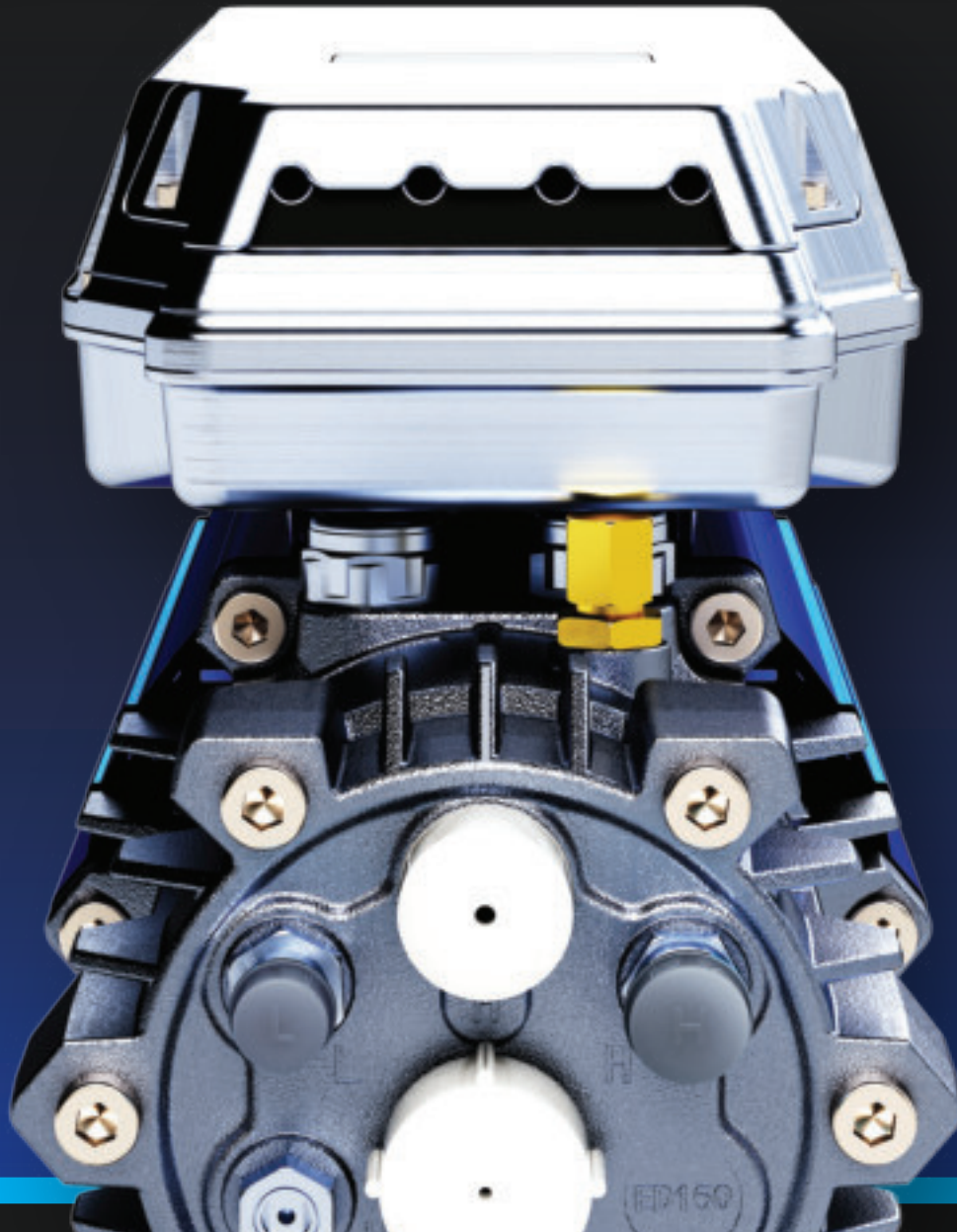


Unicla[®] eDrive[™]



An overnight success. 55 years in the making.

At Unicla, to be of service to industry is at the core of [our reason for being](#). For over half a century we have engineered solutions that make life easier. We have honed our skill in design, research, development, engineering, and manufacturing, to give you the [best possible products](#) in their class.

