

AcuTec

LV Distribution Cabinets

“Where power meets control.”



International Innovation.
International Excellence.
Lucy Electric.

International Innovation. International Excellence.

With over 100 people dedicated to research, development and innovation, Lucy Electric is at the cutting edge of secondary power distribution technology.

- **Cutting-Edge Technology:** With a team of dedicated researchers, developers, and innovators, we remain at the forefront of secondary power distribution technology.
- **International Presence:** Operating international engineering centres of excellence in the UK and India, we continuously strive for excellence.
- **Commitment to Progress:** Our unwavering commitment to product development has led us to our current level of success, and we continue to work toward the next breakthrough.
- **Industry Leadership:** As an international leader, we specialize in switching, protection, and automation solutions for electrical distribution systems.
- **Specialization:** We engineer high-performance switchgear for utility, industrial, and commercial applications, as well as provide solutions for overhead line equipment.
- **Custom Solutions:** Our excellence, expertise, and experience allow us to deliver bespoke solutions even for highly demanding requirements.
- **Adaptability:** With localized engineering capabilities worldwide, we can easily adapt to local manufacturing requirements at our strategic international locations.
- **After-Sales Support:** We offer dedicated after-sales support throughout the product lifecycle.



100
people dedicated to
research and innovation



2
international research centres



AcuTec LV distribution cabinets Innovation meets evolution

AcuTec LV distribution cabinets deliver the industry-leading combination of innovation and evolution demanded by changing market needs. Key benefits of AcuTec, which has evolved from our AcuLok technology, include:

- Class leading accessibility for cable connections
- Compact fuse handles enable optimal positioning of disconnectors and generator sockets
- Strong emphasis on operator safety
- Air Circuit Breaker (ACB) and Moulded Case Circuit Breaker (MCCB) derivatives
- Energy Networks Association (ENA) Technical Specification (TS) 37-2 Issue 5 compliance
- GridKey-enabled for dynamic monitoring – see Page 11 for more information

Our AcuTec range, alongside all Lucy Electric solutions, has been designed to facilitate the decarbonisation, decentralisation, digitalisation and democratisation of energy systems. The LV fuse cabinet of the future... available today.



