YND485D ENGINE TECHNIACL DATA SHEET

1. Engine Ratings for Generator application	**YND485D**		
Engine Rated Speed	rpm	1500	1800
Generator set Frequency	Hz	50	60
Engine Standby Power (LTP)	kW	18,7	22
Engine Prime Power (PRP)	kW	17	20
Engine Continuous Power (COP)	kW	17	20
Cooling Fan Power Consumption (kW)	kW	1,5	2
Engine Net Standby Output (LTP)	kW	16,7	19,4
Engine Net Prime Output (PRP)	kW	15,2	17,7
Engine Net Continuous Output (COP)	kW	15,2	17,7

2. Genearal Specification		
Length	mm	820
Width	mm	590
Height	mm	638
Engine Dry Weight w/o Cooling System	kg	200
Aspiration Type		Natural
Injection Type		Direct
Configuration		Vertical
No. of Cylinders		4
Displacement	liters	2,156
Bore	mm	85
Stroke	mm	95
Compression Ratio		18
Piston Speed	m/s	4.75/5.7
Rotation Direction (from flywheel)		Anti-clockwise
Number of Flywheel Teeth		115
Flywheel House Size		SAE4

3. Lubrication System		
Lube Oil Specification		CD 15W-40
Oil Capacity	liters	5,5
Max. Permissible Oil Temperature	°C	120
Low Oil Pressure Warning	kPa	100
Low Oil Pressure Shutdown	kPa	80
Oil consumption (as % of fuel consumption)		0,71%

4. Cooling System		
Coolant Capacity for Engine	Liters	3,5
Max. Permissible Temperature	°C	90

Max. Coolant Warning Temperature	℃	95	
Max. Coolant Shutdown Temperature	℃	98	
Thermostat Open Temperature	℃	72	
Radiator Cooling Flow	m³/min	≥72	≥85
Flow of Coolant pump	m³/h	⩾10. 2	⩾10.2
Heat dissipation (engine radiator)	kW	12,75	15
Heat dissipation (convection)	kW	10,6	12,5

5. Fuel System

Governor Type		Mechanical	
Fuel Consumption at 25% of generator set prime output	l/h	2,11	2,27
Fuel Consumption at 50% of generator set prime output	l/h	2,78	3,25
Fuel Consumption at 75% of generator set prime output	l/h	3,73	4,35
Fuel Consumption at 100% of generator set prime output	l/h	4,71	5,61
Lowest Fuel Consumption Ratio	g/kW.hr	245	245

6. Intake & Exhaust System (On Standby Output)

Combustion Air Consumption	m³/min	1,21	1,44
Max. Intake Restriction	kPa	3,5	
Max. Exhaust Temperature (Before Turbo)	℃	/	/
Max. Exhaust Temperature (After Turbo)	℃	500	500
Max. Exhaust Back Pressure	kPa	6	
Exhaust Gas Flow	m³/min	3,12	3,74
Exhaust Flange Diameter	mm	74	

7. Electrical System

Charging Alternator Voltage	V	14
Charging Alternator Capacity	A	25
Starting Voltage	V	12
Starting Motor Capacity	KW	3
Minimum Battery Capacity	Ah	80
Minimum Ambient Temperature for Unaided Cold Start	℃	-10

Note :

1. All engine parameters are in accordance with ISO3046, ISO8528
2. All engine parameters are based on 25°C / 100kPa environment condition
3. No power decrease with below 40ºC environment temperature and 1500 meter altitude
4. More than 40ºC and 1500m above sea level , decrease 0.5% per 1ºC , and 4% per 300m.
5. At calorific value 42700 kJ/kg + 5%, density 0,835 kg/dm3 , temperature 280 K
6. Above data is only the testing data in our laboratory, it can't used to be the data on all contract