When we commenced the manufacture of compressors for vehicles in the 1960's, we soon developed [a deep appreciation](#) of the rigours presented by the extreme operating conditions found in transport applications. The solution required a special level of engineering and an extremely high quality of manufacture, resulting in our [revolutionary swashplate technology](#) that has become so highly regarded around the world.

Building on our enviable engineering and manufacturing foundation, the new [Unicla eDrive](#) electric compressor platform has a rich pedigree, and provides solutions you never thought possible.



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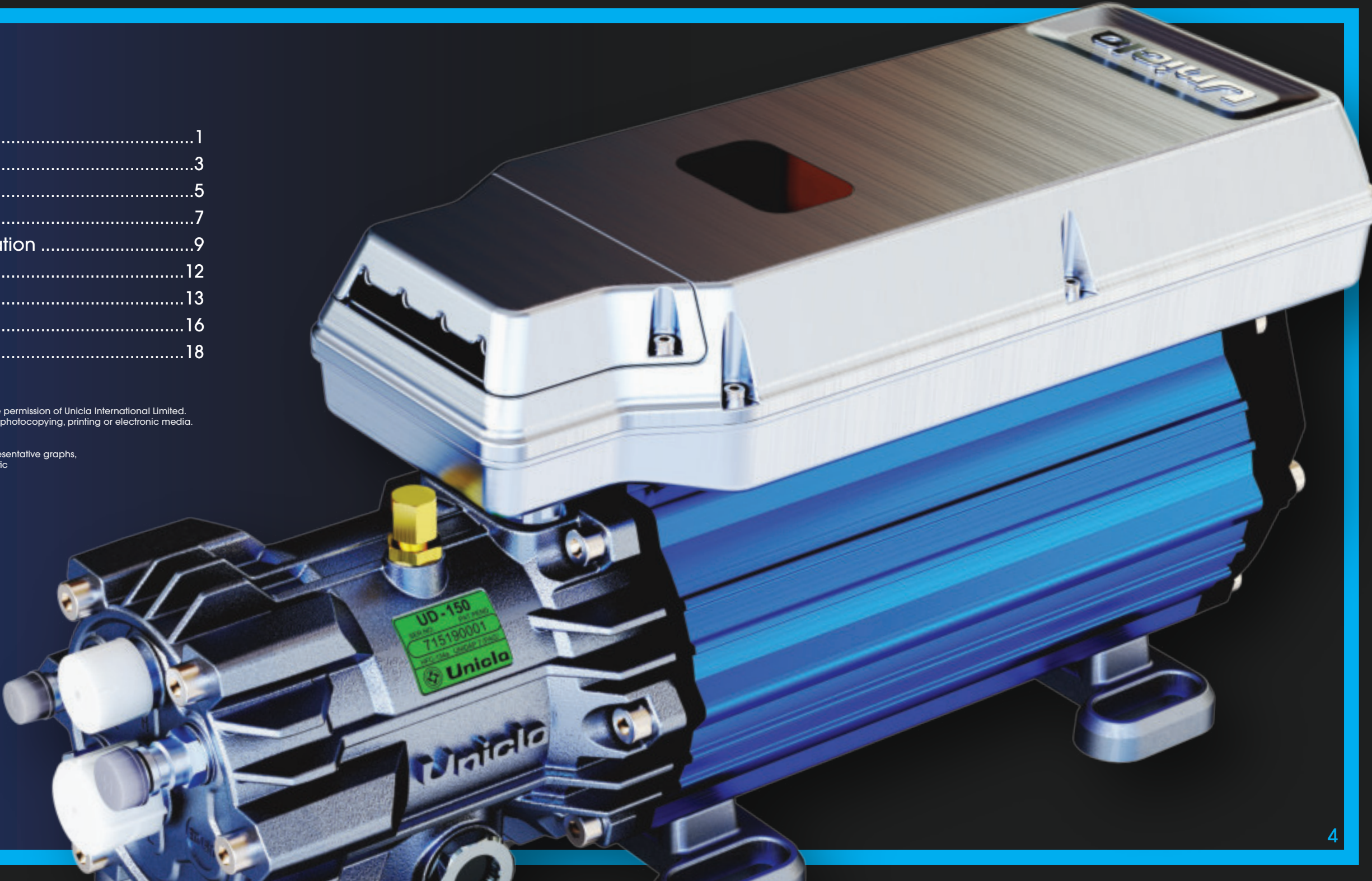
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Greater than the sum of its parts.

