B. The capacity of generator shall be rated at 55°C ambient temperature and the capacity shall be calculated taking into consideration:

a. Permissible starting current of the pump, using starter as per clause 4.8.12 – Motor Starter.

b. Initial torque and voltage requirements as per manufacturer's recommendations at the start of the pump.

c. Loads other than pumps connected to MCC.

1.2.24.2 Diesel Engine

A. The diesel engine shall be heavy duty, turbocharged, water-cooled multi cylinder 4stroke type, designed for cold starting, speed not exceeding 1500 RPM. The engine shall be continuously rated to give full load output under the worst climatic conditions.

B. The engine shall be fully equipped and designed for electric push button start / stop, automatic start / stop facility for remote auto start / stop and manual start and stop and shall be provided with heavy duty maintenance free acid batteries installed in a robust container including charger, automatic cut out and cables etc. Machines shall be suitable for locally available distillate fuels.

1.2.24.3 Generator (Alternator)

A. The generator shall be of the asynchron, self - exciting brush-less type IP 44 for mobile set and IP 22 for stationary set, class F insulation and shall be designed for 400/240 V, 3 phase, 50 Hz supply, providing a steady state voltage within +/- 5 % of the rated voltage under any load and equipped with anti condensation heater and thermostats.

1.2.24.4 Electrical Control Panel

A. A totally enclosed, dust proof, vermin proof, steel sheet cabinet of IP 54 class with following equipment and accessories shall be provided:

a. Main Triple pole MCCB (moulded case circuit breaker), 50 KA with adjustable thermal overload and magnetic short circuit protection.

b. Remote – start – modules with selector switch for Off / Reset lamp test, auto and manual including high intensity LED's indication system status, interlocking with protection devices to disable engine to start.

c. Protection for the alternator against overload and short circuit