

# 2500 HP 12 Pulse DC Drive System Specs

#### **Motor**

- 2500 HP Shunt Wound DC
- 20,200 lbs./ft. Torque (constant torque from 0 RPM to 650 RPM)
- 700 VDC
- 2900 DC FLA Armature
- 40 DC FLA Field (site dependent setting)
- 650 RPM base speed
- Insulation Class F
- Originally manufacturered by EMD as locomotive generator
- Re-engineered by Quad Plus to be used as a recycling duty DC motor

#### **Transformer**

- 3000 KVA
- Medium voltage primary
  - Site dependent.
     Transformer is custom designed per site specs
- Special Rectifier duty design
- Impedance as specified by Quad Plus
- Can be two single 1500 KVA (i.e. Delta/Delta & Delta/Wye)
- Single 3000 KVA three winding transformer
- 600 VAC Secondaries

#### **Drive Enclosure**

- 12 Pulse Design
- Two custom designed DC chokes (mounted external to drive enclosure)
- 600 VAC Input
- Designed for 150% maximum overload
- 72 ° Ambient Temp

### **Operational Data**

Note: Values are listed in DC Amps and AC KVA. Use KVA to calculate primary AC amps as required.

FLA: 2900 DC Amps (2352 KVA)

Empty Mill Starting Current: 870 DC Amps (706 KVA)

Average Running Current: 2465 DC Amps (1999 KVA)

Maximum Potential Overload: 4060 DC Amps (3293 KVA)\*

Average Power Factor: 0.90\*\*

Voltage Tolerance: +/- 10%

- \*Maximum overload allowed for 60 continuous seconds once every 15 minutes.
- \*\*DC motor power factor is directly proportional to RPM of the machine. Power Factor is dependent on operation of the machine.

System is available at 6 pulse, 12 pulse (as listed), 18 pulse, or 24 pulse designs. Design type is chosen with completion of power study.

## **About Quad Plus**

Quad Plus provides industrial control systems, solutions, and services. We offer an uncompromising level of service and expertise to maintain our customers' productivity. Our extensive process knowledge spans from the utility pole to the motor shaft. With an on-going commitment to follow-up service, parts, and repairs, we are all you need for continued success.

We are recognized in the field as a leader in drive and motor control. Solutions are designed in-house through research and development tailored to meet each client's specific needs. Our design staff includes electrical, mechanical, civil/structural, chemical, and controls.















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