

FAW 20KVA SUPERSILENT

20kVA Prime / 22kVA Standby

Comprehensive Specification Sheet
Electrical and Mechanical Data



FAW

1ph

FAW 20KVA SUPERSILENT

20kVA Prime / 22kVA Standby / Single Phase

FEATURES & BENEFITS

- 22kVA standby power at 230v @ 50Hz 1500rpm
- High-quality and reliable four-cylinder 2.54l normally-aspirated FAWDE diesel engine
- Ideal for home and business applications
- Super-silent canopy which needs to stand undercover with lockable doors
- Automatic changeover (ATS), maintenance free batteries and trickle charger included
- H-specification insulation, brushless alternator with AVR provides stable output
- High-temperature and oil pressure sensor to protect against engine damage
- Easy to use digital controller with auto/manual start options
- All sets undergo a comprehensive testing/pre-delivery inspection prior to delivery
- Peace of mind of earlier of one year/1000 hour warranty



CANOPY

- Ventilation parts are designed with modular principles
- Weather resistant and lined with sound reducing foam
- All metal canopy parts are painted with 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

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

Overview

Standby power	22kVA
Prime power	20kVA
Phase	Single
Dry weight	741kg
Length	1800mm
Width	890mm
Height	1265mm
Fuel tank capacity	57l

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

- Controller with Smartgen automatic transfer switch
- Smartgen HGM420N electronic controller
- Emergency stop push button
- Static battery charger
- Four-pole electrically and mechanically interlocked ATS

GENERATING SET CONTROL MODULE SMARTGEN HGM420N FEATURES

- This module is used to monitor a mains supply and automatically start a standby generating set
- Shutdown alarms
- STOP/RESET-MANUAL-AUTO-TEST-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 (degrees 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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TECHNICAL SPECIFICATIONS

Engine

Engine make	FAW/FAWDE
Engine model	4DW91-29D
Displacement	2,54l
Cylinder bore/Stroke	90mm x 100mm
Fuel system	In-line fuel injection pump
Governor	Electrical
Cylinders	Four cylinders water cooled
Engine output power (1500rpm)	21kW
Turbocharged/normally aspirated	Normally aspirated
Cycle	Four stroke
Combustion system	Direct injection
Compression ratio	17:1
Fuel tank capacity	57l
Fuel consumption 100%	6.3 l/h
Fuel consumption 75%	4.7 l/h
Fuel consumption 50%	3.2 l/h
Fuel consumption 25%	1.6 l/h
Oil type	15W40
Engine oil capacity	8l
Cooling method	Radiator water-cooled
Coolant capacity	12.5l
Starter	12v DC starter charge alternator
Engine speed	1500rpm
Filters	Replaceable fuel filter/oil filter/dry element air filter
Battery	Maintenance-free battery including rack and cables
Silencer	Exhaust silencer

Alternator

Alternator make	StromerPower
Standby power output	22kVA
Prime power output	20kVA
Insulation class	Class-H with circuit breaker protection
Type	Brushless
Phase and connection	Single phase/two wire
AVR	Included
AVR model	SX460
Voltage regulation	± 1%
Voltage	230v
Rated frequency	50Hz
Voltage regulate change	≤ ±10% UN
Phase change rate	± 1%
Power factor	1φ
Protection class	IP23 standard/screen protected/drip-proof
Stator	2/3 pitch
Rotor	Single bearing
Excitation	Self-exciting
Regulation	Self-regulating

General

Structure type	Silent mild steel enclosure
Dimensions Length x Width x Height	1800mm x 890mm x 1265mm
Dry weight	741kg
ATS unit included	Included
Four-way protection system included	Included