

# Sabre<sup>EcoTec</sup> Pure & Simple.

Issue 01





# Focus on Continual Investment





# Innovation. Excellence. Lucy Electric.

With over 100 people dedicated to research and innovation, across two international engineering centres of excellence, Lucy Electric is at the cutting edge of the switchgear industry.

We never stand still. We are always working toward the next breakthrough.

This commitment to progress makes us an international leader in switching, protection and automation solutions for electrical distribution systems. We are a specialist in secondary power distribution, engineering high-performance medium voltage (MV) switchgear for utility, industrial and commercial applications, as well as overhead line equipment, and providing retrofit and automation solutions to customers internationally.

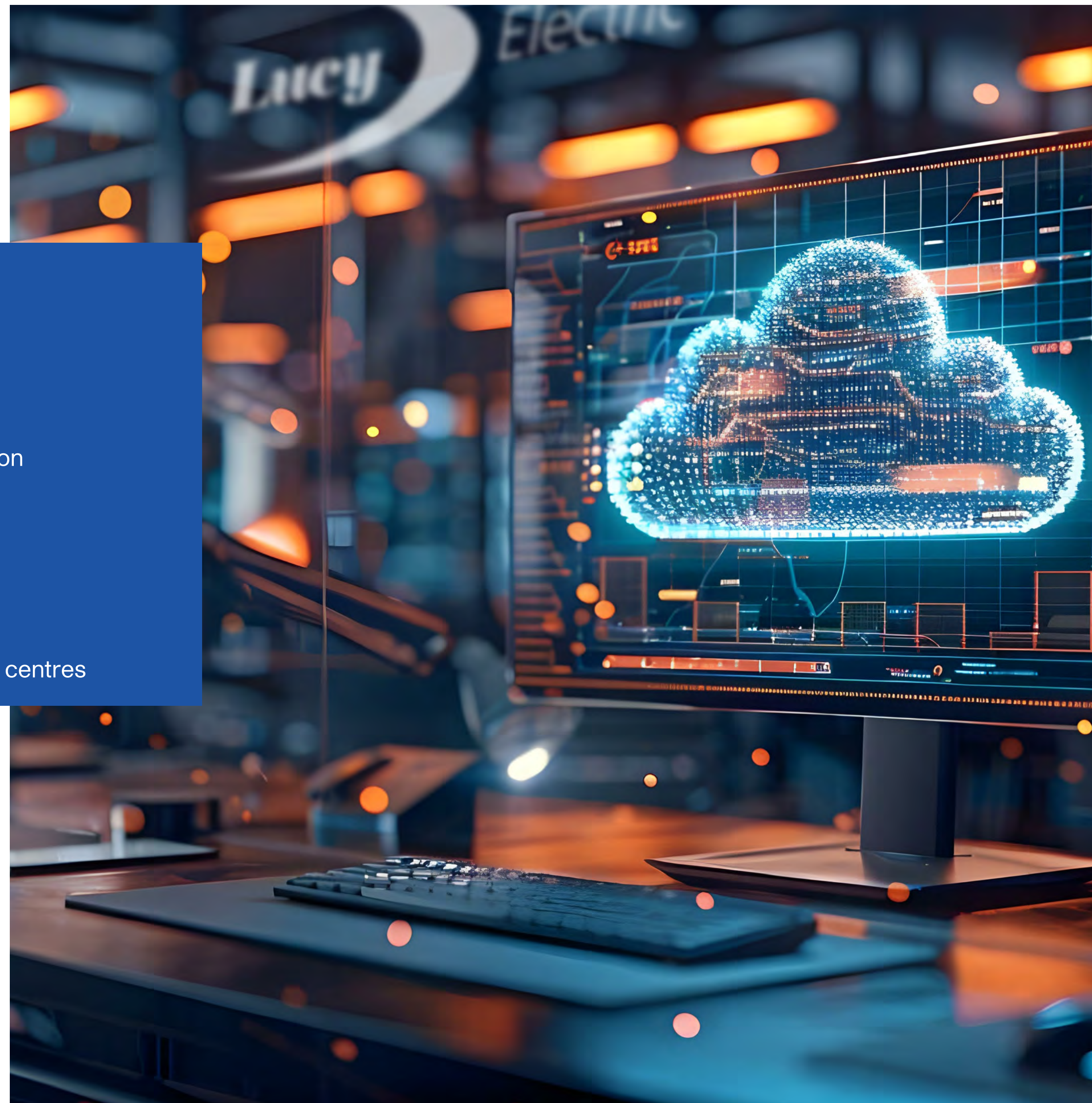
Our excellence, expertise, and experience mean we can deliver truly bespoke solutions to our customers, even when the requirements are highly demanding. We can manufacture units for any location, climate or situation and offer dedicated after-sales support through the product lifecycle.



