

# Envirotainer<sup>o</sup>

## Releye<sup>®</sup> RKN

Offering the next level of performance



## True innovation

Setting a new standard for temperature-controlled air cargo solutions, the Releye<sup>®</sup> RKN is designed to meet the strictest requirements in pharmaceutical air freight. With its outstanding 170 hours of autonomy (more than one week) it will maintain the temperature and protect the cargo longer than any other available active solution, without the need for recharging. The integrated live monitoring service enables a unique insight into product condition, location and progress throughout the shipment. We listened to our customers' needs and with the strictest requirements in mind we designed the latest true innovation, Releye<sup>®</sup>.

### CONTROL

The Releye<sup>®</sup> RKN utilizes the latest technology and software for a consistent performance in any shipping scenario. The airflow, streaming within the walls, provides a homogeneous temperature in all areas of the cargo space. Thus, pharmaceuticals 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 (18 sensors) of the Releye<sup>®</sup> container, you can set up a customized alert notification system based on your specific needs and requirements. It provides relevant notifications to support process improvements and delivery planning. Additionally, Releye<sup>®</sup> RKN comes with access to Envirotainer Control Tower service, a global team keeping an eye on your shipment's every move 24 hours a day, 7 days a week, ready for rapid respond to any critical event.

### AUTONOMY

With unsurpassed maintenance free autonomy of 170 hours, the Releye<sup>®</sup> RKN protects the integrity of the cargo. This autonomy is enough to cover transit-time and delays without the need for recharging. Releye<sup>®</sup> RKN can be plugged in if needed and will keep protecting your pharmaceutical cargo as long as required. As the Releye<sup>®</sup> RKN has an excessive margin on its autonomy, it reduces the impact of process deviation, delays or unexpected change of route. This margin also enables secure shipments to non-ordinary destinations with less established infrastructure or underdeveloped processes.

### VALUE

The RKN format can house 1 Euro pallet / 1 US pallet, while having 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. In addition, the Releye<sup>®</sup> RKN is designed and verified for efficient global qualification.

### SUSTAINABILITY

The Releye<sup>®</sup> RKN is one of the lightest active containers in the market. Its industry leading loading height and the fact that it is a ULD lead to volume efficiency and all this together ensures a very CO2 efficient shipment. Not only that, the outstanding reliability and redundancy of Releye<sup>®</sup> gives an almost zero risk of temperature excursions.

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**The Releye<sup>®</sup> RKN** 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

The Releye<sup>®</sup> RKN is an active solution designed with a proven electrical heating and cooling technology, in combination with the latest VIP insulation technology. This secures temperature stability throughout the shipment period, regardless of ambient conditions.

## Impact-resistant exterior

The Releye<sup>®</sup> RKN uses a special exterior composite to provide maximum cargo protection.

## ULD (Unit Load Device)

ULDs often receive priority cargo status, are easier to track by airlines, and have a quick transfer process.

## Validated temperature data

Validated temperature data is accessible anytime during the entire shipment. The validated data has various applications including speeding up customs clearance, serving as back up when loggers are missing, and reducing the number of loggers.

## Human error preventive design

Minimizes the risk of incorrect handling and reduces the impact of such an event. This includes a lock that can be activated on the control unit, reducing the risk of an accidental change of settings. The smart and actionable alerts, on the 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 door openings should they occur.

# Envirotainer<sup>®</sup>



## Contact information

It is easy to qualify and work with an Envirotainer<sup>®</sup> solution. We offer a range of container types for short- and long-term leasing from a world-wide network of stations. Please contact one of our operations centers or visit [www.envirotainer.com](http://www.envirotainer.com) for more information.

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## Envirotainer<sup>®</sup> container Releye<sup>®</sup> RKN

### Code

IATA ULD type code	RKN
ATA code	LD-3
AS36100 identifier	2K4C

### 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
Recommended charging temperatures	+5 °C to +25 °C (+41 °F to +77 °F)
Charging temperature limits	+4 °C to +40 °C (+39.2 °F to +104 °F)
Charging time at recommended temperatures	

1–100% at 230 V AC	10 h
1–100% at 120 V AC	20 h

Add 24h autonomy (state of charge 1% to 90%): 1.5 h (at 230 V AC), 3 h (at 120 V AC)

Container temperature set point	Set point 5 and 20 °C (41 and 68 °F) Free set point 4–30 °C (39.2–86 °F)
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Set point accuracy	±2 °C (±3.6 °F) for any set point
Autonomy at container temperature set point 5 °C	170 h at 20 °C (68 °F) ambient

Operational limits at any set point on battery power –32 °C to +49 °C (–25.6 °F to +120.2 °F)

### Monitoring capabilities

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

### Dimensions

External cube (volume)	4.85 m <sup>3</sup> (171 ft <sup>3</sup> )
External dimensions (L x W x H)	1945 x 1536 x 1624 mm (76.57 x 60.47 x 63.94")
Internal dimensions (L x W x H)	1240 x 1355 x 1318 mm (48.82 x 53.35 x 51.89")
Door opening (W x H)	1353 x 1317 mm (53.27 x 51.85")
Internal cube (volume)	2.21 m <sup>3</sup> (78 ft <sup>3</sup> )
Pallet capacity	1 EUR 1 pallet (800 x 1200 mm) (31.5 x 47.2") 1 US 40 x 48" pallet (1016 x 1220 mm)

### Weight

Tare weight*	629 kg (1,387 lbs.)
Max gross weight	1588 kg (3,501 lbs.)
Max net weight*	959 kg (2,114 lbs.)

### Other information

Suitable for use on aircraft A300, A310, A330, A340, A350, A380, B747, B767, B777, B787, DC10, L1011. For other aircrafts, alternative operating procedures may apply. Forkliftable with slot-height 93 mm (3.66"), slot-width 255 mm (10.04") and slot center to center distance 852 mm (33.5").

\* 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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