

ET332a
Shunt Machine Speed Regulation

A 600 V, 75 hp, 1200 rpm shunt motor absorbs 64,570 Watts when delivering rated power output. The total armature circuit resistance is 0.169 ohms. The motor uses standard graphite brushes. The field resistance is set at 125 ohms.

- a.) compute the total rotational losses operating at rated output.
- b.) compute the motor speed regulation
- c.) compute the motor efficiency operating at full load