

◎ POWER RATING

| Engine Speed rev/min | Type of Operation | Engine Power | |
|-------------------------|-------------------|--------------|-----|
| | | kWm | Ps |
| 1800 | Prime Power | 200 | 272 |
| | Continuous Power | 180 | 245 |
| 1500 | Prime Power | 175 | 238 |
| | Continuous Power | 157 | 214 |



Note : -. The engine performance corresponds to ISO 3026, BS 5514 and DIN 6271.

-. Ratings are based on ISO 8528.

→ Prime power available at variable load. The permissible average power out put (during 24h period) shall not exceed 70% of the prime power rating.

◎ MECHANICAL SYSTEM

- Engine Model GE12TI CO-GEN COMPLETE
- Engine Type In-line 4 cycle, water cooled
Turbo charged & intercooled (water to air)
- Combustion type Stoichiometric, Premixed and spark ignited
- Cylinder Type Replaceable dry liner
- Number of cylinders 6
- Bore x stroke 123(4.84) x 155(6.1) mm(in.)
- Displacement 11.051 (674.5) lit.(in³)
- Compression ratio 10.5 : 1
- Firing order 1-5-3-6-2-4
- Ignition timing 13° BTDC
- Compression pressure Above 16 kg/cm²(228 psi) at 200rpm
- Dry weight Approx. 910 kg (2,006 lb)
- Dimension (LxWxH) 1,405 x 854 x 1,072 mm
(55 x 34 x 42 in.)
- Rotation Counter clockwise viewed from Flywheel
- Fly wheel housing SAE NO.1
- Fly wheel Clutch NO.14

◎ MECHANISM

- Type Over head valve
- Number of valve Intake 1, exhaust 1 per cylinder
- Valve lashes at cold Intake 0.30mm (0.0118 in.)
Exhaust 0.30mm (0.0118 in.)

◎ VALVE TIMING

- | | Opening | Close |
|-----------------|--------------|--------------|
| ○ Intake valve | 18 deg. BTDC | 34 deg. ABDC |
| ○ Exhaust valve | 46 deg. BBDC | 14 deg. ATDC |

◎ FUEL CONSUMPTION

- | ○ Prime Power (Nm ³ /hr) | 1,500 rpm | 1,800 rpm |
|-------------------------------------|-----------|-----------|
| 25% | 16.8 | 20.4 |
| 50% | 26.3 | 30.2 |
| 75% | 34.3 | 41.1 |
| 100% | 43.4 | 51.4 |

◎ FUEL SYSTEM

- Carburetor Impco 200M Varifuel carburetor
- Gas regulator Maxitrol RV61
- Max. inlet pressure 1.0 psi at the engine inlet

◎ LUBRICATION SYSTEM

- Lub. Method Fully forced pressure feed type
- Oil pump Gear type driven by crankshaft
- Oil filter Full flow, cartridge type
- Oil pan capacity High level 25 liters (6.60 gal.)
Low level 19 liters (5.02 gal.)
- Angularity limit Front down 25 deg.
Front up 25 deg.
Side to side 15 deg.
- Lub. Oil Refer to Operation Manual
Low ash type(0.5wt%) natural gas engine oil
API service grade CD or higher
SAE 15W-40

◎ COOLING SYSTEM

- Cooling method Fresh water forced circulation
- Water capacity 21 liters (5.55 gal.)
(engine only)
- Pressure system Max. 0.9 kg/cm² (12.8 psi)
- Water pump Centrifugal type driven by belt
- Water pump Capacity 310 liters (81.9 gal.)/min
at 1,800 rpm (engine)
- Thermostat Wax – pellet type
Opening temp. 71°C
Full open temp. 85°C

◎ ELECTRICAL SYSTEM

- Charging generator 24V x 45A alternator
- Voltage regulator Built-in type IC regulator
- Starting motor 24V x 7.0kW
- Battery Voltage 24V
- Battery Capacity 150 AH (recommended)
- Ignition controller 12 or 24V DC
(min 8V DC at start, 32V DC max)

◎ IGNITION SYSTEM

- Spark plug NGK IFR7B-D, 0.4mm air gap
Champion RC78PYP, 0.38mm air gap
- Ignition controller Altronic CD 1 unit (12 or 24V DC)
- Ignition coil Altronic 501 061 blue epoxy individual
coil
- Trigger system Magnetic pick-up sensor and trigger
wheel and Hall-effect
(0.75 ~ -0.25mm air gap)

◎ ENGINEERING DATA

- | | |
|---------------------------------|--|
| ○ Water flow | 260 liters/min @1,500 rpm |
| ○ Heat rejection to coolant | 39.0 kcal/sec @1,500 rpm |
| ○ Heat rejection to CAC | 1.8 kcal/sec @1,500 rpm |
| ○ Air flow | 14.5 m ³ /min @1,500 rpm |
| ○ Exhaust gas flow | 23.0 m ³ /min @1,500 rpm |
| ○ Exhaust gas temp. | 545 °C @1,500 rpm |
| <hr/> | |
| ○ Water flow | 310 liters/min @1,800 rpm |
| ○ Heat rejection to coolant | 46.5 kcal/sec @1,800 rpm |
| ○ Heat rejection to CAC | 3.1 kcal/sec @1,800 rpm |
| ○ Air flow | 16.7 m ³ /min @1,800 rpm |
| ○ Exhaust gas flow | 27.0 m ³ /min @1,800 rpm |
| ○ Exhaust gas temp. | 566 °C @1,800 rpm |
| <hr/> | |
| ○ Max. permissible restrictions | |
| -Intake system | 220 mmH ₂ O initial 635 mmH ₂ O final |
| -Exhaust system | 600 mmH ₂ O max. |

◆ CONVERSION TABLE

- | | |
|---|------------------------------------|
| in. = mm x 0.0394 | lb/ft = N.m x 0.737 |
| PS = kW x 1.3596 | U.S. gal = lit. x 0.264 |
| psi = kg/cm ² x 14.2233 | kW = 0.2388 kcal/s |
| in ³ = lit. x 61.02 | lb/PS.h = g/kW.h x 0.00162 |
| hp = PS x 0.98635 | cfm = m ³ /min x 35.336 |
| lb = kg x 2.20462 | Nm ³ = SCF × 0.0283 |
| Kg/hr = Nm ³ /hr × 0.732 (natural gas) | |
| Btu/ft ³ = MJ/m ³ × 26.8392 (natural gas) | |

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※ Specifications are subject to change without prior notice