

## MTP ENERGY SAVING RELAY DETERMINATION

To select an MTP starting relay for a single phase motor PTCs-CR type, PTCs-IR type or RSIR type, make the following checks and tests:

## A - PTC RESISTANCE SELECTION

On PTCs-CR or PTCs-IR motor use same PTC resistance.

On RSIR motor the PTC resistance must be selected in order to replace an equivalent resistance of the start winding coil (reverse turns resistance).

## **B - PICK UP CURRENT (PU)**

(This is the value of current at which the relay must close the contacts)

- 1. On PTCs-CR motors open the PTC connection leaving the run capacitor in the circuit. On RSIR or PTCs-IR motors disconnect the start winding.
- 2. Supply the motor at minimum supply voltage.
- 3. Read the Locked Rotor Current of the main winding when this is hot: winding temperature should correspond to motor thermal class.

Choose a relay with maximum Pick up by 2% lower than B3 value.

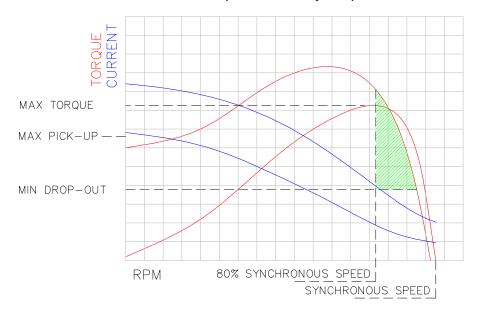
The higher the relay PU, the lower the energy consumption of relay coil.

## C - DROP OUT CURRENT (DO)

(This is the value of current at which the relay must open the contacts)

Check that the drop out of the chosen relay always happens at a speed higher than 80% of the synchronous speed.

At high speed the PTC element can warm up before relay drops out.



The application must be tested in all field conditions before approving the chosen relay.

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