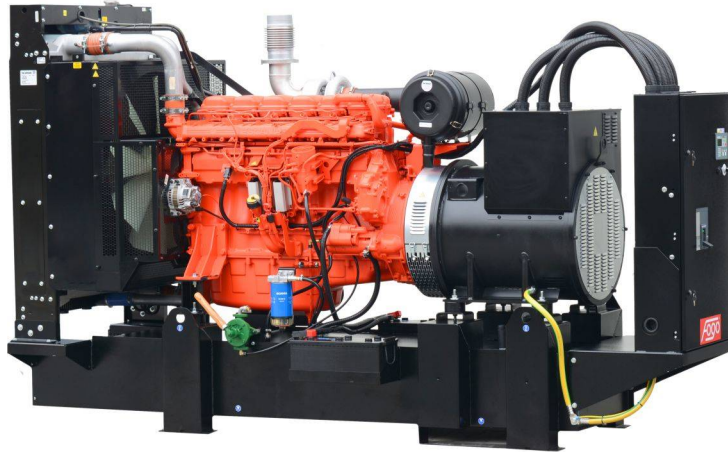


### MAIN FEATURES

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.	Frame anticorrosion coating – Zr.
Configured for both manual and automatic mode (MRS + AMF).	Brushless alternator.
Wide range of remote communications options.	
Schneider NSX type GCB.	



The presented image is for illustration purpose only.

### GENERAL DATA

Code	F.0410.SA.F
Standby power E.S.P. [kVA] / [kW]	451,0 / 361,0
Prime power P.R.P. [kVA] / [kW]	410,0 / 328,0
Prime current P.R.P [A]	592,0
Frequency [Hz]	50
Voltage [V]	400
Exhaust emission	fuel optimized
Fuel type	Diesel (EN 590)
Fuel consumption - 50% load [l/h]	41,1
- 75% load [l/h]	59,9
- 100% load [l/h]	78,8
- 110% load [l/h]	87,8
Standard fuel tank capacity [l]	740
Autonomy with 100% load [h]	9,3
Engine control voltage [V]	24
Weight without fuel [kg]	~2970
Dimensions L x W x H [mm]	3464 x 1242 x 2157
Acoustic power Lwa [dBA]	126,6 ± 2
Acoustic pressure Lpa (7m) [dBA]	97,8 ± 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% 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
- 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	Scania
Type	DC13 072A 02-12
Made in	Sweden
Engine power [kW]	355,0
Emission standard*	fuel optimized
Rotation per minute [rpm]	1500
Engine governor	electronic
Governor class**	G3
Displacement [l]	12,7
No of cylinder	6
Fuel system	unit injectors, PDE
Electrical system [V]	24
Cooling system capacity [l]	38,0
Oil pan capacity [l]	36,0
Fuel type	Diesel (EN 590)

**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]	410,0
IP protection	IP 23
No of bearing	single bearing
Coupling	direct
Technology	brushless
Short circuit maintaining capacity	270% 10s
Efficiency [%]	93,3
Insulation class	H
Total harmonic content THD [%]	1,5
Reactance Xd'' [%]	15,1
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

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

\*\* According ISO 8528-5:2013



# FOGO ON GENERATORS ONLY

## Power Generator FDF 410 S

### STANDARD EQUIPMENT

Scania DC13 072A 02-12 engine	✓
Electronic engine speed governor	✓
Oil low pressure switch	✓
Oil pressure sensor	✓
Engine high temperature switch	✓
Engine high temperature sensor	✓
Engine preheating with thermostat	✓
Engine oil Titan Cargo 15W40	✓
Oil draining hand pump	✓
Fuel filter with water separator	✓
Coolant Fuchs Maintain Fricofin LL-35	✓
Starting batteries 2x180Ah	✓
Battery charger	✓
GCB Schneider NSX 630 3P + Mic.2.3	✓
GCB shunt release coil	✓
Controller ComAp IL-NT-AMF25	✓
Controller switch	✓
Acoustic alarm	✓
Emergency stop button	✓
Welded frame with fuel tank	✓
Fuel level measurement	✓
Exhaust compensator	✓
Engine and alternator vibro isolators	✓
Silencer delivered with the generator	✓
Transportation brackets	✓

### OPTIONAL EQUIPMENT

Battery disconnection switch	✓
GCB 4P Schneider NSX Micrologic 2.3	✓
Power Lock type power output	✓
Power socket box	✓
Transfer switch controlled by generator controller	✓
Transfer switch with ATS controller	✓
GPRS communication card	✓
Ethernet card	✓
RS 485, RS 232 card	✓
Remote display	✓
External fuel tank 1 000 – 10 000 l	✓
3-way valve for external fuel tank connection	✓
Fuel tank filling pump and shut-off valve	✓

**INSTALLATION GUIDELINES**

Power terminal	GCB terminal
Recommended cable for up to 30m power cable way	Flexible 2x5x150 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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