	20,32	21,88	23,08	23,85	20,15	21,26	22,49	24,44	25,96	26,94	22,48	23,61	24,92	27,06	28,75	29,86	27,33	28,72	30,28	32,78	34,74	36,02	33,20	35,13	37,23	40,55	43,15	44,84
	20	Heating Capacity [kW]	69,41	79,36	90,45	107,98	121,57	130,25	78,83	90,09	102,77	122,89	138,55	148,53	89,05	101,16	114,90	136,67	153,51	164,28	105,42	120,17	136,65	162,73	182,86	195,76	124,94	142,88	162,69	194,00	218,21	233,65
		Compressor Absorbed Power [kW]	20,44	21,47	22,59	24,34	25,68	26,55	22,40	23,61	24,98	27,15	28,85	29,94	25,01	26,24	27,69	30,06	31,94	33,16	30,37	31,91	33,65	36,43	38,61	40,02	36,79	38,88	41,20	44,88	47,75	49,60

LOW GWP

Imbat reserves the right to make changes in model, capacity, dimensions, and specifications without prior notice.

ROOFTOP UNITS *perseus*

HEATING PERFORMANCE 454-B / 3

NEW

MODEL			PERS332M						PERS374M						PERS416M						PERS500G					
OUTDOOR COIL AIR INLET TEMPERATURE [°C]	DB		-10	-5	0	7	12	15	-10	-5	0	7	12	15	-10	-5	0	7	12	15	-10	-5	0	7	12	15
Indoor Temperature, DB [°C]	0	Heating Capacity [kW]	140,02	161,98	186,38	225,64	256,43	276,24	158,80	183,36	210,90	255,13	290,39	312,96	180,05	207,62	238,43	287,94	326,57	351,53	239,87	277,57	319,21	385,71	437,40	470,54
		Compressor Absorbed Power [kW]	25,69	27,02	28,46	30,74	32,57	33,78	28,66	30,15	31,80	34,44	36,60	38,02	32,23	33,89	35,77	38,83	41,27	42,89	46,85	49,68	52,73	57,65	61,63	64,29
	5	Heating Capacity [kW]	139,89	161,41	185,31	223,55	253,45	272,64	158,41	182,52	209,49	252,59	286,84	308,71	179,82	206,76	236,88	285,05	322,55	346,72	239,60	276,52	317,26	381,96	432,07	464,12
		Compressor Absorbed Power [kW]	28,84	30,41	32,14	34,87	37,04	38,46	32,13	33,87	35,83	38,96	41,50	43,17	36,43	38,31	40,48	43,99	46,80	48,65	52,19	55,49	59,08	64,85	69,45	72,49
	10	Heating Capacity [kW]	139,63	160,61	183,92	221,10	250,08	268,63	157,72	181,44	207,75	249,65	282,86	304,03	179,49	205,72	235,07	281,86	318,19	341,56	239,06	275,02	314,73	377,54	426,02	456,96
		Compressor Absorbed Power [kW]	32,13	33,93	35,91	39,08	41,59	43,22	35,73	37,73	39,97	43,59	46,52	48,43	40,79	42,91	45,36	49,35	52,54	54,64	57,82	61,54	65,64	72,21	77,42	80,83
	15	Heating Capacity [kW]	139,30	159,68	182,36	218,39	246,40	264,32	157,21	180,23	205,82	246,46	278,57	299,01	179,18	204,65	233,16	278,48	313,61	336,17	238,42	273,30	311,87	372,65	419,43	449,22
		Compressor Absorbed Power [kW]	35,64	37,65	39,89	43,48	46,31	48,15	39,63	41,84	44,35	48,44	51,74	53,89	45,44	47,80	50,54	55,02	58,59	60,93	63,94	68,03	72,59	79,90	85,67	89,43
	20	Heating Capacity [kW]	139,05	158,75	180,71	215,52	242,53	259,77	156,80	179,03	203,82	243,09	274,07	293,76	179,04	203,65	231,25	275,03	308,90	330,62	237,93	271,56	308,86	367,45	412,46	441,08
		Compressor Absorbed Power [kW]	39,51	41,69	44,16	48,14	51,27	53,30	43,94	46,33	49,08	53,59	57,24	59,62	50,52	53,11	56,13	61,08	65,03	67,60	70,76	75,14	80,08	88,04	94,32	98,40

