

अनुबंध | Contract



अनुबंध क्रमांक | Contract No: GEMC-511687775832242

अनुबंध तिथि | Generated Date : 27-Dec-2024

बोली/आरए/पीबीपी संख्या | Bid/RA/PBP No.: [GEM/2024/B/4907270](#)

अनुसूची नाम | Schedule Name: Schedule 11, Schedule 9, Schedule 8

| संगठन विवरण Organisation Details | खरीदार विवरण Buyer Details |
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| प्ररूप Type : Central PSU मंत्रालय Ministry : Ministry of Coal विभाग Department : COAL INDIA LIMITED संगठन का नाम Organisation Name : Mahanadi Coalfields Limited कार्यालय क्षेत्र Office Zone : MCL Sambalpur Odisha | पद Designation : VUPPALA SRIKANTH DY MGR MM संपर्क नंबर Contact No. : 0663-2542521- ईमेल आईडी Email ID : mmpur2c.mcl@coalindia.in जीएसटीआईएन GSTIN : 21AABCM5188P1Z3 पता Address : MAHANADI COALFIELDS LIMITED, PO - JAGRUTI VIHAR, BURLA, SAMBALPUR, ODISHA-768020, India |

| वित्तीय स्वीकृति विवरण Financial Approval Detail | भुगतान प्राधिकरण विवरण Paying Authority Details |
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| आईएफडी सहमति IFD Concurrence : No प्रशासनिक अनुमोदन का पदनाम Designation of Administrative Approval : CoFD वित्तीय अनुमोदन का पदनाम Designation of Financial Approval : Dy Mgr (Fin) | Role: PAO भुगतान का तरीका Payment Mode: Offline पद Designation : DEEPAK KUMAR BURMA MGR FIN ईमेल आईडी Email ID : dkburma@coalindia.in जीएसटीआईएन GSTIN : 21AABCM5188P1Z3 पता Address : MAHANADI COALFIELDS LIMITED, AT /PO - JAGRUTI VIHAR, BURLA, SAMBALPUR, ODISHA-768020, India |

| विक्रेता विवरण Seller Details |
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| जेम विक्रेता आईडी GeM Seller ID : 2C95180000099842 कंपनी का नाम Company Name : Electro Equipments संपर्क नंबर Contact No. : 09997722774 ईमेल आईडी Email ID : manish@electroequipments.com पता Address : 21-23, BHAGWANPUR, RAIPUR SAHKARI AUDYOGIC KSHETRA, ROORKEE, HARDWAR, UTTARAKHAND-247667, - एमएसएमई पंजीकरण संख्या MSME Registration number : UDYAM-UK-06-0003663 जीएसटीआईएन GSTIN : 05AACFE1653M2ZH (B), (R) एमएसई सामाजिक श्रेणी MSE Social Category : General एमएसई लिंग श्रेणी MSE Gender : Male |

*जिसके नाम के पक्ष में GST/TAX इनवॉइस पेश किया जाएगा | GST / Tax invoice to be raised in the name of - Consignee

वितरण निर्देश | Delivery Instructions : NA

| उत्पाद विवरण Product Details | | | | | | |
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| # | आइटम विवरण Item Description | आइटम विवरण Ordered Quantity | इकाई Unit | इकाई मूल्य (INR) Unit Price (INR) | कर विभाजन (INR) Tax Bifurcation (INR) | मूल्य (INR में सभी शुल्क और कर सहित) Price (Inclusive of all Duties and Taxes in INR) |
| 1 | उत्पाद का नाम Product Name : Koel Green Electro Power Generator- DG set of 500 AMF Control Panel ब्रांड Brand : Koel Green Electro ब्रांड प्रकार Brand Type : Registered Brand कैटलॉग की स्थिति Catalogue Status : OEM verified catalogue कैसे बेचा जा रहा है Selling As : OEM श्रेणी का नाम और चतुर्थांश Category Name & Quadrant : Power Generator - DG Set (up to 900 KVA) (Q2) मॉडल Model: 500 kVA DG Set as per CPCB-IV with Installation एचएसएन कोड HSN Code: 8502 | 7 | pieces | 6,944,590 | NA | 48,612,130 |
| 2 | उत्पाद का नाम Product Name : Koel Green Electro Power Generator- DG set of 250 AMF Control Panel ब्रांड Brand : Koel Green Electro ब्रांड प्रकार Brand Type : Registered Brand कैटलॉग की स्थिति Catalogue Status : OEM verified catalogue कैसे बेचा जा रहा है Selling As : OEM श्रेणी का नाम और चतुर्थांश Category Name & Quadrant : Power Generator - DG Set (up to 900 KVA) (Q2) मॉडल Model: 250 kVA DG Set as per CPCB-IV with Installation एचएसएन कोड HSN Code: 8502 | 2 | pieces | 3,690,608 | NA | 7,381,216 |

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| 3 | <p>उत्पाद का नाम Product Name : Koel Green Electro Power Generator- DG set of 160 AMF Control Panel</p> <p>ब्रांड Brand : Koel Green Electro</p> <p>ब्रांड प्रकार Brand Type : Registered Brand</p> <p>कैटलॉग की स्थिति Catalogue Status: OEM verified catalogue</p> <p>कैसे बेचा जा रहा है Selling As : OEM</p> <p>श्रेणी का नाम और चतुर्थांश Category Name & Quadrant : Power Generator - DG Set (up to 900 KVA) (Q2)</p> <p>मॉडल Model: 160 kVA DG Set as per CPCB-IV with Installation</p> <p>एचएसएन कोड HSN Code: 8502</p> | 2 | pieces | 2,316,480 | NA | 4,632,960 |
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| कुल ऑर्डर मूल्य Total Order Value (in INR) | | | | | | 60,626,306 |
|----------------------------------------------|--|--|--|--|--|------------|

| परोक्षिती विवरण Consignee Detail | | | | | | |
|------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------|--------------------|-------------------|-----------------------------------------------------------|--------------------------------------------------------|
| क्र.सं. S.No | परोक्षिती Consignee | वस्तु Item | लॉट नंबर Lot No. | मात्रा Quantity | दिनांक के बाद डिलीवरी शुरू करना है Delivery Start After | वितरण पूरा कब तक करना है Delivery To Be Completed By |
| 1 | <p>पद Designation :- ईमेल आईडी Email ID : sprasad0364@coalindia.in संपर्क Contact :- जीएसटीआईएन GSTIN :- पता Address : MAHANADI COALFIELDS LIMITED, AT & PO - JAGRUTI VIHAR, BURLA, SAMBALPUR, ODISHA-768020, India</p> | Koel Green Electro Power Generator- DG set of 500 AMF Control Panel | - | 2 | 27-Dec-2024 | 26-May-2025 |
| 2 | <p>पद Designation :- ईमेल आईडी Email ID : depot-off-ibva.mcl@coalindia.in संपर्क Contact :-9438493827- जीएसटीआईएन GSTIN : 21AABCM5188P1Z3 पता Address : Office of the General Manager, Ib-Valley Area, MCL, Brajrajnagar, Dist: Jharsuguda, ODISHA-768216, Jharsuguda, ODISHA-768216, India</p> | Koel Green Electro Power Generator- DG set of 500 AMF Control Panel | - | 2 | 27-Dec-2024 | 26-May-2025 |
| | | Koel Green Electro Power Generator- DG set of 250 AMF Control Panel | - | 1 | 27-Dec-2024 | 26-May-2025 |
| 3 | <p>पद Designation :- ईमेल आईडी Email ID : depot-off-lina.mcl@coalindia.in संपर्क Contact : 943-8494207- जीएसटीआईएन GSTIN : 21AABCM5188P1Z3 पता Address : LINGARAJ AREA, MAHANADI COALFIELDS LIMITED, AT/PO: Deulbera Colliery, Angul, ODISHA-759102, India</p> | Koel Green Electro Power Generator- DG set of 500 AMF Control Panel | - | 1 | 27-Dec-2024 | 26-May-2025 |
| | | Koel Green Electro Power Generator- DG set of 250 AMF Control Panel | - | 1 | 27-Dec-2024 | 26-May-2025 |
| | | Koel Green Electro Power Generator- DG set of 160 AMF Control Panel | - | 2 | 27-Dec-2024 | 26-May-2025 |
| 4 | <p>पद Designation :- ईमेल आईडी Email ID : depot-off-lkpa.mcl@coalindia.in संपर्क Contact : 094-38493852- जीएसटीआईएन GSTIN : 21AABCM5188P1Z3 पता Address : Office of the Chief General Manager, Mahanadi Coalfields Limited, Lakhanpur Area, At/PO Bandhbahal, Via, Belpahar, JHARSUGUDA, ODISHA-768211, India</p> | Koel Green Electro Power Generator- DG set of 500 AMF Control Panel | - | 2 | 27-Dec-2024 | 26-May-2025 |