When $1 + 1 = 3$.

The opportunity to define a new class of product is rare, and comes with great responsibility. From the very beginning of the eDrive journey we wanted to **shine a new light** on proven technologies, and apply an unconventional engineering lens across all facets of the project.

The Unicla eDrive is a **'class-definer'**. Covered by a comprehensive and highly detailed global patent, every eDrive electric compressor assembly is a marriage of design, engineering and manufacturing brilliance.

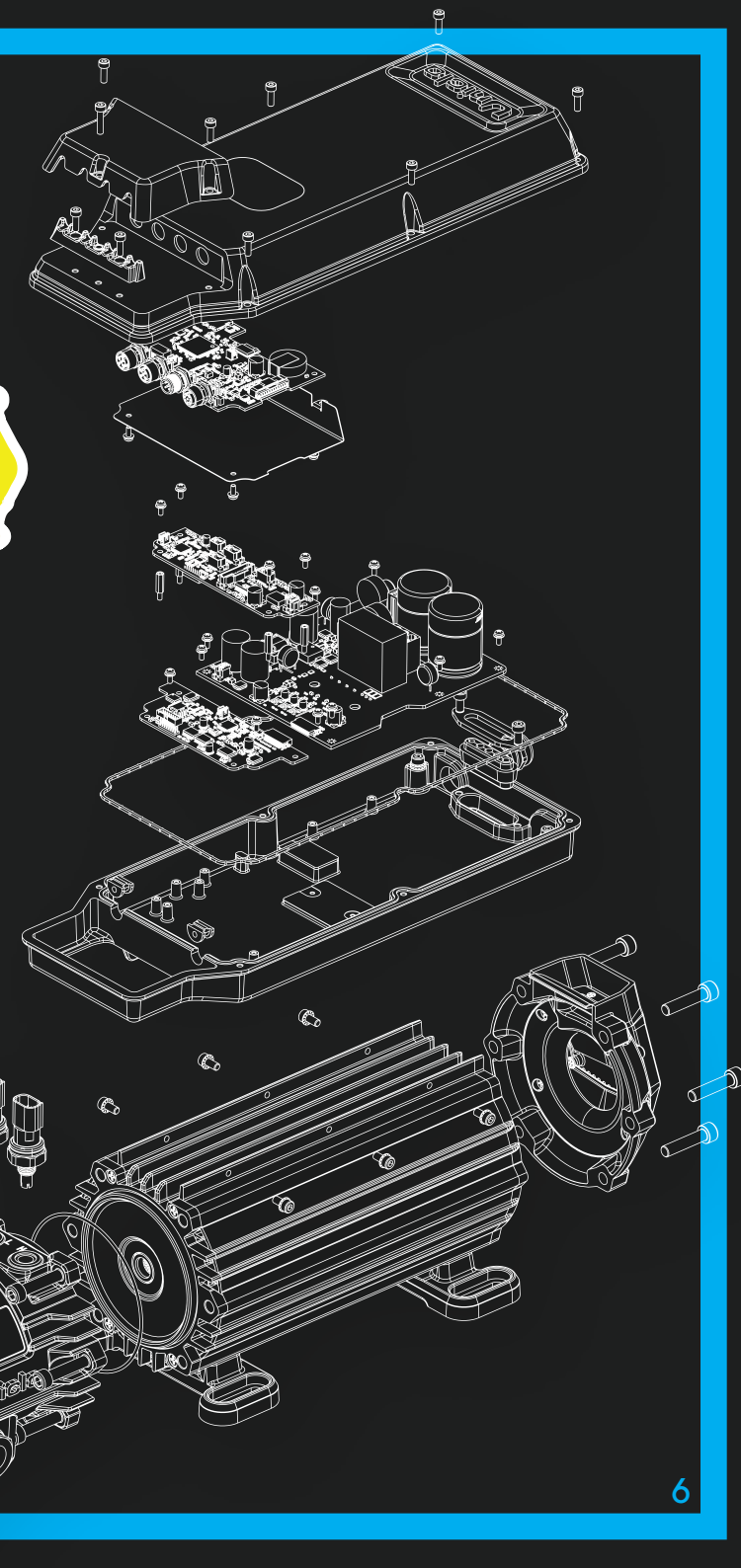
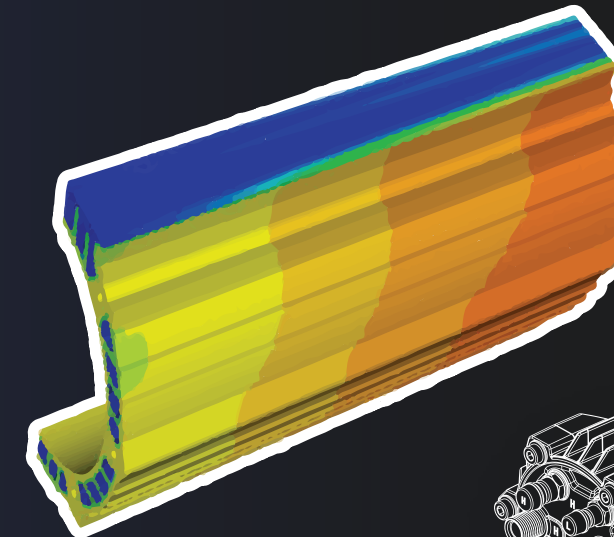
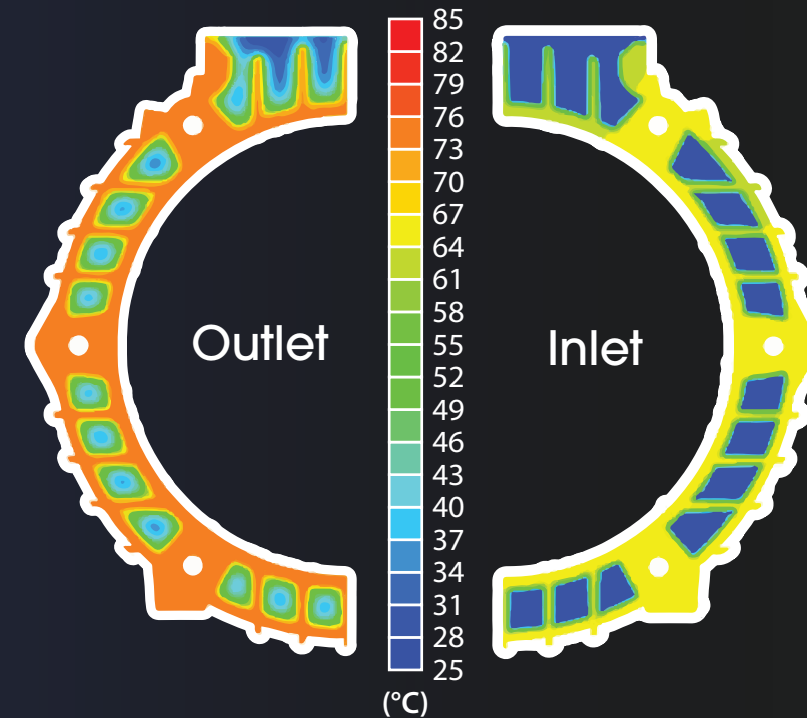
Our bespoke electric drive motor has been designed and built from the ground up specifically for the eDrive project. By keeping the motor and windings separate to the refrigerant circuit, we have achieved the holy grail of performance, reliability and efficiency. The patented motor cooling jacket has been hailed as **a thermal work of art**.

With 55 years of engineering rigour and millions of hours of punishing field service behind us, the eDrive swashplate compressor is **simply the best there is**. Featuring an integrated large-capacity sump, sight-glass, oil-return capability, and balanced internals, this multi-refrigerant and multi-lubricant capable compressor has exceeded every expectation.

Unicla software engineers have provided **the brains for the muscle**. Our eDrive smart logic provides complete and flexible control, with system protection, communication and monitoring capabilities.

