WADKIN

Diesel Generating Set

MODEL	WOC125-60
Standby Power（60Hz）	99KW/124KVA
Prime Power（60Hz）	90KW/113KVA

Standard Features

General Features:

- Engine（DCEC Cummins 6BT5.9-G2）
- Radiator 50^{O}C max, fans are driven by belt, with safety guard
- 24V charge alternator
- Alternator: single bearing alternator IP23, insulation class H/H
- User manual
- Absorber
- Dry type air filter, fuel filter, oil filter
- Main line circuit breaker
- Standard control panel
- Two12V batteries, rack and cable
- Ripple flex exhaust pipe, exhaust siphon, flange, muffler

Generator Ratings

Voltage	HZ	Phase	P.F（COS ¢）	Standby Amps	Standby Ratings（KW/KVA）	Prime Ratings（KW/KVA）
480/277	60	3	0.8	125	99/124	90/113
460/266	60	3	0.8	137	99/124	90/113
440/254	60	3	0.8	137	99/124	90/113
416/240	60	3	0.8	143	99/124	90/113

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 6BT5.9-G2, 4-cycle
Air Intake System:	Turbo
Fuel System:	A/AD type fuel pump
Cylinder Arrangement:	6 in line
Displacement:	5.9L
Bore and Stroke:	102*120（mm）
Compression Ratio:	17.5:1
Rated RPM:	1800rpm
Max. Standby Power at Rated RPM:	127KW
Governor Type:	RSV Mechanical(Std) / Electronic (Optional)

Exhaust System

Maximum Back Pressure	-kPa	10
Exhaust Pipe Size Normally Acceptable	-mm	75
Maximum Static Supported Weight at the Turbocharger Outlet Flange	-N.m	13.5

Air Intake System

Maximum Intake Air Restriction with Heavy Duty Air Cleaner

— Dirty Element	-kPa	6
— Clean Element	-kPa	4

Fuel System

Type Injection System		BYC PB Direct Injection
Maximum Restriction at Lift Pump	-mmHg	102
Maximum Allowable Head on Injector Return Line (Consisting of Friction Head and Static Head)	-mmHg	508

Oil System

Maximum Oil Temperature	-℃	121
Oil Capacity with OP 9006 Oil Pan : High - Low	-litre	14.2 - 12.3
Minimum Required Lube System Capacity - Sump plus Filters	-litre	16.4

Cooling System

Coolant Capacity - Engine Only	-litre	7.9
Maximum Coolant Friction Head External to Engine…-1800 rpm	-kPa	35
Maximum Static Head of Coolant Above Engine Crank Centerline	-m	14
Standard Thermostat (Modulating) Range	-℃	82 - 95
Minimum Pressure Cap	-kPa	69

Electrical System

Cranking Motor (Heavy Duty, Positive Engagement)	-volt	12V	24V
Battery Charging System, Negative Ground	-ampere	63	40
Maximum Allowable Resistance of Cranking Circuit	-ohm	0.00075	0.002
Minimum Recommended Battery Capacity			
• Cold Soak @ 10 °F (-12 °C) and Above	-0°F CCA	800	400

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ALTERNATOR SPECIFICATION

Manufacture Model :	Stamfrod UCI274C

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:	125 KVA
Alternator Efficiencies:	90.6%
Air Cooling Flow:	0.617m^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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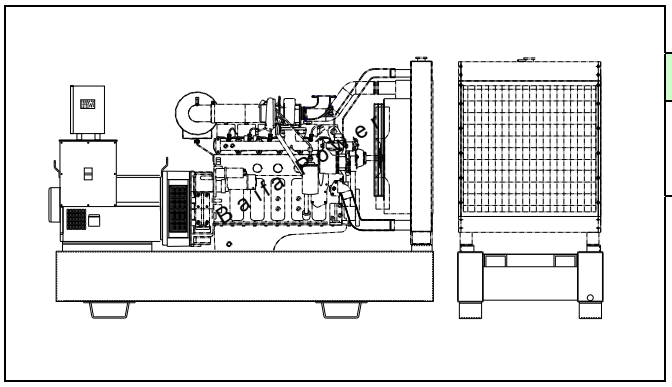
Options

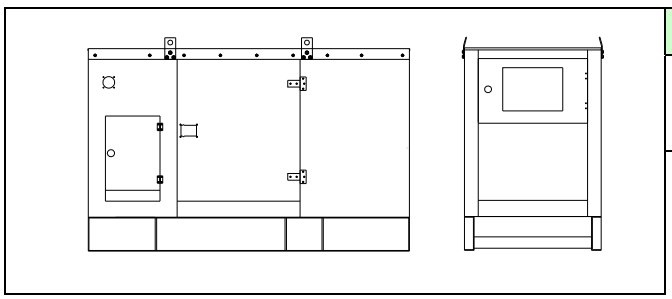
Engine	Fuel System	Control System
● Heater 2KW & 4KW	● Daily Fuel Tank	● Remote Control Panel
● Battery Charger 3.5A & 7A	● Water Separator	● Auto Transfer Switch (ATS)
	● Fuel Level Sensor	● Paralleling System

Alternator	Others	Data
● Anti Condensation Heater	● Rainproof Type	● Engine Parts Drawing List
● Permanent Magnet Generator（PMG）	● Soundproof Type	● Spare Parts
● Drop CT（For Paralleling）	● Trailer Type	

Dimension & Weight



Open Type with Base Fuel Tank
Overall Size: 2200（mm）*850（mm）*1500（mm）
Weight: 1450kg



Soundproof Type
Overall Size: 2760（mm）*1140（mm）*1830（mm）
Weight: 1900kg

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Standard Control Panel

HGM6120: AMF (Automatic Mains Failure Module)

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;