

Technical Specification

Office name: Aathbiskot Municipality office, Rukum

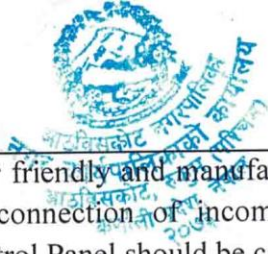
Equipment name: 25 KVA Diesel Generator Set

Quantity: 1 unit

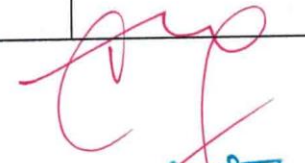


S.N.	Criteria	Office requirement	Offered Specification
1	General	Supply, delivery, installation and commissioning of 25 KVA diesel generator set. The generating sets shall be robust in construction factory tested and assembled to ensure perfect alignment of Engine and Alternator on a common base frame. The set shall be mounted on anti-vibration mounting to prevent transfer of vibration to the foundation and structures. The equipment shall be suitable for operating in the range of -5 ⁰ C to 50 ⁰ C. DG Set having Output Capacity not less than 25 KVA, PF 0.8, 3 Phase & 1 Neutral, frequency 50 HZ, mechanical/ Electronic governing of class G2.	Make: Model: Country of Origin: Year of Manufacturing:
2	Engine	Water cooled minimum 3 cylinders vertical inline diesel Engine, turbocharged, power not less than 30 BHP at governed RPM (engine fully equipped with accessories for smooth operation), Electrical starting system with 12 V battery charging arrangement/Exhaust Silencer/efficient radiator. Fuel consumption not more than 5.5 Litre/hour at 75% of Full Load, Circulation of cooling water through the engine and radiator shall be by means of engine driven pump. Exhaust silencer should be residential type to keep the surrounding noise free and clean.	Manufacturer: Model: Power:
3	Emission Standard	The Emission Standard of the generator should be of latest Nepal Emission Standard.	
4	Gauges	To include, water temperature , oil temperature, oil pressure and fuel level Gauges as necessary for Efficient operation and maintenance.	
5	Alternator	50 Hz, 415/240V±5%, Full load Current 35 A, 1500 RPM, PF 0.8 (Lag), Voltage Regulation ±1% , self-regulated, brushless continuous duty protection having insulation 'Class H'. Dynamically Balanced Roter, IP23 Enclosure and drip proof Screen protection.	

नि. प्रमुख प्रशासकीय अधिकृत



6	Automatic Mains failure Control Panels	User friendly and manufactured in-house. Adequate space for connection of incoming & outgoing Cables. AMF Control Panel should be capable of automatically start/stop the generator in case of mains failure and its restoration respectively. It should be able to automatically start and transfer the load to the generator if any phase of the mains fails or mains voltage drops below the set value. The AMF control panel should incorporate two 3-pole contactors of capacity not less than 35 A, 415V.	
7	Acoustic Enclosure	The acoustic enclosure should be supplied along with DG set from the manufacturer. The weather proof enclosure with corrosion resistant.	
8	Insulation	High Density fire retardant/ non-igniting and noise reduction type Acoustic Foam or Resin Bonded Wool covered with Fibre cloth / tissue and Perforated sheet properly clamped to absorb noise.	
9	Ventilation System	Draught Ventilation System incorporated & Wherever necessary axial blower provided.	
10	Earthing	Three separate copper plate earthing for neutral, the body of the generator and AMF Control Panel should be installed. The earthing value should be less than 50.	
11	Vibration Insulation	Vibration controller provision should be installed. Anti-Vibration Mounting foot Dunlop for Vibration Insulation.	
12	Sound level	The average sound level when measured in green at 1 metre distance from all four sides should not be more than 75db (A) average at the distance of 1 Mtr.	
13	Fuel tank Capacity	Not less than 65 ltr.	
14	Essential Accessories	A. Emergency stop B. Internal Lights C. Built in Fuel Tank	
15	Instructions	All signs and instructions in the Generator shall be in English.	
16	Dimension and Weight	Not more than (2100x1000x1500)mm weight should be minimum 800 Kg.	
17	Manuals	One copy of the Operator's and Owner's Instructions in English shall be supplied with Generator.	


नि.प्रमुख प्रशासकीय अधिकृत



18	Tools	The vendor shall supply all tools, normal and special required for operation and maintenance of the generator set at free of cost as listed. a. Double End different size Spanner (12 Nos.) - 1 set b. Adjustable spanner 12" - 1 No. c. Screw Driver 30 mm - 1 No. d. Screw Driver 12 mm - 1 No. e. Ball pin Hammer ½ lb - 1 No. f. Cutting pliers 9" - 1 No. g. 440V Danger Board fixed on wall - 1 No. h. First Aid Box - 1 No. i. Safety chart And first aid chart for electric shock in wooden frame with glass - 1 set j. 35 lts Plastic cane - 3 Nos k. Hand pump set for lifting oil - 1 set	
19	Testing	A full function test should be carried out to check instrumentation, protection and control system.	
20	Proven Performance	The bidder shall provide the manufacturer's data of the performance of the unit to include the fuel consumption.	
21	Warranty	Manufacturer shall provide a minimum Two year warranty after acceptance. The bidder should replace/repair any defective part of the generator within the warranty period whatsoever the reason may be that is beyond the control of the operator.	
22	Defect Liability	The Bidder should respond and provide free emergency service within 24 hours of emergency call during the warranty period.	
23	Delivery	A Unit of 25 KVA DG Generator Set shall be delivered within a month from the date of Agreement to: Aathbiskot Municipality office, Aathbiskot, Rukum.	

Notes:

1. The bidder should submit the authorized catalogue (or documents) to verify the above specifications.
2. The major items are indicated by bold and highlighted letters/alphabets/figures in the technical specifications. Non-compliance of these major items will result in non-responsiveness of the bid offer.
3. The bidder should mention the required data, details and values of the machine in the offered specification column

Prepared By:
Bijay Kumar Shah
Mechanical Engineer

Approved By:
Ram bahadur KC
Chief Executive Officer

नि.प्रमुख प्रशासकीय अधिकृत