

Diesel Generating Set

MODEL	WOC 33-60
Standby Power (60Hz)	26KW/33KVA
Prime Power (60Hz)	24KW/30KVA



Standard Features

General Features:

- Engine (DCEC Cummins 4B3.9-G1)
- Radiator 50°C max, fans are driven by belt, with safety guard
- 24V charge alternator
- Alternator: single bearing alternator IP23, insulation class H/H
- Absorber
- Dry type air filter, fuel filter, oil filter
- Main line circuit breaker
- Standard control panel
- Two 12V batteries, rack and cable
- Ripple flex exhaust pipe, exhaust siphon, flange, muffler
- User manual

Generator Ratings

Voltage	HZ	Phase	P.F (COS φ)	Standby Amps	Standby Ratings (KW/KVA)	Prime Ratings (KW/KVA)
220/127	60	3	0.8	80	26/33	24/30

Sales Promises

WADKIN provides a full line of brand new and high quality products. Each and every unit is strictly factory tested.

Warranty is according to our standard conditions: a, 15 months, counted on the day WADKIN sold to the first buyer; b, One year after installation; c, 1000 running hours (accumulated); subject to the earlier one.

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ENGINE DATA

Manufacturer / Model:	DCEC Cummins 4B3.9-G1 , 4-cycle
Air Intake System:	Air natural cooled
Fuel System:	A model fuel pump
Cylinder Arrangement:	4 in line
Displacement:	3.9L
Bore and Stroke:	102*120 (mm)
Compression Ratio:	16.5:1
Rated RPM:	1800rpm
Max. Standby Power at Rated RPM:	30KW
Governor Type:	RSV Mechanical(Std) / Electronic (Optional)

Exhaust System

Exhaust Gas Flow:	4.27m ³ /min
Exhaust Temperature:	410°C
Max Back Pressure:	10kPa

Air Intake System

Max Intake Restriction:	5kPa
Burning Capacity:	1.98m ³ /min
Air Flow:	136m ³ /min

Fuel System

100%(Prime Power) Load:	228 g/Kw.h
75%(Prime Power) Load:	229 g/Kw.h
50%(Prime Power) Load::	240 g/Kw.h

Oil System

Total Oil Capacity:	11L
Oil Consumption:	≤4g/kwh
Engine Oil Tank Capacity:	9.5L
Oil Pressure at Rated RPM:	345kPa

Cooling System

Total Coolant Capacity:	21L
Thermostat:	82-95
Max Water Temperature:	104

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ALTERNATOR SPECIFICATION

Manufacture Model : Stamford PI144E

Compliance with GB755, BS5000, VDE0530, NEMAMG1-22, IED34-1, CSA22.2 and AS1359 standards.

Alternator Data

Number of Phase:	3
Connecting Type:	3 Phase and 4 Wires, "Y" type connecting
Number of Bearing:	1
Power Factor:	0.8
Protection Grade:	IP23
Altitude:	≤1000m
Exciter Type:	Brushless, self-exciting
Insulation Class, Temperature Rise:	H/H
Telephone Influence Factor (TIF):	<50
THF:	<2%
Voltage Regulation, Steady State:	±1%
Alternator Capacity:	33KVA
Alternator Efficiencies:	86.2%
Air Cooling Flow:	0.15m ³ /s

GENERATING SET DATA

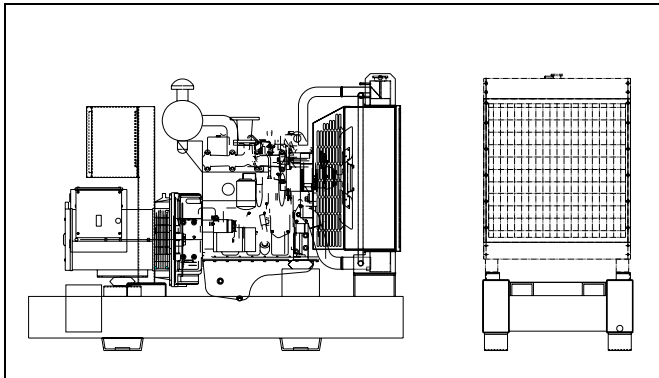
Voltage Regulation:	±5%
Voltage Regulation, Stead State:	±1%
Sudden Voltage Warp (100% Sudden Reduce):	+25%
Sudden Voltage Warp (Sudden Increase):	-20%
Voltage Stable Time (100% Sudden Reduce):	≤6S
Voltage Stable Time (Sudden Increase)	≤6S
Frequency Regulation, Stead State:	≤5%
Frequency Waving:	≤1.5%
Sudden Frequency Warp (100% Sudden Reduce):	+12%
Sudden Frequency Warp (Sudden Increase):	-10%
Frequency Recovery Time (100% Sudden Reduce):	≤5S
Frequency Recovery Time (Sudden Increase):	≤5S

