

# **Power Generator FDG 500 S**

#### **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 NS type GCB.	



The presented image is for illustration purpose only.

#### **GENERAL DATA**

VEINEIUME PATA	
Code	F.0500.SA.G
Standby power E.S.P. [kVA] / [kW]	550,0 / 440,0
Prime power P.R.P. [kVA] / [kW]	500,0 / 400,0
Prime current P.R.P [A]	722,0
Frequency [Hz]	50
Voltage [V]	400
Exhaust emission	fuel optimized
Fuel type	Diesel (EN 590)
Fuel consumption - 50% load [l/h]	48,8
- 75% load [l/h]	71,7
- 100% load [l/h]	99,5
- 110% load [l/h]	111,5
Standard fuel tank capacity [1]	990
Autonomy with 100% load [h]	9,9
Engine control voltage [V]	24
Weight without fuel [kg]	~4750
Dimensions L x W x H [mm]	4560 x 1961 x 2521
Guaranteed noise power Lwa [dBA]	103
Acoustic pressure Lpa (7m) [dBA]	$71,7 \pm 1,9$

## 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% PRP for each 24-hour period of operation.

### 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 mean load factor of 70% of rated power over 24-hour period of operation.

#### Remark

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

#### 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



# **Power Generator FDG 500 S**

## 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	Scania	Nominal Voltage [V]	400
Type	DC13 072A 02-14	Nominal power factor (cos phi)	0,8
Made in	Sweden	Ambient temperature, altitude	40 °C, 1000m a.m.s.1
Engine power [kW]	428,0	Nominal Power [kVA]	500,0
Emission standard*	fuel optimized	IP protection	IP 23
Rotation per minute [rpm]	1500	No of bearing	single bearing
Engine governor	electonic	Coupling	direct
Governor class**	G3	Technology	brushless
Displacement [1]	12,7	Short circuit maintaining capacity	270% 10s
No of cylinder	6	Efficiency [%]	93,9
Fuel system	unit injectors, PDE	Insulation class	Н
Electrical system [V]	24	Total harmonic content THD [%]	1,5
Cooling system capacity [1]	38,0	Reactance Xd'' [%]	15,2
Oil pan capacity [l]	36,0	Voltage regulator type	DVR, digital
Fuel type	Diesel (EN 590)	Voltage measurement	3 phases
		Voltage accuracy [%]	+/- 0,25
		AVR supply system	auxiliary winding
		AVR supply optional	PMG
		Made in	EU

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

<sup>\*\*</sup> According ISO 8528-5:2013



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## **STANDARD EQUIPMENT**

## **OPTIONAL EQUIPMENT**

Scania DC13 072A 02-14 engine	✓	Battery disconnection switch	✓
Electronic engine speed governor	✓	GCB 4P Schneider NS Micrologic 2.0	✓
Oil low pressure switch	✓	Power Lock type power output	✓
Oil pressure sensor	✓	Power socket box	✓
Engine high temperature switch	✓	Transfer switch controlled by generator controller	✓
Engine high temperature sensor	✓	Transfer switch with ATS controller	✓
Engine preheating with thermostat	✓	GPRS communication card	✓
Engine oil Titan Cargo 15W40	$\checkmark$	Ethernet card	✓
Fuel filter with water separator	$\checkmark$	RS 485, RS 232 card	✓
Coolant Fuchs Maintain Fricofin LL-35	$\checkmark$	Remote display	✓
Coolant inlet outside of the canopy	$\checkmark$	Drip space level sensor	✓
Starting batteries 2x180Ah	$\checkmark$	External fuel tank 1 000 – 10 000 l	✓
Battery charger	✓	3-way valve for external fuel tank connection	✓
GCB Schneider NS800 3P + Micrologic 2.0	✓	Fuel tank filling pump and shut-off valve	✓
GCB shunt release coil	$\checkmark$	Non-standard canopy color (RAL palette)	✓
Bar connection	$\checkmark$	Oil draining hand pump	✓
Controller ComAp IL-NT-AMF25	$\checkmark$		
Controller switch	$\checkmark$		
Acoustic alarm	$\checkmark$		
Emergency stop button	$\checkmark$		
Silenced canopy made with AlZn.	✓		
Standard color RAL 7032	✓		
Fuel tank installed in drip tray	✓		
Welded frame with fuel tank	✓		
Fuel inlet inside, protected by canopy locked doors	✓		
Fuel level measurement	✓		
Exhaust compensator and silencer	✓		
Engine and alternator vibro isolators	✓		
Transportation brackets	$\checkmark$		



# **Power Generator FDG 500 S**

## **INSTALLATION GUIDELINES**

Power terminal	Busbar
Recommended cable for up to 30m power cable way	Flexible 2x5x240 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)	133 mm
Exhaust pipe min diameter (max. 15 m, 4 bends)	

## **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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Wersja: 01.2019

Datasheet could be changed without notification

