EVALUATION CRIETARIA FOR SUPPLY & INSTALLATION OF 12.5 KVA (PRIME) DIESEL GENERATOR (D.G) SET

Sr. No.	Description of D.G set components / parameters	NBP proposed technical data / range / features of D.G set's components	Compliant (Y / N) (Evaluated by NBP)		Observation / Remarks
A	**D.G SET ASSEMBLER / MANUFACTURER NAME**				
1.	Prime (Continuous) power design rating (KVA / KW)	12.5 / 10			
2.	Standby Output Rating (KVA / KW)	13.75 / 11			
3.	Rated Voltage (Volts)	400V/230V			
4.	D.G set design temperature in (^{0}C)	$\geq$ 40			
5.	Power Factor	0.8			
6.	Speed(RPM)	1500			
7.	Frequency (Hz)	50			
8.	Governor type	Mechanical			
A-a.	**Specific Fuel consumption**				
1.	At 50% of rated load (L/H)	$\leq$2.4			
2.	At 75% of rated load (L/H)	$\leq$2.8			
3.	At 100% of rated load (L/H)	$\leq$3.5			
b.	**DG Set De-Rating Factor**				
1.	For Altitude 1000 meters above MSL	No De-rating			
A-c	**D.G set design life at 80% load in Hours**				
A-d	**Fuel Tank capacity**				
1.	For Operation at 100% of rated load	12Hours			
B	**ENGINE**				
1.	De-ration for Altitude up to 1000 meters AMSL	No de-ration			
2.	No. of cylinders	3 or 4			
3.	Arrangement of Cylinders (In-line/v)	Vertical Inline			
4.	Engine design temperature in (^{0}C)	$\geq$ 40			
5.	Coupling Type	Direct (Disc Coupling)			
6.	Mounting Arrangement	Anti-Vibration Skid Mounted			

7.	Cooling System	Water Cooled			
8.	Ignition System	12V Self-Start			
9.	Governor type	Mechanical			
B-b	**BATTERIES**				
1.	Type	Lead Acid (Dry or Wet)			
2.	Rating (V & AH)	As per D.G set ignition system			

C	**GENERATOR / ALTERNATOR**				
1.	Prime (Continuous) power design rating (KVA / KW)	12.5 / 10			
2.	Standby Output Rating (KVA / KW)	13.75 / 11			
3.	Rated Voltage (Volts)	400V/230V			
4.	Alternator design temperature in (^{0}C)	$\geq$ 40			
5.	Power Factor	0.8			
6.	Speed(RPM)	1500			
7.	Frequency (Hz)	50			
C-a	**Insulation class**				
1.	Stator	H-Class			
2.	Rotor	H-Class			
3.	Exciter	H-Class			
C-b	**Efficiency at 0.80 pf in %**				
1.	At 50% of rated load	$\geq$ 90%			
2.	At 75% of rated load	$\geq$ 85%			
3.	At 100% of rated load	$\geq$ 75%			
D	**CONTROL PANEL**				
1.	Molded Case Circuit Breaker (MCCB)	(40A), 3-Pole (Siemens, Terasaki, Fuji, Legrand, ABB, Hager, National or equivalent)			
2.	Module	Deep Sea or equivalent			
a	**Display Parameters**				
1.	Output Volts (L-L/L-N)	Indication on LCD module or meters / gauges on Electric Control Panel			

2.	Output Current (L-L/L-N)	-Do-			
3.	Kilowatt	-Do-			
4.	Total Kilowatt Hour	-Do-			
5.	Frequency (Hz)	-Do-			
6.	Engine speed (rpm)	-Do-			
7.	Lube oil Pressure (Bars)	-Do-			
8.	Engine temperature in (^{0}C)	-Do-			
9.	Engine running hours	-Do-			
10.	Battery Charging current (Amps).	-Do-			
b	**Alarm / Indication Lamps For Safety**				
1.	Engine Over / Under speed	Indication on Electric Control Panel LCD/ Meters/ Gauges			
2.	Low lube oil pressure	-Do-			
3.	High Engine water temperature	-Do-			
4.	Over voltage	-Do-			

5.	Under voltage	-Do-			
6.	Short-circuit tripping of main circuit breaker	-Do-			
7.	Low oil level etc.	-Do-			
c	**Safety tripping For Instantaneous Shut Down due To**				
1.	Engine over / under speed	Equipped for instant shut down of D.G set			
2.	Low lube oil pressure	-Do-			
3.	High temperature	-Do-			
4.	Abnormal output voltage	-Do-			
5.	Low fuel oil in tank	-Do-			
6.	Winding high temperature	-Do-			
E	**AUTO TRANSFER SWITCH (ATS) PANEL (in Accordance to Generator Rating)**	- Local / Imported - 16SWG M.S sheet - 4-Pole with manual override system equipped with (Siemens, Terasaki, Fuji, Legrand, ABB,			

		Hager, National, Telemecanique, Finder or equivalent) MCCBs, Magnetic contactors, control fuses, indication lights, relays etc.			
F	**M.S. WEATHER & SOUND ATTENUATED CANOPY**				
1.	Canopy	14-16 SWG M.S sheet duly painted with initially anti-rust paint & finally powder coated with approved color.			
	NOISE LEVEL OF D.G. SET WITH CANOPY at 7meter distance(dB)				
a.	At 50% of rated load	≤ 65 db			
b.	At 75% of rated load	≤ 68 db			
c.	At 100% of rated load	≤ 72 db			

IMPORTANT NOTES:

1. **Attach attested copies of valid ISO Certificates i.e. Standard quality management (9001), Health & Safety (18001) etc. for:-**
   a. **ISO Certification in the name of original imported equipment manufacturer for imported D.G sets in CBU form.**
   b. **ISO Certification in the name of local equipment manufacturer for value addition in imported D.G sets in CKD form.**
2. **Above all information should be providedalongwith document evidence otherwise tender will not be accept and will be declared as rejected.**
3. **Misquote & Non-compliance of required data / values / information etc. of D.G set's equipment & components will lead to reject tender even lowest.**
4. **All requirements mentioned in Evaluation Criteria with "Priority" (High/Low) is evaluated as follows.**
   i. **All requirements with "high" Priority must be answered as "Y" or "N" if bidder response "N" against any of such "High" Priority Requirement its bid will be Considered as technically disqualified/non-compliant and will be rejected.**
   ii. **For with "Low" Priority can be answered as Y, Yes, N, No. If bidder responds "N" or NO, against any of the "Low" Priority requirement, its bid will not be considered as rejected.**
5. **NBP may ask any other additional documentary evidence or explanation against any item for clarification that must be provided by the Bidder during the period of evaluation. Bidder should respond to such requests within the time frame indicated in the correspondence (letter/fax/ e-mail) If the bidder fails to provide the required information within given timeframe, its bid will be considered as rejected.**