

## अनुबंध | Contract



अनुबंध क्रमांक | Contract No: GEMC-511687796974187

अनुबंध तिथि | Generated Date : 12-Aug-2024

बोली/आरए/पीबीपी संख्या | Bid/RA/PBP No.: [GEM/2023/B/4345424](#)

अनुसूची नाम | Schedule Name: Schedule 2, Schedule 4, Schedule 3

संगठन विवरण   Organisation Details	खरीदार विवरण   Buyer Details
प्रकार   Type : Central PSU मंत्रालय   Ministry : Ministry of Coal विभाग   Department : COAL INDIA LIMITED संगठन का नाम   Organisation Name : WESTERN COALFIELDS LIMITED कार्यालय क्षेत्र   Office Zone: WCL NAGPUR MAHARASHTRA	पद   Designation : Asstt Manager MM संपर्क नंबर   Contact No. : 0712-2511381-5585 ईमेल आईडी   Email ID : vsgajbhiye@westerncoal.gov.in जीएसटीआईएन   GSTIN : 27AACW1578L1ZW पता   Address : WCL Hqrs, Coal Estate, Civil Lines, NAGPUR, MAHARASHTRA-440001, India

वित्तीय स्वीकृति विवरण   Financial Approval Detail	भुगतान प्राधिकरण विवरण   Paying Authority Details
आईएफडी सहमति   IFD Concurrence : No प्रशासनिक अनुमोदन का पदनाम   Designation of Administrative Approval: GM(MM)HOD वित्तीय अनुमोदन का पदनाम   Designation of Financial Approval : AF(MM)	Role: PAO भुगतान का तरीका   Payment Mode: Offline पद   Designation : Dy Manager Fin ईमेल आईडी   Email ID : mukesh.alluri@coalindia.in जीएसटीआईएन   GSTIN : 27AACW1578L1ZW पता   Address: WCL Hqrs, Coal Estate, Civil Lines, NAGPUR CITY, MAHARASHTRA-440001, India

विक्रेता विवरण   Seller Details	
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 एमएसई सामाजिक श्रेणी   MSE Social Category : General एमएसई लिंग श्रेणी   MSE Gender : Male जीएसटीआईएन   GSTIN: 05AACFE1653M2ZH (B) , (R)	

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

वितरण निर्देश | Delivery Instructions : As per NIT

उत्पाद विवरण   Product Details		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 30 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: 30 KVA DG SET ( AS PER CPCB-IV NORMS ) एचएसएन कोड   HSN Code: HSN not specified by seller	4	pieces	599,000	NA	2,396,000	
2	उत्पाद का नाम   Product Name : Koel Green Electro Power Generator- DG set of 125 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: 125 KVA DG SET ( AS PER CPCB-IV NORMS ) एचएसएन कोड   HSN Code: HSN not specified by seller	2	pieces	1,423,026	NA	2,846,052	
	उत्पाद का नाम   Product Name : Koel Green Electro Power Generator- DG set of 100 AMF Control Panel						

3	<b>ब्रांड   Brand :</b> Koel Green Electro <b>ब्रांड प्रकार   Brand Type :</b> Registered Brand <b>कैटलॉग की स्थिति   Catalogue Status :</b> OEM verified catalogue <b>कैसे बेचा जा रहा है   Selling As :</b> OEM <b>श्रेणी का नाम और चतुर्थांश   Category Name &amp; Quadrant :</b> Power Generator - DG Set (up to 900 KVA) (Q2) <b>मॉडल   Model :</b> 100 KVA DG SET ( AS PER CPCB-IV NORMS ) <b>एचएसएन कोड   HSN Code :</b> HSN not specified by seller	2	pieces	1,383,555	NA	2,767,110
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कुल ऑर्डर मूल्य | Total Order Value (in INR)

8,009,162

**परोषिती विवरण | Consignee Detail**

क्र.सं.   S.No	परोषिती   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 : ss.mangare@nic.in  संपर्क   Contact : 07175-285019-  जीएसटीआईएन   GSTIN : 27AAACW1578L1ZW  पता   Address : Regional Stores, WCL New Majri, P.O. Shivaji Nagar Distt Chandrapur,  CHANDRAPUR, MAHARASHTRA-442503, India</p>	Koel Green Electro Power Generator- DG set of 125 AMF Control Panel	-	1	12-Aug-2024	11-Sep-2024
2	<p>पद   Designation :-  ईमेल आईडी   Email ID : alokkumar@westerncoal.gov.in  संपर्क   Contact : 0712-2649299-  जीएसटीआईएन   GSTIN : 27AAACW1578L1ZW  पता   Address : Regional Stores, WCL PO SILEWARA COLLIERY Dist. Nagpur M.S.; Pin 441 109,  NAGPUR, MAHARASHTRA-441109, India</p>	Koel Green Electro Power Generator- DG set of 100 AMF Control Panel	-	2	12-Aug-2024	11-Sep-2024
3	<p>पद   Designation :-  ईमेल आईडी   Email ID : mrbanchod@westerncoal.gov.in  संपर्क   Contact : 07172-237513-  जीएसटीआईएन   GSTIN : 27AAACW1578L1ZW  पता   Address : Regional Stores, WCL P.O. GHUGUS COLLIERY Distt Chandrapur, M.S ; Pin 442 505,  CHANDRAPUR, MAHARASHTRA-442505, India</p>	Koel Green Electro Power Generator- DG set of 30 AMF Control Panel	-	4	12-Aug-2024	11-Sep-2024
4	<p>पद   Designation :-  ईमेल आईडी   Email ID : mr.patil3485@nic.in  संपर्क   Contact : 07239-241341-  जीएसटीआईएन   GSTIN : 27AAACW1578L1ZW  पता   Address : Regional Stores, WCL Wani North Area , PO UKNI, Tahsil WANI Dist Yavatmal (MS) Pin 445 304,  YAVATMAL, MAHARASHTRA-445304, India</p>	Koel Green Electro Power Generator- DG set of 125 AMF Control Panel	-	1	12-Aug-2024	11-Sep-2024

