

## Diesel Generating Set

MODEL	WOC518-60
Standby Power (60Hz)	415KW / 518 KVA
Prime Power (60Hz)	400KW / 500KVA



### Standard Features

#### General Features:

- Engine (DCEC Cummins 6ZTAA13-G4 )
- Radiator 40°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 $\phi$ )	Standby Amps	Standby Ratings (KW/KVA)	Prime Ratings (KW/KVA)
480/277	60	3	0.8	676	415/518	400/500
460/266	60	3	0.8	706	415/518	400/500
440/254	60	3	0.8	738	415/518	400/500
416/240	60	3	0.8	780	415/518	400/500

### 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 6ZTAA13-G4
Air Intake System:	Turbo, Water /Air Cooling
Fuel System:	PT type fuel pump
Cylinder Arrangement:	6 in line
Displacement:	13 L
Bore and Stroke:	130*163 (mm)
Compression Ratio:	17 :1
Rated RPM:	1800rpm
Max. Standby Power at Rated RPM:	415KW
Governor Type:	Electronic

#### Exhaust System

Exhaust Gas Flow:	1713L/s
Exhaust Temperature:	491
Max Back Pressure:	13kPa

#### Air Intake System

Max Intake Restriction:	6.23kPa
Burning Capacity:	647L/s
Air Flow:	11700L/s

#### Fuel System

100%( Prime Power) Load:	206 g/Kw.h
75%(Prime Power) Load:	197 g/Kw.h
50%(Prime Power) Load::	195 g/Kw.h

#### Oil System

Total Oil Capacity:	45L
Oil Consumption:	≤4g/kwh
Engine Oil Tank Capacity:	32L
Oil Pressure at Rated RPM:	345-483kPa

#### Cooling System

Total Coolant Capacity:	106L
Thermostat:	82-93
Max Water Temperature:	104

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### ALTERNATOR SPECIFICATION

Manufacturer / Model: Stamford HCI444F

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:	518KVA
Alternator Efficiencies:	94.1%
Air Cooling Flow:	1.312m <sup>3</sup> /s

### GENERATING SET DATA

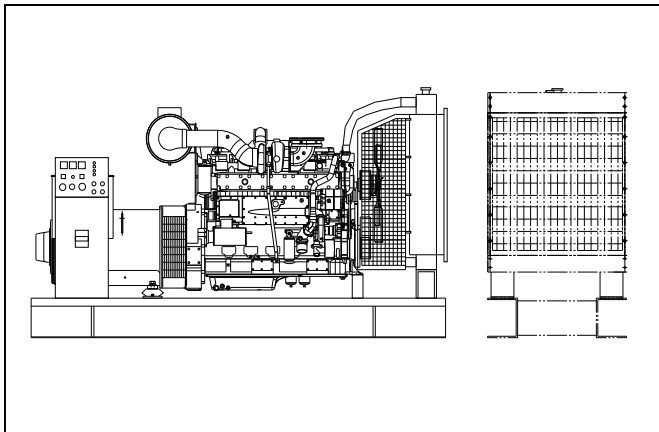
Voltage Regulation:	±5%
Voltage Regulation, Stead State:	±1%
Sudden Voltage Warp (100% Sudden Reduce):	+25%
Sudden Voltage Warp (Sudden Increase):	-20%
Voltage Stable Time (100% Sudden Reduce):	≤6S
Voltage Stable Time (Sudden Increase)	≤6S
Frequency Regulation, Stead State:	≤5%
Frequency Waving:	≤0.5%
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"> <li>● Heater 2KW &amp; 4KW</li> <li>● Battery Charger 3.5A &amp; 7A</li> </ul>	<ul style="list-style-type: none"> <li>● Daily Fuel Tank</li> <li>● Base Fuel Tank</li> <li>● Water Separator</li> <li>● Fuel Level Sensor</li> </ul>	<ul style="list-style-type: none"> <li>● Auto Control Panel</li> <li>● Remote Control Panel</li> <li>● Auto Transfer Switch (ATS)</li> <li>● Paralleling System</li> </ul>
Alternator	Others	Data
<ul style="list-style-type: none"> <li>● Anti Condensation Heater</li> <li>● Permanent Magnet Generator (PMG)</li> <li>● Drop CT (For Paralleling)</li> </ul>	<ul style="list-style-type: none"> <li>● Rainproof Type</li> <li>● Soundproof Type</li> <li>● Trailer Type</li> </ul>	<ul style="list-style-type: none"> <li>● Engine Parts Drawing List</li> <li>● Spare Parts</li> </ul>

### Dimension & Weight



#### Standard Configuration (Open Type)

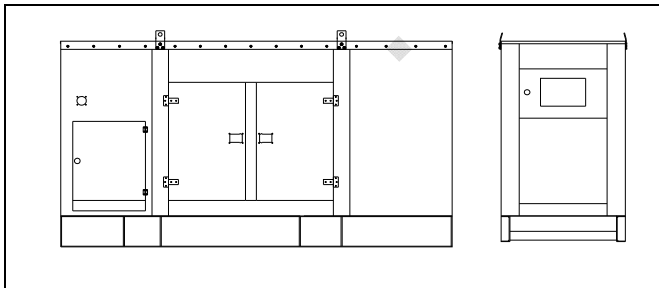
Overall Size: 3400 (mm) \*1360 (mm) \*1980 (mm)

Weight: 4100kg

#### With Base Fuel Tank

Overall Size: 3400 (mm) \*1360 (mm) \*2030 (mm)

Weight: 4200kg



#### Soundproof Type

Overall Size: 4630 (mm) \*1660 (mm) \*2250 (mm)

Weight: 5500kg

### 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;