Product Specification for Koel Green Electro Power Generator- DG set of 500 AMF Control Panel

| विनिर्देश Specification | उप-विनिर्देश Sub-Spec | मूल्य Value |
|---------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------|
| Power Generator INSTALLATION CONFIGURATIONS | Power Generator installation configurations as defined in CPWD General Specifications for Electrical works - Part VII (DG Set) | Fixed (Power Generators are permanently installed)" |
| OUTPUT CAPACITY RATING/ PHASE | Nominal Rated Capacity (kVA) | 500 |
| | No of Phase (Single Phase-3-5kVA) (Single Phase or Three Phase-5 & 7-5, | Three Phase |

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|-----------------|----------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| | 10,15, 20, 25, 30 & 40 kVA) (Three Phase-50 to 900 kVA) | |
| ENGINE | Make of Engine | KIRLOSKAR/KOEL GREEN |
| | Model Number of Engine | DV8ETA 4G3 |
| | Capacity of Engine (cc) | 15920 |
| | Rated Engine Power (kWm) | 100 % of the required powered at STP(Standard Temperature Pressure) i.e equal to (Nominal Rated Capacity (KVA) of power generator + Any Auxiliary power Consumption by the Power generator) x Power factor(0.8) / Alternator efficiency |
| | Type of Engine cooling | Liquid Cooled |
| | Type of governor | Electronic |
| | Number of cylinders (nos) | 8 |
| | No of Strokes (nos) | 4 |
| | Rated RPM of Engine (RPM) | 1500 |
| | Fuel | High Speed Diesel (HSD) |
| | Overload capacity | Engine is capable of delivering an output of 10% in excess of rated KVA for a period of one hour in any period of 12 hours continuous running |
| | Specific Fuel Consumption (gm/kWh) | 200 to 265 |
| | Starting voltage (volt) | 24 |
| | Salient Features of Engine | Turbo Charged Engine,CRDI Fuel System,Direct injection Fuel System |
| GOVERNING CLASS | Class of governor | A2 or better |
| | "Maximum Change of Speed as a Percentage of Rated Speed on suddenly taking-off the rated load(Transient) " | 15 |
| | "Maximum Recovery Time in Seconds on suddenly taking-off the rated load(Transient) " | 15 second |
| | Maximum Change of Speed as a Percentage of Rated Speed on suddenly taking-off the rated load(Permanent) | 5 |
| | "Maximum Change of Speed as a Percentage of Rated Speed On a change of load, both on and off, by all steps of 25 percent of the rated load (Transient) " | 4 |
| | "Maximum Recovery Time in Seconds on a change of load, both on and off, by all steps of 25 percent of the rated load(Transient) " | 5 second |
| | "Maximum Change of Speed as a Percentage of Rated Speed On a change of load, both on and off, by all steps of 25 | 1.5 |

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| | percent of the rated load (Permanent) | |
| ALTERNATOR | AC GENERATOR (ALTERNATOR) Make | KIRLOSKAR/KOEL GREEN |
| | AC GENERATOR (ALTERNATOR) model Number | KIRLOSKAR/KOEL GREEN |
| | Alternator Voltage Rating | 415 Volt |
| | Rating of AC Generator (KVA) | 500 |
| | Power Factor of AC generator | 0.8 |
| | Efficiency at rated Power factor at 75% of full Load | 95.9 percent |
| | Conformity to Indian Standard (for Alternator) | Generally conforming to IS:13364 (Part-2) latest (Above 20 KVA) |
| | Type of alternator | Brushless |
| | Voltage Regulation Grade | VG 3 |
| | Alternator IP Rating | IP 23 |
| | Class of Insulation | H |
| Salient features of Alternator | NA | |
| CONTROL PANEL | Control Panel | AMF Control Panel |
| | Control Panel Location | Outside the Canopy |
| | IP Rating of Control Panel | IP 53 |
| | Display meters in the control panel (with appropriate rating and accuracy class) - inclusive in the scope of supply | Voltmeter,Ammeter,Frequency meter,Power Factor meter,Multifunctional Digital display meter (displaying Voltage, Current, Frequency, Power Factor) |
| | Other devices in the control panel (with appropriate rating) - inclusive in the scope of supply | Required switches and cutout,MCCB,Contactor,Battery charger,remote monitoring over internet with GSM modem. |
| | Displayed parameters/Features | Engine Speed,Lube oil pressure,Coolant/cylinder head Temperature,Engine running hours,Engine battery voltage,Engine Running status,Generator Voltage (Ph-Ph),Generator Voltage (Ph-N),Generator Current (R, Y, B),Generator apparent Power (kVA),Generator active Power (kW),Powerfactor,Frequency,Fuel level,Event log,Control supply Voltage |
| | Indicators | Low Lube oil pressure,High water / coolant / cylinder head temperature,Low fuel level,Over speed |
| | Audio Alarm | Low Lube oil pressure,High water / coolant / cylinder head temperature,Low fuel level,Over speed |
| ACOUSTIC ENCLOSURE | Acoustic Enclosure (inclusive in the scope of supply) | Yes, Power Generator supplied with Acoustic Enclosure |
| | Sheet Thickness(mm) | 1.6 |
| | Thickness of insulation | 25 millimeter |
| | Density of insulation (kg/cubic m) | 28 |
| | Noise level at 1 meter (dB) | 75 |
| Fuel Tank | Fuel Tank Capacity | 850 liter |
| | Number of Fuel tank | 1 |
| | Fuel Tank Sheet Material | 2 |

