

The world's most agile, cost-effective and space-efficient substation



When electrical room space is limited or when additional electrical system capacity is required for renovation of an existing building, unit substation dimensions can create layout challenges for electrical designers and engineers. The solution to these problems is Eaton's integrated unit substation (IUS).

The Eaton IUS offers a significant floor space reduction compared with other substation designs by combining transformer primary and secondary protective devices in a single section.

The IUS uses a 5 or 15 kV class VCP-T drawout vacuum breaker for transformer primary protection, integrated with a 600 V Magnum DS® drawout air circuit breaker for transformer secondary protection. Both breakers are in a single UL® Listed structure.

The integrated unit substation addresses issues that matter to building owners, electrical contractors and engineers, including:

- Reduction in installation time
- Fewer structures
- Reduction in delivery time
- Reduction in overall floor space
- Reduction in overall installed costs
- Reduction in material handling and rigging requirements

Product offering

- Up to 15 kV, 1200 A primary (VCP-T breaker up to 25 kAIC)
- Up to 600 V, 6000 A secondary¹ (Magnum DS breaker up to 100 kAIC)
- Main structure is 24.00 inches wide by 91.00 inches deep
- Standard coordination available to Eaton dry-type or cast-coil substation transformers

Features

- Shorter approval drawing lead times
- Fewer control wiring interconnections
- Improved transformer access—transformer is not sandwiched between primary and secondary equipment
- Reduction of arc-flash hazard by incorporating VCP-T primary breaker with Arcflash Reduction Maintenance System™ trip unit

IUS standards

The integrated unit substation primary/secondary breaker section is UL Listed. The IUS complies with ANSI C37.20.1 and ANSI C37.51 for the low voltage compartment, and ANSI C37.20.3 for the medium voltage compartment.

Low voltage power switchgear distribution sections are UL 1558 Listed and comply with ANSI C37.20.1.

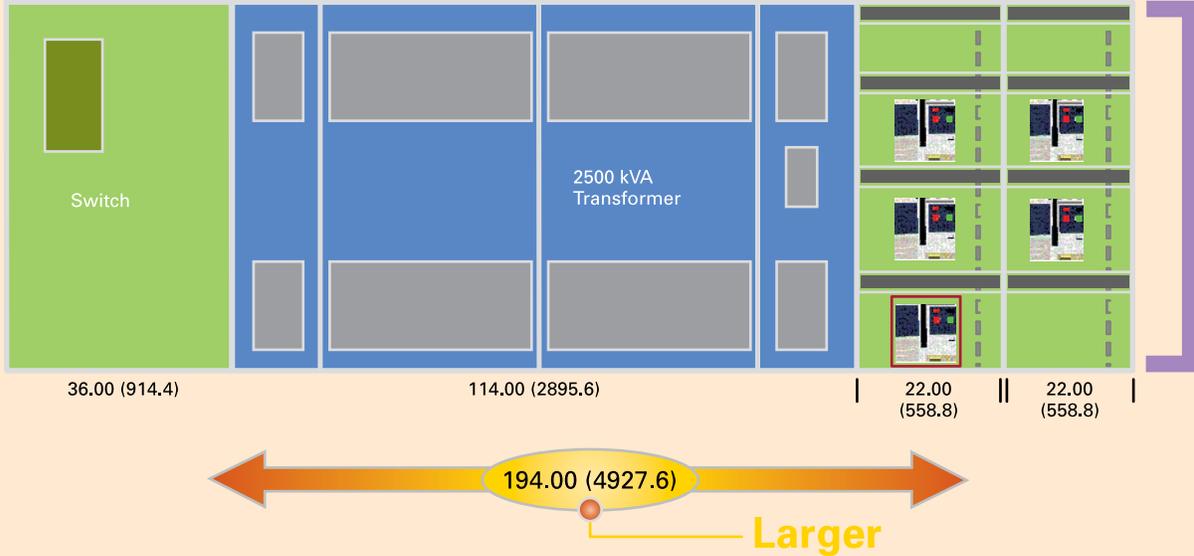
Transformer sections are UL 1562 Listed and comply with ANSI C37.30.

¹ For main breaker applications 4000 A or above, a separate 44.00-inch structure is required beside the main 24.00-inch structure.

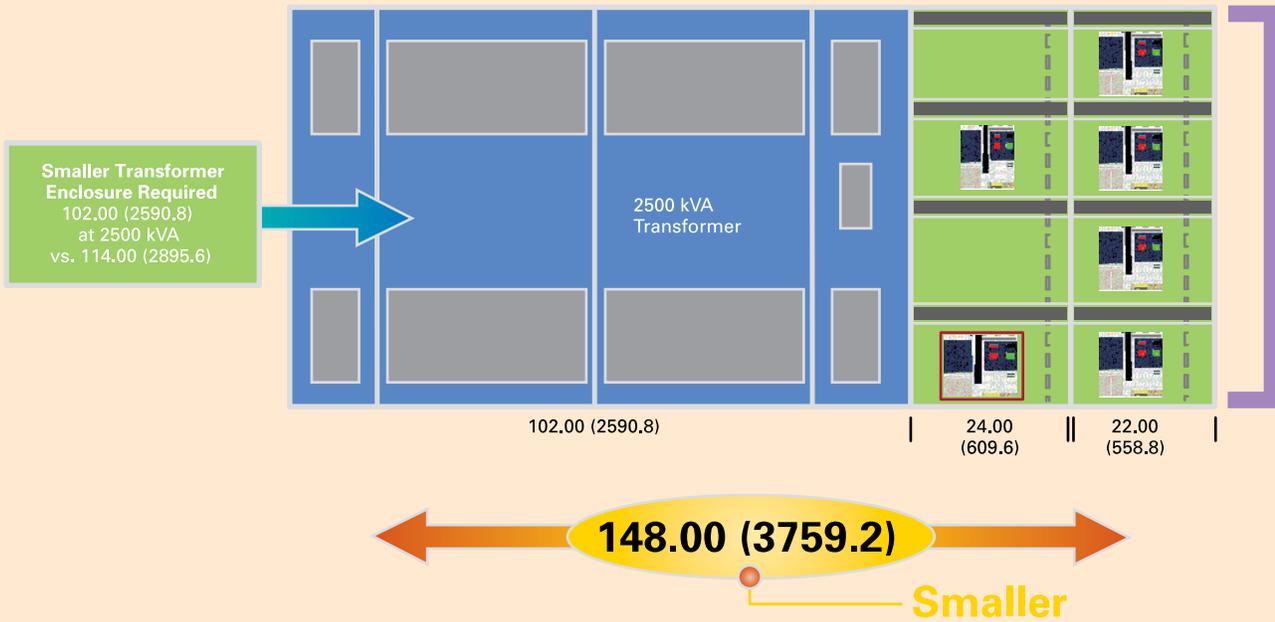


Powering Business Worldwide

Traditional Unit Substation



Integrated Unit Substation



Overall savings of 4 feet for this arrangement.

Typical substation configuration—dimensions in inches (mm)

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