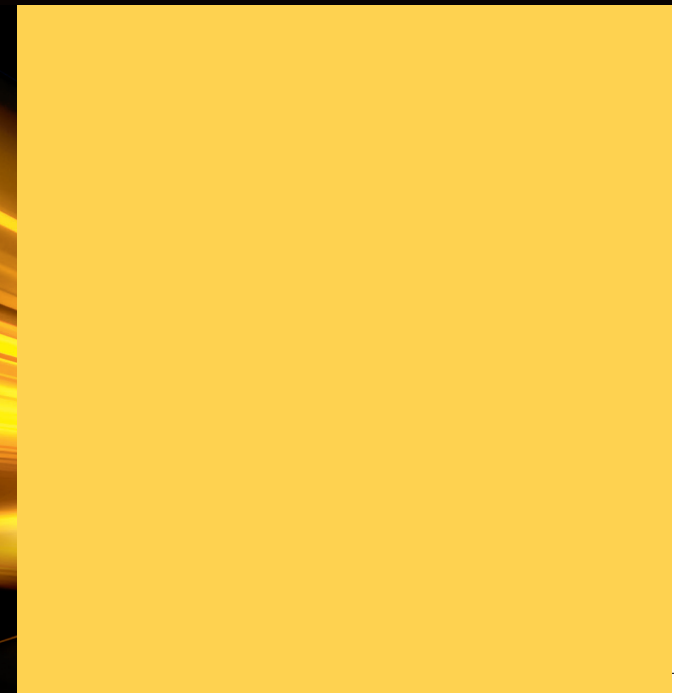
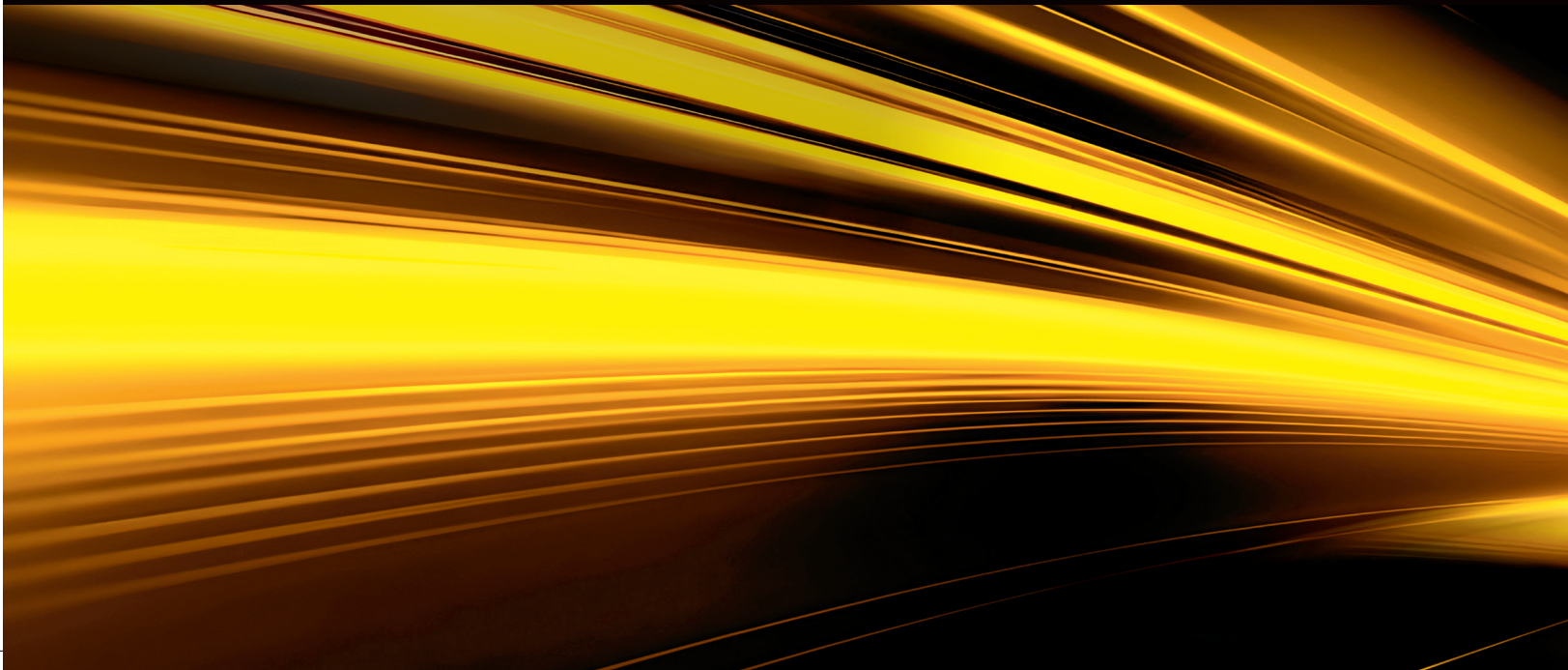


CORE™
BY PES

Distribution. Redefined.



