

Advancer-e

All-Electric, All-Advancer.

ALL-ELECTRIC SINGLE AND MULTI-TEMPERATURE
REFRIGERATION SOLUTIONS FOR TRAILERS



Content

ADVANCER-e

Your sustainable, all-electric future

The effects of the Advancer-e series on your fleet

P. 04

RANGE

Single Temperature

Precise temperature with hallmark fuel efficiency

P. 06

Multi-Temperature

Ultra-precise multi-zone temperature control

P. 08

Specifications

Details and technical information

P. 10

POWER SOURCES

Compatible with multiple power sources

Get ahead of future regulations

P. 12

AxlePower

Smart energy recovery for zero-emission refrigeration

P. 14

BE-Tech

Battery-powered innovation

P. 16

EnviroDrive

Alternator technology for electrically driven cooling

P. 17

SERVICES & SOLUTIONS

Max Your Cool

Enhance your unit's performance with Max Your Cool

P. 18

Connected Intelligence

Keep an eye on your cargo, anytime, anywhere

P. 19

Advancer – Built from ambition.

Advancer was built from ambition. Our ambition to push the boundaries of what was possible and your ambition to push your business to the next level.

ADVANCER IS A LANDMARK IN THE TRAILER REFRIGERATION LANDSCAPE.

- Fastest pulldown on the market **to keep you moving**
- Unprecedented fuel efficiency **to keep your costs down**
- Unrivaled temperature control **to make sure you can deliver every load in perfect condition**

**More sustainable,
more efficient, more powerful.**

Advancer-e takes that promise and lets it evolve. All the benefits and characteristics of Advancer, with 100% engineless operations.

ADVANCER-e SINGLE TEMPERATURE

Your sustainable, all-electric future.

Compatible with alternative power sources, fully emission-free, and extraordinarily efficient, Advancer-e has it all. This engineless Advancer is the first step towards full electrification and a cleaner, more sustainable future for trailer refrigeration.

ENGINELESS OPERATIONS

Save fuel and increase fleet sustainability.

PRECISE TEMPERATURE CONTROL

Accuracy up to 0.5°C.

VARIABLE AIRFLOW

Airflow independent of engine speed for precise temperature control.

HIGH TEMPERATURE RECOVERY

Recover from door openings quickly and protect cargo on the road.

FAST PULLDOWN

Get to temperature 40% faster.

Advancer-e is not just a fuel-efficient choice - it is an investment in your fleet's flexibility and a more sustainable future. Give your trailer fleet the **premium Advancer cooling performance on both the inter-regional roads and the inner cities** with an engineless design. Cut back on fuel, and get in early on the all-electric future.

Thanks to its engineless architecture, the Advancer-e series operates completely emission-free, granting your fleet access to zero-emission zones without worry. Each unit can **reduce your fleet's carbon footprint by up to 10 tons of CO₂ per year***. A low GWP refrigerant reduces the environmental impact of the unit to an absolute minimum.

* can vary depending on usage profile and ambient conditions



Uncompromising reliability, zero emissions

LOW NOISE

No engine means reduced sound, perfect for urban and late-night deliveries.

SAVE FUEL ON VEHICLE

Absence of an engine results in lower total weight of the vehicle, which means reduced fuel consumption.

ZERO-EMISSION

Emission-free refrigeration and efficient energy use lets you dramatically reduce your carbon footprint and fuel consumption.

All-electric, single temperature.

The trailer refrigeration industry is transitioning to a cleaner and more sustainable future. Take the first step towards full electrification with this engineless Advancer-e, compatible with alternative power sources. A unit that's fully emission-free and extraordinarily efficient.

FULL-ELECTRIC OPERATIONS

Save fuel and increase fleet sustainability with zero-emission refrigeration.

LOW NOISE

Deliver late at night or in urban areas without waking up a soul. No engine, no noise.

LIGHTWEIGHT

Absence of an engine reduces total weight of the vehicle and fuel consumption.

FUTUREPROOF

Fully compatible with conventional and alternative power sources.

