

# FAW 22kVA super silent standby diesel generator



## KEY SPECIFICATIONS

STANDBY POWER	22kVA
PRIME POWER	20kVA
PHASE	Single
DRY WEIGHT	741kg
LENGTH	1800mm
WIDTH	890mm
HEIGHT	1265mm
FUEL TANK CAPACITY	50L

## FEATURES & BENEFITS

- Maximum 22kVA standby power at 230v @ 50Hz 1500rpm
- Ideal for home and small business applications
- Super silent canopy which needs to stand undercover with lockable doors
- Automatic changeover (ATS), maintenance free batteries and trickle charger Included
- Fuel tank capacity of 50L
- Four-way protection system included
- H-specification insulation, brushless alternator with AVR provides stable output
- Powerful four-cylinder 1500rpm water cooled 4DW91-29D series diesel engine
- Easy to use digital controller with auto and manual start options
- Peace of mind of earlier of one year/1000 hour warranty vs traditional 3000rpm sets at six months/500 hours
- Improved fuel consumption and better reliability/longer lifespan than 3000rpm units

## STANDARD GENSET SPECIFICATIONS

### ENGINE

FAW diesel engine  
Four cylinder water cooled  
Electronic fuel pump  
12v DC starter and charge alternator  
Replaceable fuel filter, oil filter, dry element air filter  
Cooling radiator and fan  
Exhaust silencer  
Maintenance free battery including rack and cables

### ALTERNATOR

Brushless, single bearing system, two poles  
Insulation class H with circuit breaker protection  
Standard degree of protection IP21  
Self-exciting and self-regulating  
Screen protected and drip proof  
Automatic voltage regulator

### CHASSIS

The complete generator set is mounted as a whole on a heavy duty fabricated, steel base frame  
Steel chassis and anti-vibration pads  
Base frame design incorporates an integral fuel tank  
The generator can be lifted or carefully pushed/pulled by the base frame  
Dial type fuel gauge on the fuel tank

### CANOPY

Ventilation parts are designed with modular principles  
All metal canopy parts are painted by powder paint  
Panel window  
Lockable doors on each side  
Easy maintenance and operation  
Easy lifting and moving  
Thermally Insulated engine exhaust system  
Exterior emergency stop push button  
Sound attenuated

\*All ratings are quoted at maximum ratings at sea level and de rating will be applicable for altitude and power factor.

### CONTROL SYSTEM

Control supervision and protection panel is mounted on the genset base frame. The control panel is equipped as follows:

### AUTO MAINS FAILURE CONTROL PANEL

Control with Smartgen automatic transfer switch  
420 Smartgen electronic controller  
Emergency stop push button  
Static battery charger  
Three-pole electrically and mechanically interlocked ATS

### GENERATING SET CONTROL MODULE 420 SMARTGEN FEATURES

This module is used to monitor a mains supply and automatically start a standby generating set  
Shutdown alarms  
STOP/RESET-MANUAL-AUTO-START

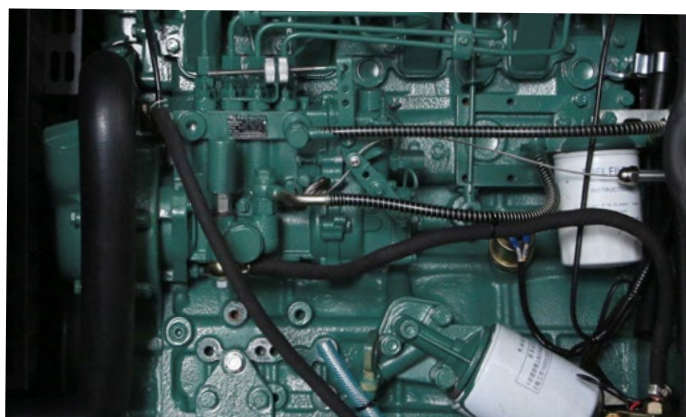
### METERING VIA LCD DISPLAY

Mains volts (L-L/L-N)  
Generator amps (L1, L2, L3)  
Generator frequency; generator (cos)  
Engine hours run; plant battery (volts)  
Engine oil pressure (psi and bar)  
Engine speed (rpm)  
Engine temperature (°C)

### AUTOMATIC SHUTDOWN AND FAULT CONDITIONS

Under/over speed; fail to start  
High engine temperature; fail to stop  
Low oil pressure; charge fail  
Under/over generator volts  
Under/over generator frequency  
Emergency stop; start failure  
Under/over mains voltage  
Charge failure

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## SPECIFICATIONS TABLE

### ENGINE SPECIFICATIONS

Engine make	FAW
Diesel generator model	4DW91-29D
Displacement	2.54l
Cylinder bore/Stroke	90mm x 100mm
Fuel system	In-line fuel injection pump
Cylinders	4
Cylinder arrangement	Vertical in-line
Engine output power	21kW
Turbo or normally aspirated	Normally aspirated
Cycle	Four stroke
Combustion system	Direct injection
Compression ratio	17:1
Fuel tank capacity	50l
Fuel consumption 100%	6 l/h
Fuel consumption 75%	4.5 l/h
Fuel consumption 50%	3 l/h
Fuel consumption 25%	1.5 l/h
Oil type	15W40
Oil capacity	8l
Cooling method	Radiator water-cooled
Coolant capacity (including radiator)	12.5l
Starter	12v DC
Governor system	Mechanical
Engine speed	1500rpm

### ALTERNATOR SPECIFICATIONS

Standby power output	22kVA
Prime power output	20kVA
Insulation class	H
Type	Brushless
Phase and connection	Single phase, two wire
AVR	Yes
AVR model	SX460
Voltage regulation	± 1%
Voltage	230v
Rated frequency	50Hz
Voltage regulate change	≤ ±10% UN
Phase change rate	± 1%
Power factor	1
Protection class	IP21
Stator	2/3 pitch
Rotor	Single bearing

### GENERAL SPECIFICATIONS

Structure type	Silent weather resistant enclosure
Dimensions Length x Width x Height	1800mm x 890mm x 1265mm
Dry weight	741kg
ATS unit included	Yes