

# 7500 HP (Belted) 18 Pulse DC Drive System Specs

#### **Motor**

- 7500 HP Shunt Wound DC (Qty 3 2500 HP motors- belted)
- 60,577 lbs./ft. Torque (constant torque from 0 RPM to 650 RPM)
- 1.44:1 Gear Ratio: Effective rotor torque: 87,500 lbs./ft
- 700 VDC
- 8700 DC FLA Armature (total)
- 40 DC FLA Field (site dependent setting)
- 650 RPM base speed
- Insulation Class F
- Originally manufactured by EMD as locomotive generator
  - Re-engineered by Quad Plus to be used as a recycling duty DC motor

#### **Transformer**

- 9000 KVA (three 3000 KVA units)
- Medium voltage primary
  - Site dependent.
     Transformer is custom designed per site specs
- Special Rectifier duty design
- Impedance as specified by Quad Plus
- Three single 3000 KVA three winding transformers
- 600 VAC Secondary

#### **Drive Enclosure (Three total)**

- 6 Pulse Design
- 600 VAC Input
- Designed for 140% maximum overload
- 72 ° Ambient Temp

#### Operational Data (Entire System)

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

FLA: 8700 DC Amps (7057 KVA)

Empty Mill Starting Current: 2610 DC Amps (2117 KVA)

Average Running Current: 6960 DC Amps (5645 KVA)

Maximum Potential Overload: 12,180 DC Amps (9879 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.

### **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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