



Magnetic powder clutch Magnetic powder brake

Operational areas:

- **decoiling brake / wind up**
- **torque controls**
- **torque limits**
- **speed controls**
- **clutch operations**
- **start controls**



The magnetic powder clutch respective brake achieves at low control power a high torque being independent from the slip speed. It distinguishes itself by a simple construction, low weight and small required space.

Due to this advantage the clutch resp. brake is used for the solution of many technical problems. For the various applications also appropriate control devices are necessary. Field-tested devices of this kind are at disposal.

A great advantage for the control engineering are the characteristic curves of the magnetic powder clutches and brakes. By changing the exciting power force, the torque to be transmitted can be adjusted infinitely variable in the range 1:50.

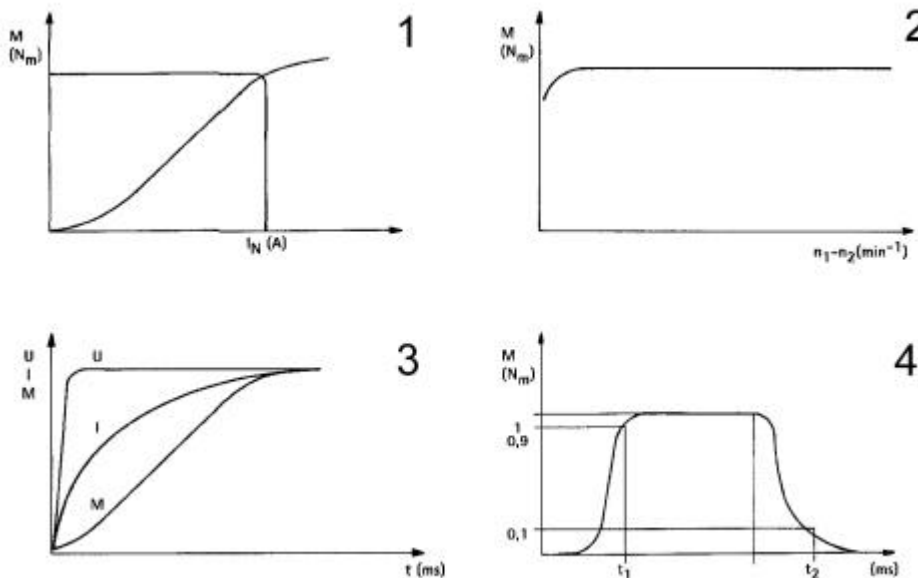


Diagram 1: The torque to be transmitted and the exciting current behave to each other just about proportionally.

Diagram 2: In case of a fixed exciting current, the torque will be independent from the difference speed of the two rotors.

Diagram 3: When switching on, the torque builds up time delayed. A synchronistic power switching results in shorter switching times than switching on the mains side.

Diagram 4: The switching times for the clutches and brakes can be improved, in switching an ohmic resistance with the field coil in one row.