

Chemical

High Power Transformer Rectifier Systems For Electrochemical Applications

Added Benefits of Power Electronic Systems Supplied by Neeltran — Robust and Reliable Power to run your processes.

At Neeltran, we are uniquely positioned as one of the few companies in the world that designs and manufactures its own transformer rectifiers and rectifiers in the same facility under one management team. This unique capability allows for combined **Full Current and Full Voltage** factory testing of the transformer and rectifier in their actual configuration prior to shipment.

An experienced client requires combined testing to eliminate integration problems at the site and to assure the shortest commissioning time, resulting in significant cost savings and the highest quality units.

Neeltran possesses multi-industry, engineering, and manufacturing experience that helps us to be flexible and design products that meet your specific technical and safety requirements. Neeltran offers oil cooled transformer with water cooled rectifier as well as water cooled transformer with water cooled rectifier which is the lowest cost solution (green solution).

Electrochemical markets served: Chlorate, Chlor-alkali, Chlorine, Hydrogen and all other gasses and chemicals that use electrolytic processes.

PRODUCT DETAILS:

- Latest safety features
- Design to all types of environments
- Remote monitoring via PLC modem
- State-of-the-art Neeltran control boards with Microprocessor based controller available
- All types of PLC's available for ease of interface to customers systems
Semiconductor Plasma Arc protection available
- Diode and SCR
- On Load Tap Changer available, in all cases including NLTC tap changer will have its own separate oil supply
- Multiple DC current measurement types available
- EMF, RFI and Magnetic studies available
- FEM analysis available System coordination study available
- Harmonic studies available
- Complete ANSI and/or IEC testing available

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General Specifications

Three-phase supply voltage main by customer	V_{ac}	up to 69000
Maximum power	kVA	up to 65000
Three phase voltage on the secondary	V_{ac}	up to 1500
Frequency	Hz	50 / 60
NLTC or OLTC		No Load and On Load Tap Changers
DC Current	A_{dc}	up to 200000
DC Voltage	V_{dc}	up to 1100
Rectifier Connection		Bridge or Star
Pulses		6 / 12 / 18 / 24 / 36 and more
Control card type		Digital or Analog, hard wired or OPTO
Accuracy of the constant current control system		±0.5%
Transformer Cooling		Oil to Water / Oil to Air
Transformer Manufacturer		Neeltran
Transformer Oil Type		Mineral / FR3 / Silicon
Metering		Shunt / LEM / Primary CT
PLC		Allen Bradley or Siemens, others available. Dial in Modem or Cellular modem for diagnostics
Rectifier Cooling		Deionized Water to Water / Deionized Water to Air
Rectifier Enclosure Type		Compact / Semi-walk in / Walk in
Rectifier Manufacturer		Neeltran
Rectifier power section material		Aluminum or Copper
Rectifying elements		Thyristors / Diodes / IGBT
Redundancy		N+X
Line Up Testing Available		Combined Test at Neeltran Factory

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