

DIESEL ENGINE

KDPU SERIES FOR INDUSTRIAL POWER UNIT

| | | |
|------------------------|----------------------|---------------------------------|
| Model: 4KDPU-86 | Prime power | 78.0KW (106HP)/2000 rpm |
| | Standby Power | 86.0KW(117.0HP)/2000 rpm |

- The engine performance is as per ISO 3046. Type of operation is based on ISO 8528.
- Prime power is available for an unlimited number of hours per year in a variable load application.
- The permissible average power output over 24 hours of operation shall not exceed 80% of the prime power rating.

Engine Specifications

| | |
|---|------------------------|
| In-Line, 4 stroke, water-cooled, Turbocharged | |
| Combustion type | Direct injection |
| Cylinders - Bore x stroke | 4 - 110 x 125 mm |
| Displacement | 4752 cc |
| Firing order | 1 – 3 – 4 – 2 |
| Compression ratio | 16 : 1 |
| Dry weight | Approx. 490 kg |
| Dimension(LxWxH) | 1,115 x 730 x 1,130 mm |
| Rotation | Anti-clockwise |
| Flywheel / Housing | SAE # 11.5 / # 3 |

Fuel System

| | |
|------------------|---------------------------|
| Injection pump | Direct Injection type |
| Governor | Electronic type |
| Feed pump | Mechanical type |
| Injection nozzle | Multi-hole type/ 0.255 mm |
| Opening pressure | 25+0.5MPa |
| Fuel filter | Single Stage, Paper |

Fuel Consumption

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|--------------------------|---------------|
| Prime power at 2000rpm | 29.7 liters/h |
| Standby power at 2000rpm | 32.7 liters/h |

Cooling System

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|-----------------|--------------------------|
| Cooling method | Fresh water forced type |
| Water pump | Centrifugal, Belt driven |
| Water Capacity | 10 liters (engine only) |
| Max. water Temp | 95 degree C. |
| Cooling Fan | Blade 7EA - Ø 530 mm |

Lubrication System

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|-------------------------|------------------------------|
| Lub. Oil Pan Capacity | 14.0 liters |
| Max. allowable Oil Temp | 110 degree C. |
| Oil pressure | Min. 294 kPa Max. 490 kPa |

Intake & Exhaust System

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|---------------------|---------------------------|
| Max air restriction | Clean 2 kPa / Dirty 5 kPa |
| Exhaust back | Max 6 kPa |

Engineering Data

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|---------------------------|-------------|
| Combustion Air at 2000rpm | 9.3 m3/min |
| Exhaust Gas at 2000rpm | 23.0 m3/min |

