



ਨੰਬਰ 1444 ਮਿਤੀ 02/7/25 ਕਮੇਟੀ ਰਿਪੋਰਟ

ਵਿਸ਼ਾ: ਜ਼ਿਲ੍ਹਾ ਪੁਲਿਸ ਦਫਤਰ ਲਈ ਨਵਾਂ ਜਨਰੇਟਰ ਸੈੱਟ ਦੀ ਖਰੀਦ ਕਰਨ ਬਾਰੇ।

ਸ਼੍ਰੀਮਾਨ ਜੀ,

ਉਪਰੋਕਤ ਵਿਸ਼ਾ ਦੇ ਸਬੰਧ ਵਿੱਚ ਆਪ ਜੀ ਦੇ ਹੁਕਮ ਨੰ: 27489-92/ਏਸੀ-1, ਮਿਤੀ 13-06-2025 ਨੂੰ ਟੈਕਨੀਕਲ ਸਪੇਕਸੀਫਿਕੇਸ਼ਨ ਕਮੇਟੀ ਦਾ ਗਠਨ ਕੀਤਾ ਗਿਆ ਹੈ। ਇਹ ਕਮੇਟੀ ਮਿਤੀ 02-07-2025 ਨੂੰ ਡੀ.ਪੀ.ਓ ਬਰਨਾਲਾ ਵਿਖੇ ਕਪਤਾਨ ਪੁਲਿਸ(ਸਥਾਨਕ), ਬਰਨਾਲਾ ਦੇ ਦਫਤਰ ਵਿੱਚ ਇਕੱਤਰ ਹੋਈ ਅਤੇ ਜਨਰੇਟਰ ਸੈੱਟ ਦੇ ਵੱਖ-ਵੱਖ ਮਾਡਲ, ਉਨ੍ਹਾਂ ਦੀ ਕਾਰਜ ਕੁਸ਼ਲਤਾ ਅਤੇ ਬਿਜਲੀ ਉਤਪਾਦਨ ਸਮਰੱਥਾ, ਖਰਚ ਦੀ ਕਿਫਾਇਤ, ਤੇਲ ਦੀ ਖਪਤ ਆਦਿ ਵਾਚੀ ਗਈ ਅਤੇ ਟੈਕਨੀਕਲ ਸਪੇਕਸੀਫਿਕੇਸ਼ਨ ਕਮੇਟੀ ਵੱਲੋਂ ਡੀ.ਪੀ.ਓ ਬਰਨਾਲਾ ਦੇ ਬਿਜਲੀ ਦੇ ਲੋਡ ਮੁਤਾਬਿਕ ਹੇਠ ਲਿਖੀਆਂ ਸਪੇਕਸੀਫਿਕੇਸ਼ਨਾਂ ਦੇ ਅਨੁਸਾਰ ਜਨਰੇਟਰ ਸੈੱਟ ਦੀ ਖਰੀਦ ਕਰਨ ਦੀ ਸਿਫਾਰਿਸ਼ ਕੀਤੀ ਜਾਂਦੀ ਹੈ:-

SPECIFICATION FOR DG SET

DG Set

415 Volts, 3 phase, 125 kVA PRIME Rated DG set, 1500 RPM, Radiator Cooled with associated accessories, having 10% overload capacity for 1 Hour in every 12 Hrs of operation as per ISO 8528, with Auto Mains Failure Panel & complete installation as per site condition.

The DG Set should be capable of voltage buildup within 15 to 20 seconds after receiving start command and it should be ready to take first step load within 15 to 20 seconds after receiving start command on voltage buildup.

DG set along with Acoustic enclosure shall be not more than 3200 mm in length provided and mounted on the common base frame and Genset shall be suitable to transport from one place to another without dismantling the Acoustic Enclosures.

Genset shall be provided with inbuilt 230 lits Fuel tank, mounted at the base frame of the Genset.

Engine & Alternator should be of same brand to get single window service.

DIESEL ENGINE & ACCESSORIES

- a) The diesel engines shall be liquid cooled, CRDI, four stroke, 4 cylinder, with engine mounted radiator, turbo charged & after cooled operating at a nominal speed of 1500 R.P.M and capable of developing 156 BHP to deliver 125 kVA electrical output at 0.8pf lagging with 10% overload capacity meeting ISO 3046 standards.
- b) The engine shall meet the current emission norms prevailing in India
- c) The engine fitments shall include but not be limited to the following:-
 - i) Flexible coupling and flywheel. – single bearing is acceptable
 - ii) Dry type air filter with clogged condition indicator (The filter shall be easily approachable for maintenance).
 - iii) Radiator
 - iv) Engine driven fuel pump & fuel filter.
 - v) Engine driven coolant pump.

- vi) Engine driven Lube oil pump, oil cooler and filter.
- vii) Turbo charger and after cooler.
- viii) Residential type Silencers.
- ix) Electronic governor.
- x) 12V D.C. Starter & battery charging alternator.
- xi) Microprocessor based DG Set controller shall be of electronic LCD type displaying Engine and Alternator parameters.
- xii) Battery system suitable for 3 Consecutive Starts.