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| | Thickness(mm) | |
| | Fuel Tank Fabricated Material | M.S Sheet |
| | Fuel Tank Features | Fuel Tank capacity is sufficient for 8 hrs of running at full load |
| BATTERY | Battery Type & Specification | "Low Maintenance free to IS: 14257 for high cranking performance" |
| | Battery capacity (Ah) | 180 |
| | No of batteries | 1 |
| SALIENT FEATURES | Salient Features of Power Generator | Glass window on Accoustic Enclosure in front of the Control Panel, Emergency Stop outside the Accoustic Enclosure |
| | Additional Features | NA |
| TRAILER | Trailer | NA for Fixed/Skid Mounted Power Generator |
| | Pay load of the Trailer | 0 kilogram |
| | Number of Axlels | 0 |
| | Number of wheels | 'NA' for without trailer |
| | Wheel Tyre size | 0 inch |
| | Brakes | NA for Fixed/Skid Mounted Power Generator |
| | Trailer Complying to CMVR act and Regulation | NA for Fixed/Skid Mounted Power Generator |
| | Maximum permissible Speed of Trailer(Km/hr) | 0 |
| | Trailer unladen weight | 0 kilogram |
| | Trailer overall length | 0 millimeter |
| | Gross Towing Weight (including Power Generator) | 0 kilogram |
| | Salient Features of trailer | NA |
| General Technical Requirements (GTR) / Commissioning(Part-1) | General Technical Requirements (GTR) / Commissioning(Part-1) | a) Power Generator shall be complete with Diesel Engine, Alternator and AMF/MANUAL Control Panel along with Acoustic Enclosure. Diesel engine and alternator shall be closely coupled or provided with flexible coupling and mounted on a base plate / M.S. frame of robust in construction. |
| | General Technical Requirements (GTR) / Commissioning(Part-2) | b) Anti-Vibration mountings shall be provided for complete Power Generator in case of flexible coupling. In case of direct coupling Anti-Vibration mountings shall be provided for the Engine as well as the alternator. |
| | General Technical Requirements (GTR) / Commissioning(Part-3) | c) Power Generator should have protection against under voltage, over voltage, under frequency, over frequency, low battery voltage, over current, earth-fault, short circuit, phase sequence change etc. |
| | General Technical Requirements (GTR) / Commissioning(Part-4) | d) Automatic Mains Failure (AMF) control panel, where applicable, shall be able to start up the Power Generator and transfer the load on to the Power Generator on mains failure without requiring any human intervention. Similarly on restoration of mains supply, it shall be able to transfer the load to mains supply and switch off the Power Generator automatically. |
| | General Technical Requirements (GTR) / Commissioning(Part-5) | e) Control Panel (Manual / AMF), where applicable, shall be equipped with suitable Voltmeter, Ammeter, Frequency meter, power factor meter (these items can be alternatively supplied in one multifunctional digital display meter), battery charger, indicators, various switches and cutout / MCB / MCCB / Contactor / Circuit breaker for the DG output of appropriate rating and accuracy class as per trade practice for better utility. |
| | General Technical Requirements (GTR) / Commissioning(Part-6) | f) Supply and installation of a change-over Switch / MCCB of suitable rating for Power Generator with manual control panel, where applicable, is inclusive in the scope of supply. |
| | General Technical Requirements (GTR) / | General Technical Requirements (GTR) |

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| Commissioning | / Commissioning(Part-7) | coated with weather-proof paint. The Acoustic Enclosure shall be vermin proof. The enclosure shall accommodate the (daily service) fuel tank of the Power Generator to make the system compact. |
| | General Technical Requirements (GTR) / Commissioning(Part-8) | h) Power Generators shall meet the requirements of Environmental (Protection) Rules 1986 as laid down by Min. of Environment & Forests read with GSR 371 (E) dated 17.5.2002,GSR 520(E)dated 1.7.2003 , No.448 (E)dated 12.07.2004 , GSR 771(E) dated 11.12.2013 GSR 232(E)dated 31.03.2014,Gazette Notification No.167 dated. 31.03.2014 and Gazette Notification No. 578 dated. 11.11.2014 in respect of noise and emission norms. The latest amendments to above GSRs shall be applicable as and when amended by Ministry of Environment and Forest. |
| | General Technical Requirements (GTR) / Commissioning(Part-9) | i) Standard set of tools consisting of a set of 3 spanners, one screw driver, one standard plier and one nose plier of appropriate size shall be provided along with each Power Generator. |
| | General Technical Requirements (GTR) / Commissioning(Part-10) | j) Supply of Fuel tank of suitable capacity, sufficient for minimum 8 hours running/990 liters(whichever is lower) the Power Generator, is inclusive in the scope of supply. Fuel Tank shall be complete with fuel piping (between fuel tank and diesel engine), valves, level indications and all standard accessories. MS pipes, heavy class of suitable dia conforming to IS 1239 (Part-1) - latest shall be used for fuel piping. |
| | General Technical Requirements (GTR) / Commissioning(Part-11) | Buyer's Responsibilities: i. Mains ACB for AMF operation shall be provided by the buyer for DG set rating above 600 KVA and above .For DG set other ratings seller shall provide mains and DG contactor/breaker, ii. Exhaust piping, extra civil work, distribution board shall be provided by the buyer. iii. Consumables such as filters, lube oil at the time of servicing during warranty period shall be provided by the buyer. iv. Obtaining necessary approvals, if any, is the responsibility of the buyer. |
| | Above General Technical Requirements (GTR) / Commissioning have been seen, read, understood and agreed to comply | Yes |
| SCOPE OF INSTALLATION | Installation | with installation - inclusive in the scope of supply |
| | Scope of installation for Diesel Generating Set when offered by the vendor - inclusive in the scope of supply(Part-1) | a) Installation of Power Generator when offered by the vendor is inclusive in the scope of supply and shall be done by the seller. The installation work of Power Generator and its constituent parts shall be generally conforming to CPWD General Specification for Electrical Works, Part - VII - latest. b) Foundation shall be constructed by the seller. Foundation shall be of PCC type with the ratio of 4:2:1. The length and breadth of the foundation shall be 300 mm more from the respective length and breadth of the Power Generator. The height of the foundation shall be 400 mm, i.e., 200 mm below and 200 mm above the ground level. All the materials / labour required for foundation work shall be supplied by the seller. |
| | Scope of installation for Diesel Generating Set when offered by the vendor - inclusive in the scope of supply(Part-2) | c) Supply, laying and termination of interconnecting power and control cable shall be done by the seller. The cable supplied shall be ISI marked heavy duty PVC insulated, armoured cable, with PVC outer Sheath of Type ST-2 (FR Grade, Category C1), with aluminium conductor having insulation of PVC compound type -C, suitable for rated voltage upto and including 1100 volts and conforming to IS: 1554 (Part-1) latest. For 3-Phase Power Generators, 3.5 core or higher core cables shall be used. Total length of the cable supplied by the seller shall be within 30 meters for each Power Generator with manual control panel and within 60 metres for each Power Generator with AMF control panel. The current rating of the cables shall be as indicated below: 2C, 6 Sq mm for Single Phase, 3.5 & 5.0 KVA 2C, 10 Sq mm for Single Phase, 7.5 & 10 KVA 2C, 25 Sq mm for Single Phase, 15 KVA 2C, 35 Sq mm for Single Phase, 20 KVA 2C, 70Sq mm for Single Phase, 25 KVA 2C, 95Sq mm for Single Phase, 30 KVA 2C, 120Sq mm for Single Phase, 40 KVA 4C, 4 Sq mm for Three Phase, |
| | Scope of installation for Diesel Generating Set when offered by the vendor - inclusive in the scope of supply(Part-3) | d) 10 KVA 4C, 6 Sq mm for Three Phase, 15 KVA 4C, 10 Sq mm for Three Phase, 20 & 25 KVA 4C, 16 Sq mm for Three Phase, 30 KVA 3.5C, 25 Sq mm for Three Phase, 40 KVA 3.5C, 35 Sq mm for Three Phase, 50 KVA 3.5C, 70 Sq mm for Three Phase, 62.5 & 75 KVA 3.5C, 95 Sq mm for Three Phase, 82.5 KVA 3.5C, 120 Sq mm for Three Phase, 100 KVA 3.5C, 185 Sq mm for Three Phase, 125 KVA 3.5C, 300 Sq mm for Three Phase, 160 KVA 3.5C, 2 Run of 120 Sq mm for Three Phase, 180 KVA 3.5C, 2 Run of 150 Sq mm for Three Phase, 200 KVA 3.5C, 2 Run of 185 Sq mm for Three Phase, 225 KVA 3.5C, 2 Run of 240 Sq mm for Three Phase, 250 & 275 KVA 3.5C, 3 Run of 185 Sq mm for Three Phase, 320 KVA 3.5C, 3 Run of 240 Sq mm for Three Phase, 380 & 400 KVA 3.5C, 4 Run of 240 Sq mm for Three Phase, 500, 600 & 750 KVA 3.5C, 6 Run of 240 Sq mm for Three Phase, 900 KVA |
| | Scope of installation for Diesel Generating Set when offered by the vendor - inclusive in the scope of supply(Part-4) | e) Construction of suitable earthing station and necessary connections shall be done by the seller. All the materials / labour required for construction of earthing station shall be supplied by the seller. The total number of earthing pits/stations shall be 4, i.e., 2 for neutral and 2 for body-earthing. Netutral earthing shall be done with copper Plate and Body earthing shall be done with G.I. plate / Copper. The consignee should choose installation site in such a way that the earthing stations can be made within 10 metres of the Power Generator. Earthing station shall be typically constructed as per prevalent standard practices and shall be generally conforming to CPWD General specification for Electrical Works, Part - VII & Part - I - latest. e) Installation of Fuel Tank including foundation / stand shall be done by the seller. f)The warranty is applicable upto specified value of month/hours whichever occurs first's. |
| | Above Scope of installation for Diesel Generating Set when offered by the vendor has been seen, read, understood and agreed to comply | Yes |
| | Warranty on Complete power | 24 month |

