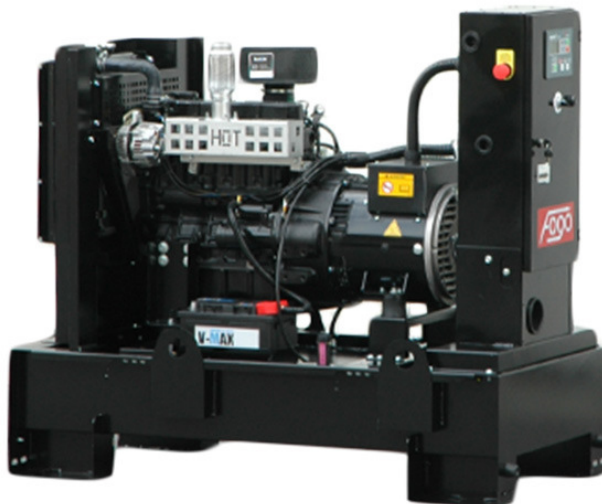


MAIN FEATURES

- Optimal performance resulting from the engine and alternator parameters,
- The highest quality of electrical components,
- Welded frame with integrated fuel tank,
- Large capacity fuel tanks available on request,
- Compact frame, adapted to the monoblock dimensions,
- Easy maintenance access,
- Fuel tank non integrated with the frame as well as drip tray protecting against engine liquid leakage, available on request,
- Wide range of standard and optional equipment


GENERAL DATA

Model	FDF 12.1 MS
Standby power E.S.P. [kVA] / [kW]	13,2 / 13,2
Prime power P.R.P. [kVA] / [kW]	12,0 / 12,0
Prime current P.R.P [A]	52,2
Frequency [Hz]	50
Voltage [V]	230
Exhaust emission	non-emission
Fuel type	Diesel (EN 590)
Fuel consumption - 50% load [l/h]	2,7
- 75% load [l/h]	3,4
- 100% load [l/h]	4,3
- 110% load [l/h]	4,7
Standard fuel tank capacity [l]	80
Autonomy with 100% load [h]	18,6
Engine control voltage [V]	12
Weight without fuel [kg]	440
Dimensions L x W x H [mm]	1443 x 770 x 1245
Acoustic power Lwa [dBA]	107,7 ± 4,3
Acoustic pressure Lpa (7m) [dBA]	78,1 ± 4,2

Nominal power P.R.P.:

Prime power available in variable load application in accordance with ISO 8528, 10% overload capacity is available for a period of 1 hour within a 12-hour period of operation. Average power consumption should not exceed 70% P.R.P for each 24h of work.

Stand-by power E.S.P.:

Emergency standby power rating is applicable for supplying emergency power for the duration of a utility power interruption. No overload allowed, limited to 200 operation hours per year, average power consumption should not exceed 70% E.S.P for each 24h

Remark:

Ratings represent the genset performance capabilities to standard conditions specified in ISO 8528-1

Norms and directives:

- Machinery directive 2006/42/WE
- Low voltage directive 2006/95/WE
- EC directive 2004/108/WE
- Emission directive 97/68/WE
- ISO 8528-1/2005, PN-ISO 8528-5/2005
- PN-EN 12601
- PN-EN 60204-1

STANDARD CONTROLLER

Controller type: AMF 25
Easy to operate, intuitive graphical interface
Real time clock with battery supply
AMF function available
Flexible event based history with up to 119 events
3 Phase generator current measurement
Generator and Mains phase voltage measurement
Active/reactive power measurement
Active and reactive energy counter
Running hours counter
Battery charging alternator circuit connection
Fuel level measurement
Generator protection (over/under frequency, voltage, overcurrent)
Communication with ECU supporting CAN J1939 standard
Communication interface RS 485 and RS 232 supporting Modbus RTU (IL-NT RS232-485 module required)
GSM modem / wireless internet (IL-NT GPRS module required)
Internet/Ethernet communication (IB-Lite module required)
InteliMonitor software for single gen-set view
WebSupervisor software for Android mobile devices or PC's for fleet management
Active SMS or e-mail (IL-NT GPRS or IB-Lite module required)



