

MAIN FEATURES

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


GENERAL DATA

Code	F.0410.VA.G
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	stage II
Fuel type	Diesel (EN 590)
Fuel consumption - 50% load [l/h]	43,5
- 75% load [l/h]	63,1
- 100% load [l/h]	82,1
- 110% load [l/h]	90,5
Standard fuel tank capacity [l]	725
Autonomy with 100% load [h]	8,8
Engine control voltage [V]	24
Weight without fuel [kg]	~4350
Dimensions L x W x H [mm]	4350 x 1600 x 2546
Guaranteed noise power Lwa [dBA]	98
Acoustic pressure Lpa (7m) [dBA]	68,1 ± 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 1h within a 12-hour period of operation. Average power consumption should not exceed 70% PRP for each 24 hours 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 500h of operation per year, average power consumption should not exceed 80% ESP for each 24 hours of operation. Continuous operation limited to 300h..

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	Volvo
Type	TAD1344GE
Made in	Sweden
Engine power [kW]	354,0
Emission standard*	stage II
Rotation per minute [rpm]	1500
Engine governor	electronic
Governor class**	G3
Displacement [l]	12,8
No of cylinder	6
Fuel system	unit injectors
Electrical system [V]	24
Cooling system capacity [l]	44,0
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	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

**FOCUSED ON GENERATORS ONLY****Power Generator FDG 410 V****STANDARD EQUIPMENT****OPTIONAL EQUIPMENT**

Volvo TAD1344GE engine	✓	Battery disconnection switch	✓
Electronic engine speed governor	✓	GCB 4P Schneider NSX Micrologic 2.3	✓
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	✓	Ethernet card	✓
Oil draining hand pump	✓	RS 485, RS 232 card	✓
Fuel filter with water separator	✓	Remote display	✓
Coolant Fuchs Maintain Fricofin LL-35	✓	Drip space level sensor	✓
Coolant inlet outside of the canopy	✓	Fuel and retention pump	✓
Starting batteries 2x 180 Ah	✓	Non-standard fuel tank size	✓
Battery charger	✓	External fuel tank 1 000 – 10 000 l	✓
GCB Schneider NSX 630 3P + Mic.2.3	✓	3-way valve for external fuel tank connection	✓
GCB shunt release coil	✓	Fuel tank filling pump and shut-off valve	✓
Controller ComAp IL-NT-AMF25	✓	Non-standard canopy color (RAL palette)	✓
Controller switch	✓		
Acoustic alarm	✓		
Emergency stop button	✓		
Silenced canopy made with Al.-Zn.	✓		
Standard color RAL 7032	✓		
Fuel tank integrated with a frame with drip tray	✓		
Welded frame with fuel tank	✓		
Fuel inlet outside of the canopy with lock	✓		
Fuel level measurement	✓		
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 2x5x150 mm ²
Recommended cable for do 30m generator heater supply	Flexible 3x2,5 mm ²

*For additional cable connection with FOGO ATS see ATS wiring diagram

Exhaust pipe min diameter (max. 7 m, 4 bends)	114,3 mm do 6m
Exhaust pipe min diameter (max. 15 m, 4 bends)	133 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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