Y4102D ENGINE TECHNICAL DATA SHEET

1. **Engine Ratings** for Generator application	Y4102D		
Engine Rated Speed	rpm	1500	1800
Generator set Frequency	Hz	50	60
Engine Standby Power (LTP)	kW	36,3	42,9
Engine Prime Power (PRP)	kW	33	39
Engine Continuous Power (COP)	kW	33	39
Cooling Fan Power Consumption (kW)	kW	1,5	2
Engine Net Standby Output (LTP)	kW	34,3	40,3
Engine Net Prime Output (PRP)	kW	31,2	36,7
Engine Net Continuous Output (COP)	kW	31,2	36,7

2. **Genearal Specification**		
Length	mm	892
Width	mm	618
Height	mm	740
Engine Dry Weight w/o Cooling System	kg	320
Aspiration Type		Natural
Injection Type		Direct
Configuration		Vertical
No. of Cylinders		4
Displacement	liters	3,875
Bore	mm	,
Stroke	mm	118
Compression Ratio		18
Piston Speed	m/s	5.9/7.08
Rotation Direction (from flywheel)		Anti-clockwise
Number of Flywheel Teeth		119
Flywheel House Size		SAE3

3. **Lubrication System**		
Lube Oil Specification		CD40
Oil Capacity	liters	10,46
Max. Permissible Oil Temperature	℃	110
Low Oil Pressure Warning	kPa	100
Low Oil Pressure Shutdown	kPa	100
Oil consumption (as % of fuel consumption)		0,77%

4. Cooling System			
Coolant Capacity for Engine	Liters	10,7	
Max. Permissible Temperature	℃	85	
Max. Coolant Warning Temperature	℃	85	
Max. Coolant Shutdown Temperature	℃	95	
Thermostat Open Temperature	℃	75	
Radiator Cooling Flow	m³/min		
Flow of Coolant pump	m³/h	≥230	≥230
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	3,97	4,22
Fuel Consumption at 50% of generator set prime output	l/h	4,76	5,77
Fuel Consumption at 75% of generator set prime output	l/h	6,02	7,17
Fuel Consumption at 100% of generator set prime output	l/h	7,61	9,31
Lowest Fuel Consumption Ratio	g/kW.hr	235	239

6. Intake & Exhaust System (On Standby Output)			
Combustion Air Consumption	m³/min	2,01	2,42
Max. Intake Restriction	kPa	101	
Max. Exhaust Temperature (Before Turbo)	℃		
Max. Exhaust Temperature (After Turbo)	℃	500	500
Max. Exhaust Back Pressure	kPa	6	
Exhaust Gas Flow	m³/min	2,01	2,42
Exhaust Flange Diameter	mm	84	

7. Electrical System		
Charging Alternator Voltage	V	12or24
Charging Alternator Capacity	A	
Starting Voltage	V	12or24
Starting Motor Capacity	KW	4.5or5
Minimum Battery Capacity	Ah	120
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℃ / 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