CUSTOMER STORIES

OPTIMIZING AND PROTECTING DC CIRCUITRY IN REGENERATIVE BRAKING APPLICATIONS—WITH ALLOYS THAT BUILD BETTER RESISTORS

Many of today's most innovative braking resistor OEMs design their solutions around Isabellenhütte's exclusive alloys and capabilities

CHALLENGE

When three-phase electric motors are also being used for power generation, it is essential to ensure DC link voltages are controlled and that valuable components are protected from overloads. Likewise, when braking resistors are part of an emergency braking design, utmost reliability and performance are required. Therefore, manufacturers of braking resistors insist on materials that perform technically and economically—with steady supply and customer support.

SOLUTION

Our high-ohmic alloys are a vital element in a variety of the world's leading braking resistors, including specialized flat resistors designed for continual high-friction/high-temperature performance. Our alloys ISAOHM®, ISOTAN®, and ISA-CHROM (30, 60, and 80) are homogenous solid-solution alloys that are annealed and stabilized—resulting in outstanding long-term stability and guaranteeing a linear TCR and highly homogenous specific resistance over the entire spool.

APPLICATION

Emergency braking systems, regenerative braking, DC circuit protection, railway brake resistors, drive technology, machine tools/peak-load, safety systems for elevators/lifts, solar energy generation