

**Nepal Electricity Authority**  
(An Undertaking of Government of Nepal)  
Distribution & Consumer Services Directorate  
**Sudurpaschim Provincial Office**  
Attariya, Kailali



**Technical Specification of 75 kVA Diesel Generator**

| S.N. | Description                               | Requirement                           |
|------|-------------------------------------------|---------------------------------------|
|      | <b>Alternator Specification:</b>          |                                       |
| 1    | Voltage                                   | 380-400V                              |
| 2    | Frequency                                 | 50Hz                                  |
| 3    | Current @ 0.8 PF (Amps)                   | 104.3                                 |
| 4    | Type                                      | 4 Pole, Rotating field                |
| 5    | Exciter Type                              | Brushless (Permanent magnet optional) |
| 6    | leads:Quantity .type                      | 6.fixed 12 reconnectable (Optional)   |
| 7    | Voltage regulator                         | Solid State                           |
| 8    | Insulation                                | Class H                               |
| 9    | Temperature rise                          | 125 Deg.C (Class H)                   |
| 10   | Bearing:Quantity .type                    | 1, Sealed                             |
| 11   | Coupling                                  | Flexible disc Close coupled           |
| 12   | Voltage regulation : No load to full load | 2 Phase sensing $\pm$ 1%              |
| 13   | One step load acceptance                  | 100% of rating                        |
| 14   | Unbalance load capability                 | 25% of rated current                  |

|                                  |                                                    |              |
|----------------------------------|----------------------------------------------------|--------------|
| <b>Generator Specifications:</b> |                                                    |              |
| 1                                | Genset Output (KVA/KW)                             | 75/60        |
| 2                                | Engine rating or Max.Power at rated RPM.in KW(BHP) | 74.5 (101.2) |
| 3                                | No.of Cylinders / Cylinder arrangement             | 3 / inline   |
| 4                                | Compression ratio                                  | 16.8         |
| 5                                | Rated RPM                                          | 1500         |
| 6                                | Governor Type                                      | Mechanical   |
| 7                                | Over speed trip(rpm)                               | 1650         |
| 8                                | Air cleaner type / Qty                             | Dry / 01     |
| 9                                | Exhaust system                                     |              |
| 10                               | Maximum allowable back pressure, kPa               | 4.5          |

**Engine Electrical System:**

|   |                                           |              |
|---|-------------------------------------------|--------------|
| 1 | Charging alternator Voltage/ Current (DC) | 12V / 35Amps |
| 2 | Starter Motor rated voltage (DC)          | 12           |
| 3 | Battery Voltage (DC) / Capacity(AH)       | 12V, 88AH    |

**Fuel System:**

|   |                  |     |
|---|------------------|-----|
| 1 | Recommended Fuel | HSO |
|---|------------------|-----|

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*[Signature]*  
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|   |                                  |       |
|---|----------------------------------|-------|
| 2 | Fuel tank capacity (Ltr.)        | 150   |
| 3 | Fuel consumption - LPH at % load |       |
|   | 100%                             | 17.57 |
|   | 75%                              | 12.63 |
|   | 50%                              | 9.8   |
|   | 25%                              | 5.5   |

Lubricating Oil system :

|   |                                  |                 |
|---|----------------------------------|-----------------|
| 1 | Lube oil sump capacity           | 8.5             |
| 2 | Oil change period (Hrs)          | 500             |
| 3 | Oil consumption (%of SEC)        | 0.2             |
| 4 | Oil filter quantity (Nos) / type | 01/spin on type |
| 5 | Oil Cooler                       | Water cooled    |

Cooling Svsstem :

|   |                                                                      |                          |
|---|----------------------------------------------------------------------|--------------------------|
| 1 | Cooling system is designed for max ambient temp, Deg.C at rated load | 50                       |
| 2 | Radiator System capacity, including engine, (L)                      | 20 Ltr                   |
| 3 | Water pump type                                                      | Centrifugal, Gear Driven |

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नगर कार्यपालिकाको कार्यालय  
अतरिया, कैताली  
सुदूरपश्चिम प्रदेश नेपाल  
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