AcuTec

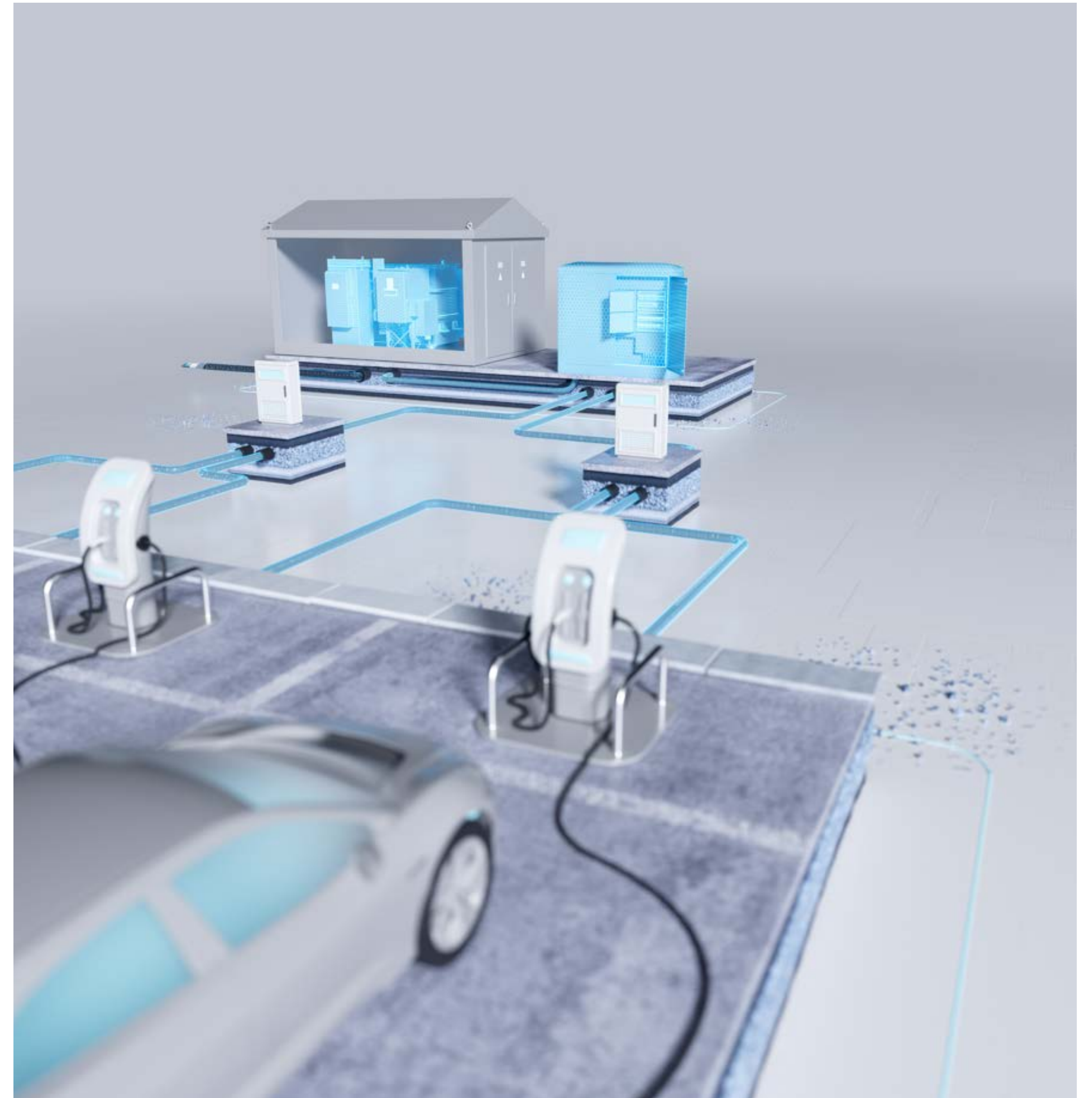
As part of EV charging infrastructure

Our transformer-mounted LV distribution hardware.

- Ideal for utilities, infrastructure and electric vehicle (EV) projects
- Capable of managing loads up to 3200A
- A new design approach for Public Electricity Network Distribution Assemblies (PENDAs)
- Available individually or as part of a package substation
- Evolving with ongoing customer-derived design developments
- Perfectly matched with our medium voltage (MV) ring main range

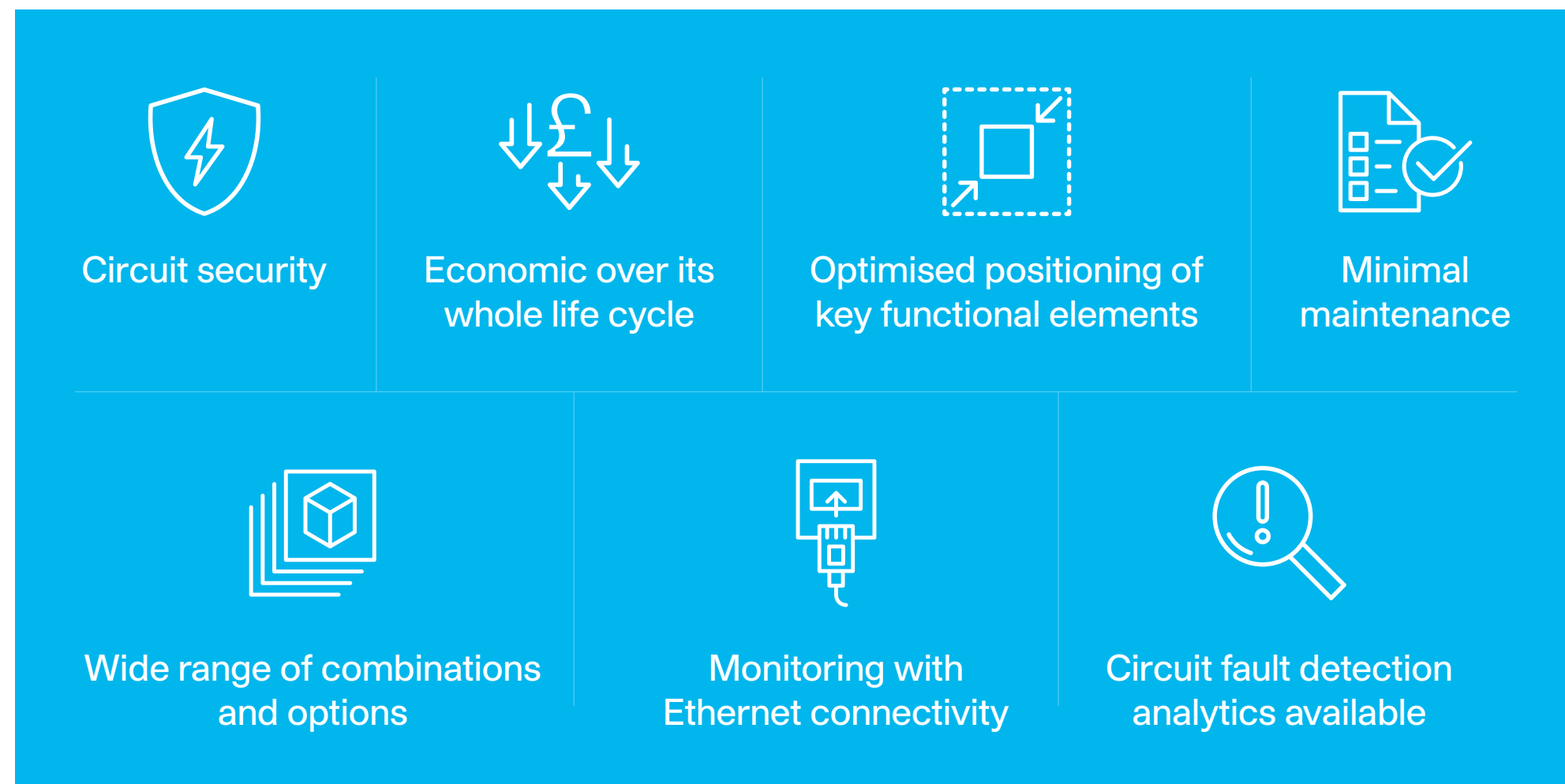
The construction and management of electrical infrastructure is evolving rapidly. Utility networks now face the growing demand for real-time monitoring, precise load prediction, and adaptation to the changing needs of electric vehicles (EVs) and renewables.

