

Sustainable Peak Load (SPL) Transformers

Engineered for Peak Demand. Optimised for Real Load Conditions.

Dielectric Fluid-Filled Solutions
for Efficient Power Distribution



Sustainable Peak Load (SPL) Transformers
designed for modern distribution networks



Key Figures



Up to
150%
peak load
capability



11-15%
reduction in
total weight



Up to
25%
less steel



Up to
17%
less
aluminium



Designed for
controlled
peak loading
beyond
rated capacity



EU
Ecodesign
compliant

What are Sustainable Peak Load (SPL) Transformers?

Sustainable Peak Load (SPL) transformers are specialised distribution units engineered to maximise material efficiency while managing temporary high peak loads, up to 150 percent, without compromising operational lifespan.

Kyte Powertech's SPL transformers combine dielectric fluid technology, advanced insulation systems, and compact design to optimise modern distribution networks. Designed to support electrification driven by electric vehicles, heat pumps, and renewable energy, they reduce total cost of ownership, minimise energy losses, and lower carbon impact compared to conventional oversized transformers.

Optimised Performance & Grid Reliability



Advanced insulation systems combined with natural ester fluids enable thermal class F performance, ensuring reliability under variable and peak loading conditions.



Higher Load Capability Without Oversizing

Rated for standard loads such as 600 kVA while accommodating controlled peak loading beyond rated capacity.



Reduced Total Cost of Ownership

Reduces no-load losses and overall energy dissipation, lowering lifecycle cost across typical load profiles

Compact Design & Material Efficiency



Reduces total weight by 11–15 per cent and minimises footprint, improving substation layout efficiency.



Environmental & Safety Performance

Natural ester fluids provide biodegradable, less flammable insulation with reduced environmental impact.



Proven Engineering

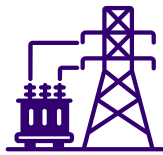
Manufactured to IEC, ANSI, BS, and ENATS standards, with 50 years of expertise and deployment across more than 20 countries.

Meeting Rising Energy Demands

With electricity demand expected to rise by 30% by 2030 and 50% by 2050, due to electrification in transportation, heating, and renewable energy generation, Kyte Powertech's Dielectric fluid-filled transformers offer a robust solution for managing peak loads in distribution networks, supporting renewables, and enhancing grid stability.

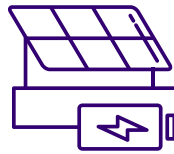


Application Areas



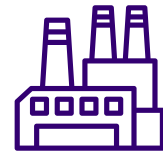
Urban Electrical Distribution Areas

Compact footprint suited
to constrained substations



Renewable Energy Integration

Manages variability from
solar and battery storage



Industrial & Utility Networks

Custom solutions,
supported by Kyte
Powertech's QDCCC
model (Quality, Delivery,
Commitment, Cost, and
Communication).

A European Copper Institute study demonstrated that a conventionally sized 1000 kVA transformer could be replaced with a lower-rated 600 kVA Sustainable Peak Load transformer, while accommodating controlled peak loading conditions and:

- Maintaining comparable annual energy losses to traditional units
- Reducing material use by up to 25% for steel
- Reducing material use by up to 17% for aluminium
- Achieving an 11–15% reduction in total transformer weight

Source: European Copper Institute



Future-proof your distribution network.

Kyte Powertech's Sustainable Peak Load Transformers enable efficient, flexible and lower-impact grid design

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