# Koten Power Generator 60Hz


Powered By Cummins

## Model : KDC-344/5

| PRP | | ESP | | Standby | Voltage/Ph | Hz/rpm | PF |
|---|---|---|---|---|---|---|---|
| kW | kVA | kW | kVA | Amps | | | |
| 275 | 344 | 300 | 375 | 984 | 220/3Ph | 60/1800 | 0.8 |

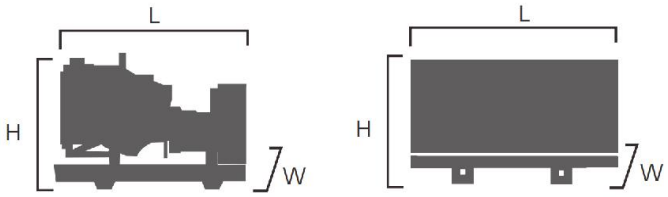
### Prime power

According to ISO8528-1, prime power is the maximum power available during a variable power sequence, which may be run for an unlimited number of hours per year, between stated maintenance intervals.The permissible average power output during at 24 hours period shall not exceed 80% of the prime power. 10% overload available for governing purposes only.

### Standby power

According to ISO 8528-1, It is defined as the maximum power available, under the agreed operating conditions, for which the generating set is capable of delivering for up to 500 hours of operation per year (of which no more than 300 hours for continuative use) with the maintenance intervals and procedures being carried out as prescribed by the manufacturers. No overload capability is available.

| Diesel Generator Set | |
|---|---|
| Engine Make /Model | Cummins NTA855G1B |
| Alternator Make /Model | Brushless, self-exciting |
| Control Panel | Smartgen HGM6120N |
| Base Frame / Silent Canopy | Robust Structure/ Corrosion Resistant |
| Circuit Breaker Type | MCCB |
| Built in Base Fuel Tank Capacity | 8-10hrs (Silent) |
| Battery | Maintenance free Lead Acid |




| Fuel Consumption ( L/H ) | |
|---|---|
| 100% standby power | 89.2 |
| 100% prime power | 80.5 |
| 75% prime power | 61.7 |
| 50% prime power | 44.0 |

| Dimension and Weight | | |
|---|---|---|
| Dimension | Open | Silent |
| Length (L) | 3100mm | 4300mm |
| Width (W) | 1100mm | 1400mm |
| Height (H) | 1850mm | 2150mm |
| Net Weight | 2700KG | 3700KG |

## § Engine Specification: NTA855G1B

| Basic technical data | |
|---|---|
| No. of cylinders | 6 |
| Cylinder arrangement | In-line |
| Cycle | 4 stroke |
| Induction system | Turbocharged and Aftercooled |
| Compression ratio | 15.0:1 |
| Bore | 140mm |
| Stroke | 152mm |
| Displacement | 14L |

| Air intake system | |
|---|---|
| Maximum intake air restriction with heavy duty air cleaner: | |
| -Dir ty element | 6.22kpa |
| -Clean element | 3.74kpa |

| Cooling system | |
|---|---|
| Coolant capacity-engine | 20.8L |
| Maximum coolant friction head external to engine: -1800 rpm | 48kPA |
| Maximum static head of coolant above engine crank centerline | 14.0m |
| Standard Thermostat (Modulating) Range | 82 - 94 ℃ |
| Minimum Pressure Cap | 48.2 kPa |
| Maximum Top Tank Temperature for Standby / Prime Power | 104 / 100 ℃ |

| Lubrication system | |
|---|---|
| Engine oil pressure for engine protection devices: | |
| — Idle speed(Minimum ) | 103kPa |
| — Governed speed(Maximum ) | 241-345kPa |
| Maximum oil temperature | 121 ℃ |
| Maximum oil consumption | 0.24 L/H |
| Oil pan capacity-low/high | 28.4/36.0 L |

| Fuel system | |
|---|---|
| Injection system | Direct injection cummins PT |
| Governor type | Electronic |
| Minimum fuel return line size | 13mm |
| Minimum fuel supply line size | 16mm |
| Maximum fuel inlet temperature | 71℃ |
| Fuel rail pressure | 1399.5kPa |
| Maximum fuel pump supply | 319 L |

| General installation | Prime power |
|---|---|
| Gross engine power output | 313kw |
| Piston speed | 9.14 m/s |
| Friction horsepower | 35 kW |
| Engine water flow to engine | 6 L/min |
| Intake Air Flow | 448 l/sec |
| Exhaust gas flow | 1149 l/sec |
| Exhaust gas temperature | 466 ℃ |
| Heat Radiation | 39 kW |
| Heat rejection to coolant | 235 kW |
| Heat rejection to ambient | 196 kW |

§ Diesel engine
§ 4-stroke cycle
§ Water-cooled
§ 24V electrical system
§ Water separator filter
§ Dry air filter
§ Radiator with pusher fan
§ Mechanical govornor
§ Hot parts protection
§ Moving parts protection
§ Water jacked heater (Optional)
§ Radiator water level sensor (Optional)
§ Oil heater (Optional)
§ Heavy duty air filter (Optional)

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## § Alternator

| Alternator | |
|---|---|
| Number of phase | 3 |
| Power factor (Cos Phi) | 0.8 |
| Poles | 4 |
| Winding Connections (standard) | Star-serie |
| Terminals | 12 |
| Insulation type | H class |
| Winding Pitch | 2/3 |
| IP rating | IP23 |
| Excitation system | Self-excited |
| Bearing | Single bearing |
| Coating | Vacuum impregnation |
| Voltage regulator | A.V.R |
| Couping | Flexible disc |

## § Controller

### Configuration

- Emergency stop button
- Protection MCB
- Battery charger
- Integrated aviation plug
- ATS connection
- Digital control module


### Main Features

- Automatic mains failure
- Engine control,Generator protection
- Built in alarms and warnings
- Remote Start operation available
- Daily / weekly / monthly exerciser
- Weekly operation schedule programs
- Fuel pump control
- Mains simulation
- Block heater control
- Field adjustable parameters
- Free MS-Windows Remote monitoring
- LED displays
- Configurable analogue inputs
- I/O expansion capability

## § Options

### Engine

- Water Jacket Pre-heater
- Fuel heater

### Alternator

- Winding Temp measuring Instrument
- Alternator Pre-heater
- PMG
- Anti-damp and anti-corrosion treatment
- Anti-condensation heater
- Winding and bearing RTD

### Generator Sets

- Tools with the machine
- Extended range fuel tank
- Bunded fuel tank

### Fuel System

- Low fuel level alarm
- Automatic fuel feeding system
- Fuel T-valves

### Canopy

- Rental type Canopy
- Trailer

### Control Panel

- Remote control panel
- ATS
- Synchronizing controller
- Adjustable ear th leakage relay