

MAIN FEATURES

Silenced, weather proof canopy, made of steel with AL Zn anticorrosion coating	Welded frame with integrated fuel tank and drip tray, protecting environment from leakage of the fluid.
Limited number of screws outside the canopy.	Wide range of fuel tank capacities available.
Electrical box protected by genset canopy, with controller display.	Possibility of increased protection against fuel leakage – fuel tank separated from the frame.
Cable entry protected by rubber cover.	Key locked fuel inlet outside of the canopy.
Power socket available outside of the canopy.	Anchoring points covered by external covers.
Easy maintenance access to major components.	Crane or pallet truck lifting.
High quality noise insulation materials.	High quality mufflers for exhaust system.


GENERAL DATA

Model	FDG 20 M3S	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.
Standby power E.S.P. [kVA] / [kW]	22,0 / 17,6	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
Prime power P.R.P. [kVA] / [kW]	20,0 / 16,0	Remark:	Ratings represent the genset performance capabilities to standard conditions specified in ISO 8528-1
Prime current P.R.P [A]	28,9	Norms and directives:	<ul style="list-style-type: none"> • Machinery directive 2006/42/WE • Low voltage directive 2006/95/WE • EC directive 2004/108/WE • Noise directive 2000/14/WE • Emission directive 97/68/WE • ISO 8528-1/2005, PN-ISO 8528-5/2005 • PN-EN 12601 • PN-EN 60204-1
Frequency [Hz]	50		
Voltage [V]	400		
Exhaust emission	stage IIIa		
Fuel type	Diesel (EN 590)		
Fuel consumption - 50% load [l/h]	3,5		
- 75% load [l/h]	4,7		
- 100% load [l/h]	6,3		
- 110% load [l/h]	7,1		
Standard fuel tank capacity [l]	140		
Autonomy with 100% load [h]	22,2		
Engine control voltage [V]	12		
Weight without fuel [kg]	730		
Dimensions L x W x H [mm]	1954 x 1006 x 1435		
Guaranteed noise power Lwa [dBA]	92		
Acoustic pressure Lpa (dla 7m) [dBA]	62,5 ± 2		

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

ALTERNATOR

Brand	Mitsubishi
Type	S4Q2-Z361SD
Made in	Japan
Engine power [kW]	19,6
Emission standard*	stage IIIa
Rotation per minute [rpm]	1500
Engine governor	mechanical
Governor class**	G2
Displacement [l]	2,5
No of cylinder	4
Fuel system	
Electrical system [V]	12
Coolant	Anti Freeze
Cooling system capacity [l]	4,0
Engine oil	Shell Rimula R4L
Oil pan capacity [l]	6,5
Fuel type	Diesel (EN 590)
Fuel consumption at 75% load [l/h]	4,7
Fuel consumption at 100% load [l/h]	6,3

Brand	Sincro*
Type	SK160MB
Made in	Italy
Power (40 °C, 1000m a.m.s.l.) [kVA]	20,0
Stand by power (27 °C, 1000m a.m.s.l.) [kVA]	22,0
Efficiency [%]	86,0
Voltage regulator type	AVR analogowy
Voltage accuracy [%]	+/- 1
IP protection	IP 23
Insulation class	H
Total harmonic content THD [%]	<3,0
Reactance Xd'' [%]	12,5

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

** According PN-ISO 8528-5/2005

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



FOCUSSED ON GENERATORS ONLY

Power Generator FDG 20 M3S

STANDARD EQUIPMENT

OPTIONAL EQUIPMENT

Controller ComAp AMF25	✓	Digital voltage reg. 3 phase sensing, accuracy $\pm 0,25\%$	✓
Controller switch	✓	4 Pole GCB (Miniature Circuit Breaker)	✓
3 Pole GCB Eaton FAZ-Z32/3	✓	Oil draining hand pump	✓
Shunt GCB release coil	✓	Fuel filter with water separator	✓
Analog AVR	✓	Fuel and retention pump	✓
Acoustic alarm	✓	Oil pressure sensor	✓
Emergency stop button	✓	Engine temperature sensor	✓
Starting batteries 75 Ah	✓	Drip space level sensor	✓
Battery charger	✓	Dedicated (non-standard) fuel tank *	✓
Glow plugs	✓	External fuel tank 1 000 – 10 000 l	✓
Engine preheating with thermostat	✓	Fuel tank filling pump and shut-off valve	✓
Engine oil Shell Rimula R4L	✓	Battery disconnection switch	✓
Oil low pressure switch	✓	Socket for full power output	✓
Engine high temperature switch	✓	Power output – power lock type	✓
Fuel tank integrated in frame with drip tray	✓	Power socket box with appropriate protections *	✓
Fuel inlet outside of the canopy with lock	✓	Transfer switch controlled by generator controller	✓
Fuel level measurement	✓	GPRS communication card	✓
Exhaust compensator and silencer	✓	Ethernet card	✓
Coolant Anti Freeze	✓	RS 485, RS 232 card	✓
Coolant inlet outside of the canopy	✓	Remote display	✓
Coolant draining valve	✓	Nonstandard canopy color	✓
Engine and alternator vibro isolators	✓	Certified trailer with straight bar	✓
Silenced canopy made with Al-Zn	✓		
Standard color RAL 7032	✓	*according to individual agreement	
Transportation brackets	✓		

**INSTALLATION GUIDELINES**

Power terminal	GCB terminal
Recommended cable for up to 30m power cable way	Flexible 5x10mm ²
Recommended cable for do 30m generator heater supply	Flexible 3x2,5mm ²
*For additional cabale 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)	60,3 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