**Motor Rollers - Overview**

### Feature

- Built-in motor and gear enable space savings for driving mechanisms.
- Requires no maintenance such as lubrication.
- Use of multiple Motor Integrated Rollers prevents manufacturing line stoppage due to one roller failure.

### Circuit Layout Diagram

3-Phase, 200V:

- For reverse rotation, switch white and black leads of motor rollers.
- The motor rollers are in a direction other than originally designated, switch two of the three power leads.

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**Selection Method**

1. **Calculate the required tangential force**

   Formula for the Required Tangential Force

   \[
   \text{Required Tangential Force (N)} = \text{Carrying Weight} \times \text{Rolling Friction Coefficient} \times \text{Object Length (m)}
   \]

   (Rolling Friction Coefficient Chart)

   - Wood
   - Metal
   - Cardboard
   - Plastic
   - Rubber Lining

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**Sample Calculation**

When carrying a cardboard box of weight 40 kg:

- From the above Rolling Friction Coefficient Chart, maximum friction coefficient for cardboard is 0.10.
- Required Tangential Force = 0.8x40[40]/0.10=32.8N

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