संख्या पी 63013/214/01/2024/मोड–1/सी सु बल/
भारत सरकार, गृह मंत्रालय
महानिदेशालय सीमा सुरक्षा बल
(रसद निदेशालय : आधुनिकीकरण सैल)
(Email – comdtord@bsf.nic.in)
(Fax – 011-24367683)

ब्लाक संख्या – 10
सी0जी0ओ0 कॉम्पलैक्स
लोधी रोड, नई दिल्ली – 03
दिनांक.....फरवरी 2025

सेवा में,

महानिदेशकः– आसाम राईफलस (through LOAR), केन्द्रीय ओद्यौगिक सुरक्षा बल, केन्द्रीय रिजर्व पुलिस बल, भारतीय तिब्बत बोर्डर पुलिस, सशस्त्र सीमा बल, राष्ट्रीय सुरक्षा गार्ड एवं पुलिस अनुसन्धान एवं विकास ब्योरो

विषयः – **अनुमोदित गुणात्मक आवश्यकता/ परीक्षण निर्देशों का प्रेषण**

तकनीकी विशेषज्ञों के उप समूह द्वारा किए गये पुनः सूत्रीकरण एवं महानिदेशक सीमा सुरक्षा बल द्वारा अनुमोदित "Revised QRs & TDs of DG Set (5, 7.5, 10, 15, 20 & 30 KVA) Part – 1 के गुणात्मक आवश्यकता/ परीक्षण निर्देशों को आपकी अग्रिम कार्यवाही हेतु प्रेषित किया जाता है।

संलग्न : यथोपरी

आनन्द सिंह 21/2/25
(आनन्द सिंह तक्षक)
उपमहानिरीक्षक (रसद)

प्रतिलिपिः –

1 तकनीकी निदेशक
The Technical Director
राष्ट्रीय सूचना–विज्ञान केन्द्र, नार्थ ब्लाक, गृह मंत्रालय, नई दिल्ली
NIC, North Blogk, MHA, New Delhi
(mpsugandhi@nic.in)
: आपसे अनुरोध है कि "Revised QRs & TDs of DG Set (5, 7.5, 10, 15, 20 & 30 KVA) Part – 1" के पुनः सूत्रीकरण किये गये गुणात्मक आवश्यकता/ परीक्षण निर्देशें को गृह मंत्रालय की वैबसाईट (MHA website Division of MHA – Police Modernization Division – Qualitative Requirements – Qualititave Requirements of Machinery & Eqpt Items with Surveillance item) पर अपलोड करने का श्रम करें।

2 SO (IT), North Block, MHA
(soit@nic.in)
: कृपया उपरोक्तानुसार कार्यवाही करने का श्रम करें।

3 तकनीकी विंग, सीमा सुरक्षा बल
: कृपया उक्त उपकरण के गुणात्मक आवश्यकता/ परीक्षण निर्देशों को सीमा सुरक्षा बल की वैबसाईट पर अपलोड करने का श्रम करें।

4 Sh. Samarth Sharma,
Director Nodal Officer for MHA GeM, 3rd Floor, Jeevan Bharti Building Canaught Lane, Janpath, Canaught Place, New Delhi – 11
(directorcategory13@gem.gov.in)
: For info with request to upload the approved Revised QRs & TDs of DG Set (5, 7.5, 10, 15, 20 & 30 KVA) Part – 1 on GeM Portal. Copy of QRs & TDs is attached with this letter.

5 फाईल

REVISED QUALITATIVE REQUIREMENTS AND TRIAL DIRECTIVES OF DIESEL GENERATOR SETS (I.E. 5, 7.5, 10, 20 & 30 KVA)

Part-I

Sl.No.	Parameters	Specification	Trial Directives	Result expected/desired
1.	a) Diesel Generator set complete with naturally aspirated Diesel Engine. Alternator and AMF /Manual Control Panel fitted/along with in Acoustic Enclosure, naturally Aspirated Diesel Engine and Alternator shall be closely coupled or provided with flexible coupling and mounted on a base plate robust construction. Or b) Diesel Generator set complete with pressure charged (Turbo charged). Diesel Engine)Alternator and AMF/Manual Control Panel fitted along with acoustic Enclosure, Pressure charged (Turbo charge) Diesel Engine and Alternator shall be closely coupled or provided with flexible coupling and mounted on a base plate robust in construction.{User to decide as per requirement at the time of indent}		To be physically checked by the BOO	DG Set must have all requirement as mentioned in parameters.
2.	Control Panel with IP rating	Digital with AMF (Auto Mains Failure) panel for protection, metering and operation. IP 53/IP 54/IP 55	To be checked physically by BOO. Firm has to submit National accredited Lab certificate/any Indian Govt Lab certificate in respect of the same.	Must have auto mains failure panel. and required IP rating.

