



Model :
KDC-100/S

PRP		ESP		Standby	Voltage/Ph	Hz/rpm	PF
kW	kVA	kW	kVA	Amps			
80	100	88	110	159	400/3Ph	50/1500	0.8

Prime power

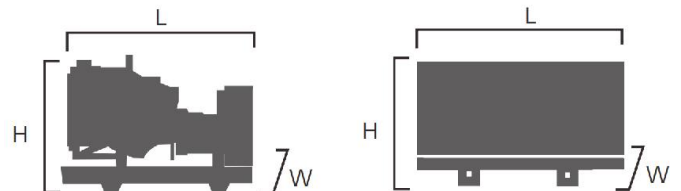
According to ISO8528-1, prime power is the maximum power available during a variable power sequence, which may be run for an unlimited number of hours per year, between stated maintenance intervals. The permissible average power output during at 24 hours period shall not exceed 80% of the prime power. 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 6BT5.9G2
Alternator Make /Model	Brushless, self-exciting
Control Panel	Smartgen HGM6120N
Base Frame / Silent Canopy	Robust Structure/ Corrosion Resistant
Circuit Breaker Type	3pole MCCB (4P Available as option)
Built in Base Fuel Tank Capacity	8-10hrs (Silent)
Battery	Maintenance free Lead Acid



Fuel Consumption (L/H)

100% standby power	26.9
100% prime power	24.2
75% prime power	18.2
50% prime power	12.5

Dimension and Weight

Dimension	Open	Silent
Length (L)	2200mm	3000mm
Width (W)	900mm	1100mm
Height (H)	1500mm	1680mm
Net Weight	1096KG	1550KG

§ Engine Specification: 6BT5.9G2

Basic technical data

No. of cylinders	6
Cylinder arrangement	In-line
Cycle	4 stroke
Induction system	Turbocharger
Compression ratio	17.3:1
Bore	102mm
Stroke	120mm
Displacement	5.9L

Cooling system

Coolant capacity-engine only	7.9L
Maximum coolant friction head external to engine: -1500 rpm	28kPa
Maximum static head of coolant above engine crank centerline	14.0m
Standard Thermostat (Modulating) Range	82 - 95 °C
Minimum Pressure Cap	69 kPa
Maximum Top Tank Temperature for Standby / Prime Power	104 / 100 °C

Fuel system

Injection system	BYC A Direct Injection
Governor type	Electronic
Maximum Restriction at Lift Pump	102 mmHg
Maximum Allowable Head on Injector Return Line (Consisting of Friction Head and Static Head)	508 mmHg
Total Drain Flow (constant for all loads)	30 Litre/hour

Air intake system

Maximum intake air restriction with heavy duty air cleaner:	
-Dir ty element	6 kpa
-Clean element	4 kpa

Lubrication system

Engine oil pressure for engine protection devices:	
— Idle speed(Minimum)	207 kPa
— Governed speed(Maximum)	345 kPa
Maximum oil temperature	121 °C
Maximum oil consumption	0.24 L/H
Oil pan capacity-low/high	12.3/14.2 L

General installation	Prime power
Gross engine power output	96kw
Piston speed	6 m/s
Friction horsepower	12.7 kW
Engine water flow to engine	2.0 L/sec
intake Air Flow	100 l/sec
Exhaust gas flow	250 l/sec
Exhaust gas temperature	526 °C
Radiated heat to ambient	19 kW
Heat rejection to coolant	54 kW
Heat Rejection to Exhaust	TBD

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

§ Dry air filter
§ Radiator with pusher fan
§ Electronic 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
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