

S.No.	Description.	Qty.	Unit.	Rate in Figures (in Rs.)	Rate in words (in Rs.)	Amount (in Rs.)
1	2	3	4	5	6	7

1.00 SOUND PROOF DG SET AND ACCESSORIES

1.01 125kVA Sound Proof DG Set

Supply, installation, testing & commissioning of **Sound Proof Diesel Generator Set** air cooled Diesel Engine for outdoor installation with rated capacity of required **BHP at 1500 RPM**, direct injection type, 4 stroke, with suitable no. cylinders coupled to **125 KVA** brushless type 415 volts, 50 Hz, to be tested at 0.85 power factor at rated current, self exciting Alternator with suitable size of flexible coupling, battery charger of suitable Amp Hr Rating, Sound Proof Canopy as per requirement of Pollution Control Board and following main components, complete with all accessories conforming to technical specifications and as required.

Cooling System : Water Cooled Radiator Type

Exhaust System : Pipe, Chimney upto terrace, silencer and supports (as approved by Pollution Control Board/Local Authorities).

S.No.	Description.	Qty.	Unit.	Rate in Figures (in Rs.)	Rate in words (in Rs.)	Amount (in Rs.)
1	2	3	4	5	6	7
	<p>Fuel system : Day tank (990 Liters-1 Nos) and interconnecting piping system, valves, floats etc complete as required. Oil tank to be installed with outlet pipe & valve, covers etc for refilling</p> <p>Lube Oil System</p> <p>Air system</p> <p>Electronic Governor</p> <p>Starting system</p> <p>Coupling arrangement</p> <p>Safety controls</p> <p>Instrument panel for engine</p> <p>Control panel with metering, interlocks and annunciators complete as per specifications.</p> <p>Batteries, Boost and Trickle battery charger</p> <p>Provision of LT Cable from alternator terminals of the DG Set, control cabling, all other internal cabling, neutral and equipment earthing complete as required.</p> <p>Cabling, wiring, Connections and Earthings etc.</p> <p>Common skid base frame fitted with vibration isolators, foundation bolts etc to make DG sets vibration free.</p> <p>Making cement concrete foundation suitable for D.G. Set as per the norms and as recommended by the manufacturer.</p>					

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1	2	3	4	5	6	7
	<p>Sound Proof Canopy including design, supply of all materials, installation & commissioning as per the requirement of Pollution Control Board to achieve the desired sound level as mentioned therein with fresh air and exhaust air fans, ducts, control panel, cabling etc. complete as required.</p> <p>All minor civil, mechanical works including material supply, connections and electrical works etc complete as required.</p> <p>This scope also includes getting approval from local electrical inspector and pollution control board</p>	1	Set			
1.02	<p>AMF PANEL</p> <p>Supply, erection, testing and commissioning of AMF Panel complete with required meters, instruments, switchgears, provision for bus bars, mimics etc. as per technical specifications & drawings complete as required with the following switchgears</p> <p>Breaker :</p> <p>1 No. 200A, 415/500V, 35 MVA rupturing capacity, Fully Draw out type (EDO), Motorised, Four Pole, MCCB with micro processor based protection and release.</p> <p>1 No. 0-500 V voltmeter with selector switch</p>					

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1	2	3	4	5	6	7
	1 set of indicating lamps to indicate OPEN, CLOSE, TRIP for breaker 2 No. Push button for CLOSE and TRIP 1 No. (2 O/C + 1 E/F) release with protection 200/5A CTs. 1 No Digital Multi Function Meter Following Meters and relays 1 No Digital Multi Function Meter 1 Set of 200/5A CTs 1 No. frequency Meter (45-55 Hz.) 1 No. 3 Phase Energymeter 1 Set of under voltage relay 1 Set of over voltage relay 1 Set of under frequency relay 1 Set of Master trip/supervisory relay 1 Set of battery charger (with trickle and boost charging). 1 Set of DC voltmeter and ammeter. 1 No. (2 O/C + 1 E/F) release with protection 200/5A CTs. 1 Set of Reverse power and Reactive power relay 1 Set R,Y,B, Breaker ON/OFF & other fault indication lamps. 1 Set 8 window Alarm annunciator with separate hooter, accept, reset and rest push button. 1 No. Hooter. 1 No. Engine Cranking Relay.					