™
CORE

DESIGN

Delivery at the
speed of light.





Introducing CORE by PES, our comprehensive range of Cold Rolled Grain Oriented (CRGO) transformers, expertly designed for modern distribution networks.

Created to support contractors and consumers on tight schedules, our standardised CORE range is built for fast delivery when time matters most. Each unit features our industry leading signature finish, to meet exacting British Standards.

All CORE transformers are liquid-filled with an option of ONAN (mineral oil) or KNAN (MIDEL). Available in a range of power ratings to meet individual needs and requirements, spanning from 315kVA to 3000kVA.

CORE keeps critical operations moving, from public sector projects to high-end manufacturing. Maintaining a large stock of standard transformers, ready for dispatch, means that whilst others are still building, we're already shipping.



24 MONTH GUARANTEE

All of our transformers come with an industry leading 24 month guarantee from dispatch.

*Extended warranty time can be provided where required at an additional cost.



Instant Access 24/7/365

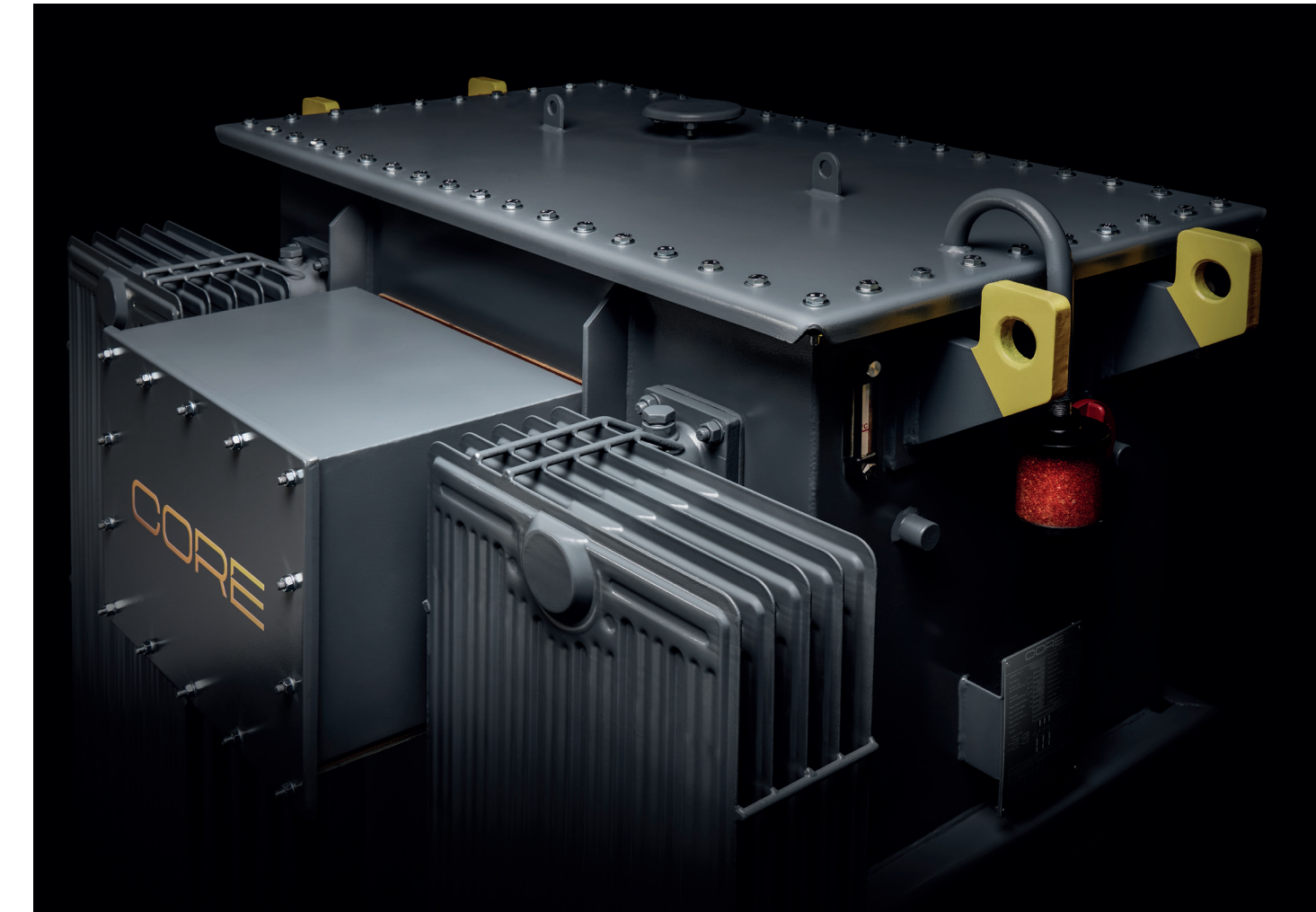
Lower emissions. Quicker solutions.
Permanent by default.