**Product Specification for Koel Green Electro Power Generator- DG set of 30 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)	30
	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	KIRLOSAR/KOEL GREEN
	Model Number of Engine	3R1190ENA4G1
	Capacity of Engine (cc)	3570
	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 governer	Electronic
	Number of cylinders (nos)	3

ENGINE	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)	12
	Salient Features of Engine	Direct injection Fuel System,Naturally aspirated engine
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	KIRLOSKAR/KOEL GREEN
	AC GENERATOR (ALTERNATOR) model Number	KIRLOSKAR/KOEL GREEN
	Alternator Voltage Rating	415 Volt
	Rating of AC Generator (KVA)	30
	Power Factor of AC generator	0.8
	Efficiency at rated Power factor at 75% of full Load	88.73 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
	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)

CONTROL PANEL	Other devices in the control panel (with appropriate rating) - inclusive in the scope of supply	Required switches and cutout, Contactor, Battery charger
	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)	25
	Noise level at 1 meter (dB)	75
Fuel Tank	Fuel Tank Capacity	50 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)	75
	No of batteries	1
SALIENT FEATURES	Salient Features of Power Generator	Glass window on Acoustic Enclosure in front of the Control Panel, Emergency Stop outside the Acoustic Enclosure
	Additional Features	NA
TRAILER	Trailer	NA for Fixed/Skid Mounted Power Generator
	Pay load of the Trailer	0 kilogram
	Number of Axles	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	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
SCOPE OF INSTALLATION	Installation	Without installation
	Scope of installation for Diesel Generating Set when offered by the vendor - inclusive in the scope of supply(Part-1)	Not Applicable as Installation not offered
	Scope of installation for Diesel Generating Set when offered by the vendor - inclusive in the scope of supply(Part-2)	Not Applicable as Installation not offered
	Scope of installation for Diesel Generating Set when offered by the vendor - inclusive in the scope of supply(Part-3)	Not Applicable as Installation not offered
	Scope of installation for Diesel Generating Set when offered by the vendor - inclusive in the scope of supply(Part-4)	Not Applicable as Installation not offered
	Above Scope of installation for Diesel Generating Set when offered by the vendor has been seen, read, understood and agreed to comply	Not Applicable as Installation not offered
WARRANTY/SERVICES	Warranty on Complete power generator/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
	Type of lab which carried out	

TEST REPORTS	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 and Endurance test report for Engine as per IS: 10001 latest / IS: 10002 latest,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

**खरीदार परिभाषित अतिरिक्त विशेषता के लिए | Buyer Defined Additional Specification for Koel Green Electro Power Generator- DG set of 30 AMF Control Panel**

विनिर्देश   Specification	मूल्य   Value
Rated Voltage	415V
Rating of AC Generator (KVA)	30
Class of insulation	Not inferior than Class B
Noise level at 1 meter (dB)	Not more than 75 dB (A) at 1 meter from enclosure surface

**Product Specification for Koel Green Electro Power Generator- DG set of 125 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)	125
	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	4K1080ETA4G1
	Capacity of Engine (cc)	4320
	Rated Engine Power (kWm)	100 % of the required power 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)	4
	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)	12
	Salient Features of Engine	Turbo Charged Engine,Direct injection Fuel System
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	15 second	

GOVERNING CLASS	the rated load(Transient) "	
	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	KIRLOSKAR/KOEL GREEN
	AC GENERATOR (ALTERNATOR) model Number	KIRLOSKAR/KOEL GREEN
	Alternator Voltage Rating	415 Volt
	Rating of AC Generator (KVA)	125
	Power Factor of AC generator	0.8
	Efficiency at rated Power factor at 75% of full Load	92.17 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	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,Contactor,Battery charger
	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	230 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 Axle/s	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) / 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	Without installation
	Scope of installation for Diesel Generating Set when offered by the vendor - inclusive in the scope of supply(Part-1)	Not Applicable as Installation not offered
	Scope of installation for Diesel Generating Set when offered by the vendor - inclusive in the scope of supply(Part-2)	Not Applicable as Installation not offered
	Scope of installation for Diesel Generating Set when offered by the vendor - inclusive in the scope of supply(Part-3)	Not Applicable as Installation not offered
	Scope of installation for Diesel Generating Set when offered by the vendor - inclusive in the scope of supply(Part-4)	Not Applicable as Installation not offered
	Above Scope of installation for Diesel Generating Set when offered by the vendor has been seen, read, understood and agreed to comply	Not Applicable as Installation not offered
WARRANTY/SERVICES	Warranty on Complete power generator/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 and Endurance test report for Engine as per IS: 10001 latest / IS: 10002 latest,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
<b>खरीदार परिभाषित अतिरिक्त विशिष्टता के लिए   Buyer Defined Additional Specification for Koel Green Electro Power Generator- DG set of 125 AMF Control Panel</b>		
<b>विनिर्देश   Specification</b>	<b>मूल्य   Value</b>	
Rated Voltage	415V	