EXHAUST EMISSIONS

The engines should comply to the latest emission norms laid down by Ministry of Environment Forest and Climate Change vide GSR 804 (E) dt 3 Nov 22 .
 Engine should be equipped with suitable Fuel Injection System along with cylinder combustion and exhaust after treatment system to meet the stringent emission norms.

ENGINE ACCESSORIES.

The following accessories shall be supplied with the DG set.

- a) Common base frame for the Engine, Alternator & Radiator.
- b) Anti-vibration mounts of reputed make.
- c) Protective guards for all rotating parts.

BATTERIES

- a) The batteries shall be of heavy duty, high performance, lead acid type of reputed make
- b) Number of batteries should be as per manufacturers recommendation however the minimum capacity of a single battery should be 120 AH
- c) Battery shall be suitable for 3 successive starting attempts each of 10 seconds duration with a gap of 5 seconds between successive starts.

ALTERNATOR

1500 RPM, 415V, 3 Phase giving an output of 125 kVA at 40 Deg C Ambient .
 Alternator should be Star connected, 50 Hz , 0.8 P.F lagging having 2/3rd pitch winding, horizontal foot mounted with single bearing . It should be separately excited, brush-less, screen protected drip proof, having a voltage regulation of +/-0.5% , continuous duty alternator conforming to IS/IEC 60034 with Class "H" insulation & IP-23 enclosure incorporating the following.

- a) Continuous damper winding.
- b) Auxiliary winding for excitation
- c) Digital Voltage Regulator with +/-5% range of Voltage adjustment
- d) Metering and protection CTs as required for paralleling.
- e) Terminal box with both ends of each phase winding brought to terminals.

GENSET CONTROLLER

The DG set controller should have the following features:

1. Voltage , Current , kVA & kW , Frequency, Power Factor & Energy Metering
2. Genset kWh , battery voltage and charging status
3. Alarm and status Indication with recent fault code logging
4. Sync enabled feature with Governor & Speed Bias

Following control system should be available for the Genset.

1. Local or remote start and stop
2. Control Switch : OFF/RUN/AUTO MODE

3. LED indicating lamps for indicating the following status
 - a. Not in Auto Mode
 - b. Common wiring
 - c. Shutdown
 - d. Remote start command

4. Panel Lamp switch
5. Fault Reset Switch
6. Emergency stop Switch

The controller should be able to give MODBUS output of the genset parameters.

Remote Monitoring System:

Genset should have provided with inbuilt remote monitoring system. The facility shall provide the excess to the Genset parameter and fault/alarm on the remotely monitored system

Following Metering & Protections are required for the DG set.

Digital Meters Indication for the following :

Engine Parameters:

1. Lub Oil Pressure
2. Coolant temperature
3. Engine Speed
4. Engine Hours Run
5. Number of starts
6. Battery Voltage
7. Lube Oil Temperature

Alternator Parameters

1. 3 Phase voltage L-L & L-N
2. 3 phase current
3. Frequency
4. Total and per phase kVA
5. Total and per phase KW
6. Power factor with lag/lead indication
7. Genset kWh

Protections :

Engine :

1. Low Lub oil pressure (Warning (W) / Shutdown (SD))
2. High coolant temperature (W/SD)
3. Low coolant temperature – W
4. Low coolant level – W/SD
5. Oil pressure – W
6. Engine temperature – W
7. Fail to crank – SD
8. Over crank – SD
9. Over speed – SD
10. Low and high battery voltage – W
11. Battery charging Alternator Failure – W

Alternator :

1. Over current – W/SD
2. Over voltage – SD
3. Short circuit – SD

4. Under voltage – SD
5. Under frequency – SD
6. Over frequency – W/SD
7. KW over load- W
8. Loss of excitation-SD

Warranty

The DG Set shall be warrantee against faulty workmanship / poor material quality and against failures due to the same, for minimum of two years or 5000 Hrs of operation whichever is earlier, from the date of commissioning.

In order to ensure timely service backup in case of emergency, it is very essential that manufacturer Service office is available closest to the site to ensure timely service, apart from their respective Service Dealers. The tenderer should submit the toll free number details in India for the engine manufacturer to ensure speedy service support.

Non-compliance any of the above specs/requirements should be clearly mentioned in the tender, point by point .

To promote made in India initiative, the components of Engine & Alternator should be manufactured and tested in India. The engine should be assembled in India at all stages and it should not be imported in CKD or any other form.

Genset Supplier/ Manufacturer should have the service network available in the vicinity of the installed Genset area. Within distance of 100 Km, service network shall be available where in required consumable shall be available (Other than J&K and North Eastern State).

ਚੇਅਰਮੈਨ

Unjod.

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Chirp...

ਸ੍ਰੀ ਚਰਨਦੀਪ ਸਿੰਘ, ਜੇ. ਈ. ਪੀ. ਡਬਲਯੂ. ਡੀ. (ਇਲੈਕਟਰੀਕਲ)
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Wadeh...

ਲਾਈਨ ਅਫਸਰ, ਪੁਲਿਸ ਲਾਈਨ
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