“The AcuTec range is designed specifically to address these new challenges.”



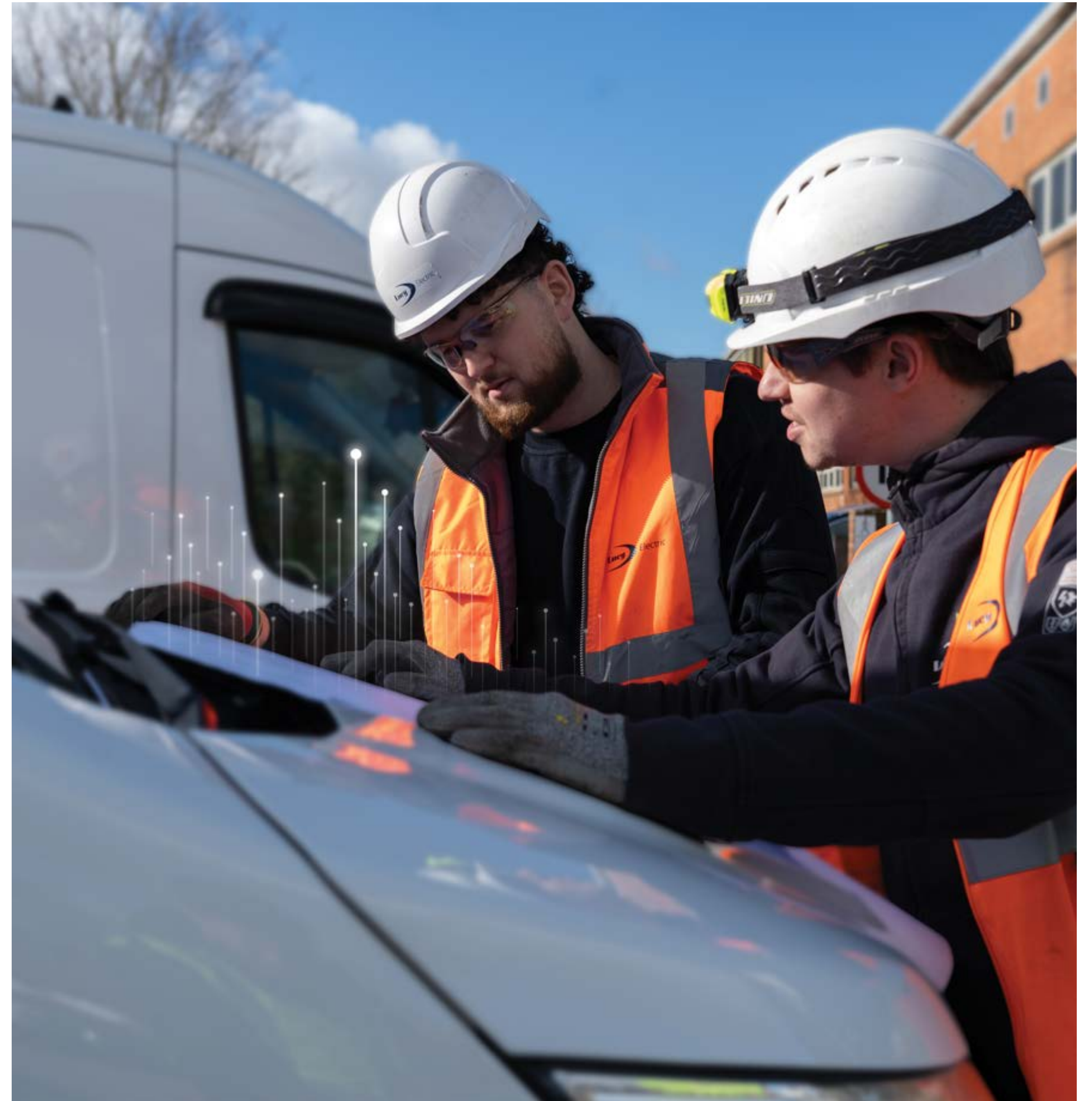
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The customer benefits