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| WARRANTY/SERVICES | generator/DG Set | |
| | Warranty in running hours | 5000 hour |
| | Number of preventive maintenance visits offered in an year during warranty period (Supply of all consumables is the buyer's responsibility)* | 1 |
| | Response Time to attend the complaint during Warranty | 7 day |
| | Time Duration for Repairing /Replace the defect during Warranty | 30 day |
| TEST REPORTS | Type of lab which carried out Test of Complete Product to prove the conformity of product as per specification | Certificates required as per CPCB |
| | Test report Available for (Test/approval) | Type Approval Certificate for the specified rating of the Power Generator from any of the designated agency authorized by CPCB,COP Certificate for engine,Type test report for Alternator as per IS:13364 (Part-1) latest / IS:13364 (Part-2) latest to prove conformity to the specifications |
| | Agree to provide all relevant documents Test Report/supporting document /reports etc to the buyer at the time of bidding or on demand | YES |
| Product Specification for Koel Green Electro Power Generator- DG set of 250 AMF Control Panel | | |
| विनिर्देश Specification | उप-विनिर्देश Sub-Spec | मूल्य Value |
| Power Generator INSTALLATION CONFIGURATIONS | Power Generator installation configurations as defined in CPWD General Specifications for Electrical works - Part VII (DG Set) | Fixed (Power Generators are permanently installed)" |
| OUTPUT CAPACITY RATING/ PHASE | Nominal Rated Capacity (kVA) | 250 |
| | No of Phase (Single Phase-3-5kVA) (Single Phase or Three Phase-5 & 7-5, 10,15, 20, 25, 30 & 40 kVA) (Three Phase-50 to 900 kVA) | Three Phase |
| | Make of Engine | KIRLOSKAR/KOEL GREEN |
| | Model Number of Engine | 6SL90ETA 4G2 |
| | Capacity of Engine (cc) | 8860 |
| | Rated Engine Power (kWm) | 100 % of the required powered at STP(Standard Temperature Pressure) i.e equal to (Nominal Rated Capacity (KVA) of power generator + Any Auxiliary power Consumption by the Power generator) x Power factor(0.8) / Alternator efficiency |
| | Type of Engine cooling | Liquid Cooled |
| | Type of governor | Electronic |

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|--------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------|
| ENGINE | Number of cylinders (nos) | 6 |
| | No of Strokes (nos) | 4 |
| | Rated RPM of Engine (RPM) | 1500 |
| | Fuel | High Speed Diesel (HSD) |
| | Overload capacity | Engine is capable of delivering an output of 10% in excess of rated KVA for a period of one hour in any period of 12 hours continuous running |
| | Specific Fuel Consumption (gm/kWh) | 200 to 265 |
| | Starting voltage (volt) | 24 |
| | Salient Features of Engine | Turbo Charged Engine, Direct injection Fuel System, CRDi Fuel System |
| GOVERNING CLASS | Class of governor | A2 or better |
| | "Maximum Change of Speed as a Percentage of Rated Speed on suddenly taking-off the rated load(Transient) " | 15 |
| | "Maximum Recovery Time in Seconds on suddenly taking-off the rated load(Transient) " | 15 second |
| | Maximum Change of Speed as a Percentage of Rated Speed on suddenly taking-off the rated load(Permanent) | 5 |
| | "Maximum Change of Speed as a Percentage of Rated Speed On a change of load, both on and off, by all steps of 25 percent of the rated load (Transient) " | 4 |
| | "Maximum Recovery Time in Seconds on a change of load, both on and off, by all steps of 25 percent of the rated load(Transient) " | 5 second |
| | "Maximum Change of Speed as a Percentage of Rated Speed On a change of load, both on and off, by all steps of 25 percent of the rated load (Permanent) | 1.5 |
| AC GENERATOR (ALTERNATOR) Make | KIRLOSKAR/KOEL GREEN | |
| | AC GENERATOR (ALTERNATOR) model Number | KIRLOSKAR/KOEL GREEN |
| | Alternator Voltage Rating | 415 Volt |
| | Rating of AC Generator (KVA) | 250 |
| | Power Factor of AC generator | 0.8 |
| | Efficiency at rated | |

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| ALTERNATOR | Power factor at 75% of full Load | 94.9 percent |
| | Conformity to Indian Standard (for Alternator) | Generally conforming to IS:13364 (Part-2) latest (Above 20 KVA) |
| | Type of alternator | Brushless |
| | Voltage Regulation Grade | VG 3 |
| | Alternator IP Rating | IP 23 |
| | Class of Insulation | H |
| | Salient features of Alternator | NA |
| CONTROL PANEL | Control Panel | AMF Control Panel |
| | Control Panel Location | Outside the Canopy |
| | IP Rating of Control Panel | IP 53 |
| | Display meters in the control panel (with appropriate rating and accuracy class) - inclusive in the scope of supply | Voltmeter,Ammeter,Frequency meter,Power Factor meter,Multifunctional Digital display meter (displaying Voltage, Current, Frequency, Power Factor) |
| | Other devices in the control panel (with appropriate rating) - inclusive in the scope of supply | Required switches and cutout,MCCB,Contactor,Battery charger,remote monitoring over internet with GSM modem. |
| | Displayed parameters/Features | Engine Speed,Lube oil pressure,Coolant/cylinder head Temperature,Engine running hours,Engine battery voltage,Engine Running status,Generator Voltage (Ph-Ph),Generator Voltage (Ph-N),Generator Current (R, Y, B),Generator apparent Power (kVA),Generator active Power (kW),Powerfactor,Frequency,Fuel level,Event log,Control supply Voltage |
| | Indicators | Low Lube oil pressure,High water / coolant / cylinder head temperature,Low fuel level,Over speed |
| Audio Alarm | Low Lube oil pressure,High water / coolant / cylinder head temperature,Low fuel level,Over speed | |
| ACOUSTIC ENCLOSURE | Acoustic Enclosure (inclusive in the scope of supply) | Yes, Power Generator supplied with Acoustic Enclosure |
| | Sheet Thickness(mm) | 1.6 |
| | Thickness of insulation | 25 millimeter |
| | Density of insulation (kg/cubic m) | 28 |
| | Noise level at 1 meter (dB) | 75 |
| Fuel Tank | Fuel Tank Capacity | 600 liter |
| | Number of Fuel tank | 1 |
| | Fuel Tank Sheet Material Thickness(mm) | 2 |
| | Fuel Tank Fabricated Material | M.S Sheet |
| | Fuel Tank Features | Fuel Tank capacity is sufficient for 8 hrs of running at full load |
| BATTERY | Battery Type & Specification | "Low Maintenance free to IS: 14257 for high cranking performance" |
| | Battery capacity (Ah) | 150 |
| | No of batteries | 2 |
| SALIENT FEATURES | Salient Features of Power Generator | Glass window on Accoustic Enclosure in front of the Control Panel,Emergency Stop outside the Accoustic Enclosure |
| | Additional Features | NA |
| | Trailer | NA for Fixed/Skid Mounted Power Generator |