LOW GWP

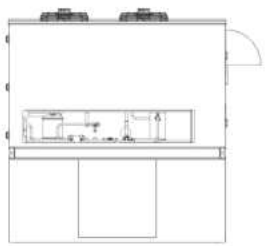
ROOFTOP UNITS HSE

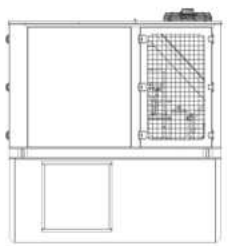
Imbat rooftops participates in the Eurovent certification programme. The models are listed in the Eurovent directory, please check website: www.eurovent-certification.com

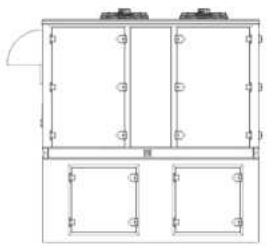
The HSE Rooftop Series is an advanced air conditioning solution that combines superior energy efficiency and performance. With an extensive airflow range from 2500 m^3/h to 65000 m^3/h, it provides flexibility for various applications. Offering heating, cooling, and heat pump functionalities, this unit ensures optimal comfort throughout all seasons, while the R410-A and eco-friendly R454-B refrigerant options provide a future-proof sustainable solution.

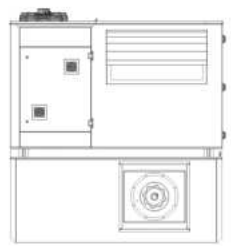
The scroll compressor technology ensures efficient operation while saving energy. Additionally, with free cooling and heat pump features, the unit minimizes energy consumption, reducing operating costs. The EC fan alarm ensures reliable operation, while the fresh air intake and heat recovery systems maximize indoor air quality.

The HSE series is also equipped with high efficiency gas burner and advanced heat recovery technologies, making it an ideal solution for users seeking energy efficiency and environmental responsibility.









ROOFTOP UNITS HSE

kW Capacity Range	7-350	full automatic	Full Automatic
Refrigerant Fluid	R-410 A	DISPLAY	LCD Display Panel
Refrigerant Fluid	R-454 B	CO_2	Indoor Air Quality
Scroll Compressor			Easy Service Maintenance
Heating			Free Cooling
Cooling			Wired Remote Control
Cooling + Heatpump			Asymmetric Cooling System
Natural Gas Fired, Gas Burner			Double Skinned Galvanized Sheet Casing
EC Fan		eev	Electronic Expansion Valve
Filter Clogging Alarm			Automatic Defrost System
Thermodynamic Heat Recovery			Intelligent Defrost System
Plug & Play			

STANDARD FEATURES

THERMAL OR ENTHALPIC FREE COOLING (ECONOMIZER)

When the temperature is suitable for thermal free cooling, and when the temperature and the humidity is suitable for enthalpic free cooling, these systems start automatically, providing energy efficiency with 100% fresh air intake.

INDOOR AIR QUALITY

Indoor air quality is preserved by high-efficiency filters, filter alarm, and CO2 indoor air quality sensor. Controlling the pollution rate of the return air, the CO2 indoor air quality sensor works integrated with the economizer and saves energy by taking in the required amount of fresh air.

ENERGY EFFICIENCY

İmbat rooftop air conditioners are both environmentally friendly and economical, offering high performance with low energy consumption. All our models are rated in energy classes A and B. By saving energy, İmbat rooftop air conditioners provide efficiency both for the spaces they cool and for the planet.

