

## ISHWORPUR MUNICIPALITY

Office of municipal executive

Sarlahi, Madhesh Pradesh, Nepal

### Technical specification of 62.5KVA diesel generator

S.N.	Description	Requirements
<b>Alternator specifications:</b>		
1.	Voltage (V)	<b>415V (3 phase)</b>
2.	Frequency	50Hz
3.	Current @0.8 PF (amps)	<b>86.95amps</b>
4.	Type	4 pole ,rotating field
5.	Exciter type	Brushless
6.	Leads: type	fixed type
7.	Voltage regulator	Solid state
8.	Insulation type	Class H
9.	Temperature rise	125 Degree celcius
10.	Bearing: Quantity, type	1 ,sealed type
11.	Coupling	Flexible disc close coupled
12.	Voltage regulation : No load to full load	2 phase sensing
13.	One step load acceptance	100% of rating

<b>Generator specifications:</b>		
1.	Genset Output in KVA/KW	<b>62.5KVA/50KW</b>
2.	Engine rating or Maximum power at rated RPM in KW/BHP	<b>59 KW (80.16BHP)</b>
3.	Rated RPM	1500 RPM
4.	No. of Cylinder/ Cylinder arrangement	<b>4 / inline</b>
5.	Compression ratio	<b>16:8</b>
6.	Governor type	Mechanical
7.	Over speed trip (RPM)	1650
8.	Air cleaner type / Quantity	Dry / 01
9.	Exhaust system	Should be residential type to keep surrounding noise free and clean
10.	Maximum allowable back pressure, KPa	3 to 5Kpa

<b>Engine electrical system:</b>		
1.	Charging alternator voltage/Current (DC)	12v/35Amps
2.	Starter motor rated voltage (DC)	12v
3.	Battery voltage(DC)/Capacity(AH)	<b>Minimum 12V/100Ah</b>

<b>Fuel system:</b>		
1.	Recommended fuel	HSO

2.	Fuel tank capacity (Ltr.)	More than or equal to <b>140Ltr</b>
3.	<b>Fuel consumption-LPH at % load</b>	
	100%	<15L/Hr
	75%	<12 L/Hr

<b>Lubricating oil system:</b>		
1.	Lube oil sump capacity	8.5
2.	Oil change period (Hrs)	500
3.	Oil filter quantity/ type	01/ Spin

<b>Cooling system:</b>		
1.	Cooling system designed for maximum ambient temp, Degree centigrade at rated load	50 degree celcius
2.	Water pump type	Centrifugal, Gear driven
3.	Cooling system	<b>Water cooled system</b>

<b>Others:</b>		
1.	Essentials accessories	Emergency stops, Anti vibration mounts.
2.	Instruction	All instruction in the equipment shall be in English.
3.	Manual	One copy of operator and owners instruction and maintenance manual in English shall be supplied with each equipment.
4.	Training	Supplier shall include authorization letter from manufacturing company.
5.	Warranty	Manufacturer shall provide minimum two year of warranty.
6.	Emission standard	The emission standard of generator should be of latest Nepal emission standard.
7.	Delivery	<b>One unit of fully automatic DG set with all necessary accessories required for automatic starting and shut down system including earthing of 62.5KVA diesel generator set shall be delivered and installed (with automatic startup/shut down)at: ISHWORPUR MUNICIPALITY Office of municipal executive Madhesh Pradesh, Nepal</b>
8	MRP	<b>Rs...../- (including VAT) ,delivery charge, loading and unloading charge and installation charge of DG set with all accessories required for fully automatic system.</b>

**NOTE:**The price includes whole setup of DG for automatic power supply after electricity run off the following item should be included.

Change Over Switch 150Amps, Power Cable copper 70mm<sup>2</sup> 3.5Core Armoured, Earth-in ( Material and Work Charge, and other necessary equipment required for fully automatic system of Diesel generator (DG). 50 meter length

