



Power Generator FD 1460 S-T

Code: F.1460.SAG24-T9000T1998-02

Main Features

- Digital voltage regulation +/-0,25 %
- Three phase voltage control
- Low disturbance level THD <3,5%
- Alternator short circuit capacity 270 % I_n (optional 300 %)
- Class H insulation
- Protection index IP23
- Common power output busbar
- Performance class G3 (acc. ISO 8528-5)
- Ready to load just after start
- Synchronization with other units
- Synchronization with mains available as additional option
- Autonomy 8,0 h with 75 % load
- Even wear-off due to automatic operation priority swap

General Data

| | |
|--|-----------------------------------|
| Maximum power ESP | 1534,0 kVA / 1227,0 kW |
| Nominal power PRP | 1395,0 kVA / 1116,0 kW |
| Nominal Current PRP | 2013,0 A |
| Frequency | 50 Hz |
| Voltage | 400 V |
| Emission standard | fuel optimized |
| Fuel | Diesel (EN 590) |
| Fuel tank capacity | 2x990 l |
| Fuel consumption @ 50% / 75% 100% /110% PRP | 152,2 / 222,6 / 282,4 / 317,6 l/h |
| Autonomy @ 75% / 100% load | 8,0 / 6,3 h |
| Weight without fuel | 11520 kg |
| Dimensions L x W x H | 9000 x 1900 x 2600 mm |
| Guaranteed noise power L_{wa} | 107 dBA |
| Acoustic pressure @7mL_{pa} | 75,8 ± 1 dBA |

Main Components & Equipment

- Scania DC16 078A 02-43 engine
- Leroy Sommer TAL 049 B alternator
- Brushless alternator
- Digital AVR
- ComAp IG4 200 Controller
- 2 x Schneider NS1250 3P + Micrologic 2.0 type generator circuit breaker
- GCB undervoltage release coil
- Linear automatic battery charger
- Engine heater
- Electronic speed governor
- Fuel system Extra high pressure XPI
- Welded frame with 2x990 l fuel tank, spill containment and noise insulation
- Two fuel inlets
- Four lifting eyes
- Extended supports for easy attachment to the ground

For details see page 3

Definitions

Nominal Power PRP:

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.

Maximum power ESP:

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.

Norms and Directives

- Machinery directive 2006/42/EC
- Low voltage directive 2014/35/EU
- EMC directive 2014/30/EU
- Noise directive 2000/14/EC
- ISO 8528-1/2018, ISO 8528-5/2022
- ISO 8528-13:2016
- IEC 60204-1

Contact data

FOGO Sp. z o.o.

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Engine

| | |
|--------------------------------|-------------------------|
| Manufacturer | Scania |
| Type | DC16 078A 02-43 |
| Made in | Sweden |
| Engine power | 596,0 kW |
| Emission standard | fuel optimized |
| Rotation per minute | 1500 rpm |
| Engine governor | electronic |
| Governor class | G3 (ISO 8528-5) |
| Displacement | 16,4 l |
| No of cylinder | 8 |
| Fuel system | Extra high pressure XPI |
| Electrical system | 24 V |
| Cooling system capacity | 68,0 l |
| Oil pan capacity | 48,0 l |
| Fuel type | Diesel (EN 590) |

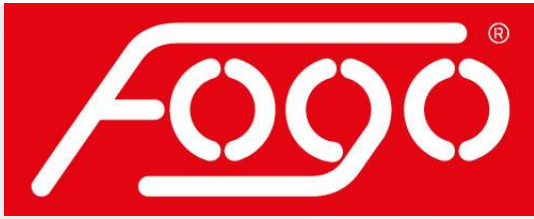
Alternator

| | |
|---|----------------------|
| Manufacturer | Leroy Sommer |
| Type | TAL 049 B |
| Made in | Czech Republic |
| Nominal Voltage | 400 V |
| Nominal power factor (cos φ) | 0,8 |
| Ambient temperature, altitude | 40 °C, 1000 m a.s.l. |
| Nominal Power | 730,0 kVA |
| Protection index | IP 23 |
| No of bearing | Single bearing |
| Coupling | Direct |
| Technology | Brushless |
| Short circuit maintaining capacity | 270% 10s |
| Efficiency | 93,6 % |
| Insulation class | H |
| Total harmonic content THD | <3,5 % |
| Reactance Xd'' | 15,9 % |
| Voltage regulator type | AVR, digital |
| Voltage measurement | 3 phase |
| Voltage accuracy | +/- 0,25 % |
| AVR supply system | AREP+ |
| AVR supply optional | PMG |