S.No.	Description.	Qty.	Unit.	Rate in Figures (in Rs.)	Rate in words (in Rs.)	Amount (in Rs.)
1	2	3	4	5	6	7
	1 Set of Main supply voltage monitor, alternate voltmeter monitor and Engine Starting Relays. 1 Set of Auxiliary relays, timer, push button and control fuses.		1 Set			
1.03	<p>60kVA Sound Proof DG Set Supply, installation, testing & commissioning of Sound Proof Diesel Generator Set air cooled Diesel Engine for outdoor installation with rated capacity of required BHP at 1500 RPM, direct injection type, 4 stroke, with suitable no. cylinders coupled to 60 KVA brushless type 415 volts, 50 Hz, to be tested at 0.85 power factor at rated current, self exciting Alternator with suitable size of flexible coupling, battery charger of suitable Amp Hr Rating, Sound Proof Canopy as per requirement of Pollution Control Board and following main components, complete with all accessories conforming to technical specifications and as required.</p> <p>Cooling System : Water Cooled Radiator Type Exhaust System : Pipe, Chimney upto terrace, silencer and supports (as approved by Pollution Control Board/Local Authorities).</p>					

S.No.	Description.	Qty.	Unit.	Rate in Figures (in Rs.)	Rate in words (in Rs.)	Amount (in Rs.)
1	2	3	4	5	6	7
	<p>Fuel system : Day tank (990 Liters-1 Nos) and interconnecting piping system, valves, floats etc complete as required. Oil tank to be installed with outlet pipe & valve, covers etc for refilling</p> <p>Lube Oil System</p> <p>Air system</p> <p>Electronic Governor</p> <p>Starting system</p> <p>Coupling arrangement</p> <p>Safety controls</p> <p>Instrument panel for engine</p> <p>Control panel with metering, interlocks and annunciators complete as per specifications.</p> <p>Batteries, Boost and Trickle battery charger</p> <p>Provision of LT Cable from alternator terminals of the DG Set, control cabling, all other internal cabling, neutral and equipment earthing complete as required.</p> <p>Cabling, wiring, Connections and Earthings etc.</p> <p>Common skid base frame fitted with vibration isolators, foundation bolts etc to make DG sets vibration free.</p>					

S.No.	Description.	Qty.	Unit.	Rate in Figures (in Rs.)	Rate in words (in Rs.)	Amount (in Rs.)
1	2	3	4	5	6	7
	<p>Making cement concrete foundation suitable for D.G. Set as per the norms and as recommended by the manufacturer.</p> <p>Sound Proof Canopy including design, supply of all materials, installation & commissioning as per the requirement of Pollution Control Board to achieve the desired sound level as mentioned therein with fresh air and exhaust air fans, ducts, control panel, cabling etc. complete as required.</p> <p>All minor civil, mechanical works including material supply, connections and electrical works etc complete as required.</p> <p>This scope also includes getting approval from local electrical inspector and pollution control board</p>					
1.02	<p>AMF PANEL</p> <p>Supply, erection, testing and commissioning of AMF Panel complete with required meters, instruments, switchgears, provision for bus bars, mimics etc. as per technical specifications & drawings complete as required with the following switchgears</p> <p>Breaker :</p>	1	Set			

S.No.	Description.	Qty.	Unit.	Rate in Figures (in Rs.)	Rate in words (in Rs.)	Amount (in Rs.)
1	2	3	4	5	6	7
	<p>1 No. 125A, 415/500V, 35 MVA rupturing capacity, Fully Draw out type (EDO), Motorised, Four Pole, MCCB with micro processor based protection and release.</p> <p>1 No. 0-500 V voltmeter with selector switch</p> <p>1 set of indicating lamps to indicate OPEN, CLOSE, TRIP for breaker</p> <p>2 No. Push button for CLOSE and TRIP</p> <p>1 No. (2 O/C + 1 E/F) releae with protection 125/5A CTs.</p> <p>1 No Digital Multi Function Meter</p> <p>Following Meters and relays</p> <p>1 No Digital Multi Function Meter</p> <p>1 Set of 125/5A CTs</p> <p>1 No. frequency Meter (45-55 Hz.)</p> <p>1 No. 3 Phase Energymeter</p> <p>1 Set of under voltage relay</p> <p>1 Set of over voltage relay</p> <p>1 Set of under frequency relay</p> <p>1 Set of Master trip/supervisory relay</p> <p>1 Set of battery charger (with trickle and boost charging).</p> <p>1 Set of DC voltmeter and ammeter.</p> <p>1 No. (2 O/C + 1 E/F) release with protection 125/5A CTs.</p> <p>1 Set of Reverse power and Reactive power relay</p> <p>1 Set R,Y,B, Breaker ON/OFF & other fault indication lamps.</p>					

S.No.	Description.	Qty.	Unit.	Rate in Figures (in Rs.)	Rate in words (in Rs.)	Amount (in Rs.)
1	2	3	4	5	6	7
	1 Set 8 window Alarm annunciator with separate hooter, accept, reset and rest push button. 1 No. Hooter. 1 No. Engine Cranking Relay. 1 Set of Main supply voltage monitor, alternate voltmeter monitor and Engine Starting Relays. 1 Set of Auxiliary relays, timer, push button and control fuses.		1 Set			

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1	2	3	4	5	6	7
2.00	LT CABLES					
2.01	Supply and laying of following sizes of 1.1 kV grade multicore aluminium conductor PVC sheathed armoured cable as per IS 1554. in ground including excavation, sand cushioning, protective covering and refilling the trench etc. and providing the route marker as required including end terminations of the cable.					
	i) 3.5 Core 70 Sqmm.		100 Metre			
	ii) 3.5 Core 240 Sqmm.		100 Metre			
TOTAL						