By reimagining how sub-components play together we have produced a machine like no other, that is indeed greater than the sum of its parts.

Unicla eDrive - the electric compressor.



Part evolution, part revolution.

The path to enlightenment.

Imagine a world where technology and information come together to **solve problems** and save time. Imagine the power of on-board intelligence that can monitor and data log, providing software driven real-time **decision making**, and historical archiving of events. Imagine optimised compressor performance under all conditions - safely, efficiently and reliably.

Imagine being able to **communicate with the machine**.

eDrive smart logic is a triumph of firmware and software, providing powerful and **flexible capabilities never thought possible**. Offering easily customisable control settings, each eDrive solution can be software tailored to individual system requirements, ensuring system safety, reducing downtime, and **exceeding performance expectations**. On-board data logging monitors all vitals including speed, voltage, power, torque, pressure and temperature.

Unicla eDrive - an **evolution** in engineering, a **revolution** in thinking.



A two-way conversation. At last.

Harness the true power of eDrive with **eConnect**.
The interface between man and machine.

With multiple communication protocols built in,
system integrators and **technicians have a choice**
in the preferred method for compressor control,
real time communication, and access to live and
historical data. **Industry standard communication**
protocols supported by every eDrive compressor
include CAN bus, Ethernet, Bluetooth, USB, and
Analogue/Digital data.

eConnect allows you to **talk any time, any way**.
The eConnect suite provides access to every
eDrive in your fleet via desktop, laptop, tablet, or
smartphone, **either remotely or on-site**. The
interface is designed for technicians and shows
graphical data sets for all key parameters,
allowing **fast data interpretation**, or diagnostic
assessment of comprehensive historical data sets.

Unicla eConnect provides peace of mind at a
glance, with the **confidence to problem solve**
historical events after the fact.

Unicla eConnect - no guesswork, just **hard data**.





Gain insight in an instant. Knowledge is power.

eConnect is a **multi-platform digital interface** that communicates directly with eDrive - on-site or remotely.

There is a **wealth of data and information** that can be monitored through eConnect, arming you with the eDrive insight you need.

Through eConnect's **comprehensive** and customisable interface, you can monitor:

- individual data plots
- combined data plots
- historical event logs
- device status
- suction pressure
- discharge pressure
- suction superheat
- discharge superheat
- vapour temperature
- compressor supply voltage
- compressor speed & power
- switch temperature
- motor temperature & torque
- motor fan speed & power
- thermostat demand
- anti short-cycle timer
- safety limit range
- fault control
- manual control



Better together.

Together for life.

From the outset of the eDrive project, our design team set about defining the attributes required of **a class-defining product**, and our engineers delivered on every one.

