

## Diesel generating set

### AG-687.5W/S

380V/60Hz Main power/WeiChai 6M33D710E201



ISO14001:2015

ISO9001 :2015

OHSAS 18001:2007

#### Product features

##### Operative norm:

- ISO 8528:AC generator set driven by reciprocating internal combustion engine
- IEC 60034-1:Basic technical requirements for rotating motors
- YD/T 502: Communication diesel generator set
- GB/T 20136-2006 General test method for internal combustion engine power stations

##### Merit:

1. Integrated building block structure design, small volume, compact structure, sophisticated technology;
2. Few parts, light weight, low failure rate and low maintenance cost;
3. Supercharging and supercharging intercooling technology as the leading products, strong power;
4. High-performance damping system and rigid base, small vibration;
5. Efficient fuel supply system and air intake system, fuel atomization and air mixing more fully, more complete combustion, lower emissions;
6. Standardized design, comprehensive and intelligent products, parts and components have strong versatility, easy installation and easy maintenance;
7. maintenance-free battery, with fast start performance;

## Technical parameters of the unit

### Generator set

Generator model:	AG-687.5W/S	Main power(kW):	550
Standby power(kW):	600	unit capacity(kVA):	687.5
Rated speed(rpm):	1800	frequency(Hz):	60
Rated voltage(V):	380	Rated current(A):	1044
Power factor( $\cos\phi$ ):	0.8(lag)	Wiring mode:	3 phase 4 wire
Generator weight (kg)	7510	Smoke pipe diameter (mm)	1×φ152
Air intake(m <sup>3</sup> /min):	861	Air exhaust(m <sup>3</sup> /min):	810
Generator size(mm):	6058L×2438W×2591H	Recommended base size(mm):	5500L×2500W

## Unit performance index (G3)

Parameter	unit	Oerformance index
Frequency drop	%	≤3
Steady state frequency band	%	≤0.5
Relative frequency setting drop range	%	≥3.5
Relative frequency setting rise range	%	≥2.5
Transient frequency deviation	100% sudden power reduction	≤+10
		≤-7
Frequency recovery time	s	≤3
Relative frequency tolerance band	%	2
Steady-state voltage deviation	%	≤±1
Voltage unbalance degree	%	1
Transient voltage deviation	100% sudden power reduction	≤+20
		≤-15
Voltage recovery time	s	≤4
Voltage modulation	%	0.3
Relative voltage setting range	%	≤±5
Voltage setting rate of change	%/s	0.2~1
Telephone harmonic factor	THF	<2
Telephone influence factor	TIF	—
		<50

## Engine technical parameters

### Engine

Manufacturer:	WeiChai
Model:	6M33D710E201
Engine structure:	four-stroke
Number :	6/L
Displacement:L	19.6
Cylinder diameter:mm	150
Stroke:mm	185
Compression ratio:	15: 1
Speed:rpm	1800
Primary/standby power :kW	645/710
Speed regulation mode:	E
Cooling method:	closed water cooling
Dry weight (engine only) : kg	2090

### Start the system

Starting rated power:kW	8.5
Starting rated voltage: V	DC24

### Fuel system

Fuel injection form: high pressure common rail	
Fuel return flow:L/min	N/A

### Fuel consumption

Engine output	L/h	g/kwh
100%	149.9	206
75%	111.3	204
50%	73.8	203
25%	37.8	208

### Intake system

Maximum allowable intake resistance (clean filter element) : kPa	3.73
Intake air flow: m <sup>3</sup> /min	51

### Lubrication system

Total lubrication system capacity: L	61
Maximum allowable oil temperature : °C	121

### Cooling system

Engine coolant volume: L	43
Coolant flow: L/min	612

### Exhaust system

Maximum exhaust back pressure: kPa	7.5
Exhaust flow: kg/min	148.68
Exhaust temperature: °C	750

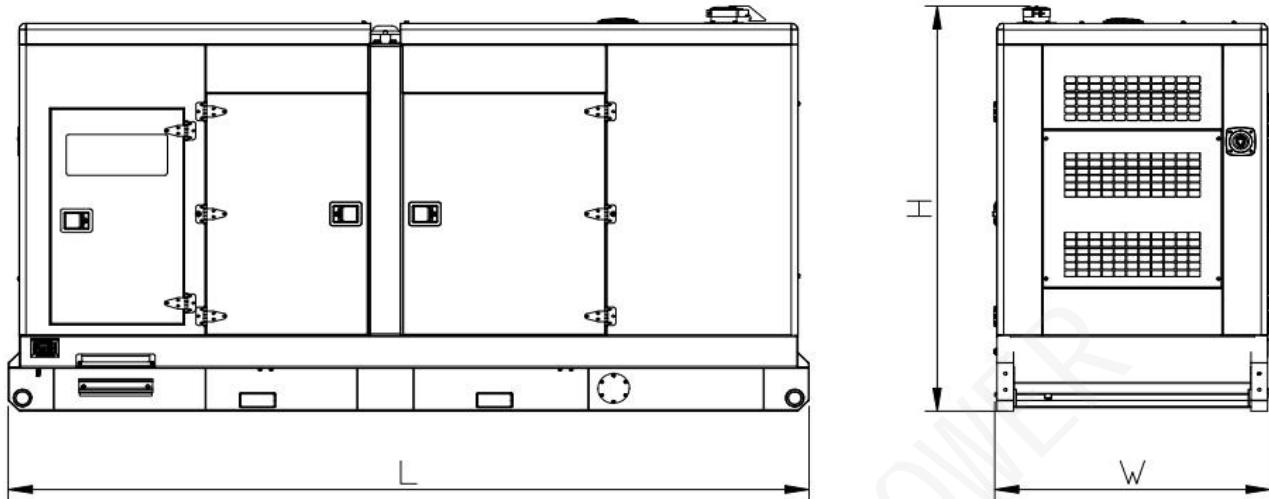
## Technical parameters of generator

### Dynamo

\*60Hz,AC380V,cosφ=0.8

MODEL	Rated power(kW)	Standby power(kW)	Mechanical efficiency(%)	Insulation/temperature rise	Class of protection	Weight(kg)
FISTALL QYI354ES	560	700	94.1	H/H	IP21	1380

## Size and weight



\* The above figure is for reference only, the actual size and weight are subject to the final design drawing.

Model	Engine model	size (L×W×H) (mm)	Dry weight (kg)	Wet weight (kg)
AG-687.5W/S	6M33D710E201	6058×2438×2591	7410	7510

## Special instructions

1. Main power (PRP) is the maximum power that the unit can run continuously with variable load under standard environment (atmospheric pressure, relative humidity, ambient temperature), and the overload of 10% is allowed to run for 1h every 12h.
2. Working conditions and power correction:
  - (1) Altitude:  $\leq 1500\text{m}$  ( $> 1500\text{m}$ ), need to do power correction; Power reduction by 10% per 1000m increase)
  - (2) Ambient temperature:  $40^\circ\text{C}$  (when  $> 40^\circ\text{C}$ , power correction is required)
  - (3) Relative humidity:  $\leq 60\%$
3. When the field use conditions of the diesel generator set do not meet the above conditions, the output power of the unit should be corrected, and the final correction coefficient, please refer to the detailed technical data of the corresponding engine and generator.