

PU086TI P-DRIVE

POWER RATING

Intermittent rating kW(PS) / rpm	Max. torque N.m(kg.m) / rpm	Fuel consumption g/kW.h(g/PS.h) / rpm
213 (290) / 2,200	1095 (111.7) / 1,600	219 (161) / 2,200

Note: 1. The engine performance corresponds to ISO 3046, DIN 6270B.

- 2. Continuous duty at charge and constant speed consider on engine choice, a power derating of about 8%.
- 3. Max. rpm of Continuous duty is 1,800rpm.



MECHANICAL SYSTEM

○ Engine Model PU086TI ○ Engine Type In-line 4 cycle, water cooled Turbo charged & intercooled Combustion type Direct injection O Cylinder Type Replaceable dry liner

O Number of cylinders

O Bore x stroke 111(4.37) x 139(5.47) mm(in.)

O Displacement 8.071(492.49) lit.(in3)

 Compression ratio 16.7:1 1-5-3-6-2-4 • Firing order 15° BTDC Injection timing

Above 28 kg/cm²(398 psi) at 200rpm Compression pressure

O Dry weight Approx. 792 kg (1,746 lb) O Dimension 1,242 x 918 x 1,100 mm (LxWxH) (48.9 x 36.1 x 43.3 in.) Rotation Counter clockwise viewed

from Flywheel

FUEL SYSTEM

O Injection pump Zexel in-line "PE6P" type O Governor RSV type(all speed control) ○ Feed pump Mechanical type O Injection nozzle Multi hole type

Opening pressure 224 kg/cm2 (3,186 psi) ○ Fuel filter Full flow, cartridge type

O Used fuel Diesel fuel oil

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 15 liters (4.09 gal.)

Low level 12 liters (3.17 gal.)

O Angularity limit Front down 25 deg.

Front up 25 deg.

Side to side 25 deg.

○ Lub. Oil Refer to Operation Manual

MECHANISM

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

VALVE TIMING

	Opening	Close
O Intake valve	16 deg. BTDC	36 deg. ABDC
© Exhaust valve	46 deg. BBDC	14 deg. ATDC

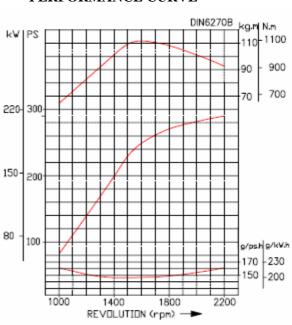
OPTION & ACCESSORY PARTS

• Engine parts Fly wheel & housing

Intake & exhaust manifold

Raditor, silencer & air cleaner Accessory parts • Electrical parts Gauge panel & stop solenoid

PERFORMANCE CURVE





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COOLING SYSTEM

• Cooling method Fresh water forced circulation

O Water capacity 14 liters (3.70 gal.)

(engine only)

○ Pressure system Max. 0.9 kg/cm² (12.8 psi)
 ○ Water pump Centrifugal type driven by belt

• Water pump Capacity 250 liters (66.0 gal.)/min

at 2,200 rpm (engine)

○ Thermostat Wax – pellet type

Opening temp. 71°C Full open temp. 85°C

○ Cooling fan Blower type, plastic

660 mm diameter, 7 blade

ENGINEERING DATA

 ○ Water flow
 250 liters/min @2,200 rpm

 ○ Heat rejection to coolant
 29.7 kcal/sec @2,200 rpm

 ○ Air flow
 25.1 m³/min @2,200 rpm

 ○ Exhaust gas flow
 40.1 m³/min @2,200 rpm

 ○ Exhaust gas temp.
 450 °C @2,200 rpm

O Max. permissible restrictions

-.Intake system 220 mmH₂O initial

635 mmH₂O final

-.Exhaust system 1,000 mmH₂O max.

ELECTRICAL SYSTEM

○ Charging generator○ Voltage regulator24V x 45A alternatorBuilt-in type IC regulator

○ Starting motor 24V x 4.5kW

O Battery Voltage 24V

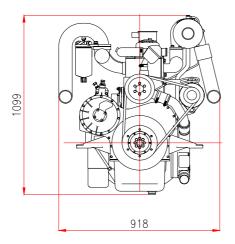
O Battery Capacity 100 AH (recommended)

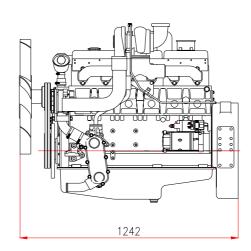
OStarting aid (Option) Block heater

CONVERSION TABLE

in3 = 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

 $1b = kg \times 2.20462$





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