



YND485D ENGINE TECHNICAL 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. General 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		CD40			
Oil Capacity	liters	5,5			
Max. Permissible Oil Temperature	°C	110			
Low Oil Pressure Warning	kPa	100			
Low Oil Pressure Shutdown	kPa	100			
Oil consumption (as % of fuel consumption)		0,71%			

4. Cooling System			
Coolant Capacity for Engine	Liters	7	
Max. Permissible Temperature	°C	85	
Max. Coolant Warning Temperature	°C	85	
Max. Coolant Shutdown Temperature	°C	95	
Thermostat Open Temperature	°C	75	
Radiator Cooling Flow	m³/min		
Flow of Coolant pump	m³/h	≥170	≥170
Heat dissipation (engine radiator)	kW		
Heat dissipation (convection)	kW		
5. Fuel System			
Governor Type		Mechanical	
Fuel Consumption at 25% of generator set prime output	l/h	2,54	3,93
Fuel Consumption at 50% of generator set prime output	l/h	3,46	5,35
Fuel Consumption at 75% of generator set prime output	l/h	4,36	5,52
Fuel Consumption at 100% of generator set prime output	l/h	5,2	6,22
Lowest Fuel Consumption Ratio	g/kW.hr	255	260
6. Intake & Exhaust System (On Standby Output)			
Combustion Air Consumption	m³/min	1,13	1,35
Max. Intake Restriction	kPa	101	
Max. Exhaust Temperature (Before Turbo)	°C		
Max. Exhaust Temperature (After Turbo)	°C	500	500
Max. Exhaust Back Pressure	kPa	6	
Exhaust Gas Flow	m³/min		
Exhaust Flange Diameter	mm	74	
7. Electrical System			
Charging Alternator Voltage	V	12	
Charging Alternator Capacity	A		
Starting Voltage	V	12	
Starting Motor Capacity	KW	3	
Minimum Battery Capacity	Ah	80	
Minimum Ambient Temperature for Unaided Cold Start	°C	-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 40°C environment temperature and 1500 meter altitude			
4. More than 40°C and 1500m above sea level , decrease 0.5% per 1°C , 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			