AVAILABLE IN



A-500e

Futureproof your fleet with engineless, zero-emission cooling.



Full electric

100% engineless

Save up to 10 tons CO₂

Per year per unit*

* Depending on usage profile and ambient conditions

ADVANCER-e MULTI-TEMPERATURE

All electric, multi-temperature.

Advancer-e Spectrum brings engineless refrigeration to new levels of flexibility, with high-performance multi-zone control. Conquer suburbs, highways and zero emission zones alike with flexible, whisper-quiet, zero-emission deliveries.

A-500e Spectrum Whisper Pro makes sure your box is used to its fullest capabilities. Whatever mix of cargo you need to transport, this multi-temperature engineless unit makes sure it can all be shipped in a single trailer. That way, you can respond to peak demands quickly, easily, and emission-free.

BESPOKE CONTROLLER

Specialized A-series multi-temp controller, allowing for superior temperature control across all zones.

LOW NOISE

Whisper-quiet, PIEK certified operations for late-night and urban deliveries.

TAILORED TEMPERATURE CONTROL

Two distinct cooling modes for ultimate control of your cargo.

Continuous mode

Tight temperature control for sensitive cargo, such as pharma and fresh produce.

Cycle sentry mode

Maximum fuel saving for products that do not require permanent airflow.

AVAILABLE IN



A-500e SPECTRUM WHISPER PRO

3 REMOTE EVAPORATORS TO LEVEL UP YOUR REMOTE ZONES

Expanding ever further with S3A, S6A & S4

- Higher zone cooling capacity
- Faster pulldown
- More precise temperature control management
- Superior system balance between zones



Sustainable refrigeration

PIEK compliant with no Direct Emissions

Full flexibility

Use as single or multi-temperature configuration
Compatible with multiple power sources

Technical specifications.

MODEL

A-500e

PERFORMANCE			
Refrigeration capacity: system net cooling capacity at 30 °C ambient temperature under A.T.P. Conditions			
Return air temperature to evaporator	@ Nominal Airflow (Default @ Pull Down)	°C	0 -20
Capacity on electric power		W	15,100 8,000
Airflow: independent from unit engine speed selectable within range @ set point & pull down			
Airflow volume @ 0 Pa static pressure	Default @ Pull Down	m³/h	4,500
	Default @ Set Point	m³/h	3,400
TECHNICAL DATA			
Weight - including battery			
Model Standard		kg	590
Dimensions			
Width x Depth x Height		mm	2,076 x 440 x 2,270
Electric stand-by motor			
Voltage / Phase / Frequency			400/3/50
			460/3/60
Rating		kW	9.3
Sound pressure level (standard unit)			
Electric Standby		dB(A)	63
Generic			
Box length		m	15
Refrigerant			R-452A
Controller			A-Series Controller

MODEL

A-500e SPECTRUM WHISPER PRO

PERFORMANCE			
Refrigeration capacity: system net cooling capacity at 30 °C ambient temperature under A.T.P. Conditions			
Return air temperature to evaporator		°C	0 -20
Capacity on electric power		W	15,800 7,800
PIEK Mode		W	15,300 7,800
Airflow: independent from unit engine speed selectable within range @ set point & pull down			
Airflow volume @ 0 Pa static pressure	Default @ Pull Down	m³/h	4,550
	Default @ Set Point	m³/h	3,400
TECHNICAL DATA			
Weight - including battery			
Model Standard		kg	615
Dimensions			
Width x Depth x Height		mm	2,076 x 440 x 2,270
Electric stand-by motor			
Voltage / Phase / Frequency			400/3/50
			460/3/60
Rating		kW	9.3
Sound pressure level (standard unit)			
Electric Standby		dB(A)	60
Generic			
Box length		m	15
Refrigerant			R-452A
Controller			A-Series Controller
EVAPORATORS			
Capacity 0-30°C		electric standby	PIEK
S3A	W	8,500	8,400
S4	W	10,400	10,300
S6A	W	12,600	12,400
Dimensions Width x Depth x Height			
S3A	mm	1,100 x 1,000 x 200	
S4	mm	2 x (760 x 1,000 x 200)	
S6A	mm	2 x (1,100 x 1,000 x 200)	

Compatible with multiple power sources.

