

TECHNICAL SPECIFICATIONS
50 KVA SILENT DIESEL GENERATOR SET WITH AUTOMATIC PANEL AND INSTALLATION

- A. Supply, Installation, Testing & Commissioning of Silent DG Set complete with 1500 RPM Diesel Engine of suitable BHP & AC Brush less SPDP Alternator mounted on a common base Frame & coupled through a flexible coupling or close coupled. Alternator shall be self regulated with standard Alternator Protection (Over voltage, over speed & under voltage, under speed warning & shutdown). Engine shall have residential silencer, up to 3 M exhaust piping, electronic / Mechanical governor, Manual & electric Start, Batteries, Engine instruments panel, AVM and with Weatherproof, powder coated Acoustic enclosure for DG set for sound attenuation fabricated from **1.6 to 2.0 mm CRCA sheet** steel (structure) with side wall fabricated from **1.6 to 2.0 mm CRCA sheet** & filled with 100mm thick glass wool (96Kg/m³) / Foam. as per IS 8183 the doors of 100 mm thick and fabricated from 1.6mm CRCA sheet packed with acoustic material, All doors/ opening are sealed with neoprene/EPDM gaskets. The enclosure has built in fuel tank, residential silencer with protection and tripping of DG set
- B. Against temperature of more than 50 degree centigrade. All controls for operation of DG set are visible and accessible from outside the enclosure with DG control panel having Microprocessor based Genset monitoring & control system, MCCB, Ammeter, Voltmeter, PF meter, frequency meter, KWH meter, Ind.lamps etc. mounted inside enclosure. The enclosure should be suitable for following capacity DG sets and alternator. Noise level shall be less than 75 dBA at a distance of 1 Mtrs. duly certified by authorized agency etc. complete in all respect of following capacity.
- C. **A-Air Cooled & Naturally Aspirated/Radiator cooled/Turbo charged-**
- D. 50 KVA at 0.8 pf 415V 50Hz 3- ϕ
- E. SITC of Auto main failure (AMF) Panel fabricated from CRCA sheet steel 1.6 to 2 mm Thick , Powder coated finish , Engine Start & Stop commands, control Relays , selector switches based or composite multifunction meter for Ammeter & Voltmeter, Control & Power Contactors, Timers, Electronic Hooter ,Visual & Alarm indication for faults, UPS, operator interface panel complete in all respect suitable for following capacity DG sets:
- F. **PLC /Relay Based: 50 KVA**
- G. S/F of DG Set Exhaust Piping insulation on 80 mm to 150 mm Dia. MS Exhaust Pipe as per CPCB norms.
- H. Rock /Glass wool with 22 g Aluminum cladding (Density- 96 kg/m³, Thickness-50 mm)
- I. Construction of Platform of Size 3600 x 1800 x 600 mm including earth work ,150 mm thick concreting under masonry wall and C.C. floor , 30 mm thick masonry wall as required as per site condition and 75 mm thick C.C. floor, outer face of wall should be finished with 20 mm thick cement plaster complete with all respect
- J. Plate Earthing as per IS:3043 with copper Earth plate of size 600mm x 600mm x 3.0mm by embodying 3 to 4 mtr. below the ground level with 25 mm dia. G.I. 'B' class watering Pipe including all accessories like nut, bolts, reducer, nipple ,wire meshed funnel, and C.C. finished chamber covered with hinged type with locking arrangement C.I. Cover, C.I. Frame of size 300mm x 300mm complete with alternate layers of salt and coke/charcoal, testing of earth resistance as required. 2 Nos.
- K. Maintenance free Gel Earthing with Pipe in pipe / Pipe in strip technology filled with anti corrosive conductive compound (CPRI Tested) below the ground in 150 - 200 mm dia. earth pit & surrounding filled with required mineral filling compound (MFC should have hygroscopic property to retain the moisture for long time to create low resistance zone) and C.C. finished chamber covered with hinged type with locking arrangement C.I. Cover, C.I. Frame of size 300mm x 300mm complete testing of earth resistance as required. of following sizes. 2 Nos.
- L. **With Strip in Pipe Technology with 80 - 100 micron GI Coating.**
- M. GI pipe 2000 mm long ,63 / 80mm, Inner strip 50 mm x 3 mm copper.
- N. S & Laying following size earth wire/strip in horizontal or vertical run in ground/surface/recess including riveting, soldering, saddles, making connection etc. as required. 20mm x 3mm copper strip. 40 mts.
- O. P/Laying P.V.C. / XLPE insulated & P.V.C. sheathed cable of 1.1 KV grade with aluminum conductor of IS:1554 P-I / IS :7098 P - I of Group 1 of approved make . The cables laid on surface by means of screws.rag bolts,MSU clamps, as per approved spacing. **50.0 Sq.mm 3.5 core (armoured).**40 mts
- P&F on load change over switch, front handle operated, four pole 415 V conforming to IS:13947 P-III including connections , testing etc. as required in the following rating::With sheet steel enclosure: 125 A**
- 50.0 Sq mm 3.5 Core Armoured Cable
- (If requires more than 40 mts. of length bidder should quote cable rate per meter.)
- All wiring should be in copper except specified.

2 2
Executive Director (EPM)
Rajasthan Medical Services Corporation Ltd
Jaipur