AcuTec can also provides future-proof technology essential for utility networks to meet evolving energy demands, including the increasing need for home EV charging points, heat pumps and PV.

We have designed a cabinet that meets or exceeds parameters and requirements, ensuring maximum adaptability for network operators.



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What sets it apart?

So many benefits make AcuTec the international solution of choice for LV distribution pillars. Here are just a few of the key features:

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- Rogowski coil tube incorporated in to fuse handle that permits checking of current flow
 - Fully shrouded fuse ways and phases
 - Phase disconnectors
 - Recessed test points in transformer disconnectors and fuse handles
 - RCD-protected 13A socket outlet for auxiliary supply
 - Fully shielded VEAM generator sockets
 - Deep door option available for using aftermarket auto-reclosers
 - GridKey circuit monitoring available – see Page 11 for more information
 - Synaps analytics available to pinpoint circuit fault locations – see Page 11 for more information
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AcuTec goes far beyond fundamental requirements, delivering industry-leading features and benefits.

Overview

Fused AcuTec

The Fused AcuTec option from Lucy Electric is based on existing trusted fused technology, with benefits and features including:

- Up to eight outgoing fuse ways with 630A, fuseways
- Alternative 800A serviceway available
- Fuses can be substituted easily for aftermarket auto-reclosers
- Insulated Rogowski coil tube per fuse handle option for additional monitoring
- IP34D ingress protection for outdoor installation and IPXXB doors opening with shrouds
- 630A and 800A serviceways available