ROOFCURB

The roofcurb module is designed to accommodate different supply and return air directions. The covers for the air inlets and outlets are identical in size, allowing for easy adjustment of the air flow direction whenever needed. The connections for the roofcurb air inlets and outlets are designed to minimize pressure loss. Units can either be delivered with the connections pre-made or assembled on-site. The units also include rubber sealing, which eliminates any potential leakage from the base of the unit.

SMART CLIMATIZATION WITH IoT

İmbat rooftop units are operated by custom software. They can be integrated with building management systems and parameters can be adjusted remotely. Compressors age simultaneously under partial cooling loads, ensuring maximum energy efficiency and extended lifespan.

All of our models are equipped with IoT systems, enabling real-time data collection and analysis. The IoT data is used by the unit to automatically adjust its parameters for optimal cooling and heating performance. Accumulated data is utilized to enhance our designs for future developments. The collected data is securely protected by İmbat in compliance with ISO 27001 data protection certification.

AUTOMATION

İmbat rooftop units are compatible with MODBUS and BACNET building management systems, and can be programmed on a daily, weekly, or monthly basis through their advanced electronic control panel or remote control.

SCROLL COMPRESSOR

High-efficiency scroll-type compressors provide energy savings during the initial start-up and at partial loads, thanks to their IDV (Intermediate Discharge Valve) technology, which enhances overall system efficiency and extends compressor lifespan. Compressor longevity, load-less start and high efficiency through IDV technology.

ROOFTOP UNITS HSE

OPTIONAL FEATURES / 1

PLATE AND ROTARY TYPE HEAT RECOVERY SYSTEMS

Energy from the exhaust air is recovered through plate or rotary (enthalpic, condensing, or sorption) heat recovery systems, pre-conditioning the incoming fresh air. This process significantly reduces energy consumption by utilizing the residual energy in the exhaust air, thereby enhancing overall system efficiency.

SMOKE DETECTOR

Equipped with a smoke detection system, the unit enhances fire safety by detecting smoke in the air ducts and triggering appropriate safety measures and alarms to protect the facility.

HOT WATER COIL OR ELECTRIC HEATER

The unit can be configured with either a hot water coil or electric heater, offering flexibility to meet specific heating requirements based on building infrastructure and energy availability.

GAS BURNER

Rooftop air conditioners with a gas burner heater provide independent heating without the need for connection to a central system, even in the coldest climates. Maximum efficiency is achieved with a burner capable of operating in the 17-55 mbar range and an aluminized steel pipe heat exchanger.

AUTOMATIC FRESH AIR RATIO CONTROL (0%-100%)

The fresh air intake can be automatically adjusted between 0% and 100% based on internal and external conditions, maximizing indoor air quality while optimizing energy consumption.

CO_2 INDOOR AIR QUALITY CONTROL

Integrated CO_2 sensors continuously monitor indoor air quality and work in tandem with the economizer to adjust fresh air intake, ensuring optimal air quality while minimizing unnecessary energy consumption.

CONTROL PANEL GRAPHIC INTERFACE

A user-friendly graphical interface on the control panel allows operators to easily monitor and adjust system settings, enhancing ease of use and control over unit operations.

BMS INTEGRATION WITH LONWORKS OR BACNET PROTOCOLS

Seamless integration with Building Management Systems (BMS) via LonWorks or BACnet protocols enables centralized control and monitoring, simplifying the management of energy consumption and system performance.

CONDENSER SURFACE PROTECTION MESH

The condenser is equipped with a protective mesh that shields it from environmental contaminants, extending the lifespan of the heat exchanger and maintaining optimal performance in harsh conditions.

ROOFTOP UNITS HSE

OPTIONAL FEATURES / 2

REMOTE ACCESS VIA ETHERNET WITH ROUTERS OR MODBUS

The unit supports remote monitoring and control via Ethernet or Modbus, enabling operators to manage the system from any location, thereby reducing service time and costs.

THREE STEPS OF FILTRATION

A three-stage filtration system (ISO Coarse 60% - (G4) Filter, ISO ePM1 50% - (F7) Filter, ISO ePM1 80% - (F9) Filter) ensures superior air cleanliness by removing particulates of varying sizes, enhancing indoor air quality and maintaining system hygiene.