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| TRAILER | Pay load of the Trailer | 0 kilogram |
| | Number of Axlels | 0 |
| | Number of wheels | 'NA' for without trailer |
| | Wheel Tyre size | 0 inch |
| | Brakes | NA for Fixed/Skid Mounted Power Generator |
| | Trailer Complying to CMVR act and Regulation | NA for Fixed/Skid Mounted Power Generator |
| | Maximum permissible Speed of Trailer(Km/hr) | 0 |
| | Trailer unladen weight | 0 kilogram |
| | Trailer overall length | 0 millimeter |
| | Gross Towing Weight (including Power Generator) | 0 kilogram |
| | Salient Features of trailer | NA |
| General Technical Requirements (GTR) / Commissioning | General Technical Requirements (GTR) / Commissioning(Part-1) | a) Power Generator shall be complete with Diesel Engine, Alternator and AMF/MANUAL Control Panel along with Acoustic Enclosure. Diesel engine and alternator shall be closely coupled or provided with flexible coupling and mounted on a base plate / M.S. frame of robust in construction. |
| | General Technical Requirements (GTR) / Commissioning(Part-2) | b) Anti-Vibration mountings shall be provided for complete Power Generator in case of flexible coupling. In case of direct coupling Anti-Vibration mountings shall be provided for the Engine as well as the alternator. |
| | General Technical Requirements (GTR) / Commissioning(Part-3) | c) Power Generator should have protection against under voltage, over voltage, under frequency, over frequency, low battery voltage, over current, earth-fault, short circuit, phase sequence change etc. |
| | General Technical Requirements (GTR) / Commissioning(Part-4) | d) Automatic Mains Failure (AMF) control panel, where applicable, shall be able to start up the Power Generator and transfer the load on to the Power Generator on mains failure without requiring any human intervention. Similarly on restoration of mains supply, it shall be able to transfer the load to mains supply and switch off the Power Generator automatically. |
| | General Technical Requirements (GTR) / Commissioning(Part-5) | e) Control Panel (Manual / AMF), where applicable, shall be equipped with suitable Voltmeter, Ammeter, Frequency meter, power factor meter (these items can be alternatively supplied in one multifunctional digital display meter), battery charger, indicators, various switches and cutout / MCB / MCCB / Contactor / Circuit breaker for the DG output of appropriate rating and accuracy class as per trade practice for better utility. |
| | General Technical Requirements (GTR) / Commissioning(Part-6) | f) Supply and installation of a change-over Switch / MCCB of suitable rating for Power Generator with manual control panel, where applicable, is inclusive in the scope of supply. |
| | General Technical Requirements (GTR) / Commissioning(Part-7) | g) Acoustic Enclosure shall be made of Pre-treated and Powder coated CRCA Sheet. The sheet shall be Pre-treated and Powder coated with weather-proof paint. The Acoustic Enclosure shall be vermin proof. The enclosure shall accommodate the (daily service) fuel tank of the Power Generator to make the system compact. |
| | General Technical Requirements (GTR) / Commissioning(Part-8) | h) Power Generators shall meet the requirements of Environmental (Protection) Rules 1986 as laid down by Min. of Environment & Forests read with GSR 371 (E) dated 17.5.2002,GSR 520(E)dated 1.7.2003 , No.448 (E)dated 12.07.2004 , GSR 771(E) dated 11.12.2013 GSR 232(E)dated 31.03.2014,Gazette Notification No.167 dated. 31.03.2014 and Gazette Notification No. 578 dated. 11.11.2014 in respect of noise and emission norms. The latest amendments to above GSRs shall be applicable as and when amended by Ministry of Environment and Forest. |
| | General Technical Requirements (GTR) / Commissioning(Part-9) | i) Standard set of tools consisting of a set of 3 spanners, one screw driver, one standard plier and one nose plier of appropriate size shall be provided along with each Power Generator. |
| | General Technical Requirements (GTR) / | j) Supply of Fuel tank of suitable capacity, sufficient for minimum 8 hours running/990 liters(whichever is lower) the Power Generator, is inclusive in the scope of supply. Fuel Tank shall be complete with fuel piping (between fuel tank and diesel engine), |

