

Run Capacitor sizing can vary depending on the incoming supply voltage provided. HOMA Single Phase pumps are provided with a Start and a Run Capacitor sized for 220-230V under load. Frequently, the available line voltage is considerably different than indicated, and the start or run capacitors may need to be resized to match the available field voltage. The following procedure will allow you to verify proper operation of your single phase pump, and/or make necessary changes to your capacitors to correct for your power supply.

After verifying wiring is in accordance with your pump requirements, start pump and record the following readings from each of the (3) pump cable leads.

Current under load:

U1 _____ Amps > U2 _____ Amps > Z2 _____ Amps
 Should be: (highest reading) (middle reading) (lowest reading)

Lead U1 (common) should have the highest current reading. Lead Z2 (start) should have the lowest reading.

If Z2 current draw is greater than the current draw of either U1 or U2, a smaller size Run capacitor (lower microfarad rating) is required to correct the condition. Example: If a 60 µf Run capacitor was supplied, change to a 50 µf Run capacitor and check current readings. Typically, only one step down in capacitor size is required, but in certain instances 2 steps may be required.

The standard capacitor kit provided includes: _____ µf start capacitor
 _____ µf run capacitor

Additional run capacitors have been included for use in tuning the pump to match available line voltages for optimum performance:
 _____ µf run capacitor
 _____ µf run capacitor
 _____ µf run capacitor

Capacitor Sizing Chart

GRP 10/1 – 21/1	25µf @ 370V Run Capacitor	50µf @ 330V Start Capacitor	PN#: 8857005
GRP 26/1	40µf @ 370V Run Capacitor	80µf @ 330V Start Capacitor	PN#: 8857010
GRP 28/1 – 41/1	50µf @ 370V Run Capacitor	150µf @ 330V Start Capacitor	PN#: 8857015
GRP 44/1	70µf @ 370V Run Capacitor	320µf @ 330V Start Capacitor	PN#: 8857084
GRP 58/1	120µf @ 370V Run Capacitor	200µf @ 330V Start Capacitor	PN#: 8857025
GRP 78/1	120µf @ 370V Run Capacitor	300µf @ 330V Start Capacitor	PN#: 8857030
GRP 59/1	100µf @ 370V Run Capacitor	350µf @ 330V Start Capacitor	PN#: 8857085
GRP 79/1	120µf @ 370V Run Capacitor	350µf @ 330V Start Capacitor	PN#: 8857090

7.5 HP and larger motors require multiple run and start capacitors to achieve the necessary capacitance value. Refer to the capacitor wiring diagram supplied with each capacitor kit.