

TENDER NOTICE

125 KVA DIESEL SILENT GENERATOR SET SPECIFICATION (TURN-KEY BASIS)

Technical specification of DG Set

Supply, mechanical erection, testing and commissioning (including electrical work & approval from Electrical Inspectorate/KSSB) of **125 KVA Water cooled packaged** diesel generator , 6 Nos. inline type cylinders , turbo charged developing required BHP, 1500 RPM under NTP (Normal Temperature and Pressure) with 10% overloading factor, with microprocessor based digital display genset engine controller for monitoring, metering, protection, control system etc.

The safety protection/tripping module shall be for [LLOP (Low Lupe Oil Pressure), HWT (High Water Temperature), OS (Over speed), US Under Speed), auto fuel shut off solenoid, under voltage, over voltage, over current, under or over frequency, sensing failure, alarm hooter prior to tripping etc.] . The diesel engine shall be directly coupled [single bearing type] to an alternator [self excited/regulated brushless] with AVR, over a common base frame having radiator with fan, Mechanical/ Hygro Mechanical governor, starting panel [digital type], 12V/24V batteries with leads.

Inbuilt bottom mounted fuel tank [200 ltr.] with external type fuel filling facility comprising of steel fuel lid with fuel gauge meter, fuel bottom drain facility, residential silencer, in built Electrical Inspectorate/ KSEB approved floor mounted control panel, 6 Nos. B-class anti vibration pads/ bushes, stainless steel flexible couplings, flanges and all other standard accessories complete as required, including supply & erection of acoustic container, site delivery, unloading & aligning the generator set over the AVM pads on the inbuilt foundation/plinth.

External mounted steel fuel tank raised on suitable steel frame work with minimum 600 liter capacity with suitable pipe linkage connection to the inbuilt diesel tank.

A 250A change over switch (COS) shall be installed in the existing panel with associated cabling.

All accessories required for the satisfactory operation of the system shall be installed by the contractor.

All associated civil works shall be completed by the Contractor.

Specification of Acoustic Container

Supply and installation of factory per-fabricated, packaged, modular, sound proof container (detachable type) free standing, floor mounted type with inbuilt control panel, view glass door, bottom mounted diesel tank 200ltr. To accommodate a 125KVA water cooled diesel generator set, comprising of base frame of size 100mmx50mm MS C-channel, main frame of size 75mmx50mm MS C- channel, sub frame of size 1"x3mm MS angles, welded with 16g CR corrugated/plain sheet at the top/sides stacked with 2 nos.50mm, 48kg/m³ mineral wool stabs, edges/sides to be filled with loose glass wool, wrapped with RP tissue & finished with 22 g Al. Perforated sheet inside or with 1.5mm THKPVC + 25mm THK PU foam.

Acoustically treated ventilating louvers to be provided at both ends such that the hot air from the radiator shall be removed from the top of the container by making a separate tower construction at the radiator side and sealed with the main canopy such that the hot air from the radiator in any case cannot return to the container. Two acoustically treated sliding doors with handle & steel plated locks to be provided at both sides. All the locks, handle, hinges fuel lid cover etc. shall be of stainless steel type.

An emergency push button is to be fixed on the exterior body of the canopy to trip the set in the event of any emergency. There shall be proper provision on the base channel with rubber bush cover for the entry of cables/earth conductor etc. This shall include supply, fabrication and erection of the complete exhaust system vented to the roof top (Appox. Height 30M) with residential silencer [already provided]. Rain cap etc. [ie] necessary MS exhaust pipe with supports vented to the roof top, for a fool proof exhaust system, fuel lining [GI pipe] work etc. steel claddings for the exhaust pipe & silencer max. length 6M.

The container shall be well treated for antirust & corrosion, duty powder coated in two/three colours for body, top & base. The roof of the container shall be provided with rain guard arrangement by slopping the roof. The enclosure shall achieve a reduction in noise level to 65/70 reduction at a distance of 3M from the enclosure under normal condition and the temperature inside the enclosure to be maintained at max. +5% above the ambient temperature at all times. **The Acoustic container should be CPCB approved and shall confirm to all CPCB norms.**

Approved Make

- 1.Engine : Cummins/Kirloskar/Leyland/Kolar/Greaves
- 2.Alternator : Stamford/Crompton/KEL/Kirloskar
- 3.Batteries : Exide
4. AV pads : Dunlop or equivalent
5. Ammeter/voltmeter/frequency meter : A/E,MECO,rishab make/
6. MCCB : L&T/Merlin Gerin/C&S :
7. Power/Auxillary contactors : L&T/Merlin Gerin Telemecanique
- 8.LED indication lamps[solid state] : Siemens/BCH/Rishab/RAAS
- 9.CTs : Ganga/Kappa/Rishab
- 10.CT operated kWh meter : L&T/Enercon/HPL
- 11.Push Button : L&T/BCH
- 12.Control wiring : Finolex/Havells/ RR-Kable
- 13.AMF relay[EC2] : C&S
- 14.Acoustic container :Powerica/Kirloskar
Green/Leyland/Kolar/Greaves.

Tender forms can be downloaded from the University website www.universityofcalicut.info.

Cost of Tender form : Rs.450/- to be remitted as DD in favour of Finance Officer,University of Calicut

EMD : 1% of the quoted amount to be forwarded in favour of Finance Officer, University of Calicut.

The rates quoted should be inclusive of all taxes, charges and transportation etc.

Sealed and superscribed tenders should reach the undersigned on or before

23/06/2014.

Dr.M.A Joseph

Principal