



Power Generator FD 81 C-Q

Code: F.0081.CZ-Q2670T370-02



Picture for reference only

Main Features

- Electronic voltage regulation $\pm 1\%$
- Low disturbance level THD $< 2,5\%$
- Alternator short circuit capacity 250% 10s In (optional 300 %)
- Class H insulation
- Protection index IP23
- Performance class G2 (acc. ISO 8528-5)
- Ready to load just after start
- AMF and MRS functionality and protection
- Autonomy 18,5 h with 75 % load

General Data

| | |
|---|-------------------------|
| Maximum power ESP | 88,0 kVA / 88,0 kW |
| Nominal power PRP | 80,0 kVA / 80,0 kW |
| Nominal Current PRP | 115,0 A |
| Frequency | 50 Hz |
| Voltage | 400 V |
| Emission standard | fuel optimized |
| Fuel | Diesel (EN 590) |
| Fuel tank capacity | 370 l |
| Fuel consumption @ 50% / 75% / 100% / 110% PRP | 12 / 18 / 25,0 / 27 l/h |
| Autonomy @ 75% / 100% load | 18,5 / 13,3 h |
| Weight without fuel | ~1390 kg |
| Dimensions L x W x H | 2670 x 1160 x 1720 mm |
| Guaranteed noise power L_{wa} | 97 dBA |
| Acoustic pressure @7mL_{pa} | ~66 dBA |

Main Components & Equipment

- Cummins 6BTA5.9-G5 engine
- Linz PRO22S B/4 alternator
- Brushless alternator
- Electronic AVR HVR-11
- ComAp IL3-AMF25 Controller
- Schneider NSX 160 3P + Mic.2.2 type generator circuit breaker
- GCB shunt release coil
- Linear automatic battery charger
- Engine heater
- ECU speed governor
- Fuel system Direct injection
- Welded frame with 370 l fuel tank, spill containment and noise insulation
- Two fuel inlets
- Four lifting eyes
- Extended forklift skids 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. Variable load should not exceed a 70% average of the Prime Power rating during 250h of operation.

Maximum power ESP:

Standby power rating is applicable for supplying emergency power for the duration of a utility power interruption. No overload allowed, average power consumption should not exceed 80% ESP. Limited to 250h of operation per year.

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.

Święciechowska 36, 64-115 Wilkowice
agregaty@fogo.pl, www.fogo.pl



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Engine

| | |
|--------------------------------|-----------------|
| Manufacturer | Cummins |
| Type | 6BTA5.9-G5 |
| Made in | India |
| Engine power | 88,0 kW |
| Emission standard | fuel optimized |
| Rotation per minute | 1500 rpm |
| Engine governor | ECU |
| Governor class | G2 (ISO 8528-5) |
| Displacement | 5,9 l |
| No of cylinder | 6 |
| Fuel system | Mechanical pump |
| Electrical system | 12V V |
| Cooling system capacity | 19,7 l |
| Oil pan capacity | 16,4 l |
| Fuel type | Diesel (EN 590) |

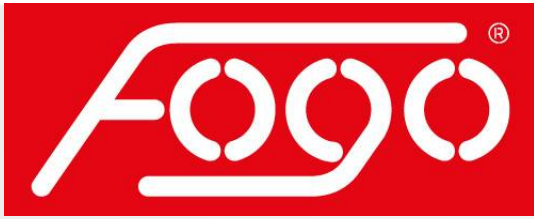
Alternator

| | |
|---|----------------------|
| Manufacturer | Linz |
| Type | PRO22S B/4 |
| Made in | Italy |
| Nominal Voltage | 400 V |
| Nominal power factor (cos φ) | 0,8 |
| Ambient temperature, altitude | 40 °C, 1000 m a.s.l. |
| Nominal Power | 80,0 kVA |
| Protection index | IP 23 |
| No of bearing | Single bearing |
| Coupling | Direct |
| Technology | Brushless |
| Short circuit maintaining capacity | 250% 10s |
| Efficiency | 90,3 % |
| Insulation class | H |
| Total harmonic content THD | <2,5 % |
| Reactance Xd" | 10,1 % |
| Voltage regulator type | AVR HVR-11 |
| Voltage measurement | 1 phase |
| Voltage accuracy | +/- 1 % |
| AVR supply system | auxiliary winding |

Controller

- Controller type: ComAp IntelliLite AMF 25
- Support of Dual AMF/MRS applications
- Direct communication with EFI engines
- Total remote monitoring and control
- Intuitive operator interface, adjustable Main Screen
- Real time clock
- Comprehensive history log with up to 350 events
- 3 phase true RMS current and voltage measurement
- Both mains and generator voltage detection
- Active/Reactive Power and Power Factor per phase measurement
- Run Hours counter with source selector
- 3 maintenance timers (counting even under zero)
- Multipurpose flexible timers (also for rental)
- Battery voltage measurement
- Complete engine and alternator protection
- CAN modules support
- USB port on-board
- 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)
- Control and monitoring over SMS (GSM module required)
- 3 levels of password protection
- In-built PLC, complemented with a monitoring/debugging tool, for additional functionality, if required
- Spare inputs and outputs available by default: binary input – , binary output – , analogue input – ,
- A version for low temperature is also available





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Standard equipment

- Cummins 6BTA5.9-G5 engine
- Electronic engine speed governor
- Oil pressure sensor
- Engine high temperature sensor
- Engine preheating with thermostat
- Engine oil Titan Cargo 15W40
- Fuel filter with water separator
- Coolant Fuchs Maintain Fricofin DP
- Coolant inlet outside, on the top of the canopy
- Starting batteries 100 Ah
- Linear automatic battery charger
- Linz PRO22S B/4 alternator
- Electronic AVR HVR-11
- GCB Schneider NSX 160 3P + Mic.2.2
- GCB shunt release coil
- ComAp IL3-AMF25 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
- Forklift supports and lifting eyes

Optional equipment

- Oil draining hand pump
- Battery disconnecter
- 4P Schneider NSX Micrologic 2.2 GCB
- Power Lock type power output
- Power sockets box SOM 204
- Transfer switch controlled by generator controller
- 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 / 6 MTH |
| Oil replacement | 250 h / 6 MTH |
| Oil filters replacement | 250 h / 6 MTH |
| Coolant replacement | 2000 h / 2 years |
| Air filter replacement | 1000 h |
| Battery replacement | 2 years |
| Electrical installation | According to local requirements, at least once per year |

Installation guidelines

| | |
|---|--------------------------------|
| Power terminal | GCB terminal |
| Recommended cable for up to 30m power cable way | Flexible 5x35 mm ² |
| Recommended cable for do 30m generator heater supply | Flexible 3x2,5 mm ² |
| Exhaust pipe min diameter (max. 7 m, 4 bends) | |
| 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 |
|--|------------------------------------|