**100**  
people dedicated to  
research and innovation



**2**  
international research centres





# Sabre<sup>EcoTec</sup>. A breath of fresh air for electrical distribution





# Sabre<sup>EcoTec</sup>: A breath of fresh air for electrical distribution

Building on our extremely successful existing range of ring main units (RMUs), our new Sabre<sup>EcoTec</sup> not only meets the world's needs today but also the needs of tomorrow. We have combined our international experience, insights, and customer feedback with the latest technology and manufacturing techniques.

Reflecting our established product family, the EcoTec range uses the same innovative design and core technology as our international RMU applications and installations, with transformer mounted and free standing versions available.

In short, Sabre<sup>EcoTec</sup> offers the same outstanding performance and applications as our existing Sabre range of MV RMUs but with greatly improved environmental credentials.

EcoTec uses synthetic air as the insulating medium, which means a global warming potential (GWP) of zero. We're not just protecting your network; we're protecting our planet for tomorrow.





# Our commitment to sustainability

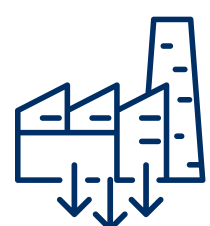




# Our commitment to sustainability

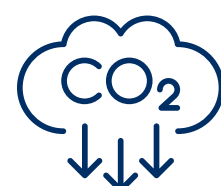
At Lucy Electric, we believe we must balance our pursuit of market opportunities with a dedication to sustainability and decarbonisation.

We are creating and delivering a sustainability culture across our business and the communities in which we operate, with a focus on education, training and wellbeing for everyone.



4.2%

We are committed to reducing our greenhouse gas emissions by 4.2% annually.



2050

As a business, we are driving toward net-zero by 2050.





# Our commitment to sustainability

We have adopted the United Nations' Sustainable Development Goals as a framework for progress toward the best possible future, and planet, for everyone.

We are committed to contributing positively to the needs of society, the environment and the economy in all locations we are present.

EcoTec reflects our dedication to sustainable business perfectly. We are taking our market-leading MV RMUs and making those products even better – for you, for the planet, for everyone.





# Corporate Social Responsibility





# From People to Planet: Our CSR Vision

In an industry racing to meet Net Zero targets, sustainability needs to transcend mere words on a page. At Lucy Electric, we believe in harnessing our business as a force for good. That's why our Corporate Social Responsibility (CSR) approach centres around three core pillars: Planet, Progress, and People. It's more than just a checkbox; it's our guiding philosophy.

CSR at Lucy Electric embodies our commitment to responsible and sustainable business practices. Our mission is clear: to deliver practical, meaningful, and impactful assistance and support to communities across the world. Each project we undertake is carefully selected for its tangible impact.

## People

Under our 'People' sustainability pillar, we go beyond the traditional boundaries to make a positive impact in communities worldwide. From supporting education initiatives and donating to schools and orphanages to providing assistance for disabled children, our focus on community support, well-being, and education reflects our belief that actions speak louder than words. With a CSR champion in every country we operate in, we empower our employees to actively engage in making positive changes in their communities, ensuring that our efforts are impactful and sustainable.





# From People to Planet: Our CSR Vision



## Planet

In line with our commitment to environmental stewardship, our 'Planet' sustainability pillar drives us to tread carefully on the planet and leave a positive legacy for future generations. Through initiatives such as tree planting, beach clean-ups, recycling programmes, and efforts to reduce plastic pollution, we strive to improve our environment and preserve biodiversity. By prioritising sustainability in all aspects of our operations, we aim to minimise our ecological footprint and contribute to a healthier planet for all.



