

# POWER GENERATOR FDG 60

## MAIN FEATURES

Highest quality and reliability.	Wide range of standard and optional equipment.
ComAp IL-NT AMF25 controller.	Engine heater – ready to load just after start.
Ready to control MAINS – GENERATOR transfer switch.	Drip tray,
Configured for both manual and automatic mode (MRS + AMF).	Anticorrosion coating: frame - Zr, canopy – Zr, Al-Zn.
Wide range of remote communications options.	Brushless alternator.
Schneider NSX type GCB.	



The presented image is for illustration purpose only.

## GENERAL DATA

Code	F.060.I3A.G
Standby power E.S.P. [kVA] / [kW]	66,0 / 53,0
Prime power P.R.P. [kVA] / [kW]	60,0 / 48,0
Prime current P.R.P [A]	87,0
Frequency [Hz]	50
Voltage [V]	400
Exhaust emission	stage IIIa
Fuel type	Diesel (EN 590)
Fuel consumption - 50% load [l/h]	9,5
- 75% load [l/h]	12,0
- 100% load [l/h]	16,1
- 110% load [l/h]	17,1
Standard fuel tank capacity [l]	120
Autonomy with 100% load [h]	7,5
Engine control voltage [V]	12
Weight without fuel [kg]	~1210
Dimensions L x W x H [mm]	2353 x 1088 x 1525
Guaranteed noise power Lwa [dBA]	~97
Acoustic pressure Lpa (7m) [dBA]	~68

### Nominal power P.R.P:

Prime power available in variable load application in accordance with ISO 8528, A 10% overload capacity is available for a period of 1 hour within a 12h period of operation. Average power consumption should not exceed 80% PRP 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 200h of operation per year, max average power consumption 70% of ESP.

### Remark:

All parameters are given for reference conditions: ambient air temperature up to 40 C and site altitude above sea level 1000m

### Norms and directives:

- Machinery directive 2006/42/EC
- Low voltage directive 2014/35/EC
- EC directive 2014/30/EC
- Noise directive 2000/14/EC
- Emission directive 97/68/EC
- ISO 8528-1:2005, ISO 8528-5:2013
- ISO 8528-13:2016
- 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	FPT (Iveco)
Type	NEF45SM1F
Made in	Italy
Engine power [kW]	54,5
Emission standard*	stage IIIa
Rotation per minute [rpm]	1500
Engine governor	mechanical
Governor class**	G2
Displacement [l]	4,5
No of cylinder	4
Fuel system	direct injection
Electrical system [V]	12
Cooling system capacity [l]	18,5
Oil pan capacity [l]	12,8
Fuel type	Diesel (EN 590)

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

\*\* According ISO 8528-5:2013

## ALTERNATOR

Nominal Voltage [V]	400
Nominal power factor (cos phi)	0,8
Ambient temperature, altitude	40 °C, 1000m a.m.s.l
Nominal Power [kVA]	60,0
IP protection	IP 23
No of bearing	single bearing
Coupling	direct
Technology	brushless
Short circuit maintaining capacity	270% 10s
Efficiency [%]	89,9
Insulation class	H
Total harmonic content THD [%]	<2
Reactance Xd'' [%]	7,3
Voltage regulator type	DVR, digital
Voltage measurement	3 phases
Voltage accuracy [%]	+/- 0,25
AVR supply system	auxiliary winding
AVR supply optional	PMG
Made in	EU

STANDARD EQUIPMENT		OPTIONAL EQUIPMENT	
FPT (Iveco) NEF45SM1F engine	✓	Electronic engine speed governor	✓
Oil low pressure switch	✓	Oil pressure sensor	✓
Engine high temperature switch	✓	Engine temperature sensor	✓
Engine preheating with thermostat	✓	Oil draining hand pump	✓
Engine oil Titan Cargo 15W40	✓	Battery disconnection switch	✓
Fuel filter with water separator	✓	GCB 4P Schneider NSX Micrologic 2.2	✓
Coolant Fuchs Maintain Fricofin LL-35	✓	Power socket connection	✓
Coolant inlet outside of the canopy	✓	Power socket box	✓
Starting batteries 100 Ah	✓	Transfer switch controlled by generator controller	✓
Battery charger	✓	Transfer switch with ATS controller	✓
GCB Schneider NSX 160 3P + Mic.2.2	✓	GPRS communication card	✓
GCB shunt release coil	✓	Ethernet card	✓
Controller ComAp IL-NT-AMF25	✓	RS 485, RS 232 card	✓
Controller switch	✓	Remote display	✓
Acoustic alarm	✓	Drip space level sensor	✓
Emergency stop button	✓	Fuel and retention pump	✓
Silenced canopy made with Al.-Zn.	✓	Non-standard fuel tank size	✓
Standard color RAL 7032	✓	External fuel tank 1 000 – 10 000 l	✓
Fuel tank integrated with a frame with drip tray	✓	3-way valve for external fuel tank connection	✓
Welded frame with fuel tank	✓	Fuel tank filling pump and shut-off valve	✓
Fuel inlet outside of the canopy with lock	✓	Non-standard canopy color (RAL palette)	✓
Fuel level measurement	✓	Trailer with straight drawbar	✓
Exhaust compensator and silencer	✓		
Engine and alternator vibro isolators	✓		
Transportation brackets	✓		

## INSTALLATION GUIDELINES

Power terminal	GCB terminal
Recommended cable for up to 30m power cable way	Flexible 5x25 mm <sup>2</sup>
Recommended cable for do 30m generator heater supply	Flexible 3x2,5 mm <sup>2</sup>
*For additional cable connection with FOGO ATS see ATS wiring diagram	
Exhaust pipe min diameter (max. 7 m, 4 bends)	88,9 mm
Exhaust pipe min diameter (max. 15 m, 4 bends)	88,9 mm

## MAINTENANCE GUIDELINES

Fuel filters replacement	500 h / 1 year
Oil replacement	After first 100h, then every 500 h / 1 year
Oil filters replacement	After first 100h, then every 500 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

Continuous work generators	12 months up to 1000 working hours
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