



Model :
KDC-313/S

PRP		ESP		Standby	Voltage/Ph	Hz/rpm	PF
kW	kVA	kW	kVA	Amps			
250	313	280	350	505	400/3Ph	50/1500	0.8

Prime power

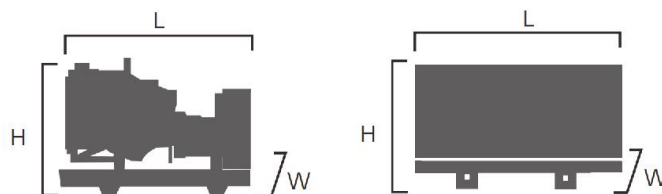
According to ISO8528-1, prime power is the maximum power available during a variable power sequence, which may be run for an unlimited number of hours per year, between stated maintenance intervals. The permissible average power output during at 24 hours period shall not exceed 80% of the prime power. 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	80.7
100% prime power	71.4
75% prime power	54.3
50% prime power	38.2

Dimension and Weight

Dimension	Open	Silent
Length (L)	3000mm	4300mm
Width (W)	1100mm	1400mm
Height (H)	1850mm	2150mm
Net Weight	2790KG	3700KG

§ Engine Specification: NTA855G1B

Basic technical data	
No. of cylinders	6
Cylinder arrangement	In-line
Cycle	4 stroke
Induction system	Turbocharged, Aftercooled
Compression ratio	14.0:1
Bore	140mm
Stroke	152mm
Displacement	14L

Cooling system	
Coolant capacity-engine	20.8L
Maximum coolant friction head external to engine:	
-1500 rpm	41kPa
Maximum static head of coolant above engine crank centerline	14.0m
Standard Thermostat (Modulating) Range	82 - 94 °C
Minimum Pressure Cap	48.2 kPa
Maximum Top Tank Temperature for Standby / Prime Power	104 / 100 °C

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°C
Fuel rail pressure	1141kPa
Maximum fuel pump supply	305 L

Air intake system	
Maximum Allowable Intake Air Restriction	
-Dir ty element	6.22kpa
-Clean element	3.74kpa

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

General installation	Prime power
Gross engine power output	284kW
Piston speed	7.62 m/s
Friction horsepower	22 kW
Engine water flow to engine	5 L/min
Intake Air Flow	375 l/sec
Exhaust gas flow	980 l/sec
Exhaust gas temperature	485 °C
Heat Radiation	34 kW
Heat rejection to coolant	206 kW
Heat rejection to ambient	172 kW

§ Diesel engine
 § 4-stroke cycle
 § Water-cooled
 § 24V electrical system
 § Water separator filter

§ Dry air filter
 § Radiator with pusher fan
 § Mechanical governor
 § Hot parts protection
 § Moving parts protection

§ Water jacked heater (Optional)
 § Radiator water level sensor (Optional)
 § Oil heater (Optional)
 § Heavy duty air filter (Optional)

§ 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
Coupling	Flexible disc



§ 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

§ 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