

Drive computing

The traction motors are computed for the current at continuous work-point (in blue dot-dashed line) or nominal current. Motors can be overloaded during a limited time, using the thermic inertia of metallic parts, without overheating of the most delicate parts (red hatching on the diagram). More the work point is distant from the continuous regime, shorter is the time to reach the maximal heating of components.

The work-point is adjusted by the voltage and the frequency of the three-phase system. The speed is mostly adjusted by the frequency and the torque by the voltage or the slip.

For the semiconductors devices, chopper in this case, there is not thermic inertia. The converter has to be computed for the maximal power. (♦ - - ♦).

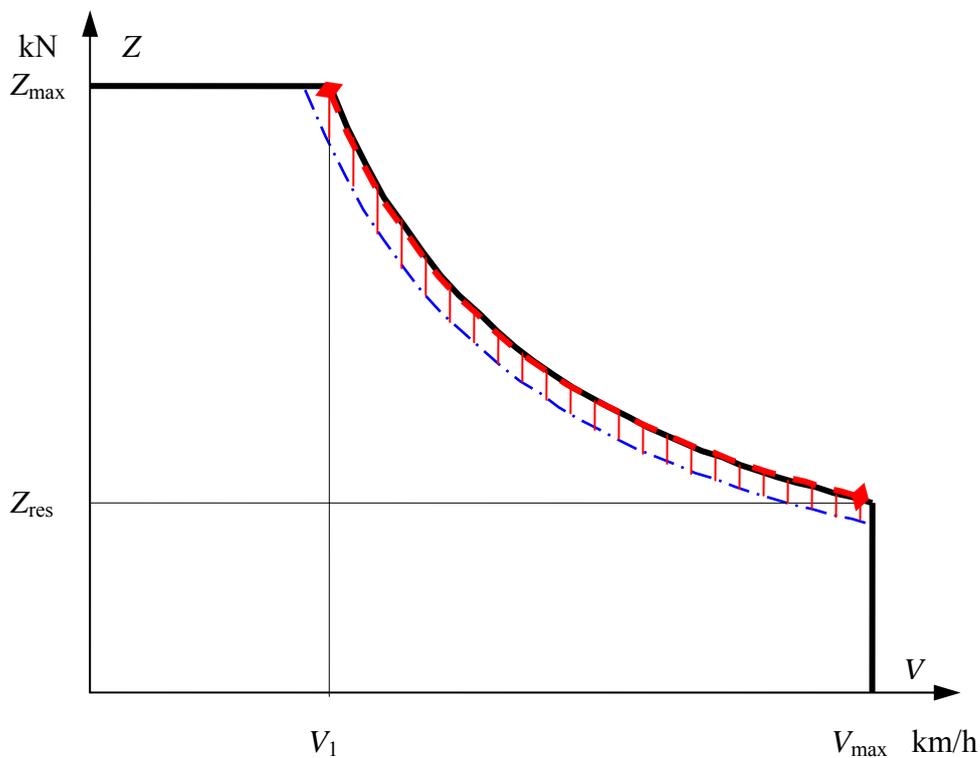


Fig. 4.164C Characteristics for an induction motor supplied by a three-phase inverter.