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| | Commissioning(Part-10) | valves, level indications and all standard accessories. MS pipes, heavy class of suitable dia conforming to IS 1239 (Part-1) - latest shall be used for fuel piping. |
| | General Technical Requirements (GTR) / Commissioning(Part-11) | Buyer's Responsibilities: i. Mains ACB for AMF operation shall be provided by the buyer for DG set rating above 600 KVA and above .For DG set other ratings seller shall provide mains and DG contactor/breaker, ii. Exhaust piping, extra civil work, distribution board shall be provided by the buyer. iii. Consumables such as filters, lube oil at the time of servicing during warranty period shall be provided by the buyer. iv. Obtaining necessary approvals, if any, is the responsibility of the buyer. |
| | Above General Technical Requirements (GTR) / Commissioning have been seen, read, understood and agreed to comply | Yes |
| SCOPE OF INSTALLATION | Installation | with installation - inclusive in the scope of supply |
| | Scope of installation for Diesel Generating Set when offered by the vendor - inclusive in the scope of supply(Part-1) | a) Installation of Power Generator when offered by the vendor is inclusive in the scope of supply and shall be done by the seller. The installation work of Power Generator and its constituent parts shall be generally conforming to CPWD General Specification for Electrical Works, Part - VII - latest. b) Foundation shall be constructed by the seller. Foundation shall be of PCC type with the ratio of 4:2:1. The length and breadth of the foundation shall be 300 mm more from the respective length and breadth of the Power Generator. The height of the foundation shall be 400 mm, i.e., 200 mm below and 200 mm above the ground level. All the materials / labour required for foundation work shall be supplied by the seller. |
| | Scope of installation for Diesel Generating Set when offered by the vendor - inclusive in the scope of supply(Part-2) | c) Supply, laying and termination of interconnecting power and control cable shall be done by the seller. The cable supplied shall be ISI marked heavy duty PVC insulated, armoured cable, with PVC outer Sheath of Type ST-2 (FR Grade, Category C1), with aluminium conductor having insulation of PVC compound type -C, suitable for rated voltage upto and including 1100 volts and conforming to IS: 1554 (Part-1) latest. For 3-Phase Power Generators, 3.5 core or higher core cables shall be used. Total length of the cable supplied by the seller shall be within 30 meters for each Power Generator with manual control panel and within 60 metres for each Power Generator with AMF control panel. The current rating of the cables shall be as indicated below: 2C, 6 Sq mm for Single Phase, 3.5 & 5.0 KVA 2C, 10 Sq mm for Single Phase, 7.5 & 10 KVA 2C, 25 Sq mm for Single Phase, 15 KVA 2C, 35 Sq mm for Single Phase, 20 KVA 2C, 70Sq mm for Single Phase, 25 KVA 2C, 95Sq mm for Single Phase, 30 KVA 2C, 120Sq mm for Single Phase, 40 KVA 4C, 4 Sq mm for Three Phase, |
| | Scope of installation for Diesel Generating Set when offered by the vendor - inclusive in the scope of supply(Part-3) | d) 10 KVA 4C, 6 Sq mm for Three Phase, 15 KVA 4C, 10 Sq mm for Three Phase, 20 & 25 KVA 4C, 16 Sq mm for Three Phase, 30 KVA 3.5C, 25 Sq mm for Three Phase, 40 KVA 3.5C, 35 Sq mm for Three Phase, 50 KVA 3.5C, 70 Sq mm for Three Phase, 62.5 & 75 KVA 3.5C, 95 Sq mm for Three Phase, 82.5 KVA 3.5C, 120 Sq mm for Three Phase, 100 KVA 3.5C, 185 Sq mm for Three Phase, 125 KVA 3.5C, 300 Sq mm for Three Phase, 160 KVA 3.5C, 2 Run of 120 Sq mm for Three Phase, 180 KVA 3.5C, 2 Run of 150 Sq mm for Three Phase, 200 KVA 3.5C, 2 Run of 185 Sq mm for Three Phase, 225 KVA 3.5C, 2 Run of 240 Sq mm for Three Phase, 250 & 275 KVA 3.5C, 3 Run of 185 Sq mm for Three Phase, 320 KVA 3.5C, 3 Run of 240 Sq mm for Three Phase, 380 & 400 KVA 3.5C, 4 Run of 240 Sq mm for Three Phase, 500, 600 & 750 KVA 3.5C, 6 Run of 240 Sq mm for Three Phase, 900 KVA |
| | Scope of installation for Diesel Generating Set when offered by the vendor - inclusive in the scope of supply(Part-4) | e) Construction of suitable earthing station and necessary connections shall be done by the seller. All the materials / labour required for construction of earthing station shall be supplied by the seller. The total number of earthing pits/stations shall be 4, i.e., 2 for neutral and 2 for body-earthing. Netutral earthing shall be done with copper Plate and Body earthing shall be done with G.I. plate / Copper. The consignee should choose installation site in such a way that the earthing stations can be made within 10 metres of the Power Generator. Earthing station shall be typically constructed as per prevalent standard practices and shall be generally conforming to CPWD General specification for Electrical Works, Part - VII & Part - I - latest. e) Installation of Fuel Tank including foundation / stand shall be done by the seller. f)The warranty is applicable upto specified value of month/hours whichever occurs first's. |
| | Above Scope of installation for Diesel Generating Set when offered by the vendor has been seen, read, understood and agreed to comply | Yes |
| | WARRANTY/SERVICES | Warranty on Complete power genertor/DG Set |
| Warranty in running hours | | 5000 hour |
| Number of preventive maintenance visits offered in an year during warranty period (Supply of all consumables is the buyer's responsibility)* | | 1 |
| Response Time to attend the complaint during Warranty | | 7 day |
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| | Time Duration for Repairing /Replace the defect during Warranty | 30 day |
| TEST REPORTS | Type of lab which carried out Test of Complete Product to prove the conformity of product as per specification | Certificates required as per CPCB |
| | Test report Available for (Test/approval) | Type Approval Certificate for the specified rating of the Power Generator from any of the designated agency authorized by CPCB,COP Certificate for engine,Type test report for Alternator as per IS:13364 (Part-1) latest / IS:13364 (Part-2) latest to prove conformity to the specifications |
| | Agree to provide all relevant documents Test Report/supporting document /reports etc to the buyer at the time of bidding or on demand | YES |

Product Specification for Koel Green Electro Power Generator- DG set of 160 AMF Control Panel

| विनिर्देश Specification | उप-विनिर्देश Sub-Spec | मूल्य Value |
|---------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Power Generator INSTALLATION CONFIGURATIONS | Power Generator installation configurations as defined in CPWD General Specifications for Electrical works - Part VII (DG Set) | Fixed (Power Generators are permanently installed)" |
| OUTPUT CAPACITY RATING/ PHASE | Nominal Rated Capacity (kVA) | 160 |
| | No of Phase (Single Phase-3-5kVA) (Single Phase or Three Phase-5 & 7-5, 10,15, 20, 25, 30 & 40 kVA) (Three Phase-50 to 900 kVA) | Three Phase |
| ENGINE | Make of Engine | KIRLOSKAR/KOEL GREEN |
| | Model Number of Engine | 6K1080ETA 4G1 |
| | Capacity of Engine (cc) | 6480 |
| | Rated Engine Power (kWm) | 100 % of the required powered at STP(Standard Temperature Pressure) i.e equal to (Nominal Rated Capacity (KVA) of power generator + Any Auxilary power Consumption by the Power generator) x Power factor(0.8) / Alternator efficiency |
| | Type of Engine cooling | Liquid Cooled |
| | Type of governer | Electronic |
| | Number of cylinders (nos) | 6 |
| | No of Strokes (nos) | 4 |
| | Rated RPM of Engine (RPM) | 1500 |
| | Fuel | High Speed Diesel (HSD) |
| | Overload capacity | Engine is capable of delivering an output of 10% in excess of rated KVA for a period of one hour in any period of 12 hours continous running |
| | Specific Fuel Consumption (gm/kWh) | 200 to 265 |
| Starting voltage (volt) | 12 | |

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| | Salient Features of Engine | Turbo Charged Engine,Direct injection Fuel System,CRDi Fuel System |
| GOVERNING CLASS | Class of governer | A2 or better |
| | "Maximum Change of Speed as a Percentage of Rated Speed on suddenly taking-off the rated load(Transient) " | 15 |
| | "Maximum Recovery Time in Seconds on suddenly taking-off the rated load(Transient) " | 15 second |
| | Maximum Change of Speed as a Percentage of Rated Speed on suddenly taking-off the rated load(Permanent) | 5 |
| | "Maximum Change of Speed as a Percentage of Rated Speed On a change of load, both on and off, by all steps of 25 percent of the rated load (Transient) " | 4 |
| | "Maximum Recovery Time in Seconds on a change of load, both on and off, by all steps of 25 percent of the rated load(Transient) " | 5 second |
| | "Maximum Change of Speed as a Percentage of Rated Speed On a change of load, both on and off, by all steps of 25 percent of the rated load (Permanent) | 1.5 |
| ALTERNATOR | AC GENERATOR (ALTERNATOR) Make | KOEL GREEN/KIRLOSKAR |
| | AC GENERATOR (ALTERNATOR) model Number | KOEL GREEN/KIRLOSKAR |
| | Alternator Voltage Rating | 415 Volt |
| | Rating of AC Generator (KVA) | 160 |
| | Power Factor of AC generator | 0.8 |
| | Efficiency at rated Power factor at 75% of full Load | 93.18 percent |
| | Conformity to Indian Standard (for Alternator) | Generally conforming to IS:13364 (Part-2) latest (Above 20 KVA) |
| | Type of alternator | Brushless |
| | Voltage Regulation Grade | VG 3 |
| | Alternator IP Rating | IP 23 |
| | Class of Insulation | H |
| | Salient features of Alternator | NA |
| | Control Panel | AMF Control Panel |