## Progress

Lastly, under our 'Progress' sustainability pillar, we focus on delivering impactful products that benefit people and the planet while creating lasting value for generations to come. Whether through scholarships, donations to schools, or engagement with youth organisations, we invest in projects that educate the next generation and empower them to drive positive change.

At Lucy Electric, CSR is not just a commitment; it's a promise to make a difference, year after year. By partnering with us, you're not just investing in products; you're investing in a brighter, more sustainable future for all.





# Synthetic air, pure and simple

With a GWP of zero, synthetic air is the ideal choice for dielectric for the 12kV EcoTec range. This manufactured air is even purer than the air we breathe.



Obtainable globally, synthetic air is 79.1% nitrogen and 20.9% oxygen, with a purity of 5.0 (99.9990% pure).

The EcoTec range is designed intelligently to make the product smaller, while optimising electrical performance at low gas pressure.



# Smart load break switching

Sabre<sup>EcoTec</sup> uses synthetic air bringing environmental advantages for medium voltage (MV) switchgear. For load break switching, a new architecture is necessary.

Sabre<sup>EcoTec</sup> uses a small load break vacuum interrupter (VI) shunted across the main current-carrying contacts. This shunt VI breaks the load current, ensuring there is no arcing of the main current-carrying contacts.





# Simple, safe operation

Across the Sabre<sup>EcoTec</sup> range, we have placed operator safety with integral interlocking at the forefront of our innovative mechanism design. With a clear, unambiguous mimic and 100% padlockable human-machine interface (HMI), our solution is straightforward and secure.

To ensure the high industrial and operational reliability our customers need, Sabre<sup>EcoTec</sup> 12kV RMUs use the same core mechanism design as our hugely successful Aegis RMU range which is installed worldwide.



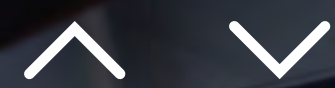
# 100%

padlockable human-machine interface (HMI)





# Sabre EcoTec. Technical details





# Small and perfectly formed

The Sabre<sup>EcoTec</sup> range is designed to be smaller and more efficient, while maintaining compatibility with standard installation requirements. As a result, the EcoTec range provides the same set of solutions for substations as conventional equivalents, but in a more compact and optimised package.

Sabre <sup>EcoTec</sup>	Width (mm)	Depth (mm)	Height (mm)
3 way	1081	1100	1610

# The numbers

Lucy Electric Sabre <sup>EcoTec</sup>			12kV
Rated Voltage		kV	12
Rated Frequency		Hz	50
Rated impulse withstand Voltage		kV	95
Rated power frequency withstand Voltage		kV	38
Short time withstand current		kA	20
Rated Duration of short circuit		seconds	3
Short peak withstand current		kA	52.5
Internal Arc classification		-	AF/AFL/AFLR
Internal Arc rating	Tank	kA 1second	20
	CableBox	kA 1second	13.5 / 20
Ingress protection: Outdoor	Outdoor	IP	54
	Indoor	IP	41
Temperature Range		°C	-25 to +40
Maximum relative humidity		%	95
<b>Circuit Breaker Function</b>			
Rated Normal Current	VRN2e	A	250
	VRN6e	A	630
Mechanical Endurance		Class	M1
Electrical Endurance		Class	E2
<b>Load Break Switches</b>			
Rated Normal Current		A	630
Mechanical Endurance		Class	M1
Electrical Endurance		Class	E3





# Smart efficiency, outstanding results

With the automation of secondary distribution networks becoming an international requirement, automation is embedded as standard in the Sabre<sup>EcoTec</sup> range. From behind-the-fascia solutions for motors to behind-the-door solutions for the remote terminal unit (RTU), Sabre<sup>EcoTec</sup> delivers efficient and compact solutions.

Combined with our GridKey range of sensors, monitoring and analytics, Sabre<sup>EcoTec</sup> brings you the automation of the future... today.





Lucy Electric operates internationally.  
 For more information on our Sabre<sup>EcoTec</sup>  
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