An industry first. We provide a round-the-clock emergency call-out facility – open to the public, with immediate access to our short lead-time inventory.

We connect your emergency call-out lines directly to ours. Substation products, on demand. We work side by side with contractors to deliver genuine emergency response. No generators. No temporary fixes. We move permanent assets into place.

Emergency call-out: +44(0) 1132 581 083

Round-the-clock emergency call-out



By combining Tier 2 technology with repurposed HV and LV equipment, we minimise lost energy and maximise the life of existing assets. A true mix of progress and sustainability.

Cold Rolled Grain Oriented (CRGO) steel underpins our transformer cores. Its aligned grain structure reduces losses, improves efficiency, and keeps performance consistent. Each core is assembled with care, giving a stable, reliable unit, built to serve for decades.



Tier 2 efficiency standards set strict limits on transformer losses. They focus on reducing no-load losses in the core and load losses in the windings, ensuring lower energy waste across the network.

At PES, our Tier 2 units are engineered to meet these levels without compromise. Each transformer is built to minimise iron losses under no-load conditions and resistive losses under load, giving consistent performance and long-term efficiency in service.



Our refurbished HV and LV equipment is sustainably sourced and repurposed, ready on the same trailblazing lead times as our CORE by PES range. Available close-coupled to our new transformers, the two integrate seamlessly, making them the natural choice for new or replacement substation projects, with sustainability in mind.



Liquid-immersed insulation remains the most established, reliable method in distribution transformer design. The insulating oil surrounds the core and windings, providing both electrical insulation and effective heat dissipation.

By applying the same level of care to oil selection, filling, and sealing, as we do to every other detail, we're able to ensure dependable performance throughout the life of the transformer. A proven, singular design solution that underpins the stability of networks worldwide.



Each transformer in the CORE range is hand-finished in Leeds, Great Britain. Built and tested to exacting British Standards, each unit reflects the care and detail of our highly-skilled engineering team. Standardised for local distribution networks, not engineered to order.

From finish to function, the result is equipment you can trust to perform, project after project.



Our strength is our speed. Standardised designs, in-house stock, and a refined production process ensures transformers and ancillaries leave our workshops without delay. From order to site, every step is streamlined – giving contractors and consumers the confidence that equipment will be there when it's needed most.

For urgent situations, our dedicated public emergency call-out facility provides immediate response and replacement support.

