



## Scope of Supply Diesel Generator Installed in Acoustic Canopy – AUTO Start

### **Diesel Generator Scope of Supply with Acoustic Canopy- Automatic Start**

#### **Industrial diesel engine:**

Water cooled, 4 stroke, 1500 rpm, direct injection complete with heavy duty radiator, cooling fan drive, fuel lift pump, fixed speed governor to Class A1, starter motor, battery charging alternator, air, oil and fuel filters with replaceable elements. Built to comply with ISO 3046, BS 5514 and DIN 6271. Fan guards fitted as standard. Water jacket heaters installed as standard.

#### **Alternator:**

Directly coupled to engine by means of an SAE flange to minimise torsional vibration and to provide smooth running of the set. Alternator is of brushless, Class H insulated for optimum performance in tropical environment, single bearing, self-exciting, self regulating and drip-proof type (IP 23) and include under speed protection. IEC34-1, CEI 2/3, NF51, 100, 111, VDE0530, BS4900 / BS5000 standards applied. Voltage regulation accuracy is maintained within +/-1% with load from 0 to 100%, speed from 2% to 5% and power factor range from 0.8 to 1 and balanced load. The rotor system is dynamically balanced to minimise vibration. Ventilation is provided by a shaft mounting centrifugal fan. Alternator screen protected enclosure is provided.

#### **Mounting arrangement:**

The engine and alternator will be mounted as a whole on a heavy duty fabricated steel base frame, complete with anti-vibration mounting pads for fixing between base frame and ground. Crane lifting arrangement is included.

#### **A.M.F Control panel:**

Vibration isolated control panel comprises protection fuses, automatic control module to adjust and control 23 various parameters with LED status indicators, emergency stop button, auto-manual selector switch, Gen-Mains selector switch and complete internal wiring to high standards covering terminals, relays, fittings and cables are clearly identified by numbers or named plates.

#### **A.T.S panel:**

Floor mounted or Free standing panel of prefabricated sheet steel, complete with suitably rated two changeover contactors with internal wiring covering fuses, terminals, fittings and cables, electrically and mechanically interlocked.

#### **Fuel tank:**

Base frame mounted bunded daily fuel tank is provided with diesel generator sets and it is complete with essential accessories comprising: filler, breather, feed and return lines, dial or tube type contents gauge. Over 700kVA a separate bunded fuel tank is supplied.

#### **Canopy:**

Constructed of treated sheet steel, complete with 5 x lockable doors for Maintenance access, internally installed acoustic reduction material, internally mounted exhaust with discrete outlet, radiator top up cover, four point lifting system, emergency stop button. Generator sets are sprayed to Industrial standards.

**Exhaust:** Industrial type silencer(s) rated at 65dba @ 1meter installed within acoustic enclosure.

#### **Batteries:**

Battery charger installed to charge the Heavy duty dry charged battery pack provided.

#### **Documents:**

Operation and Maintenance manuals (1set), and circuit diagram, test report supplied with each set.

#### **Testing:**

All Ability Power Limited generator sets are quality controlled and checked through various stages of assembly and finally load-tested and type plate fixed and certified before dispatch to ensure customer satisfaction.

#### **Warranty:**

Each generator set and components are fully guaranteed for defects in material and workmanship for a period of 12 months from the date of commissioning. Warranty is limited for a period of up to 18 months after the despatch date.