3.	AMF Panel (Automatic Mains Failure)	As per IS 2147 the panel shall have IP-42 type protection. AMF panel normally consists of relays, contactors, timers for automatic operation on Mains failure as well as for manual operation.	Operation of AMF panel will check by BOO by manually switching off the mains power to check immediate and smooth transfer on DG set and vice versa. All these observations are to be made on full load which should not be less than 30 to 40% of DG set capacity.	• Panel should be IP- 42 • Equipment's to test healthiness of DG set with test mode & with load on mains. • Energy analyzer or load manager with selector switch/button to view readings of voltage, current, KW, KWH, p.f. frequency etc. • Audio-visual alarm indication/annunciation facility. • Engine/DG shutdown device(fault/abnormality) • Battery charger, excitation control, voltage regulating equipment. • Circuit Breaker. • Auto/manual mode selector switch .
4.	Nominal rated capacity (KVA)	5, 7.5, 10, 20 & 30 KVA	To be physically checked by the BOO and NABL certificate also submitted by firm in respect of same.	DG set must be 5, 7.5, 10, 20 & 30 KVA.
5.	No of phase (output capacity rating/phase)	5 KVA&7.5 KVA - Single phase 10 ,20 & 30 KVA - 3 phase For example 3phase should generate 415 V AC electricity.	To be physically checked by the BOO	Nos of phase must be as per specification, also, there must be a current meter facility available for each phase.

6.	Engine::Cooling	Air cooled/liquid cooled	To be physically checked by the BOO and OEM certificate also submitted by firm in respect of same DG set must be 4 stroke	DG set engine should be make in India certification.
7.	Number of cylinder(Nos)	5KVA & 7.5 KVA- 1 or 2 Cylinder 10, 20 & 30 KVA- Multi Cylinder (As per user requirement)	To be physically checked by the BOO	Single cylinder option already provided with low capacity DG set of 5 & 7.5 KVA. DG set of 10 KVA and above has option for Multi cylinder, where buyers has the option to choose single or multi cylinders as per requirement.
8.	Rated RPM of Engine(RPM)	a) 1500 or b) 3000 {User to decide as per requirement at the time of indent)	To be physically checked by the BOO	RPM must be 1500 or 3000
9.	Salient features of engine	Turbo charged diesel engine/natural aspirated diesel injection fuel system is considered for DG set above 10 KVA and upto 10 KVA natural aspirated diesel engine (As per user requirement)	To be checked by BOO	Must have fulfil requirement
10.	Type of Governor	Mechanical/electronic governor – Up to 20 KVA and Electronic governor - Above 20 KVA capacity	Firm has to provide certificate from NABL accredited lab .	Mechanical/e ectronic upto 20 KVA, Electronic above- 20 KVA. Electronic Governor is better than Mechanical Governor for smooth operation of engine and also more efficient in terms of fuel consumption.

11.	Class of Governor	For mechanical Governors of A2 . or ISO 3046/BS-5514 for Electronic Governors of A1 class with actuator shall be provided.	Firm has to provide certificate from NABL accredited lab .	Governor shall be self contained unit capable of monitoring the speed.
12.	Starting Voltage	12 Volt DC	To be checked by the BOO	Starting voltage must be 12 Volt DC
13.	Alternator	The alternator shall be brushless, drip-proof, screen protected as per IP-23 degree of protection.	To be checked by the BOO	Alternator IP-23 or above,
14.	Class of insulation	H	Firm has to provide National accredited Lab certificate /any Indian Govt lab certificate in respect of the same.	DG set must have H class insulation.
15.	Diesel tank & Fuel system	Minimum 8 hours running capacity of fuel tank.	To be checked by the BOO	Minimum 8 hours running capacity of fuel tank.
16.	Fuel consumption	Fuel consumption of DG set as per manufacturer.	To be checked by the BOO	Must have the fuel consumption capacity as per specification (ISO-3046-1)
17.	Automatic Voltage regulator Grade	VG2/VG3 or better version	To be checked by the BOO	Must have required specification.
18.	Noise level at 1 meter(dB)	The manufacturer shall offer to the user a standard acoustic enclosure of 75dB (A) insertion loss and also a suitable exhaust muffler with insertion loss of 75dB(A) as per CPCB-IV.	To be checked by the BOO and Testing & certification of DG sets for noise compliance as per CPCB norms have to be provided from Automotive Research Association of India.	Must maintain noise level as per specification.