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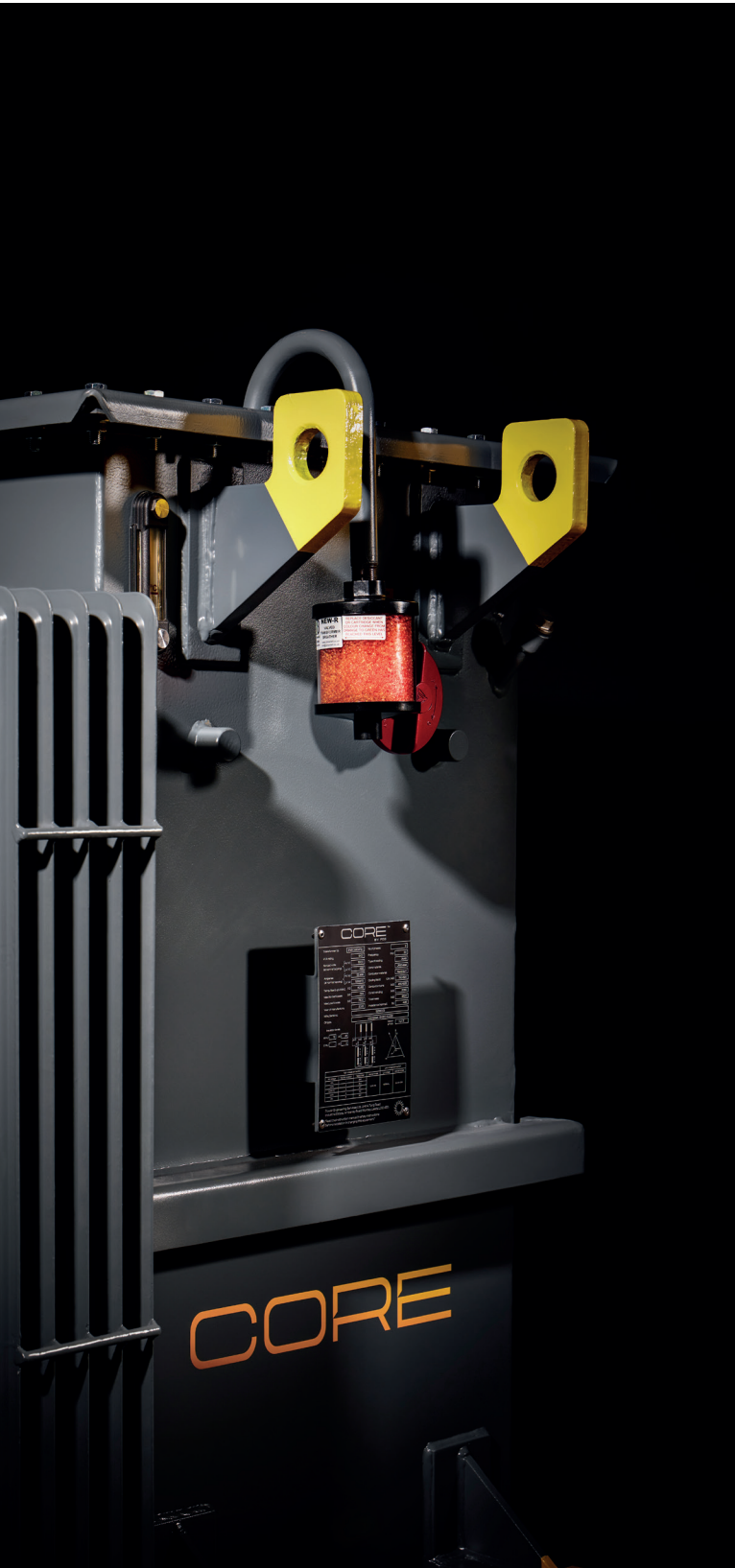
Quality Standards and Regulation



Carefully engineered to meet the specific requirements of modern distribution networks, from public sector to high-end manufacturing. We specialise in rapid delivery, taking pride in offering short lead times to meet the requirements of our clients.

Ensuring our transformers are manufactured in full compliance with internationally recognised standards set by the IEC and the Ecodesign Tier 2 loss requirements set by the EU, our new transformer offering strengthens the same platform of quality defined by our refurbished HV and LV products and systems.

Our R&D team prioritise actively tracking global trends in materials, technologies and emerging applications, to continuously enhance our full range of transformers, ancillary products and support equipment.