Advancer-e is truly futureproof. The trailer refrigeration unit is fully compatible with conventional and alternative power sources like AxlePower, EnviroDrive and BE-Tech.

Advancer-e is also compatible with future power sources such as hydrogen fuel cells.



ENVIRODRIVE

Alternator technology for electrically driven cooling

Run your electric unit via a high-performance and high-efficiency alternator driven by the vehicle's engine. With an operating efficiency of 96% and a constant capacity, EnviroDrive delivers efficient and reliable cooling on the road.

AXLEPOWER

Power your unit with energy recovered and stored by an axle and battery pack

A smart power recovery system that lets you run your cooling unit with recaptured, free, zero-emission, generated by your vehicle's axle.



A sustainable all-electric fleet.

- **Zero-emission:** Grant your fleet access to ultra-low emission zones without worry. Each unit can reduce your fleet's carbon footprint by up to 10 tons of CO₂ per year (depending on usage profile and ambient conditions).
- **Low noise:** Perform urban and late-night deliveries without making a sound, thanks to the engineless design.

BE-TECH

Battery-powered innovation for all-electric refrigeration

Ultimate sustainability with 100% electric operations, powered directly by batteries (internal or external) and shore power. No fuel, no emissions. High efficiency means there is a minimum impact on your vehicle's range.

AXLEPOWER

Self charging & smart energy recovery.

An Advancer-e equipped with AxlePower doesn't let a single drop of energy go to waste. This trailer-independent energy recovery system lets you **capture energy that would normally be lost**.

While on the road, constant braking, accelerating and rolling produce a lot of energy that can be captured and used to **power your refrigeration unit. In other words: AxlePower gives you zero-emission energy at no additional cost.**

FLEXIBLE TRAILER COOLING

Mix and match trailers and tractors thanks to AxlePower's tractor-independent system. No lengthy hardware adjustments or power source incompatibilities. Since AxlePower operates independently, you can combine it with **any tractor power source**: diesel, LNG, CNG, hydrogen or fully electric vehicles.

UNLIMITED ACCESS

Hassle-free deliveries in zero-emission areas and noise-regulated zones. Anytime, anywhere.

Smart Power Management.

Use AxlePower with confidence and ease thanks to its industry-leading Smart Power Management. No buttons to push, and no display to distract drivers on the road. **Simply connect the system and let it operate itself.** It will analyse battery- and road conditions to choose the most efficient mode at any given time, all on its own.

