

## ◎ POWER RATING

Engine Speed rev/min	Type of Operation	Engine Power	
		kWm	Ps
1800	Prime Power	150	204
	Standby Power	165	224
1500	Prime Power	128	174
	Standby Power	141	192



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.

→ **Standby power** available in the event of a main power network failure. No overload is permitted.

## ◎ MECHANICAL SYSTEM

○ Engine Model	GE08TIC
○ Engine Type	In-line 4 cycle, water cooled Turbo charged & intercooled (water to air)
○ Combustion type	Stoichiometric, Premixed and spark ignited
○ Cylinder Type	Replaceable wet liner
○ Number of cylinders	6
○ Bore x stroke	111(4.37) x 139(5.47) mm(in.)
○ Displacement	8.071 (492.52) lit.(in <sup>3</sup> )
○ Compression ratio	10.5 : 1
○ Firing order	1-5-3-6-2-4
○ Ignition timing	13° BTDC
○ Compression pressure	Above 16 kg/cm <sup>2</sup> (228 psi) at 200rpm
○ Dry weight	Approx. 750 kg (1,654 lb)
○ Dimension (LxWxH)	1,224 x 760 x 973 mm (48 x 30 x 38 in.)
○ Rotation	Counter clockwise viewed from Flywheel
○ Fly wheel housing	SAE NO.2
○ Fly wheel	Clutch NO.11 1/2

## ◎ 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	16 deg. BTDC	34 deg. ABDC
○ Exhaust valve	46 deg. BBDC	14 deg. ATDC

## ◎ FUEL CONSUMPTION

○ Prime Power (Nm <sup>3</sup> /h)	1,500 rpm	1,800 rpm
25%	13.3	13.9
50%	17.8	21.8
75%	24.3	29.9
100%	31.8	38.5

## ◎ FUEL SYSTEM

○ Carburetor	Impco 200 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 23 liters ( 6.08 gal.) Low level 17 liters ( 4.49 gal.)
○ Angularity limit	Front down 25 deg. Front up 25 deg. Side to side 25 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      18 liters ( 4.76 gal.)  
(engine only)
- Pressure system      Max. 0.9 kg/cm<sup>2</sup> ( 12.8 psi)
- Water pump            Centrifugal type driven by belt
- Water pump Capacity 240 liters ( 63.4 gal.)/min  
at 1,800 rpm (engine)
- Thermostat            none

## ◎ ELECTRICAL SYSTEM

- Charging generator    24V x 45A alternator
- Voltage regulator      Built-in type IC regulator
- Starting motor        24V x 4.5kW
- 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            200 liters/min @1,500 rpm
- Heat rejection to coolant 29.4 kcal/sec @1,500 rpm
- Heat rejection to CAC    1.2 kcal/sec @1,500 rpm
- Air flow                10.3 m<sup>3</sup>/min @1,500 rpm
- Exhaust gas flow        16.5 m<sup>3</sup>/min @1,500 rpm
- Exhaust gas temp.      540 °C @1,500 rpm
- Water flow            240 liters/min @1,800 rpm
- Heat rejection to coolant 35.3 kcal/sec @1,800 rpm
- Heat rejection to CAC    2.3 kcal/sec @1,800 rpm
- Air flow                12.5 m<sup>3</sup>/min @1,800 rpm
- Exhaust gas flow        20.3 m<sup>3</sup>/min @1,800 rpm
- Exhaust gas temp.      560 °C @1,800 rpm
- Max. permissible restrictions
- Intake system            220 mmH<sub>2</sub>O initial  
635 mmH<sub>2</sub>O final
- Exhaust system         600 mmH<sub>2</sub>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 <sup>2</sup> x 14.2233                              | kW = 0.2388 kcal/s                 |
| in <sup>3</sup> = lit. x 61.02                                  | lb/PS.h = g/kW.h x 0.00162         |
| hp = PS x 0.98635   | cfm = m <sup>3</sup> /min x 35.336 |
| lb = kg x 2.20462   | Nm <sup>3</sup> = SCF × 0.0283     |
| Kg/hr = Nm <sup>3</sup> /hr × 0.732 (natural gas)               |                                    |
| Btu/ft <sup>3</sup> = MJ/m <sup>3</sup> × 26.8392 (natural gas) |                                    |

### Head office

7-11, Hwasu-Dong, Dong-Gu, Incheon, Korea  
**TEL : 82-32-760-1437, 1964 FAX : 82-32-760-1964**

### Seoul Office

Doosan Infracore Co. Ltd.,  
 22nd Floor, Doosan Tower, 18-12, Euljiro 6-ga, Jung-gu,  
 Seoul, Korea.

**TEL : 82-2-3398-8521~8535 FAX : 82-2-3398-8509**

**Web site : www.doosaninfracore.com**