

FLEXSUB



MINIMIZE
FOOTPRINT

MAXIMIZE
PERFORMANCE



ENGINEER . IMPLEMENT . MAINTAIN .



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Prime Engineering Ltd has developed a compact and flexible unit substation package providing a dead front service entrance approved solution with close-coupled medium voltage incoming equipment, distribution transformers and secondary low voltage equipment.

Our unit substations can be designed with pad mounted transformers and completely tamper-proof design or outfitted with substation style transformers with a host of options and configurable capabilities, including utility metering (primary or secondary), various cable incoming/outgoing configurations, as well as cutting edge safety add-ons such as arc flash sensors, and other arc flash reduction methods. We offer unit substations with primary and secondary voltages up to 34.5kV.

With integrating the transformer and low voltage distribution in one package our unit substations provide significant savings in cabling costs, losses and overall footprint, while also being extremely flexible to your site's needs.

SAFETY

THE FLEXSUB IS BUILT WITH SAFETY IN MIND
HERE ARE SOME OF IT'S KEY FEATURES:

- **DEAD FRONT:** Medium voltage connections are dead front, 900A Rated Dead Break Elbow connections, the first BC Hydro utility approved connection of this type;
- **INTERLOCK:** Switch and breaker are mechanically interlocked to prevent mis-operation;
- **GROUNDING SWITCH:** Switchgear can be provided with a grounding switch to ground either the incoming or outgoing cables on the MV side;
- **SEALED:** The medium voltage section is protected against dust, dirt, moisture and rodents which contributes to our unit substations being more reliable and able to withstand much harsher environments than tradition unit substations;
- **PROTECTION:** Optional integrated multi-function protection and current transformers allows for advanced protection features such as differential protection, arc flash sensing, inrush restraint and more.

FEATURES

1

Both medium voltage switchgear and transformers can be provided with biodegradable liquid with high flash points acceptable for both outdoor and indoor installations. Liquid filled transformers can be provided with a plethora of contacts and gauges for SCADA or informational purposes, as well as built in oil containment pans. The transformers are available in liquid filled, dry type VPI, Epoxy and Cast coil, and can be provided with either Aluminum or Copper windings.

2

We can offer unit substations on a pad or skid mount topology or trailer complete with cable or mining plugs for ease of transportation and future re-location.

3

Medium voltage protection can be provided by way of a Vacuum Fault Interrupter (VFI) breaker section, and the entire VFI assembly is provided with an industry leading compact size for utility incoming cabling, visible disconnect switch, grounding switch, breaker and protection.

4

Substation can be provided with dual secondary voltages (such as separate 600VAC bushings or 480VAC and 600VAC bushings), multiple medium voltage feeder outputs, and feed through transformers.

5

Protection is offered in either self-powered phase and overcurrent protection or full multifunction digital protection systems incorporating:

- TRANSFORMER DIFFERENTIAL PROTECTION
- ARC FLASH OPTICAL SENSOR INPUTS
- VOLTAGE PROTECTION AND MORE.