INVERTER SCROLL COMPRESSOR MODELS

Models equipped with inverter scroll compressors offer variable speed operation, optimizing energy consumption based on load demands, which is especially effective under partial load conditions.

WATER-COOLED CONDENSER

The water-cooled condenser option enhances cooling efficiency, particularly in high-temperature environments, by utilizing water as a heat exchange medium for more effective temperature control.

LOW NOISE LEVELS

The unit operates with low noise emissions due to specially designed fans and compressors, making it ideal for applications where sound levels are critical for comfort.

EPOXY AND HYDROPHILIC COATING ON EVAPORATOR AND CONDENSER COIL SURFACE

Epoxy and hydrophilic coatings protect the evaporator and condenser coil surfaces from corrosion while enhancing heat transfer efficiency, thereby extending the lifespan of the unit.

CUSTOM DESIGN FOR SPECIAL PROJECTS AND FLEXIBLE PRODUCTION

Tailored design options enable the unit to be customized to meet the unique requirements of specific projects, ensuring maximum efficiency and performance across various applications

AIRFLOW SPEED CONTROL

The supply airflow can be automatically regulated based on demand, preventing excessive energy consumption and ensuring optimal air distribution throughout the facility.

AIRFLOW SENSOR

An integrated airflow sensor monitors the flow rate in real time, allowing for precise control and ensuring the system operates at peak efficiency.

ROOFTOP UNITS HSE

WHAT MAKES İMBAT DIFFERENT

DOUBLE SKINNED GALVANIZED SHEET CASING

The body of our units is insulated with a double-walled structure containing 70 kg/m³ density rockwool between two galvanized and electrostatically painted steel sheets. This body structure provides superior insulation and enhanced fire resistance.

100% FRESH AIR INTAKE OPTION

Units can automatically adjust fresh air intake from 0% to 100%. In some models, this feature is standard, while in others, it is available as an option.

ULTRAVIOLET (UV-C)

Ultraviolet wavelength type (UV-C) disinfection systems are available as an optional accessory for İmbat rooftop units. The UV filtration eliminates 99.99% of viruses, microorganisms, and bacteria.

THERMODYNAMIC HEAT RECOVERY

Our units with mixed air provide heat recovery by passing all exhaust air over the condenser. Since the air passing through the condenser is cooler than the ambient air, condensation occurs at lower temperatures, improving compressor efficiency and resulting in energy savings of up to 30%.

ASYMMETRIC COOLING

Asymmetric compressor technology involves using multiple compressors with different capacities. In this application, the efficiency of the unit operating under partial loads is increased. Each compressor delivers a different capacity, reducing the frequency of operation for each compressor and extending its lifespan. Asymmetric compressor application ensures the most efficient capacity output for any partial load condition.

ROOFTOP UNITS HSE

PERFORMANCE DATA FOR R410-A / 1

Imbat rooftops participates in the Eurovent certification programme. The models are listed in the Eurovent directory, please check website: www.eurovent-certification.com