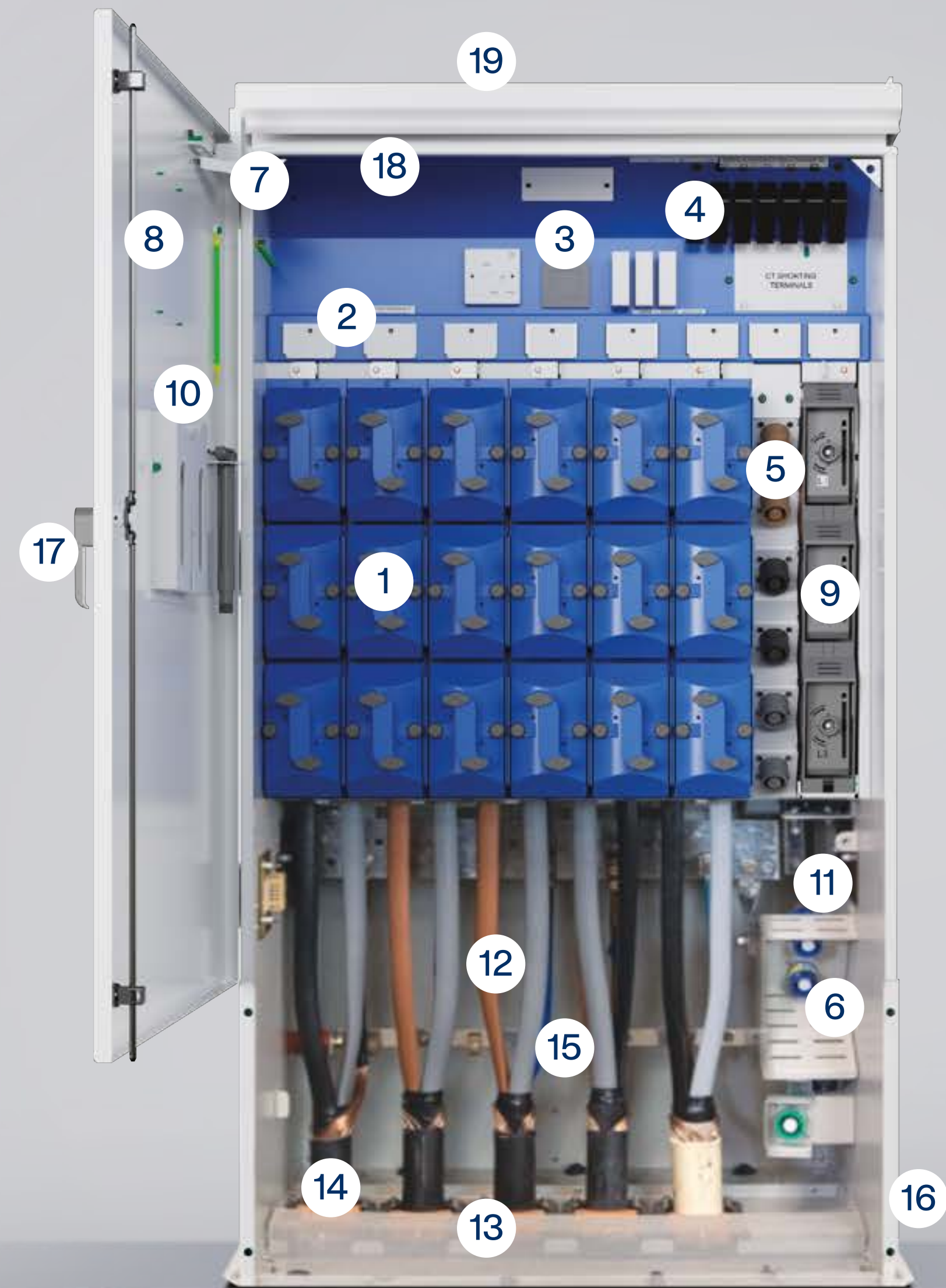
ACB/MCCB AcuTec

The ACB and MCCB AcuTec distribution cabinets offer smart solutions for protecting and managing circuits. Fitted with high-quality and reliable Terasaki devices. The ACB cabinets are available in six ratings up to 3200A, while the MCCB cabinets are available up to 1250A. Additionally, fused and ACB combinations can be specified.

AcuTec characteristics

- | | |
|--|--|
| 1. Fuse handles | 10. Disconnecter operating handle |
| 2. Circuit labelling | 11. RJ45 (Registered Jack) intranet connection |
| 3. Metering | 12. Cabling area |
| 4. Auxiliary fuses for substation power and lighting | 13. Lower ventilation mesh |
| 5. Veam generator sockets, for phases | 14. Cabling clamps |
| 6. Veam generator sockets, neutral and earth | 15. Earthing bar (to back of cabinet) |
| 7. Door stay | 16. External earth connection |
| 8. Door available with deep option | 17. Pad lockable door handle |
| 9. Disconnecter bank | 18. Internal lighting |
| | 19. Lifting hooks |

AcuTec LV distribution cabinets, designed with fitters in mind as evidenced by generous cabling space.