kVA Rating	315kVA - 3000kVA
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Primary Voltage	11kV & 6.6kV
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Secondary Voltage	433V
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Manufacturing Standards	IEC 60076-1,2,3,4,5,7
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Number of Phases	3
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HV Tap Settings	-5%, -2.5%, 0%, +2.5%, +5% Off-load tap changer (On-load tap changer available on request)
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Voltage Regulation	DETC
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Rated Frequency	50Hz
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Vector Group	Dyn11 (Other vector groups available on request)
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Temperature Rise	60/65 °C
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Cooling Type	ONAN or KNAN
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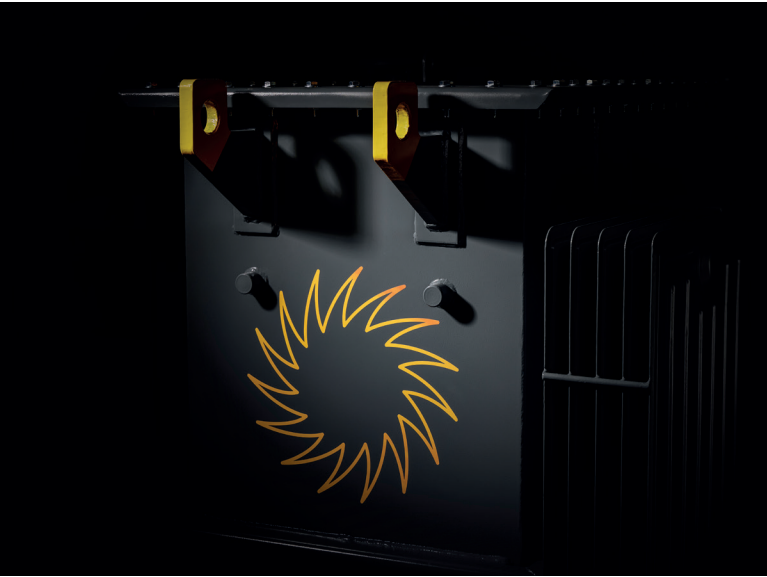
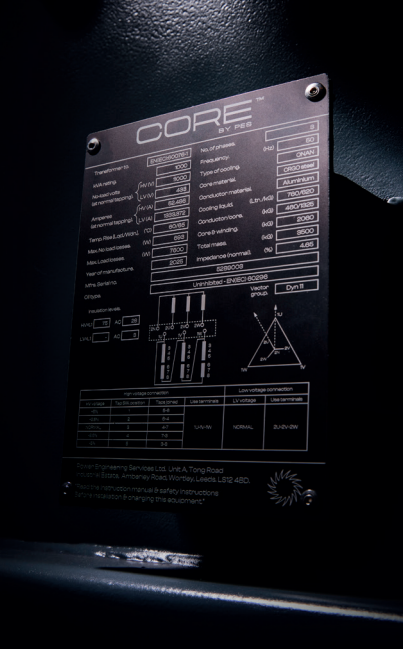
Breathing Type	Free breathing
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Radiators	Bolted on radiators
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Primary and Secondary Termination	Air cable box type
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Installation	Indoor and/or Outdoor
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Sound Level	As per ENA TS
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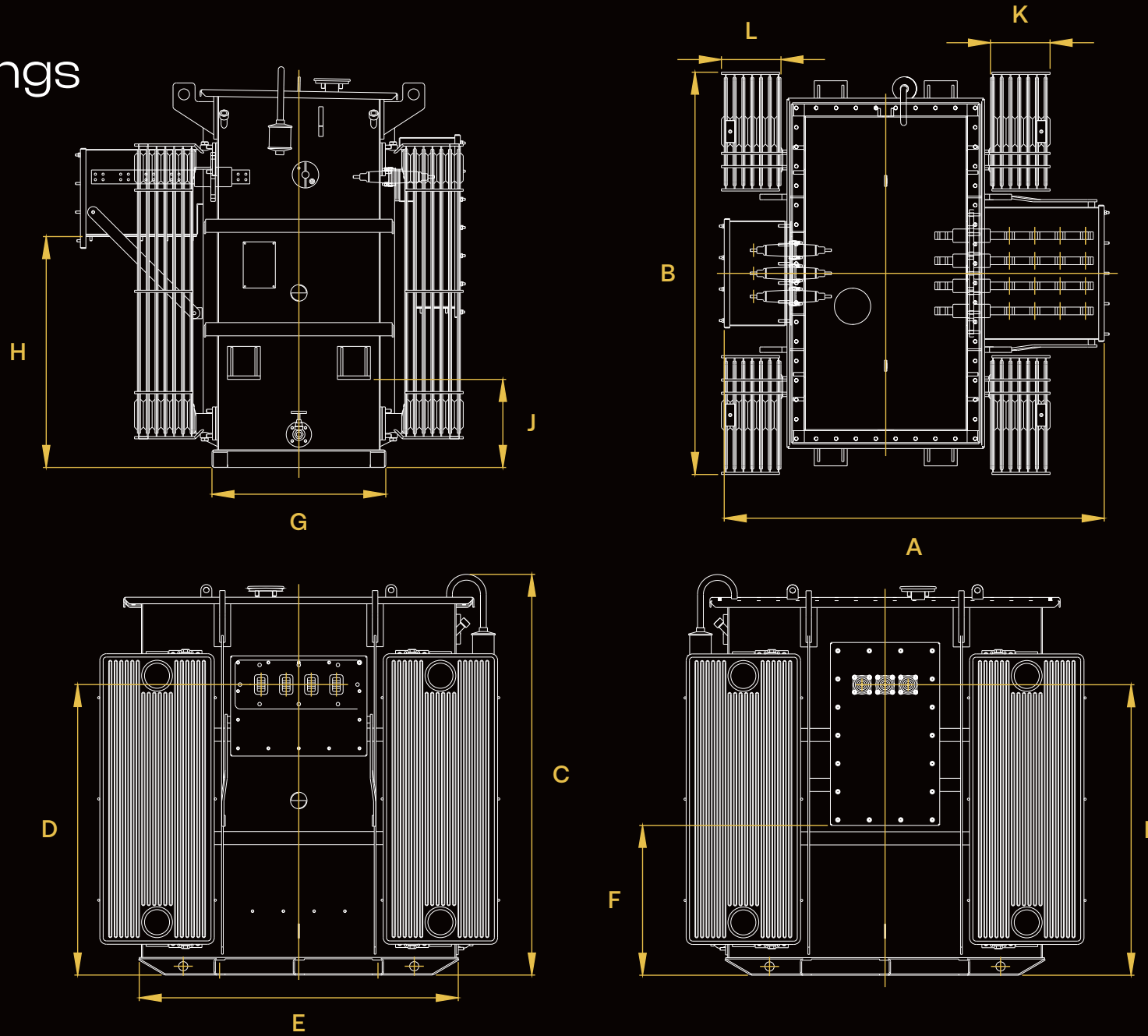
Highlights