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| CONTROL PANEL | Control Panel Location | Outside the Canopy |
| | IP Rating of Control Panel | IP 53 |
| | Display meters in the control panel (with appropriate rating and accuracy class) - inclusive in the scope of supply | Multifunctional Digital display meter (displaying Voltage, Current, Frequency, Power Factor) |
| | Other devices in the control panel (with appropriate rating) - inclusive in the scope of supply | Required switches and cutout,Battery charger,Contactor,remote monitoring over internet with GSM modem. |
| | Displayed parameters/Features | Engine Speed,Lube oil pressure,Coolant/cylinder head Temperature,Engine running hours,Engine battery voltage,Engine Running status,Generator Voltage (Ph-Ph),Generator Voltage (Ph-N),Generator Current (R, Y, B),Generator apparent Power (kVA),Generator active Power (kW),Powerfactor,Frequency,Fuel level,Event log,Control supply Voltage |
| | Indicators | Low Lube oil pressure,High water / coolant / cylinder head temperature,Low fuel level,Over speed |
| | Audio Alarm | Low Lube oil pressure,High water / coolant / cylinder head temperature,Low fuel level,Over speed |
| ACOUSTIC ENCLOSURE | Acoustic Enclosure (inclusive in the scope of supply) | Yes, Power Generator supplied with Acoustic Enclosure |
| | Sheet Thickness(mm) | 1.6 |
| | Thickness of insulation | 25 millimeter |
| | Density of insulation (kg/cubic m) | 28 |
| | Noise level at 1 meter (dB) | 75 |
| Fuel Tank | Fuel Tank Capacity | 400 liter |
| | Number of Fuel tank | 1 |
| | Fuel Tank Sheet Material Thickness(mm) | 2 |
| | Fuel Tank Fabricated Material | M.S Sheet |
| | Fuel Tank Features | Fuel Tank capacity is sufficient for 8 hrs of running at full load |
| BATTERY | Battery Type & Specification | "Low Maintenance free to IS: 14257 for high cranking performance" |
| | Battery capacity (Ah) | 130 |
| | No of batteries | 1 |
| SALIENT FEATURES | Salient Features of Power Generator | Glass window on Accoustic Enclosure in front of the Control Panel,Emergency Stop outside the Accoustic Enclosure |
| | Additional Features | NA |
| TRAILER | Trailer | NA for Fixed/Skid Mounted Power Generator |
| | Pay load of the Trailer | 0 kilogram |
| | Number of Axlels | 0 |
| | Number of wheels | 'NA' for without trailer |
| | Wheel Tyre size | 0 inch |
| | Brakes | NA for Fixed/Skid Mounted Power Generator |
| | Trailer Complying to CMVR act and Regulation | NA for Fixed/Skid Mounted Power Generator |
| | Maximum permissible Speed of Trailer(Km/hr) | 0 |
| | Trailer unladen | 0 kilogram |

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| | weight | |
| | Trailer overall length | 0 millimeter |
| | Gross Towing Weight (including Power Generator) | 0 kilogram |
| | Salient Features of trailer | NA |
| General Technical Requirements (GTR) / Commissioning | General Technical Requirements (GTR) / Commissioning(Part-1) | a) Power Generator shall be complete with Diesel Engine, Alternator and AMF/MANUAL Control Panel along with Acoustic Enclosure. Diesel engine and alternator shall be closely coupled or provided with flexible coupling and mounted on a base plate / M.S. frame of robust in construction. |
| | General Technical Requirements (GTR) / Commissioning(Part-2) | b) Anti-Vibration mountings shall be provided for complete Power Generator in case of flexible coupling. In case of direct coupling Anti-Vibration mountings shall be provided for the Engine as well as the alternator. |
| | General Technical Requirements (GTR) / Commissioning(Part-3) | c) Power Generator should have protection against under voltage, over voltage, under frequency, over frequency, low battery voltage, over current, earth-fault, short circuit, phase sequence change etc. |
| | General Technical Requirements (GTR) / Commissioning(Part-4) | d) Automatic Mains Failure (AMF) control panel, where applicable, shall be able to start up the Power Generator and transfer the load on to the Power Generator on mains failure without requiring any human intervention. Similarly on restoration of mains supply, it shall be able to transfer the load to mains supply and switch off the Power Generator automatically. |
| | General Technical Requirements (GTR) / Commissioning(Part-5) | e) Control Panel (Manual / AMF), where applicable, shall be equipped with suitable Voltmeter, Ammeter, Frequency meter, power factor meter (these items can be alternatively supplied in one multifunctional digital display meter), battery charger, indicators, various switches and cutout / MCB / MCCB / Contactor / Circuit breaker for the DG output of appropriate rating and accuracy class as per trade practice for better utility. |
| | General Technical Requirements (GTR) / Commissioning(Part-6) | f) Supply and installation of a change-over Switch / MCCB of suitable rating for Power Generator with manual control panel, where applicable, is inclusive in the scope of supply. |
| | General Technical Requirements (GTR) / Commissioning(Part-7) | g) Acoustic Enclosure shall be made of Pre-treated and Powder coated CRCA Sheet. The sheet shall be Pre-treated and Powder coated with weather-proof paint. The Acoustic Enclosure shall be vermin proof. The enclosure shall accommodate the (daily service) fuel tank of the Power Generator to make the system compact. |
| | General Technical Requirements (GTR) / Commissioning(Part-8) | h) Power Generators shall meet the requirements of Environmental (Protection) Rules 1986 as laid down by Min. of Environment & Forests read with GSR 371 (E) dated 17.5.2002,GSR 520(E)dated 1.7.2003 , No.448 (E)dated 12.07.2004 , GSR 771(E) dated 11.12.2013 GSR 232(E)dated 31.03.2014,Gazette Notification No.167 dated. 31.03.2014 and Gazette Notification No. 578 dated. 11.11.2014 in respect of noise and emission norms. The latest amendments to above GSRs shall be applicable as and when amended by Ministry of Environment and Forest. |
| | General Technical Requirements (GTR) / Commissioning(Part-9) | i) Standard set of tools consisting of a set of 3 spanners, one screw driver, one standard plier and one nose plier of appropriate size shall be provided along with each Power Generator. |
| | General Technical Requirements (GTR) / Commissioning(Part-10) | j) Supply of Fuel tank of suitable capacity, sufficient for minimum 8 hours running/990 liters(whichever is lower) the Power Generator, is inclusive in the scope of supply. Fuel Tank shall be complete with fuel piping (between fuel tank and diesel engine), valves, level indications and all standard accessories. MS pipes, heavy class of suitable dia conforming to IS 1239 (Part-1) - latest shall be used for fuel piping. |
| | General Technical Requirements (GTR) / Commissioning(Part-11) | Buyer's Responsibilities: i. Mains ACB for AMF operation shall be provided by the buyer for DG set rating above 600 KVA and above .For DG set other ratings seller shall provide mains and DG contactor/breaker, ii. Exhaust piping, extra civil work, distribution board shall be provided by the buyer. iii. Consumables such as filters, lube oil at the time of servicing during warranty period shall be provided by the buyer. iv. Obtaining necessary approvals, if any, is the responsibility of the buyer. |
| | Above General Technical Requirements (GTR) / Commissioning have been seen, read, understood and agreed to comply | Yes |
| | Installation | with installation - inclusive in the scope of supply |

