



Y4110D ENGINE TECHNICAL DATA SHEET

| 1. Engine Ratings for Generator application | Y4110D | | |
|---|--------|------|------|
| Engine Rated Speed | rpm | 1500 | 1800 |
| Generator set Frequency | Hz | 50 | 60 |
| Engine Standby Power (LTP) | kW | 47,3 | 52,8 |
| Engine Prime Power (PRP) | kW | 43 | 48 |
| Engine Continuous Power (COP) | kW | 43 | 48 |
| Cooling Fan Power Consumption (kW) | kW | 1,5 | 2 |
| Engine Net Standby Output (LTP) | kW | 45,5 | 50,5 |
| Engine Net Prime Output (PRP) | kW | 41,2 | 45,7 |
| Engine Net Continuous Output (COP) | kW | 41,2 | 45,7 |

2. General Specification

| | | |
|--------------------------------------|--------|------------|
| Length | mm | 892 |
| Width | mm | 618 |
| Height | mm | 740 |
| Engine Dry Weight w/o Cooling System | kg | 330 |
| Aspiration Type | | Natural |
| Injection Type | | Direct |
| Configuration | | Vertical |
| No. of Cylinders | | 4 |
| Displacement | liters | 4,484 |
| Bore | mm | 110 |
| Stroke | mm | 118 |
| Compression Ratio | | 18 |
| Piston Speed | m/s | 5.9/7.08 |
| Rotation Direction (from flywheel) | | Anti-clock |
| Number of Flywheel Teeth | | 119 |
| Flywheel House Size | | SAE3 |

3. Lubrication System

| | | |
|--|--------|-----------|
| Lube Oil Specification | | CD 15W-40 |
| Oil Capacity | liters | 13 |
| Max. Permissible Oil Temperature | °C | 120 |
| Low Oil Pressure Warning | kPa | 100 |
| Low Oil Pressure Shutdown | kPa | 80 |
| Oil consumption (as % of fuel consumption) | | 0,77% |

| 4. Cooling System | | | |
|--|---------------------|------------|-------|
| Coolant Capacity for Engine | Liters | 7,2 | |
| Max. Permissible Temperature | °C | 90 | |
| Max. Coolant Warning Temperature | °C | 95 | |
| Max. Coolant Shutdown Temperature | °C | 98 | |
| Thermostat Open Temperature | °C | 76 | |
| Radiator Cooling Flow | m ³ /min | ≥72 | ≥85 |
| Flow of Coolant pump | m ³ /h | ≥10.4 | ≥12.4 |
| Heat dissipation (engine radiator) | kW | 32,25 | 36 |
| Heat dissipation (convection) | kW | 26,88 | 30 |
| 5. Fuel System | | | |
| Governor Type | | Mechanical | |
| Fuel Consumption at 25% of generator set prime output | l/h | 5,09 | 5,65 |
| Fuel Consumption at 50% of generator set prime output | l/h | 6,91 | 7,68 |
| Fuel Consumption at 75% of generator set prime output | l/h | 9,15 | 10,18 |
| Fuel Consumption at 100% of generator set prime output | l/h | 12,03 | 13,44 |
| Lowest Fuel Consumption Ratio | g/kW.hr | 235 | 235 |
| 6. Intake & Exhaust System (On Standby Output) | | | |
| Combustion Air Consumption | m ³ /min | 2,5 | 3 |
| Max. Intake Restriction | kPa | 4 | |
| Max. Exhaust Temperature (Before Turbo) | °C | / | / |
| Max. Exhaust Temperature (After Turbo) | °C | 500 | 500 |
| Max. Exhaust Back Pressure | kPa | 6 | |
| Exhaust Gas Flow | m ³ /min | 6,49 | 7,78 |
| Exhaust Flange Diameter | mm | 84 | |
| 7. Electrical System | | | |
| Charging Alternator Voltage | V | 14or28 | |
| Charging Alternator Capacity | A | 53.6or26.8 | |
| Starting Voltage | V | 12or24 | |
| Starting Motor Capacity | KW | 4.5or5 | |
| Minimum Battery Capacity | Ah | 120 | |
| 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/dm ³ , 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 | | | |

This datasheet has been prepared by Gucbir Generator / Istanbul for Yang Dong engines.