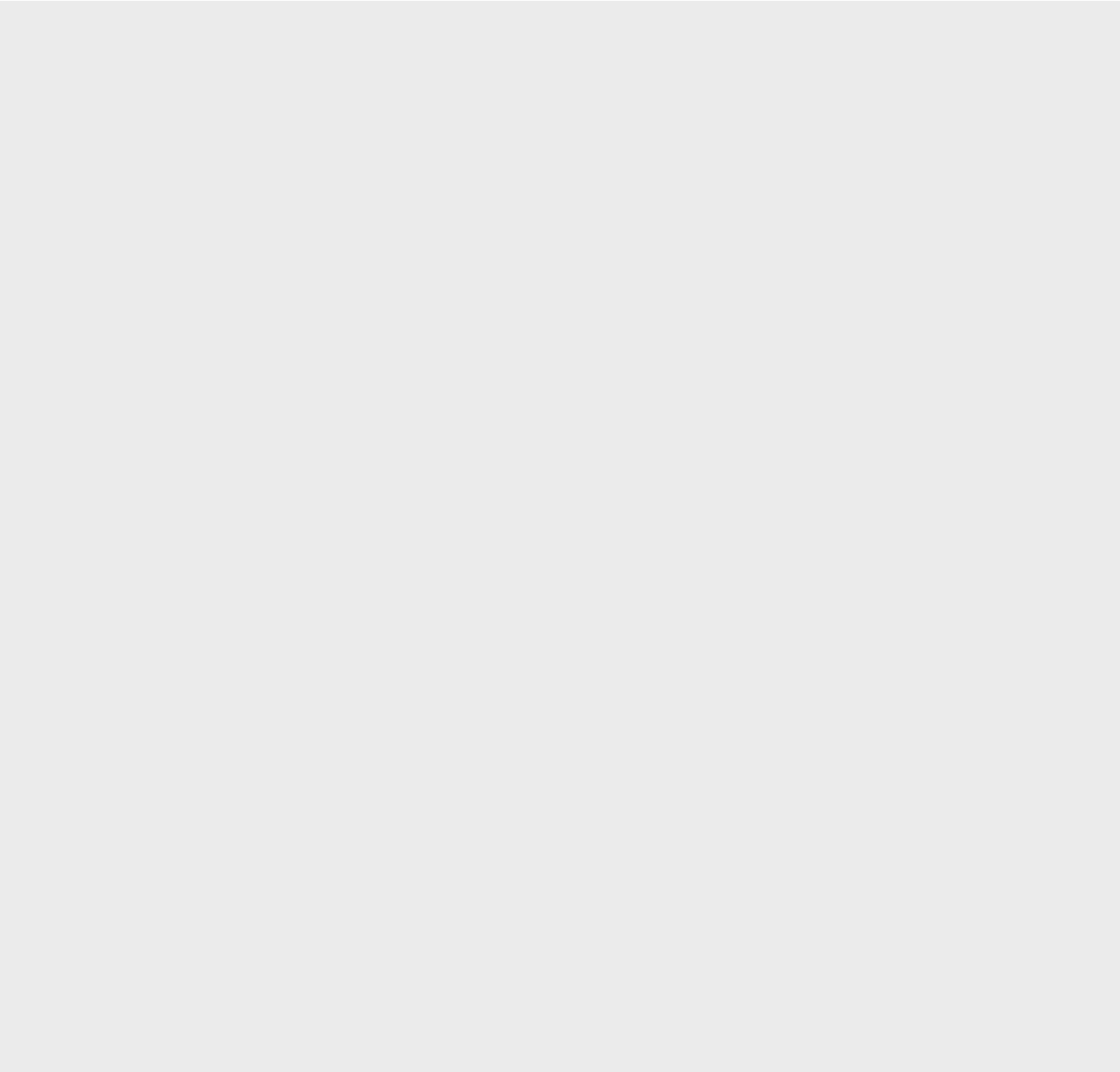
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Technical data

Lucy Electric AcuTec	
Mounts on distribution transformers with 'F' type flange	According to ENA TS 35-1
Rated operational voltage (Ue)	440V
Rated insulation voltage (Ui)	690V
Rated impulse withstand voltage (Uimp)	8kV
Maximum rated current of the assembly (fused) (InA)	1600A
Maximum rated current of the assembly (ACB) (InA)	3200A
Rated current of fused outgoing units (Inc)	630A or 800A
Rated short-circuit withstand (Icw and Ipk)	Up to 1600A (for 1 sec and 3 secs) 35,5kA – up to 3200A (for 1 sec and 3 secs) 3s with a peak of 50kA
Rated conditional short-circuit outgoing unit (Icc)	50kA at 440V
Rated short-circuit withstand strength (Icw and Ipk)	On neutral and earth 21,4kA
Rated frequency (fn)	50Hz
Ambient air temperature	-25°C to +40°C
Rated diversity factor (RDF)	1
Standards	BS EN 61439-1-5, BS EN 60947-1-3, ENS TS 37-2 Issue 5

Dimensions & weights

Cabinet weights will differ for custom AcuTec designs.