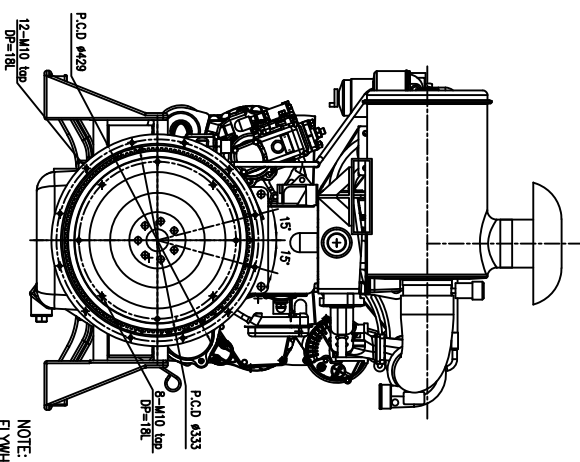
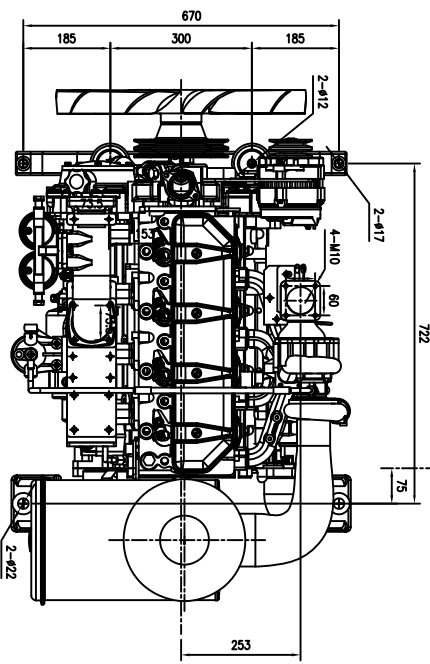
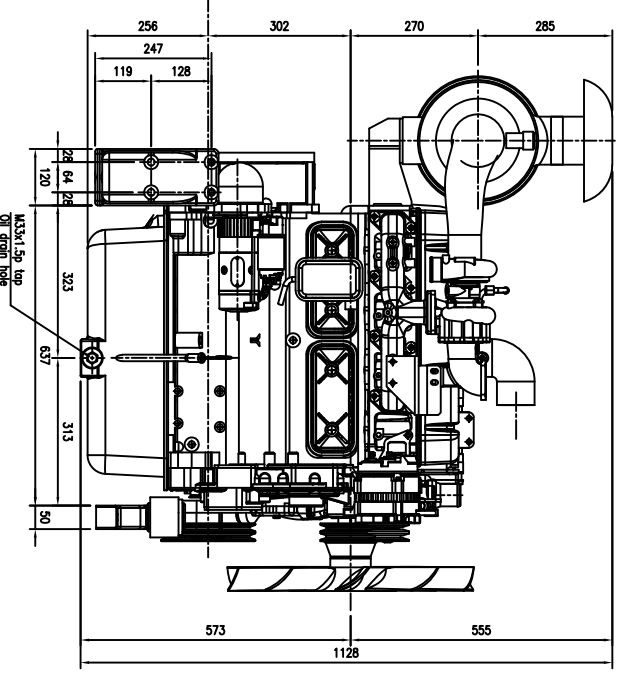
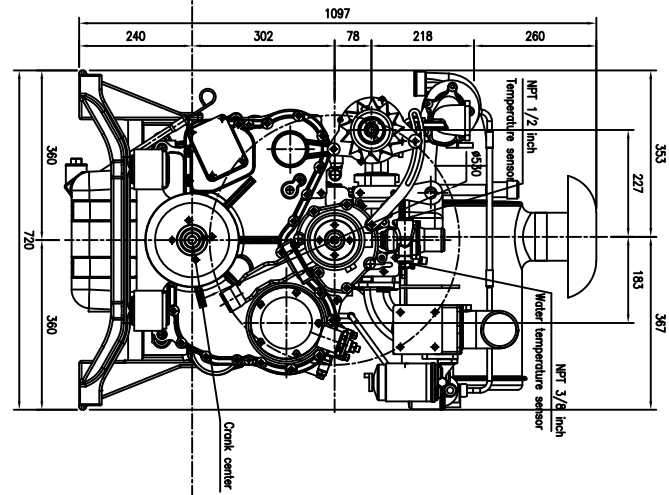
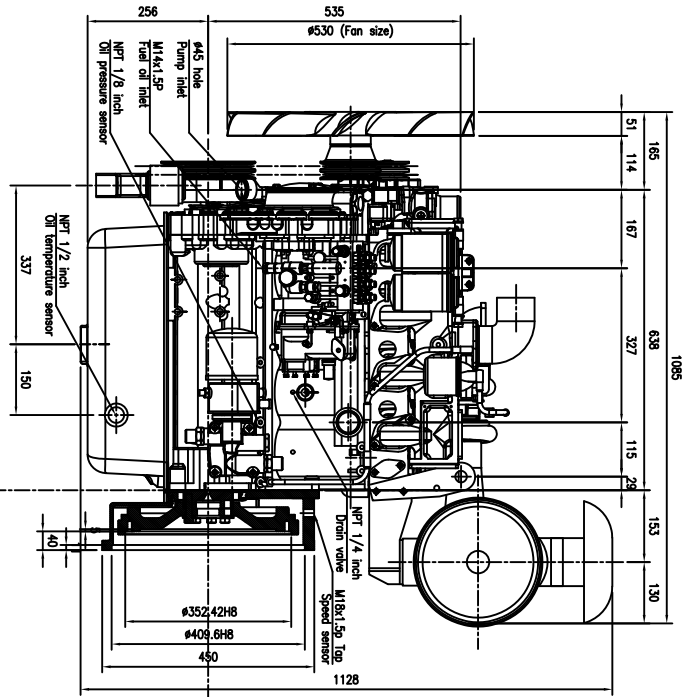
Electric System

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|--------------------|-------------------|
| Charging generator | 27.5 V x 36 A |
| Starting motor | 12 V x 7.5 kW |
| Battery | 12 V x 2 x 120 Ah |

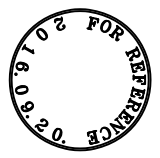
Conversion Table

| | |
|------------------------------------|-------------------|
| PS = kW x 1.3596 | in. = mm x 0.0394 |
| psi = kg/cm ² x 14.2233 | |
| HP= PS x 0.98635 | |

4KDPU-86



NOTE:
 FLYWHEEL : SAE #11.5
 FLYWHEEL HOUSING : SAE #3



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|----------|------|------------------------|----------|
| CUSTOMER | | TITLE | |
| - | | KODIEC ENGINE ASSEMBLY | |
| SCALE | 1/12 | DATE | 11.09.20 |
| DRAWN | - | CHECKED | - |
| DESIGNED | - | APPROVED | - |
| REVISED | - | BY | - |
| APPROVAL | - | DATE | - |
| REVISED | - | DATE | - |
| APPROVAL | - | DATE | - |
| CUSTOMER | | DRAWN NO. | |
| - | | 4KDPU-86 | |
| - | | REVISED NO. | |
| - | | 30710000-00 | |