

Implementation of high-voltage soft start

Customer: JSC “Arcelor Mittal Temirtau”

RECONSTRUCTION OBJECT SPECIFICATION

The Sinter Plant is situated on the Arcelor Mittal Temirtau territory. It is used for slaughtering and sinter supply for the blast-furnace shop. To increase plant productive capacity, in addition two cone crushers HP – 400 were installed.

According to the producer factory recommendation, crusher is completed by phase-wound rotor induction motor with power 320 kv 400 W, which provided shockless start. However, phase-wound rotor induction motor control system required continuous technical service of line contactor equipment. Also for motor connection on voltage 400 v, it was required additional line transformers 6/0,4 kv installation. Because of this, it was decided to install cage induction motors on voltage 6 rv on the crusher motors. It was solved to use soft start high voltage device for crusher soft start providing.

Requirements to the high voltage soft start system

- It's necessary to achieve soft start, providing optimal way of current and moment reducing during motor start.
- To provide standart protection to the high voltage electric drive.

SOLUTION AND SOFT START SYSTEM CHARACTERISTICS

To implement this project it was chosen soft start of series HRVS-DN from the delivery “SIEMENS” Ltd., which answered all technical requirements. HRVS-DN is difficult and high super-reliable device. Soft start runs the motor by slowly increasing voltage supplying on it, providing soft start and soft acceleration.



Project implementation period

Project implementation period is a month (without equipment supply).
Commissioning is December, 2007.