GridKey circuit monitoring and Synaps analytics

Combining our GridKey dynamic circuit monitoring and Synaps analytics with AcuTec brings you the automation of the future...today.

GridKey provides continuous remote monitoring of substations and so provides a vital insight into a low voltage grid, helping to reduce network maintenance costs and prevent unplanned outages.



Synaps uses hardware installed at local substations to detect and collect data from early intermittent faults in underground cables and then run an artificial intelligence (AI) algorithm against a 'digital twin' of the distribution grid.

The process enables the type of fault to be classified and the location identified, allowing rapid maintenance to prevent power interruption without the need for disruptive emergency repair work.



AcuTec

Lucy Electric operates internationally.
For more information about the AcuTec
range, or any of our products and services,
contact your local office or visit our website:

lucyelectric.com

Our international offices:

Lucy Electric UK Ltd
Howland Road, Thame,
Oxfordshire
OX9 3UJ
United Kingdom

t: +44 (0)1844 267 267
e: salesuk@lucyelectric.com

Lucy Electric GridKey Ltd
8 Argent Court, Sylvan Way
Southfields Business Park
Basilton, Essex
SS15 6TH
United Kingdom

t: +44 (0) 1268 850000
e: sales@gridkey.co.uk

Lucy Electric GridKey Swindon
607 Delta,
Welton Road
Swindon
SN5 7XF
United Kingdom

e: sales@gridkey.co.uk

Lucy Middle East FZE
PO Box 17335, Jebel Ali
Dubai
PO Box 17335
United Arab Emirates

t: +97 148 129 999
e: salesme@lucyelectric.com

Lucy Electric (Thailand) Ltd
388 Exchange Tower,
37th Flr Unit 3702,
Sukhumvit Road
Klongtoey Sub district
Klongtoey District, Bangkok
10110
Thailand

t: +66 (02) 663 4290
e: salesThailand@lucyelectric.com

Lucy Electric (South Africa)
Unit 12 & 13, Block C,
Honeydew Business Park,
1503 Citrus Street, Laser Park
Honeydew
P.O. Box 1078, 2040
South Africa

t: +27 11 025 7490
e: salesza@lucyelectric.com

Lucy Asia Pacific Sdn Bhd
L17-05-06, PJX-HM Shah Tower,
No16A Jalan Persiaran Barat
Petaling Jaya,
Selangor, Malaysia
46050
Malaysia

t: +603 74910700
e: salesmalaysia@lucyelectric.com

Lucy Equipamentos Elétricos Ltda
Av. das Araucárias 2558 Thomaz
Coelho, CEP 83707-067
Thomaz Coelho, Araucária,
State of Paraná, Brazil
83707-065
Brazil

t: +55 (41) 2106 2801
e: salesbrazil@lucyelectric.com

Lucy Electric Manufacturing &
Technologies India (Private) Ltd
Village Noorpura,
Baska besides Polycab
Halol Baroda Toll road, Taluka Halol
Panchmahal, Gujarat
389350
India

t: +91 2676 304912

Lucy Electric India Private Ltd
2B-46 & 47, 2nd Floor
Kurla West
Mumbai
400070
India

t: +91 22 62366616

Lucy Electric East Africa
13th Floor Landmark Plaza
Argwings Khodhek Road
Nairobi
P.O Box-00606 - 00400
Kenya

t: +254 (0) 203 673 927

Lucy Switchgear Arabia Co. Ltd
Novotel Business Centre
Dammam
P.O. Box 35340, Dammam 31488
Saudi Arabia

t: +966 138 147 910
e: salesksa@lucyelectric.com

Lucy Switchgear Arabia Ltd
Tahlia St, Andlus Dist.
Jameel Square Center,
Office No 118
Jeddah
21533
Saudi Arabia

t: +966 02 6648573

Lucy Electric Australasia Pty Ltd

t: +61 467 237 879
e: salesaustralia@lucyelectric.com

