



Engineering Services / Electrical Control & Distribution Systems / Transformer Manufacturing / Precision Fabrication / Rebuild Services / Product Distribution / Equipment Rentals

DRY TYPE POWER TRANSFORMERS

Intermountain Electronics specializes in designing and manufacturing custom dry type power transformers for the mining, industrial, and utility markets. With over twenty years of experience in designing electrical equipment and our long standing commitment to quality and customer service, Intermountain Electronics will design and build the transformer that is right for your specific application.

CAPABILITIES

- 5 KVA – 3333 KVA, single phase transformers
- 50 KVA – 7500 KVA, three-phase transformers
- 120 volt – 21,000 volt range
- 10 KV – 110 KV Basic Impulse Level (BIL)
- Current limiting reactors
- Neutral deriving zigzag transformers

WINDINGS

Intermountain Electronics uses state-of-the-art winding machines equipped with variable air actuated tension for each spool of wire and secondary clamp tensioning. This equipment, along with using only copper as our standard material, produces a tighter coil which ensures maximum durability against short circuit stress. As a standard procedure, we use only Class H, 220°C insulation (including Nomex® Aramid paper) to withstand high temperature rises for longer transformer life.

VARNISH IMPREGNATION SYSTEM

To provide maximum protection for the transformers we build, Intermountain Electronics uses a two-step process as our standard procedure. First, using an environmentally friendly, solvent-free varnish, we vacuum impregnate every coil we build. Once the coils have been vacuum impregnated, we dip and bake the entire transformer assembly. The advantages of our Vacuum Pressure Impregnation (VPI) process are:

- Superior penetration of varnish for maximum protection against moisture and contaminants
- Improved heat dissipation to help eliminate hot spots and extend transformer life
- Eliminates air pockets which can occur during typical dip and bake processes thus making the transformer less susceptible to tracking and corona issues
- Extends transformer life by helping to protect against coil movement





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CORE STEEL

As our manufacturing standard, transformers built by Intermountain Electronics are made with thin laminations of grain oriented core steel to reduce core losses, transformer size, sound level, and to increase efficiency. Our use of M-6 grade core steel stacked in a butt-lap construction produces a high quality dependable transformer that has been the workhorse of mining, industrial, and utility applications for many years. As a leader in transformer design and construction, Intermountain Electronics has responded to the ever increasing demand for energy efficiency by now offering low loss, high efficiency transformers. By using a step-lap mitre construction in the core and more efficient grades of core steel, we can reduce the core losses of a transformer by more than 50%, thereby greatly increasing the efficiency. Although mining transformers are not included in the Department of Energy mandate for higher efficiency transformers by January 1, 2010, many customers are already evaluating the long-term benefits of higher efficiency transformers in the face of increasing energy costs. Ask Intermountain Electronics to develop a payback chart for your current and future applications.



QUALITY ASSURANCE

Using our state-of-the-art testing equipment, Intermountain Electronics tests every transformer to satisfy the standards required by ANSI C57.12.01 (General Requirements for Dry Type Transformers). Once programmed, our testing equipment eliminates human error and ensures the highest quality transformers that meet all IEEE, ANSI, and NEMA standards. Once testing is completed, a computer-generated report is printed and a copy is given to the customer for their records. Intermountain Electronics also offers Remote Viewing for the testing of individual transformers. This time and cost saving capability allows the customer to witness their transformer being tested from the comfort of their office. Upon request, Intermountain Electronics has the capability of providing a range of design tests and optional tests such as impulse, partial discharge, temperature rise, sound level, and others.

OTHER FEATURES, BENEFITS, AND SERVICES

- Optional high voltage epoxy end caps provide additional protection against moisture and contaminants
- Low profile 5-leg core and single phase transformer design and construction allow for higher KVA transformers in low ceiling environments
- Emergency replacement or fast turn-around repairs reduce down time
- Rental units available for down times or during repair of customer's own transformer