



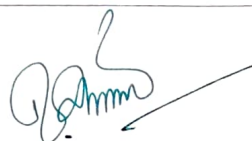
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List of Requirements and Specifications for Procurement of a 20 kVA Silent Diesel Generator Set (3-Phase) for KVK Unakoti, Chantail

SL NO	PARTICULARS	PARAMETER	RATED VOLTAGE
1	Prime Rating at rated RPM (as per ISO8528)	KVA	20
		KW	16
2	Frequency	Hz	50
3	Power Factor	Lagging	0.8
4	Voltage	V	415(30)
5	Governing class (As per ISO 8528 Part-V)		G2
6	DG Set Noise level at 1 meter		≤ 75 (Genset with canopy)
7	Fuel tank capacity (Standard DG Set)		40
8	Weight of genset with canopy (approx..)	Dry	550
		Wet (w/o fuel)	560
9	Overall dimensions of genset	Length	1940
		Width	905
		Height	1100
	Electrical battery starts in R Voltage	Volts-DC	12
	ENGINE		
1	Rated output	kw	18.8
2	(Prime continuous rating as per ISO8528-1)	HP	25.21
3	No. of cylinder	number	3
4	cubic capacity ²	Ltrs	1.64
5	Bore x Stroke	mm	86x94
6	Rated Speed	RPM	1500
7	Aspiration	NA/TC/TA	TC

8	Lube oil change period	hrs.	500
9	Lube oil sump capacity (max)	Ltrs	5.95
10	Coolant Capacity	Ltrs	6
ALTERNATOR			
1	Insulation class		class H
2	Alternator Efficiency (at 100% load) 0.8 pf	%	88.6
3	Max voltage Dip at full load 0.8 pf lag		20 %
4	Max time to build up rated voltage at rated RPM		2 sec, provided engine reach the rated speed
GENSET CONTROLLER			
1	Type of display		Micro-processor based genset controllers display
2	Function		Monitoring control and protection of DG
3	Monitoring features		phase voltages s currents, frequency, genset kva , kw,kwh, KVAR, power factor, enginetemperature. RPM,Run hours, number of starts, fuel level, auto/manual stop, battery charge condition, AMF Feature.
4	other features:		Modbus communication
5	safeties		over load, short circuit,over/under speed,LLOP, HWT, Cranck protection etc.
BATTERY			
1	Type		Low maintenance free-lead acid battery
2	Battery metering		with genset controller unit KG-640C controller
EXHAUST SYSTEM			
1	Silencer type		Residential
2	No of silencer		1 (one) no.
3	Exhaust gas recirculation system (EGR)		Inside canopy
4	Location		inside canopy
OTHER ITEMS			
1	Emergency stop		Provided



2	Internal light		LED LAMP
3	RMS Enabled (remote monitoring system)		RS485

Approved by


11/09/26