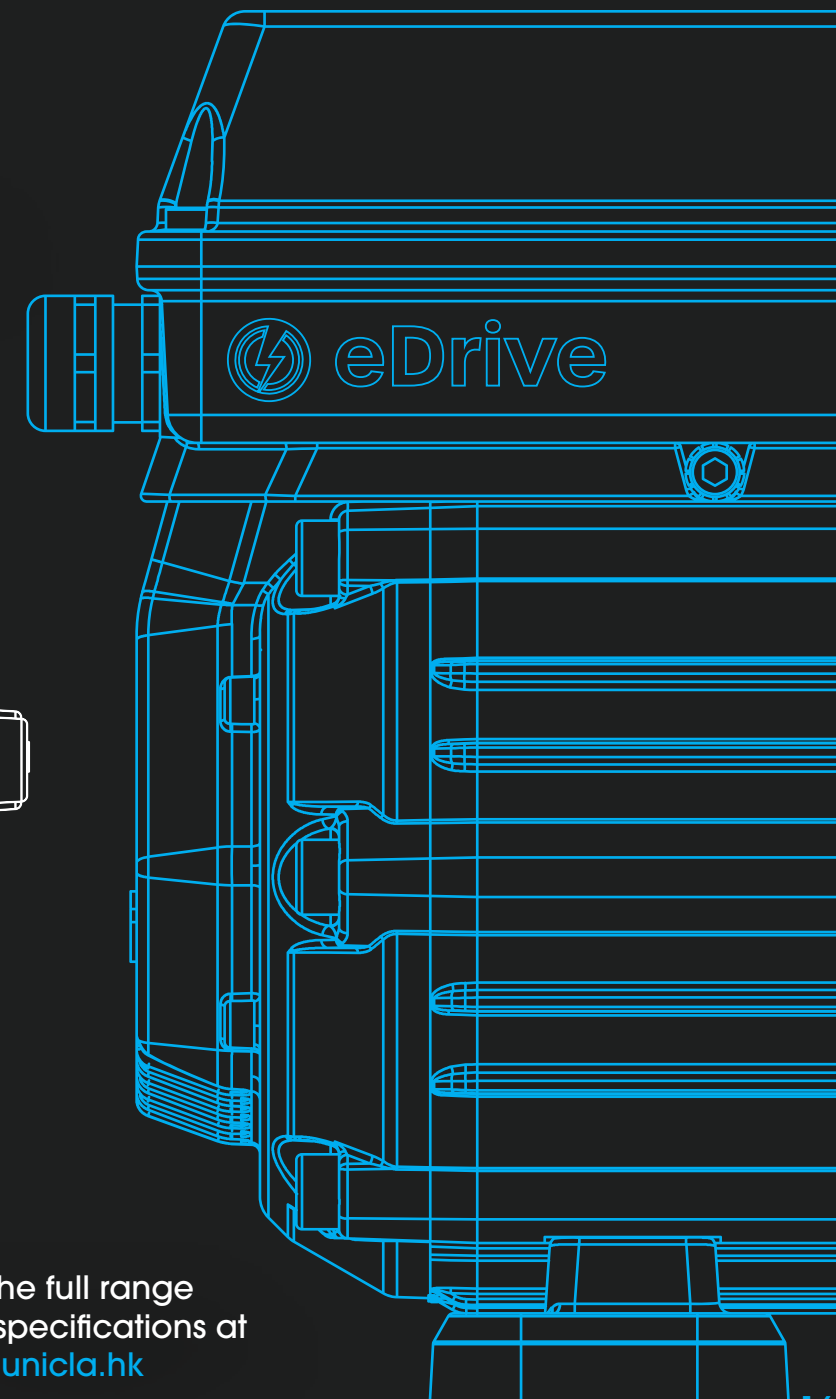
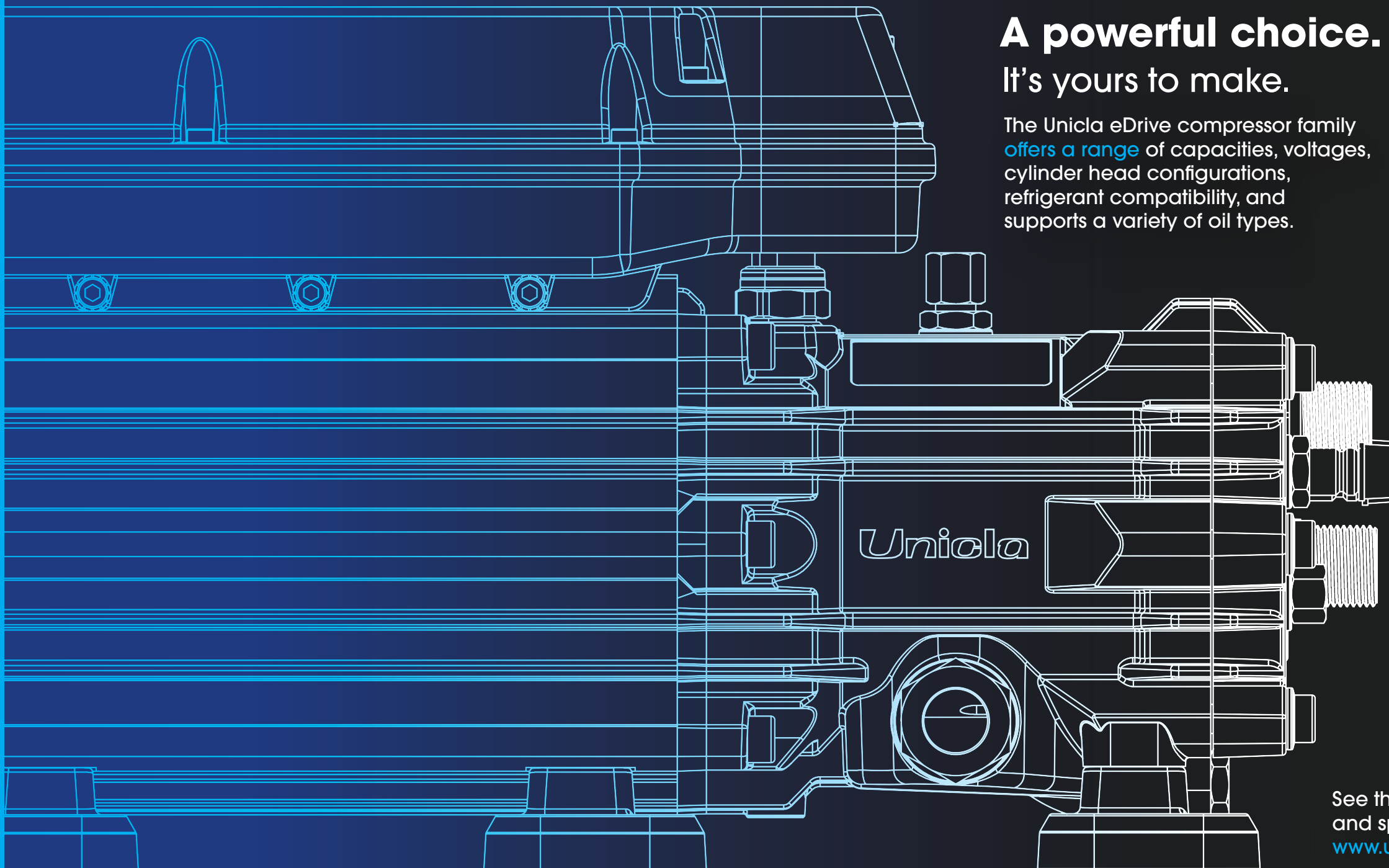
We needed to provide system designers, integrators and technicians with a solution that offered efficiency, durability and a lifetime of high performance. We wanted to **ensure ease of service** and maintenance, with a modular approach that can be diagnosed and repaired economically and efficiently in the field. Importantly, we wanted to ensure a sound environmental outcome across the **life of the system**.