TECHNICAL SPECIFICATIONS		MODEL								
		61	91	131	162	182	222	252	272	302
COOLING [1]										
Cooling Capacity	kW	20,59	24,37	36,71	49,71	52,88	67,29	81,66	80,53	93,9
Power Input	kW	7,2	7,52	11,3	13,69	16,22	20,27	22,68	25,89	29,62
EER	-	2,86	3,24	3,25	3,63	3,26	3,32	3,6	3,25	3,17
SEER	-	4,11	4,25	4,36	4,81	4,32	4,31	5,25	3,68	3,54
Eurovent Energy Class	-	B	B	B	A	B	B	A+	B	B
HEATING-HEAT PUMP [1]										
Heating Capacity	kW	20,66	25,93	39,12	48,27	54,9	69,33	79,65	80,42	72,24
Power Input	kW	6,56	7,74	11,82	14,32	16,54	20,1	20,85	23,7	21,44
COP	-	3,15	3,35	3,31	3,37	3,32	3,45	3,82	3,39	3,37
SCOP	-	3,32	3,49	3,48	3,31	3,43	3,46	3,29	3,22	3,24
COMPRESSOR										
Refrigerant		R410A								
Number of Compressor	pcs	2	2	2	2	2	2	2	2	2
Compressor Type		Scroll								
Compressor Connection Type		Standard	Standard	Standard	Standard	Asymmetric	Asymmetric	Asymmetric	Asymmetric	Standard
Cooling Circuit	pcs	1	1	1	1	1	1	1	1	1
Capacity Control	step/s	2	2	2	2	3	3	3	3	2
VANTILATOR										
Fan Type		EC Plug								
Minimum Airflow Rate	m^3/h	2660	3900	5850	7300	8000	9900	11550	12100	13500
Nominal Airflow Rate	m^3/h	3600	5100	6000	9200	9500	12500	14500	15180	16951
Maximum Airflow Rate	m^3/h	3800	5500	8300	10300	11400	14000	16300	17100	19100

[1] **Cooling conditions:** 27°C DB, 50% RH indoor, 35°C outdoor temperature. Heat pump heating conditions: 20°C DB indoor temperature and 7°C DB outdoor temperature.

ROOFTOP UNITS HSE

PERFORMANCE DATA FOR R410-A / 2

Imbat rooftops participates in the Eurovent certification programme. The models are listed in the Eurovent directory, please check website: www.eurovent-certification.com

TECHNICAL SPECIFICATIONS		MODEL								
		61	91	131	162	182	222	252	272	302
HEATING-GAS BURNER (2)										
Heating Capacity	kW	43	55	55	55	63	86	86	100	121
Gas Flow Rate (G20)	m^3/h	4,48	5,73	5,73	5,73	6,57	8,96	8,96	10,42	12,61
Burner Pressure (Min./Max.)	mbar	17/55								
HEATING-ELECTRICAL HEATER (2)										
Capacity (ΔT=15 °C)	kW	25	38	38	47	51	74	78	87	101
Capacity (ΔT=30 °C)	kW	52	78	78	97	106	153	160	179	209
HEATING-HOT WATER COIL (2)										
Capacity	kW	61,1	94,1	94,1	118,9	125,4	207	213,2	228,6	250,8
Hot Water Inlet/Outlet	°C	80/60								
CONDENSER										
Fan Type		Axial								
Airflow Rate (Cooling)	m^3/h	20150	19000	24000	30900	36000	38000	40000	42000	43400
Number of Fan	pcs	1	1	1	2	2	2	2	2	2
SOUND PRESSURE LEVEL										
Sound Pressure Level (1m)	dB(A)	78	76	78	80	83	84	86	89	98
DIMENSIONS (3)										
Width	mm	2150	2150	2250	2342	2442	2442	2442	2390	2390
Length	mm	2300	2450	2550	2800	2650	3140	3660	3640	3640
Height	mm	1800	2100	2100	2175	2175	1900	2085	2720	2720
Weight	kg	1290	1480	1690	2020	2130	2670	3080	2130	2100

(2) Optional.
(3) Dimensions for single fan rooftop units.

Imbat reserves the right to make changes in model, capacity, dimensions, and specifications without prior notice.