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| SCOPE OF INSTALLATION | Scope of installation for Diesel Generating Set when offered by the vendor - inclusive in the scope of supply(Part-1) | a) Installation of Power Generator when offered by the vendor is inclusive in the scope of supply and shall be done by the seller. The installation work of Power Generator and its constituent parts shall be generally conforming to CPWD General Specification for Electrical Works, Part - VII - latest. b) Foundation shall be constructed by the seller. Foundation shall be of PCC type with the ratio of 4:2:1. The length and breadth of the foundation shall be 300 mm more from the respective length and breadth of the Power Generator. The height of the foundation shall be 400 mm, i.e., 200 mm below and 200 mm above the ground level. All the materials / labour required for foundation work shall be supplied by the seller. |
| | Scope of installation for Diesel Generating Set when offered by the vendor - inclusive in the scope of supply(Part-2) | c) Supply, laying and termination of interconnecting power and control cable shall be done by the seller. The cable supplied shall be ISI marked heavy duty PVC insulated, armoured cable, with PVC outer Sheath of Type ST-2 (FR Grade, Category C1), with aluminium conductor having insulation of PVC compound type -C, suitable for rated voltage upto and including 1100 volts and conforming to IS: 1554 (Part-1) latest. For 3-Phase Power Generators, 3.5 core or higher core cables shall be used. Total length of the cable supplied by the seller shall be within 30 meters for each Power Generator with manual control panel and within 60 metres for each Power Generator with AMF control panel. The current rating of the cables shall be as indicated below: 2C, 6 Sq mm for Single Phase, 3.5 & 5.0 KVA 2C, 10 Sq mm for Single Phase, 7.5 & 10 KVA 2C, 25 Sq mm for Single Phase, 15 KVA 2C, 35 Sq mm for Single Phase, 20 KVA 2C, 70Sq mm for Single Phase, 25 KVA 2C, 95Sq mm for Single Phase, 30 KVA 2C, 120Sq mm for Single Phase, 40 KVA 4C, 4 Sq mm for Three Phase, |
| | Scope of installation for Diesel Generating Set when offered by the vendor - inclusive in the scope of supply(Part-3) | d) 10 KVA 4C, 6 Sq mm for Three Phase, 15 KVA 4C, 10 Sq mm for Three Phase, 20 & 25 KVA 4C, 16 Sq mm for Three Phase, 30 KVA 3.5C, 25 Sq mm for Three Phase, 40 KVA 3.5C, 35 Sq mm for Three Phase, 50 KVA 3.5C, 70 Sq mm for Three Phase, 62.5 & 75 KVA 3.5C, 95 Sq mm for Three Phase, 82.5 KVA 3.5C, 120 Sq mm for Three Phase, 100 KVA 3.5C, 185 Sq mm for Three Phase, 125 KVA 3.5C, 300 Sq mm for Three Phase, 160 KVA 3.5C, 2 Run of 120 Sq mm for Three Phase, 180 KVA 3.5C, 2 Run of 150 Sq mm for Three Phase, 200 KVA 3.5C, 2 Run of 185 Sq mm for Three Phase, 225 KVA 3.5C, 2 Run of 240 Sq mm for Three Phase, 250 & 275 KVA 3.5C, 3 Run of 185 Sq mm for Three Phase, 320 KVA 3.5C, 3 Run of 240 Sq mm for Three Phase, 380 & 400 KVA 3.5C, 4 Run of 240 Sq mm for Three Phase, 500, 600 & 750 KVA 3.5C, 6 Run of 240 Sq mm for Three Phase, 900 KVA |
| | Scope of installation for Diesel Generating Set when offered by the vendor - inclusive in the scope of supply(Part-4) | e) Construction of suitable earthing station and necessary connections shall be done by the seller. All the materials / labour required for construction of earthing station shall be supplied by the seller. The total number of earthing pits/stations shall be 4, i.e., 2 for neutral and 2 for body-earthing. Neutral earthing shall be done with copper Plate and Body earthing shall be done with G.I. plate / Copper. The consignee should choose installation site in such a way that the earthing stations can be made within 10 metres of the Power Generator. Earthing station shall be typically constructed as per prevalent standard practices and shall be generally conforming to CPWD General specification for Electrical Works, Part - VII & Part - I - latest. e) Installation of Fuel Tank including foundation / stand shall be done by the seller. f)The warranty is applicable upto specified value of month/hours whichever occurs first's. |
| | Above Scope of installation for Diesel Generating Set when offered by the vendor has been seen, read, understood and agreed to comply | Yes |
| WARRANTY/SERVICES | Warranty on Complete power genertor/DG Set | 24 month |
| | Warranty in running hours | 5000 hour |
| | Number of preventive maintenance visits offered in an year during warranty period (Supply of all consumables is the buyer's responsibility)* | 1 |
| | Response Time to attend the complaint during Warranty | 7 day |
| | Time Duration for Repairing /Replace the defect during Warranty | 30 day |
| TEST REPORTS | Type of lab which carried out Test of Complete Product to prove the conformity of product as per specification | Certificates required as per CPCB |
| | Test report Available for (Test/approval) | Type Approval Certificate for the specified rating of the Power Generator from any of the designated agency authorized by CPCB,COP Certificate for engine,Type test report for Alternator as per IS:13364 (Part-1) latest / IS:13364 (Part-2) latest to prove conformity to the specifications |
| | Agree to provide all relevant documents Test Report/supporting | |

| | |
|---------------------------------------------------------------------------------|-----|
| document /reports etc to the buyer at the time of bidding or on demand | YES |
|---------------------------------------------------------------------------------|-----|

ईपीबीजी विवरण | ePBG Detail

सलाहकार बैंक | Advisory Bank :

State Bank of India

ईपीबीजी प्रतिशत (%) | ePBG Percentage(%):

5.00

बोली लगाने वाले को बोली के नियमों और शर्तों के अनुसार लागू ईपीबीजी प्रस्तुत करना होगा | The bidder shall furnish ePBG as applicable as per bid's terms and conditions

नियम और शर्तें | Terms and Conditions

1. General Terms and Conditions-

- 1.1 This contract is governed by the [General Terms and Conditions](#), conditions stipulated to this Product/Service as provided in the Marketplace.
- 1.2 This Contract between the Seller and the Buyer, is for the supply of the Goods and/ or Services, detailed in the schedule above, in accordance with the General Terms and Conditions (GTC) unless otherwise superseded by Goods / Services specific Special Terms and Conditions (STC) and/ or BID/Reverse Auction Additional Terms and Conditions (ATC), as applicable
- 1.3 All GeM Sellers / Service Providers are mandated to ensure compliance with all the applicable laws / acts / rules including but not limited to all Labour Laws such as The Minimum Wages Act, 1948, The Payment of Wages Act, 1936, The Payment of Bonus Act, 1965, The Equal Remuneration Act, 1976, The Payment of Gratuity Act, 1972 etc. Any non-compliance will be treated as breach of contract and Buyer may take suitable actions as per GeM Contract.

2. Buyer Added Bid Specific Terms and Conditions-

2.1 Scope of Supply:

Scope of supply (Bid price to include all cost components) : Supply Installation Testing and Commissioning of Goods

2.2 Service & Support:

Availability of Service Centres: Bidder/OEM must have a Functional Service Centre in the State of each Consignee's Location in case of carry-in warranty. (Not applicable in case of goods having on-site warranty). If service center is not already there at the time of bidding, successful bidder / OEM shall have to establish one within 30 days of award of contract. Payment shall be released only after submission of documentary evidence of having Functional Service Centre.

2.3 Certificates:

Bidder's offer is liable to be rejected if they don't upload any of the certificates / documents sought in the Bid document, ATC and Corrigendum if any.

2.4 Generic:

Buyer Organization specific Integrity Pact shall have to be complied by all bidders. Bidders shall have to upload scanned copy of signed integrity pact as per Buyer organizations policy along with bid. [Click here to view the file](#).

2.5 Buyer Added Bid Specific ATC:

Buyer Added text based ATC clauses

1. The DG Set specifications shall be as per the Technical Parameter Sheet given in Buyer Uploaded ATC Document. The specifications in the Technical Parameter Sheet shall super sede the specifications in the bid document. However, other than the parameters mentioned in the Technical Parameter Sheet will be as per the bid document.
2. The Nominal Rated Capacity (KVA) for schedule no. 05 is 58.5 KVA, whereas for other items it is as per the KVA mentioned in the bid document.
2. Bidders are requested to go through the Buyer Uploaded ATC document for documents submission details.

2.6 Buyer Added Bid Specific ATC:

Buyer uploaded ATC document [Click here to view the file](#).

नोट: यह सिस्टम जनरेटेड फाइल है। कोई हस्ताक्षर की आवश्यकता नहीं है। इस दस्तावेज़ का प्रिंट आउट भुगतान/लेनदेन उद्देश्य के लिए मान्य नहीं है।

Note: This is system generated file. No signature is required. Print out of this document is not valid for payment/ transaction purpose.