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Options

Engine	Fuel System	Control System
<ul style="list-style-type: none"> ● Heater 2KW & 4KW ● Battery Charger 3.5A & 7A 	<ul style="list-style-type: none"> ● Daily Fuel Tank ● Water Separator ● Fuel Level Sensor 	<ul style="list-style-type: none"> ● Remote Control Panel ● Auto Transfer Switch (ATS) ● Paralleling System
Alternator	Others	Data
<ul style="list-style-type: none"> ● Anti Condensation Heater ● Permanent Magnet Generator (PMG) ● Drop CT (For Paralleling) 	<ul style="list-style-type: none"> ● Rainproof Type ● Soundproof Type ● Trailer Type 	<ul style="list-style-type: none"> ● Engine Parts Drawing List ● Spare Parts

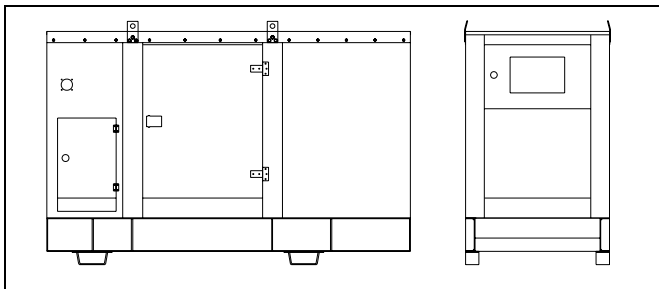
Dimension & Weight



Open Type with Base Fuel Tank

Overall Size: 1800 (mm) *750 (mm) *1350 (mm)

Weight: 876kg



Soundproof Type

Overall Size: 2230 (mm) *1060 (mm) *1680 (mm)

Weight: 1300kg

Standard Control Panel



WADKIN Standard Control Panel uses micro processing technique integrating digital, intelligent and network techniques which can carry out functions including auto start/stop, data measure, alarming. The controller uses LCD display, optional Chinese and English display interface with operation easy and reliable. It can be widely used in all types of generator automatic control system for compact structure, advanced circuits, simple connections and high reliability

PERFORMANCE AND CHARACTERISTICS

Using microprocessor as a core, graphics LCD with big screen and backlight, display between Chinese and English, key touch for operation.

Have a RS485 port, can used for communicate to PC.

Precision measure and display of

mains voltage	generator current	generator temperature
mains frequency (Hz)	generator frequency (Hz)	generator pressure
mains current	generator active power (kW)	generator fuel level
generator voltage	generator inactive power (kVar)	start battery voltage
generator power factor	generator apparent power (kVA)	generator hours count
generator starts count	generator cumulate electric energy (kWh)	

Control protection: Automatic start/stop, load transfer and alarming of generator;

Parameters setting: Allow user to modify setting and store them inside internal FLASH memory, the parameters can not be lost even with power down. All parameters can be set from the front panel, or be set by PC used SG72

Three channel analog inputs, may joint with Resistive-type temperature/ pressure/ fuel level sensors, Several temperature and pressure sensors can be used directly (ie. VDO, DATCON, CUMMINS), also may select "user defined" sensor via entering 8 point curves;

Display of generator cumulated electric energy;

Security password-protected programming levels.

Several crank success conditions are optional;

Built-in speed/frequency detecting units can accurately judge the states such as crank success and over speed;

Power supply range is wide, accommodating to different starting battery voltage environments;