19.	Battery & Battery charger system	Diesel Engines requires high initial starting current for cranking, the industrial lead acid 12 Volt batteries of88/100/150 AH value are normally needed. For battery charging a static battery charger is recommended. Depending upon the capacity of DG set suitable current rating of charger is selected. Normally 3 attempt starting setting is preferred for engine starting with a sequence of 6 seconds ON and 5 seconds OFF cycle.	To be checked by the BOO. NABL accredited lab certificate has to be provided.	Maintenance free to IS 14257 for high cranking performance.
20.	a) Acoustics enclosure (Sheet thickness)	1.6 to 2 millimetre	To be check by BOO	Must fulfil requirement
	b) Thickness of foam	25 to 40 millimetre	To be check by BOO	Must fulfil requirement
	c) Density of foam for sound insulation	28 to 50 Kg/m^3	To be check by BOO	Must fulfil requirement
21.	Wiring	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.	To be checked by BOO	Supplier firm has to ensure and got checked from BOO.
22.	Installation & commissioning	With installation	To be checked by BOO, NABL certificate has to be submitted after commissioning.	Supplier firm has to produce the given result expected/ desired.
23.	Operating temperature	➢ -20° to +55° C OR ➢ -40° to + 55° C (User to decide as per requirement at the time of indent)	Firm has to provide National accredited Lab certificate /any Indian Govt lab certificate in respect of the same.	Cold starting kit mandatory

24.	Earthing	Construction of suitable earthing station and necessary connections shall be done by the seller.	To be checked by BOO	• All the materials , labour required for construction of earthing station shall be supplied by the seller. The total number of earthing pits/station shall be 4 i.e. 2 for neutral and 2 for body earthing . Neutral earthing shall be done by copper plate and body earthing shall be done G.I pipe/copper plate. Consignee should identify the place for earthing station within 10 meters of Power Generator. (Preferably chemical earthing within 10 mtrs distance of Gen Set)
25.	Warranty of complete Power Generator/DG set	24 month	To be checked by BOO	24 months from the date of installation.
26.	Warranty for running hours	5000 hrs	To be ensured by supplier	5000 hrs must
27.	Number of preventive maintenance visits offered in an year during warranty period.	At least 3 (three)	To be ensured by supplier	Ensure by supplier firm
28.	Response time to attend the complaint during warranty	1 day	To be ensured by supplier	Ensured by supplier firm
29.	Time duration for repairing /replacement the defective during warranty	3 days	To be ensured by supplier	Ensured by supplier firm
30.	Testing	Certificate required as per CPCB norms from ARAI or authorised	To be physically checked by BOO.	Certificate required as per CPCB norms from ARAI or

31.	Documents/certificate	Test report and certificate has to be provided to the buyer during bidding time on demand .	To be physically checked by BOO	Supplier firm has to ensure supply of required documents/certificate.
32.	User manual	Details of specification with guidelines have to be mentioned in the user manual	To be physically checked by BOO	Firm have to produce the given items before the BOO
33.	Operating manual/technical manual	Detailed operators instruction, technical literature, maintenance manual, inspection standards be provided with the requirement.	To be physically checked by BOO	Firm have to produce the given items before the BOO
34.	Specific tools	Required tools for servicing the Gen sets be provided by the supplier firm.	To be physically checked by BOO.	Firm have to produce the given items before the BOO

Lt. Col. Navneet Garhwal
Assam Rifles,Shillong(Online)

Yogesh Kumar Gautam
DC(E), BSF

Naresh Kumar
DC(Engr) SSB

Kamal Singh
Insp/Telecom, ITBP

Hanif Choudhury
AC/Ex, CISF

Satish Kumar
AC-I, NSG

Brajesh Kumar Pandey
2-I/C , CRPF (Tech Officer)

Dinesh Yadav,
Insp/T, CRPF, (Tech Member)

Lt.Col Shyam Singh
Yadav(Retd) ,
SSO(Bldgs) , BPR & D

Vikram Singh,
2-I/C (Prov) CRPF

Shahnawaz Khan,
DIG(Prov), CRPF

Sonal V Misra, IPS
IG (Prov), CRPF

Sandeep Khirwar, IPS
ADG, HQr, CRPF

Approved/Not Approved

19/02

DIRECTOR GENERAL,