

Metal refining and Electrowinning

High Power Transformer Rectifier Systems For Electro Winning and Metal Refining Applications

Added Benefits of Power Electronic Systems Supplied by Neeltran – Robust and Reliable Power to run your 24/7 processes.

At Neeltran, we are uniquely positioned because we are 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. This results in significant cost savings and produces 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 transformers with water cooled rectifiers as well as complete water cooled systems including the transformer which is a green solution as well as lower cost.

Markets served for electrowinning and metal refining dc power supply: Copper, Nickel, Zinc, Cobalt and other non-ferrous metals that use electrolytic processes.

Product Range: 5 kA to 60 kA per 6 pulse unit, multi-pulse configurations with total process up to 270 kAdc available.

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 customer systems
- Semiconductor Plasma Arc protection available Diode units available.
- On Load Tap Changer available, in all cases including NLTC tap changer will have its own separate oil supply.
- Design to local environment, altitude and cooling conditions with all cooling system types available Multiple DC current measurement types available.
- EMF, RFI and Magnetic studies available FEM analysis available.
- System coordination study available.
- Harmonic studies available.

Metal refining and Electrowinning

General Specifications

Three-phase supply voltage main by customer	V	up to 69000
Maximum power	kVA	up to 10000
Three phase voltage on the secondary	V	up to 300
Frequency	Hz	50 / 60
NLTC or OLTC		No Load and On Load Tap Changers
DC Current	A	up to 60000
DC Voltage	V	up to 300
Rectifier Connection	ANSI - IEC	Bridge or Single Way
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		ONAN-ONAF-OFAP-OFWF-KNAN
Transformer Manufacturer		Neeltran
Transformer Oil Type		Mineral, FR3, Silicon
Temp class		105°C
Installation		Indoor or Outdoor
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

Neeltran, Inc.

+1 860.350.5964 Phone | +1 860.350.5024 Fax | 71 Pickett District Road | New Milford, CT 06776, USA
Web: Neeltran.com | Email: sales@Neeltran.com