RECUPERATION MODE

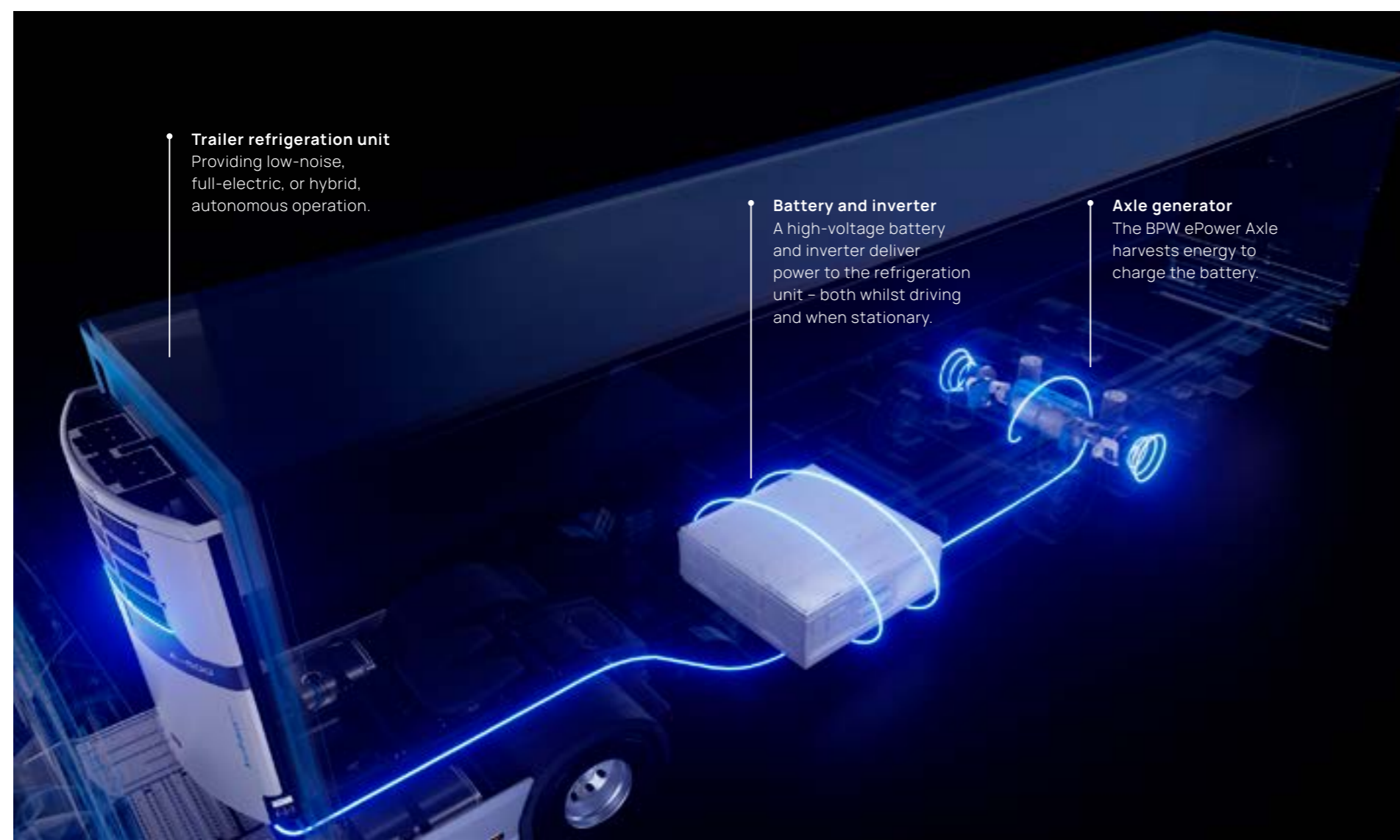
Recover energy when the tractor is braking or going downhill, charging up the battery and providing you with **zero-emission energy to power the unit.**

PASSIVE MODE

When there is ample battery charge or when the refrigeration vehicle is transporting non-temperature sensitive products.

ACTIVE MODE

When there is insufficient battery charge and energy generation to power the unit. The engine pulls a little harder, so the activated axle generators can maintain speed and **harvest enough power.**



Trailer refrigeration unit

Providing low-noise, full-electric, or hybrid, autonomous operation.

Battery and inverter

A high-voltage battery and inverter deliver power to the refrigeration unit – both whilst driving and when stationary.

Axle generator

The BPW ePower Axle harvests energy to charge the battery.

70-100%

Fuel saving per refrigeration unit

100%

Electrical use of your refrigeration unit

No range anxiety

Break away from the charging infrastructure and stay on the road

BE-TECH

Battery-powered innovation.

Go all out in your goal to combine sustainability and performance, with fully-electric refrigeration units. Reduce your fuel consumption while upping your sustainability - without compromising on reliability.

This technology plugs directly into your BEV's vehicles or connects to an external battery for 100% emission-free cooling, with limited impact on your (e-)vehicle range.

FUTURE-READY

Meet urban access regulations both day and night.

PLUG-AND-PLAY

Quick and easy installation.

HIGH EFFICIENCY

lowest impact on (vehicle) battery autonomy.

MODULAR

Fit your exact needs from 19-105 KW.



ENVIRODRIVE

Alternator technology for electrically-driven cooling.