Controller

- Controller type: ComAp IntelliGen4 200,
- Intuitive operator interface,
- Parallel operation for up to 32 gen-sets,
- Support of MINT and SPTM applications,
- Running Hours equalization,
- Load sharing and VAR sharing via CAN,
- Power management, load demand start / stop,
- Comprehensive history log with up to 350 events,
- Total remote monitoring and control,
- Real time clock,
- Detailed event based history with up to 350 records,
- Rental timers,
- PLC support with PLC editor and monitor,
- True RMS measurement,
- Generator protection (over/under frequency, voltage, overcurrent),
- Battery voltage measurement,
- Complete engine and alternator protection,
- Multipurpose flexible timers with full calendar,
- Communication with ECU, supporting CAN J1939 standard,
- Up to 5 languages in the controller,
- Active SMS and emails in different languages,
- Integrated communication and control ports (USB/CAN/RS485 on board, USB host),
- Support of MODBUS RTU/TCP or SNMP v1/v2c *
- 2 slots for plug-in modules,
- Plug-in module concept for more capabilities (RS232, RS485, Ethernet, GPRS, 4G/LTE, Modbus, SNMP, emails, SMS, I/Os),
- Cloud-based monitoring and control via WebSupervisor (optional module required),
- Geofencing and tracking via WebSupervisor (optional module required),
- 3 levels of password protection,
- PLC module for extended, customized functionality,
- Spare signals available: 4 binary inputs, 2 binary outputs, 3 analogue inputs





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Standard equipment

- Scania DC16 078A 02-43 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
- Fuel filter with water separator
- Coolant Fuchs Maintain Fricofin LL-50
- Coolant inlet outside, on the top of the canopy
- Starting batteries 4x180Ah
- Linear automatic battery charger
- Leroy Sommer TAL 049 B alternator
- Digital AVR
- GCB 2 x Schneider NS1250 3P + Micrologic 2.0
- GCB undervoltage release coil
- Busbar power output
- ComAp IG4 200 controller
- Acoustic alarm
- Emergency stop button
- Silenced canopy, RAL 7024
- Fuel tank integrated with a frame and spill containment
- Two fuel inlets inside the canopy
- Fuel level indicator
- Engine and alternator anti vibration mounts
- Exhaust silencer with compensator
- Lifting eyes

Optional equipment

- Electronic engine speed governor1
- Battery disconnecter
- 4P Schneider NS Micrologic 2.0 GCB
- Transfer switch with ATS controller
- ATS accessories for outdoor application
- GPRS communication card
- Ethernet card
- RS 485, RS 232 card
- Remote display
- Fuel inlet outside of the canopy with lock
- Generator spill containment level detector
- External, double wall fuel tank 1 000 – 10 000 l
- Fuel tank filling pump and shut-off valve

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 |
| Air filter replacement | 500 h |
| Battery replacement | 2 years |
| Electrical installation | According to local requirements, at least once per year |

Installation guidelines

| | |
|---|-----------------------------------|
| Power terminal | Common busbar |
| Recommended cable for up to 30m power cable way | Contact FOGO Technical Department |
| Recommended cable for do 30m generator heater supply | Flexible 5x2,5 mm ² |
| Exhaust pipe min diameter (max. 7 m, 4 bends) | 159 mm |
| Exhaust pipe min diameter (max. 15 m, 4 bends) | |

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

Warranty

| | |
|--|------------------------------------|
| Continuous operation generators | 12 months up to 1000 working hours |
|--|------------------------------------|