

## Diesel generating set

# AG-25F/S

400V/50Hz Main power/FAW 4DW92-35D





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-25F/S	Main power(kW):	20
Standby power(kW):	22	unit capacity(kVA):	25
Rated speed(rpm):	1500	frequency(Hz):	<u>50</u>
Rated voltage(V):	400	Rated current(A):	36.1
Power factor(cosφ):	0.8(lag)	Wiring mode:	3 phase 4 wire
Generator weight (kg)	<u>1150</u>	Minimum smoke pipe diameter (mm)	<u>1×φ64</u>
Air intake(m³/min):	59.8	Air exhaust(m³/min):	57.6
Generator size(mm):	2000*900*1150	Recommended base size(mm):	2300L×1200W

# Unit performance index (G2)

Parameter		unit	Oerformance index
Frequency drop		%	≤5
Steady state frequency band		%	≤1.5
Relative frequency setting	g drop range	%	≥3.5
Relative frequency setting	g rise range	%	≥2.5
Transient frequency deviation	100% sudden power reduction	%	≤+12
deviation	Surge power		<b>≤-10</b>
Frequency recovery time		S	≤5
Relative frequency tolera	nce band	%	2
Steady-state voltage devi-	ation	%	≤±2.5
Voltage unbalance degree	,	%	1
Transient voltage deviation	100% sudden power reduction	%	≤+25
	Surge power		≤-20
Voltage recovery time		S	≤6
Voltage modulation		%	0.3
Relative voltage setting range		%	≤±5
Voltage setting rate of change		%/ <sub>S</sub>	0.2~1
Telephone harmonic factor	THF	%	<2
Telephone influence factor	TIF		<50



## Engine technical parameters

Ľn	gı	n	e

Manufacturer:	FAW
Model:	4DW92-35D
Engine structure:	four-stroke
Number:	4/L
Displacement:L	2.54
Cylinder diameter:mm	90
Stroke:mm	100
Compression ratio:	17.0: 1
Speed:rpm	1500
Primary/standby power ::kW	26/29
Speed regulation mode::	<u>E</u>
Cooling method: closed	water cooling
Dry weight (engine only): kg	260
Start the system	
Starting rated power:kW	3.5
Starting rated voltage:V	DC12
Fuel system	
Fuel injection form: high pressure	common rail
Fuel return flow:L/min	1.05

### **Fuel consumption**

Engine output	L/h	g/kwh
100%	6.7	260
75%	5.2	280
50%	3.9	295
25%	2.7	374

## Intake system

Exhaust temperature:°C

Maximum allowable intake resistance (clean filter element): kPa 3.7

Intake air flow: m³/min 2.1

Lubrication system

Total lubrication system capacity: L 8

Maximum allowable oil temperature: °C 121

Cooling system

Engine coolant volume: L 19

Coolant flow: L/min 132

Exhaust system

Maximum exhaust back pressure: kPa 10

Exhaust flow: kg/min 5.9

### Technical parameters of generator

### Dynamo

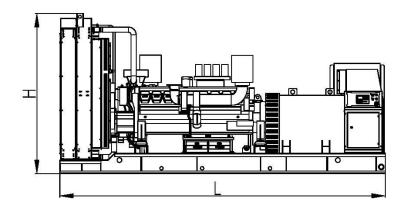
\*50Hz,AC400V,cosφ=0.8

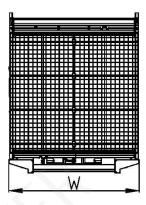
MODEL	Rated power(kW)	Standby power(kW)	Mechanical efficiency(%)	Insulation/ temperature rise	Class of protection	Weight(k g)
FISTALL:	20	21.6	82.9	H/H	IP21	150
QY184FS	21.0 02.9	02.9	11/11	11 2 1	150	

450



## 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-25F/S	4DW92-35D	2000*900*1150	1100	1129

## 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: ≤1500m (> 1500m), need to do power correction; Power reduction by 10% per 1000m increase)
  - (2) Ambient temperature: 40°C (when > 40°C, power correction is required)
  - (3) Relative humidity: ≤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.