The Active Cold Chain



# **True innovation**

Setting a new standard for temperature- controlled air cargo containers, the Releye® RAP is designed to meet the strictest requirements in pharmaceutical air freight. With its unsurpassed 170 hours of autonomy (more than one week) it will maintain the temperature and protect the cargo longer than any other available solution, without recharging. In most cases, it will be regularly recharged and keep protecting the cargo indefinitely. The integrated live monitoring enables a unique insight into product condition, location and progress of the shipment and sets a new standard for secure cold chain solutions.

We listened to our customers and designed the Releye® RAP according to five integrated advances.

#### CONTROL.

The Releye® RAP utilizes the latest technology and software for a consistent performance in any shipping scenario. The airflow, which is within the walls, provides a homogeneous temperature in all areas of the cargo bay. Thus, cargo will be protected independent of size, mass or position inside the container. The solution also comes with the latest vacuum insulated panel (VIP) technology that protects the cargo during the most extreme ambient conditions. Completely independent temperature control systems provide redundancy on all critical container functions.

#### MONITORING.

The unmatched live monitoring of position, temperature, battery level, humidity, door openings and cargo inside, allows you to continuously track your shipment as well as the status of your cargo. Thanks to the full sensor integration of the Releye® container, you can set up a customized alert notification system based on your specific needs and requirements and get an early notification prior to arrival, which enables process improvements and delivery planning. This also leads to quicker investigations of

risk assessments related to counterfeit, security concerns or shipment processes.

#### AUTONOMY.

With unsurpassed maintenance free autonomy of 170 hours (more than a week), the Releye® RAP protects the integrity of the cargo. The 170 hours is more than any passive solution and unlike passive, it can also be recharged whenever needed. This autonomy is enough to also cover transit-time and delays, without recharging. As the Releye® RAP has an excessive margin on its autonomy, it reduces the impact of process deviation, delays or unexpected change of route.

#### VALUE.

The RAP format can house 5 Euro pallets (4 US pallets), offering the largest internal volume for shipments and making an even more efficient use of available air cargo capacity. The Releye® RAP also has one of the highest loading heights in the industry of 132 cm (52 in). Thanks to the advanced airflow technology, it is possible to utilize this height to the maximum. The Releye® RAP offers the best value measured as Total Landed Cost. In addition, the Releye® RAP is designed and verified for efficient Global Qualification.

## SUSTAINABILITY.

Envirotainer operates the most CO<sub>2</sub> effective fleet in the entire temperature-controlled air freight industry. The introduction of the Releye® RAP reinforces this market leadership. The Releye® RAP has the smallest CO<sub>2</sub> footprint of all solutions in the industry. This is due to its low weight, large and efficient cargo space in combination with outstanding reliability. Envirotainer's operations are 100% climate neutral since 2020.

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The Releye® RAP is designed and developed together with the industry and it is a testament of how we pursue reliability in the world of temperature-controlled air freight.



#### **Superior performance**

To secure the temperature stability throughout the shipment period, regardless of ambient conditions, the Releye® RAP is designed with an established and proven electrical heating and cooling technology in combination with the latest VIP insulation technology.

# Impact-resistant exterior

The Releye® RAP uses a special exterior composite to provide maximum cargo protection.

### **ULD (Unit Load Device)**

A ULD can be carried on board the most common types of wide body aircrafts. Moreover, ULD's often get prioritized cargo status, are tracked in airlines fleet management and have a quick transfer process.

### Integrated data-loggers

Validated temperature data accessible anytime during the shipment, with various applications such as back-up for, or replacement of, loggers and to speed up customs clearance.

#### Human error preventive design

Minimizes the risk of incorrect handling and reduces the impact of such an event. This includes authorized setting control to avoid risk of tampering with the settings. The smart and actionable alerts, on the local container screen and live monitoring platform, provides full visibility for proactive and reactive measures.

#### Unique airflow system

Delivers a homogeneous temperature in all areas of the cargo bay and allows you to maximize the amount of cargo you can load.

#### Air flow curtain

As the air flows from the ceiling, it creates an "air flow curtain" when the doors are open, thereby reducing the impact of a door opening should they occur.

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### **Contact information**

It is easy to implement and work with an Envirotainer® solution. We offer a range of container types for convenient short and long term leasing from a worldwide network of stations. Please contact one of our three operations centers for container leases or visit www.envirotainer.com for more information

#### www.envirotainer.com

# Envirotainer® container Releye® RAP

### Refrigerating system

Air conditioning system with compressor cooling and electrical heating. Powered by rechargeable NiMH batteries.

Power rating 100-240 V AC, 50-60 Hz, Max 16 A Charging temperature limits -20 °C to +40 °C (41 °F to +104 °F) IP rating IP15B Typical charging time from 0% to fully charged 11 h Typical charging time for an additional 24 h battery time 1.5 h

Container temperature set point Set point 5 and 20 °C (41 and 68 °F) Free set point 4-30 °C (39.2-86 °F) Recommended charging temperatures +5 °C to +25 °C (+41 °F to +77 °F) Set point accuracy For set point 5 °C:  $\pm 2$ °C ( $\pm 3.6$  °F) For set point 20 °C:  $\pm 3$  °C ( $\pm 5.4$  °F)

Autonomy at container temperature range  $2-8^{\circ}\text{C}$  170h at 20 °C (68 °F) ambient Operational limits at any set point -32 °C to +49 °C (-25.6 °F to +120.2 °F)

# Live monitoring capabilities

8 Cargo space temperatures (°C)
2 Ambient temperatures (°C)
Cargo space humidity (RH %)
Cargo space humidity (RH %)
Cargo space humidity (RH %)
Cargo space temperatures (°C)
Cargo loaded inside (yes/no)
Door openings (open/closed)
Battery level (%)
GPS location

#### **Dimensions**

External cube (volume)	11.5 m3 407 ft3
External dimensions (L x W x H)	3175 x 2235x 1624 mm (125 x 87.99 x 63.94 in)
Internal dimensions (L x W x H)	2466 x 2055 x 1320 mm (97.06 x 80.91 x 51.97 in)
Door opening (L x H)	2055x 1320 mm (80.91 x 51.97 in)
Internal cube (volume)	6.6 m3 236 ft3
Pallet capacity	5 Furo pallets (800 x 1200 mm) (31.5 x 47.2 in)

#### Weight

Tare weight*	1100 kg (2,425 lbs.)
Max gross weight	4625 kg (10,196 lbs.)
Max net weight*	3525 kg (7,771 lbs.)

4 US pallets (1016 x 1220 mm), (40 x 48 in)

#### Other information

Suitable for use on aircraft A300, A310, A330, A340, A350, A380, B747, B767, B787, DC10, IL86, MD11, L1011. For other aircrafts, alternative operating procedures may apply.

ATA code LD-9

Forkliftable with slot-height 93 mm (3.66 in), slot-width 255 mm (10.04 in) and slot distance 852 mm (33.54 in).

<sup>\*</sup> Tare weight and max net weight may change due to repairs, see the manufacturer's plate for correct weight.

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## Contact details (Head Office)

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