ROOFTOP UNITS HSE

PERFORMANCE DATA FOR R410-A / 3

TECHNICAL SPECIFICATIONS		MODEL											
		352	402	452	464	502	544	602	604	704	804	904	1004
COOLING (1)													
Cooling Capacity	kW	105,47	121	137	138,5	149,7	160,5	186,1	183,2	212,4	255,8	282,61	315,5
Power Input	kW	35,65	32,6	36,3	37,6	42,1	43,1	52	49,4	56,9	65,1	72,6	84,2
EER	-	3,13	2,8	2,8	2,8	2,9	2,8	2,7	2,7	2,8	2,9	3	3
SEER	-	4,24	3,11	3,13	3,11	3,22	3,1	3,09	3,13	3,11	3,26	3,31	3,33
Eurovent Energy Class	-	B											
HEATING-HEAT PUMP (1)													
Heating Capacity	kW	107,58	135,6	150,8	157	175,4	180,1	217,2	206,4	236,8	371,1	301,5	350,8
Power Input	kW	31,82	28,2	31,3	32,2	36,1	37,3	44,6	42,8	49	56,3	62,5	72,2
COP	-	3,38	3,1	3,2	3,3	3,3	3,2	3,1	3,1	3,1	3,4	3,4	3,5
SCOP	-	3,37	4,21	5,95	4,45	5,38	4,28	4	4,31	4	3,81	3,54	3,15
COMPRESSOR													
Refrigerant		R410A											
Number of Compressor	pcs	2	2	2	2	2	2	2	2	2	2	2	2
Compressor Type		Scroll											
Compressor Connection Type		Asymmetric	Asymmetric	Asymmetric	Asymmetric	Asymmetric	Asymmetric	Standard	Standard	Asymmetric	Asymmetric	Asymmetric	Asymmetric
Cooling Circuit	pcs	1	1	1	1	1	1	1	1	1	1	1	1
Capacity Control	step/s	3	3	3	3	3	3	2	2	3	3	3	3
VANTILATOR													
Fan Type		EC Plug											
Minimum Airflow Rate	m^3/h	15750	17960	19950	20500	23500	24200	28000	27000	31500	36000	40000	46500
Nominal Airflow Rate	m^3/h	19800	22600	25000	25750	29250	30500	35000	34000	40000	45000	50000	58500
Maximum Airflow Rate	m^3/h	22250	25500	28200	29000	33000	34200	40000	38200	44500	50800	56500	65650

(1) **Cooling conditions:** 27°C DB, 50% RH indoor, 35°C outdoor temperature. Heat pump heating conditions: 20°C DB indoor temperature and 7°C DB outdoor temperature.

ROOFTOP UNITS HSE

PERFORMANCE DATA FOR R410-A / 4

TECHNICAL SPECIFICATIONS		MODEL											
		352	402	452	464	502	544	602	604	704	804	904	1004
HEATING-GAS BURNER (2)													
Heating Capacity	kW	121	121	141	141	172	172	200	200	214	242	298	344
Gas Flow Rate (G20)	m³/h	12,61	12,61	14,69	14,69	17,92	17,92	20,84	20,84	22,3	25,22	31,06	35,84
Burner Pressure (Min./Max.)	mbar	17/55											
HEATING-ELECTRICAL HEATER (2)													
Capacity (ΔT=15 °C)	kW	116	116	128	132	149	156	179	174	204	230	255	298
Capacity (ΔT=30 °C)	kW	238	238	263	271	308	321	369	358	421	474	526	616
HEATING-HOT WATER COIL (2)													
Capacity	kW	332	332	354,1	360,7	390,5	400,6	549,5	539,4	597,5	717,8	767,2	845
Hot Water Inlet/Outlet	°C	80/60											
CONDENSER													
Fan Type		Axial											
Airflow Rate (Cooling)	m³/h	46400	68400	67600	67200	66400	66000	94800	96000	93600	112800	111000	102000
Number of Fan	pcs	2	4	4	4	4	6	6	6	6	6	6	6
SOUND PRESSURE LEVEL													
Sound Pressure Level (1m)	dB(A)	92	89	97	97	97	96	96	98	98	93	93	93
DIMENSIONS (3)													
Width	mm	2430	2200	2200	2220	22200	2220	2220	2220	2220	2220	2220	2220
Length	mm	3790	4135	5735	5735	5735	5735	6400	6400	6400	7800	7800	7800
Height	mm	2440	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800
Weight	kg	2450	1975	2230	2230	2280	2350	2560	2600	2630	2850	4050	4075

(2) Optional.
(3) Dimensions for single fan rooftop units.
Imbat has right to make changes on units without any notification.

İmbat Türkiye | HQ

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To leave a sustainable world for future generations
Imbat wants to change the world.