Power Advancer-e with EnviroDrive, Frigoblock's alternator technology. The unit runs electrically via a high-performance and high-efficiency alternator and inverter, driven by the vehicle's engine.

CONSTANT CAPACITY

Variable speed control enables consistent compressor and fan speed.

ALTERNATOR

Highly efficient power conversation for minimal power loss.

FULLY ELECTRIC

Cut back on fuel usage with 100% electric operations of the unit.

LOWER EMISSIONS

Emissionless cooling for ULEZ-access.

96%

Operating efficiency

Up to 50%

Reduction in emissions



100%

Electric operations:
emission-free
refrigeration

24/7

Access to
the last mile

Performance-enhancing services & solutions



Don't settle for less, when you can take it to the max. With a complete range of smart services and digital solutions, Thermo King helps you maximize uptime, sustainability, savings and control all throughout your operations. Keep your unit performance up, and your worries down. All day, every day.

- + **MAXIMIZE YOUR UPTIME**
Avoid costly downtime and keep your units going and earning for longer.
- + **MAXIMIZE YOUR SUSTAINABILITY**
Limit your fleet's footprint and save smart on energy.
- + **MAXIMIZE YOUR SAVINGS**
Reduce service and maintenance costs, and maximize your units' residual value.
- + **MAXIMIZE YOUR CONTROL**
Monitor and maintain critical cargo quality at every step of your journey.

LOOKING FOR YOUR MAX?

Thermo King's certified dealers are at your service 24/7 and our network is available all across Europe. Visit our website to locate your closest dealer.



Get your max at
[europe.thermoking.com/
max-your-cool](https://europe.thermoking.com/max-your-cool)




Mix and max.

With a complete range of smart services and digital solutions, Thermo King helps you **maximize your uptime, sustainability, savings, and control** throughout your operations. From industry-leading telematics to customizable service agreements and performance-enhancing upgrades. **Explore the building blocks of our integrated portfolio right below.**


GAIN MAXIMUM INSIGHT WITH TRACKING TELEMATICS

Keep an eye on your unit while it's out on the road. With Thermo King's Tracking, part of our **Connected Solutions** portfolio, you stay updated on every aspect of your unit, in real-time. Track performance, keep an eye on temperatures and get immediate notification in the case of problems. **Two-way communication** allows you to respond quickly and remotely change settings when needed.

Every A-Series unit includes a **free two-year subscription** to our Connected Solutions service. Included in the purchase price are all the hardware and software needed to get the service up and running from day one.

 **CONNECTED SOLUTIONS**
Proactively **manage** your fleet and **monitor** your unit and cargo conditions from any location.

 **UPGRADES**
Enhance fleet performance with a vast array of original Thermo King upgrades.

 **SERVICE CONTRACTS**
Maximize **uptime** with quality maintenance, fast response times and 24/7 dealer support.

 **GENUINE PARTS**
Avoid the costs of poor repairs and insist on **genuine replacement** and **remanufactured parts**.

ADVANCER-e

Electric refrigeration, advanced

MADE FOR THE ALL-ELECTRIC FUTURE

Get your fleet ready for tomorrow.

COMPATIBLE WITH ALTERNATIVE POWER SOURCES

Stay ahead of regulations.

PROVEN ADVANCER PERFORMANCE

All benefits of the Advancer, now fuel-free.

ENHANCE UNIT PERFORMANCE

Benefit from 2 years Connected Solutions as a standard.

SINGLE & MULTI-TEMPERATURE FLEXIBILITY

Go further with fully engineless, multi-temperature refrigeration.



Head to
europe.thermoking.com
to find out more!



Thermo King – by Trane Technologies (NYSE: TT), a global climate innovator – is a worldwide leader in sustainable transport climate control solutions. We engineer and provide cutting-edge technology and solutions with sustainability, reliability, and the customer experience in mind. Thermo King has provided transport temperature control solutions for various applications, including trailers, truck bodies, buses, air, shipboard containers, and railway cars since 1938.

For further information
europe.thermoking.com

Find your nearest dealer on
dealers.thermoking.com