ENGINE

Brand	Mitsubishi
Type	S4L2-61SD
Made in	India
Engine power [kW]	13,9
Emission standard*	non-emission
Rotation per minute [rpm]	1500
Engine governor	mechanical
Governor class**	G2
Displacement [l]	1,8
No of cylinder	4
Fuel system	
Electrical system [V]	12
Coolant	Anti Freeze
Cooling system capacity [l]	2,5
Engine oil	Shell Rimula R4L
Oil pan capacity [l]	6,0
Fuel type	Diesel (EN 590)
Fuel consumption at 75% load [l/h]	3,4
Fuel consumption at 100% load [l/h]	4,3

* According directive 97/68/WE non road mobile machinery engine emission.

** According PN-ISO 8528-5/2005

ALTERNATOR

Brand	Sincro*
Type	SK160CA1
Made in	Italy
Power (40 °C, 1000m a.m.s.l.) [kVA]	12,0
Stand by power (27 °C, 1000m a.m.s.l.) [kVA]	13,2
Efficiency [%]	86,0
Voltage regulator type	Analog AVR
Voltage accuracy [%]	+/- 1
IP protection	IP 23
Insulation class	H
Total harmonic content THD [%]	<3,0
Reactance Xd'' [%]	

* STAMFORD or other alternator suppliers on request. Genset general data may change in this case.



FOCUSSED ON GENERATORS ONLY

Power Generator FDF 12.1 MS

STANDARD EQUIPMENT

Controller ComAp AMF25	✓
Controller switch	✓
1 Pole GCB Eaton FAZ-Z63/1	✓
Shunt GCB release coil	✓
Acoustic alarm	✓
Emergency stop button	✓
Starting batteries 75 Ah	✓
Battery charger	✓
Glow plugs	✓
Engine preheating with thermostat	✓
Engine oil Shell Rimula R4L	✓
Oil low pressure switch	✓
Engine high temperature switch	✓
Fuel tank integrated in frame with drip tray	✓
Frame with fuel tank	✓
Fuel level measurement	✓
Exhaust compensator and silencer	✓
Coolant Anti Freeze	✓
Coolant draining valve	✓
Engine and alternator vibro isolators	✓
Transportation brackets	✓

OPTIONAL EQUIPMENT

Oil draining hand pump	✓
Fuel filter with water separator	✓
Fuel and retention pump	✓
Oil pressure sensor	✓
Engine high temperature sensor	✓
Drip space level sensor	✓
Dedicated (non-standard) fuel tank *	✓
External fuel tank 1 000 – 10 000 l	✓
Fuel tank filling pump and shut-off valve	✓
Battery disconnection switch	✓
Transfer switch controlled by generator controller	✓
GPRS communication modem	✓
Ethernet card	✓
RS 485, RS 232 card	✓
Remote display	✓

*according to individual agreement

**INSTALLATION GUIDELINES**

Power terminal	GCB terminal
Recommended cable for up to 30m power cable way	Flexible 3x16mm ²
Recommended cable for do 30m generator heater supply	Flexible 3x2,5mm ²
*For additional cable connection with FOGO ATS see ATS wiring diagram	
Exhaust pipe min diameter (max. 7 m, 4 bends)	48,3 mm
Exhaust pipe min diameter (max. 15 m, 4 bends)	48,3 mm

MAINTENANCE GUIDELINES

Fuel filters replacement	250 h / 1 year
Oil replacement	After first 50h, then every 250 h / 1 year
Oil filters replacement	After first 50h, then every 250 h / 1 year
Coolant replacement	1000 h / 2 years
Battery replacement	2 years
Electrical installation supervising	According to local requirements, at least once per year

WARRANTY

Back-up power generators	60 months up to 1000 working hours, under condition of required maintenance according to the warranty conditions
Continuous work generators	12 months up to 1000 working hours