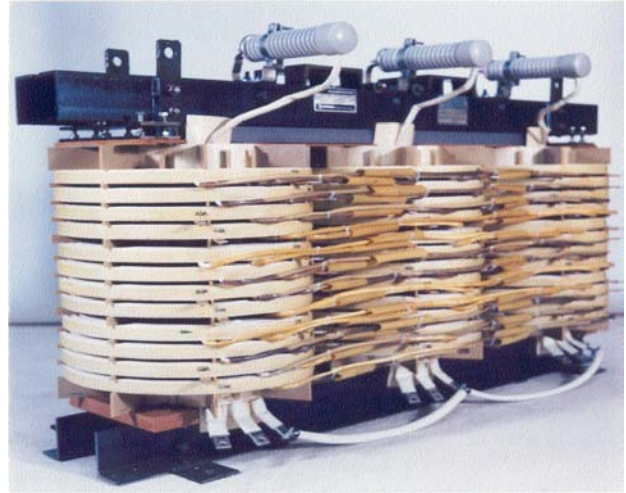


## RECTIFIER TRANSFORMERS

### General Description

HITRAN manufactures a varied line of transformers specifically designed for the rigors associated with Power Semiconductor converter loads. These transformers are uniquely designed to handle the unusual eddy current and harmonic current losses typical in these applications. These transformers are also designed with very rugged mechanical integrity due to the short circuit conditions that often exist in these applications. A common application for these transformers is multi-pulse variable speed motor drives. Hitran engineering has developed designs for a variety of drive topologies requiring special consideration for phase shifting, special BIL ratings, footprint reduction forced cooling, efficiency, impedance, and other custom requirements.



### Standard Features

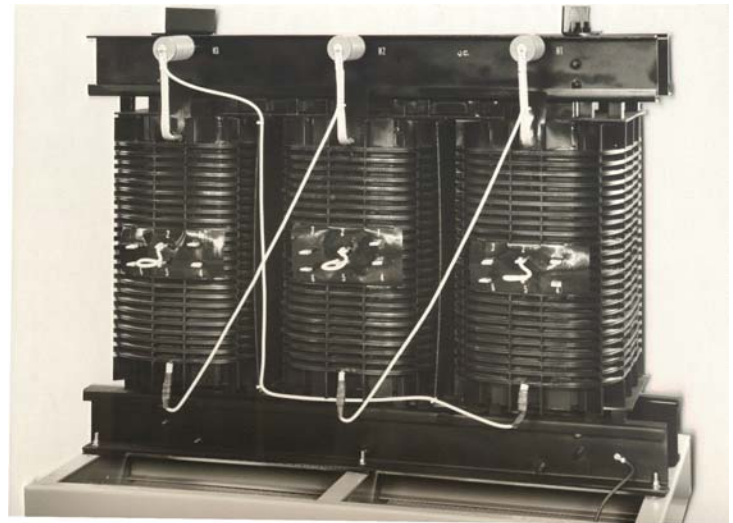
**Reliable** – UL listed 220°C Class insulation system. Typically a 150°C rise over a 40°C ambient is specified but other temperature rise requirements can easily be handled. Extensive life using low dielectric gradients is a design objective in all cases.

**Quiet** – Precision core assemblies of high quality grain oriented silicon steel and coil configurations are designed to minimize vibration and noise. The units are completely varnish impregnated to assist in noise reduction.

**Versatile** – Full capacity primary taps are often used to accommodate installation requirements and supply variations. NEMA space requirements for terminations and wire spacing are followed.

**Durable** – Standard NEMA enclosures are available for most indoor and outdoor applications. Many enclosure variations are available. All enclosures include phosphatized steel painted with a long lasting enamel finish. All outdoor enclosure utilizes a 2-part enamel finish for extra durability.

**Design Standards** – Typically these units are designed to comply with ANSI/IEEE C57.12.01, C57.12.50, C57.12.51, C57.18.10, NEMA ST-20 and UL 1562. Testing is usually per ANSI/IEEE C57.12.91 and C57.18.10.



### Optional Features

- ◆ CUL Listing or recognition
- ◆ Lower temperature rises
- ◆ Duty Cycle compensation
- ◆ High Altitude applications
- ◆ Various enclosure configurations
- ◆ Thermal guards to protect against overheating due to excessive loads
- ◆ Complete customization to meet specific customer requirements