\ Modern technology	\ Quick, unbeatable lead times
\ Lower energy losses	\ Proven quality and reliability
\ Avoided carbon emissions	\ Long life-cycle with low maintenance



Transformer Statistics

Technical Drawings



Transformer Statistics

Dimensions* (mm)

Rating (KVA)	A	B	C	D	E	F	G	H	I	J	K	L
315	1239	1595	1764	1320	1320	723	605	1049	1320	400	-	-
500	1239	1738	1764	1320	1320	723	605	1049	1320	400	71	-
800	1439	1738	1764	1320	1320	723	690	1049	1320	400	151	-
1000	1439	1738	1764	1320	1320	723	690	1049	1320	400	191	-
1250	1629	1780	1764	1320	1320	723	765	1049	1320	400	271	-
1500	1629	1780	1764	1320	1320	723	765	1049	1320	400	191	191
1600	1654	1768	1823	1320	1320	723	790	1049	1320	400	191	191
2000	1769	1828	1823	1320	1320	723	790	1049	1320	400	271	271
2500	1875	1985	2980	1720	1320	1123	850	1449	1720	400	391	311

*Please see corresponding technical drawings

Transformer Statistics

Electrical
Characteristics

Rating (KVA)	kV	HV LI/PF	LV LI/PF	Impedance (%)	No Load Losses (Watts)	Load Losses (Watts)	THD (%)	Weight (KG)
315	11/0.433	75/28	-/3	4.75	324	2800	<5%	2100
500	11/0.433	75/28	-/3	4.75	459	3900	<5%	2500
800	11/0.433	75/28	-/3	4.75	585	6000	<5%	3300
1000	11/0.433	75/28	-/3	4.75	693	7600	<5%	3500
1250	11/0.433	75/28	-/3	5	865	9500	<5%	4000
1500	11/0.433	75/28	-/3	5.5	1015	11285	<5%	4300
1600	11/0.433	75/28	-/3	5.5	1080	12000	<5%	4640
2000	11/0.433	75/28	-/3	6	1305	15000	<5%	5125
2500	11/0.433	75/28	-/3	6	1575	18500	<5%	6750

Engineered to
outperform.

PES | CORE™

CORE™
BY PES

Powering Partnerships.

Our dedicated team is on hand to advise on hire and purchase options as well as any site-specific requirements.

For further information please contact us on +44(0) 1132 581 083 email sales@pesleeds.co.uk or connect with us on social at [@pes_social](#).