Rating of AC Generator (KVA)	125	
Class of insulation	Not inferior than Class B	
Noise level at 1 meter (dB)	Not more than 75 dB (A) at 1 meter from enclosure surface	
<b>Product Specification for Koel Green Electro Power Generator- DG set of 100 AMF Control Panel</b>		
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)	100
	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	4K1080ETA4G1
	Capacity of Engine (cc)	4320
	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)	4
	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
Salient Features of Engine	Turbo Charged Engine,Direct injection 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	KIRLOSKAR/KOEL GREEN
	AC GENERATOR (ALTERNATOR) model Number	KIRLOSKAR/KOEL GREEN
	Alternator Voltage Rating	415 Volt
	Rating of AC Generator (KVA)	100
	Power Factor of AC generator	0.8
	Efficiency at rated Power factor at 75% of full Load	91.52 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	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, Contactor, Battery charger
	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	230 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	NA for Fixed/Skid Mounted Power Generator

TRAILER	Pay load of the Trailer	0 kilogram
	Number of Axlele	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) / 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	Installation	Without installation
	Scope of installation for Diesel Generating Set when offered by the vendor - inclusive in the scope of supply(Part-1)	Not Applicable as Installation not offered

SCOPE OF INSTALLATION	Scope of installation for Diesel Generating Set when offered by the vendor - inclusive in the scope of supply(Part-2)	Not Applicable as Installation not offered
	Scope of installation for Diesel Generating Set when offered by the vendor - inclusive in the scope of supply(Part-3)	Not Applicable as Installation not offered
	Scope of installation for Diesel Generating Set when offered by the vendor - inclusive in the scope of supply(Part-4)	Not Applicable as Installation not offered
	Above Scope of installation for Diesel Generating Set when offered by the vendor has been seen, read, understood and agreed to comply	Not Applicable as Installation not offered
WARRANTY/SERVICES	Warranty on Complete power generator/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 and Endurance test report for Engine as per IS: 10001 latest / IS: 10002 latest,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

**खरीदार परिभाषित अतिरिक्त विशिष्टता के लिए | Buyer Defined Additional Specification for Koel Green Electro Power Generator- DG set of 100 AMF Control Panel**

विनिर्देश   Specification	मूल्य   Value
Rated Voltage	415V
Rating of AC Generator (KVA)	100
Class of insulation	Not inferior than Class B
Noise level at 1 meter (dB)	Not more than 75 dB (A) at 1 meter from enclosure surface

**ईपीबीजी विवरण | ePBG Detail**

सलाहकार बैंक   Advisory Bank :	ICICI
ईपीबीजी प्रतिशत (%)   ePBG Percentage(%):	10.00
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

## 2. Buyer Added Bid Specific Terms and Conditions-

### 2.1 *Scope of Supply:*

Scope of supply (Bid price to include all cost components) : Only supply of Goods

### 2.2 *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](#)

### 2.3 *Forms of EMD and PBG:*

Bidders can also submit the EMD with Account Payee Demand Draft in favour of

WESTERN COALFIELDS LIMITED

payable at  
NAGPUR

.  
Bidder has to upload scanned copy / proof of the DD along with bid and has to ensure delivery of hardcopy to the Buyer within 5 days of Bid End date / Bid Opening date.

### 2.4 *Forms of EMD and PBG:*

Bidders can also submit the EMD with Payment online through RTGS / internet banking in Beneficiary name

WESTERN COALFIELDS LIMITED

Account No.  
10205966091  
IFSC Code  
SBIN0009060  
Bank Name  
STATE BANK OF INDIA  
Branch address  
COAL ESTATE BRANCH CIVIL LINES, NAGPUR 440001

.  
Bidder to indicate bid number and name of bidding entity in the transaction details field at the time of on-line transfer. Bidder has to upload scanned copy / proof of the Online Payment Transfer along with bid.

### 2.5 *Forms of EMD and PBG:*

Successful Bidder can submit the Performance Security in the form of Account Payee Demand Draft also (besides PBG which is allowed as per GeM GTC). DD should be made in favour of

WESTERN COALFIELDS LIMITED

payable at  
NAGPUR

. After award of contract, Successful Bidder can upload scanned copy of the DD in place of PBG and has to ensure delivery of hard copy to the original DD to the Buyer within 15 days of award of contract.

### 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.