Unicla eDrive. Class-definer.

- Zero failure target made possible by comprehensive active thermal control
- Brushless, sensor-less, long-life air-cooled motor
- Single piece, leak-free compressor crankcase
- 10-cylinder long-life swashplate compressor
 - High volumetric and isentropic efficiency
 - Lightweight, compact, modular design
 - Smooth, vibration-free operation
- Low noise generation and transmission
 - Multiple communication platforms
 - Intelligent inverter control
- Oil sight-glass and return port
 - Large-capacity sump
- Two-way communication

A powerful choice. It's yours to make.

The Unicla eDrive compressor family offers a range of capacities, voltages, cylinder head configurations, refrigerant compatibility, and supports a variety of oil types.



See the full range
and specifications at
www.unicla.hk



Midnight technicians can rest easy.

The call-out you want to get.

The Unicla eDrive electric compressor family offers [the best solution available](#) - a robust and compact design with software flexibility that can be tailored to any application. There is a choice of capacities, voltages, refrigerants, and oil types available, allowing bespoke fitment to any system requiring electric drive.

Designed from the outset with technicians in mind, the Unicla eDrive offers a simple solution to a complex problem. Our [clever engineering](#) has resulted in modular sub-assemblies, allowing major components to be replaced in minutes if necessary. The motor sub-assembly is refrigerant free, meaning the days of electrical failure contamination of refrigeration circuits are over. [Real-time and historical data](#) can be accessed via the revolutionary, multi-platform eConnect interface, enabling system diagnosis to be achieved within seconds.

No matter the time of day or night, you will be relieved to be called out to a system running a Unicla eDrive. Quick and easy to [troubleshoot](#), quick and easy to [diagnose](#), quick and easy to [repair and recommission](#).

Unicla eDrive. [Peace of mind](#). 55 years in the making.



eDrive is here.
Welcome to the future.

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