

To select a starting relay for a two capacitors, single phase motor (CSCR type, capacitor start, capacitor run motor) make the following tests:

A – MAXIMUM VOLTAGE (Vmax)

(This is the continuous voltage the relay coil can withstand without exceeding its maximum rated temperature)

1. Supply the motor with maximum supply voltage.
2. Read the start winding voltage, with only the run capacitor in the circuit, at maximum RPM (synchronous speed, no load condition).
3. Select a relay coil with maximum rated voltage equal to or higher than the measured value.

B – PICK UP VOLTAGE (PU)

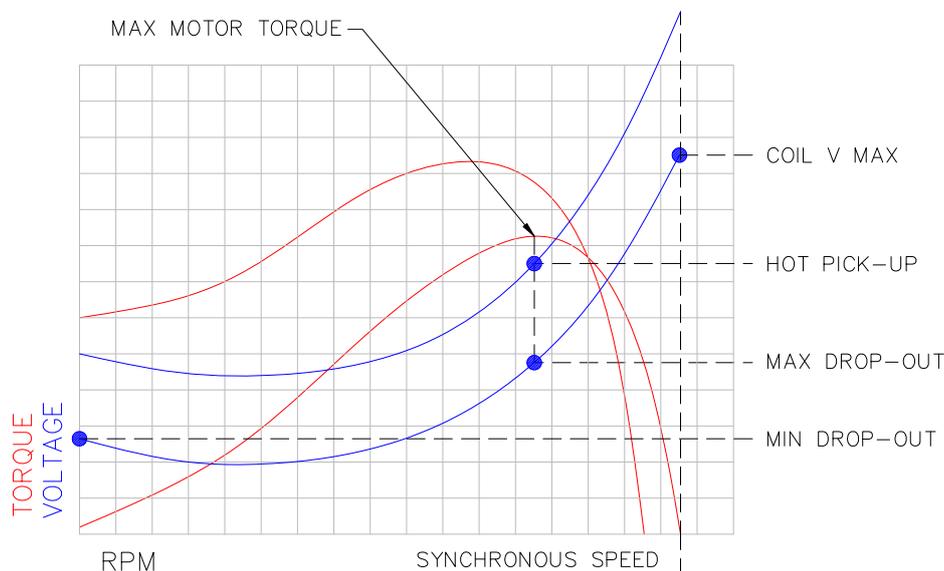
(This is the value of voltage at which the relay must open the contacts)

1. Supply the motor with maximum supply voltage.
2. Read the start winding voltage, with both capacitors in the circuit, at the maximum torque or breakdown torque: normally at about 80% of synchronous speed.
3. Select a relay with a corresponding Hot PU (H.P.U.).

C – DROP OUT VOLTAGE (DO)

(This is the value of voltage at which the relay must re-close the contacts)

1. Supply the motor with minimum supply voltage.
2. Read the start winding voltage, with run capacitor only in the circuit, at the same speed chosen for the PU selection and at 0 RPM.
3. Relay Drop-Out range should be between the two measured values.



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