

MQ POWER

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Denyo Alternator Design Characteristics

- Synchronous, drip-proof, air-cooled construction.
- Single bearing, four pole, 10-lead reconnectable, revolving field alternator design.
- Main rotor uses dynamically balanced amortisseur windings.
- Insulation system consists of vacuum impregnated windings, with two applications of fungus resistant, epoxy varnish.
- Temperature rise for rotor and stator at full load will not exceed allowable temperature standards, per Japanese Industrial Standards (JIS), for Class F insulation systems.
Note: Based on JIS testing at 40°C ambient, the temperature rise of the alternator, at full rated load, will not exceed 85°C.
- Total harmonic distortion (THD) will not exceed 5% of rated voltage at full load and no single harmonic will exceed 3% of rated voltage at full load.
- Excitation system is brushless, utilizing full wave silicon diodes with surge protection and excitation overload protection.
- Excitation system is powered by a separately derived, three phase, open delta exciter, designed for maximum motor starting capability and isolation from non-linear loads. Permanent magnets are provided in the construction design to provide rapid voltage build-up and sustained 300% short circuit current.
- The voltage regulator is solid-state, temperature compensated, using pulse width modulation, capable of performing in the presence of non-linear loads.
- The voltage regulator is volts/hertz design, with frequency compensation, allowing frequency to decline in an adjustable manner before correcting output voltage in a linear manner. Voltage regulation from no load to full load will not exceed $\pm 1\%$.