

**ETDG120****Generator Set Technical Data Sheet****Water-Cooled DEUTZ BF4M1013EC****Standby: 96KW/120KVA****Prime: 87KW/109KVA****at 50Hz,230/400V**

**Manufacturer reserves the right to make changes in model, technical specification, color, equipment and accessories without prior notice.**

**Generator Set Main Specifications****3-PH, 50Hz@1500RPM, 400/230V (Other voltage ranges are available)**

- Compacted power units
- Composed of DEUTZ four cycle, water cooled diesel engine and Leroy-Somer alternator
- Cooling radiator and fan
- Electronic governor
- Electrical 12V DC starter & charge alternator motor
- Normal duty, dry type air filter
- Brushless, Self-excited, IP23, Insulation class H and single bearing alternator
- Digital auto-panel control system with emergency stop press bottom
- Welded steel base frame with A/V mounting
- Flexible fuel connection hoses and lube-oil drain hand pump fitted
- Starter batteries with cables and rack
- Industrial type silencer and steel bellows delivered loose
- Mounted main circuit breaker
- Soundproof canopy or container, 8 hours working bottom fuel tank and engine jacket water heater are optional available on the whole range
- According with standards of **ISO8528,ISO3046,ISO3046,ICE34-1GB/T2820-97,GB755**

Prime Power	87KW/109KVA	Standby Power	96KW/120KVA
Rated Speed	1500RPM	Frequency	50Hz
Phase	3 Phase 4 Wires	Rated Voltage	400/230V
Engine Model	BF4M1013EC	Alternator Model	LSAP44D
Steady Voltage Deviation	$\leq \pm 1\%$	Transient Voltage Adjustment • Recovery Time (Sudden deducting / Increasing load)	$\leq +20\% \cdot 4s / -15\% \cdot 4s$
Steady Frequency Drop	$\leq 2\%$	Transient Frequency Adjustment • Recovery Time (Sudden deducting / Increasing load)	$\leq +10\% \cdot 3s / -7\% \cdot 3s$
Dimension Open Type	2500x900x1460	Gross Weight	1550
Dimension Silent Type	2800x1060x1860	Gross Weight	1720



- a. **Available in the following voltages:  
415/240 V • 400/230 V • 380/220 V • 220/127 V • 200/115V**
- b. **Standby Power: Standby duty operation, under variable load, without over load**
- c. **Prime Power: Continuous duty operation, under variable load 24/24h-10% over load permissible  
1 hour/12 hours**
- d. **ISO8258:Rating are given for 25°C ambient temperature.Attitude:100m above sea  
level.Derating,please contact us or refer to data sheet**

## Engine Main Specifications

### DEUTZ Diesel Engine


Engine Model	BF4M1013EC
Number of Cylinder	4
Cylinder Arrangement	In line
Cycle	4
Aspiration	Turbo, CAC
Bore X Stroke (mm X mm)	108X130
Displacement (L)	4.76
Compression Ratio	19
Prime Power/Speed(KW/RPM)	97@1500
Standby Power/Speed(KW/RPM)	106@1500
Governor	Electrical(EMR/GAC)
Cooling System	Radiator with water cooled
Speed Stability (%)	≤3
Fuel Consumption at 100% Load(L/H)	26.4
Start Motor System	12 Vdc battery and start motor

**Alternator Main Specifications**

**LEROY SOMER Self-excited, Brushless, Single Bearing Alternator**

Alternator Model	LSAP44D
Exciting Type	Brushless, Self-excited
Rated Output(KVA)	113
Rated Speed(RMP)	1500
Rated Frequency(Hz)	50
Phase	3
Rated Voltage(V)	400/230
Power Factor	0.8
Voltage Adjustment Range	≥5%
Voltage Regulation	±1%
Insulation Grade	H
Protection Grade	IP23

**Harson GU641BC Digital Controller (Standard Allocation)**

	<p><b>Description</b></p> <ul style="list-style-type: none"> <li>■ True RMS measure of voltage and current</li> <li>■ Multi-Language menu.</li> <li>■ Flexible equipped with RS485, RS232 and USB, realizing remote monitor;</li> <li>■ All connections of the controller are by secure plug and socket, for ease and convenience to connect, move, maintain and replace the device.</li> <li>■ Optional ultra low temperature function, the ambient temperature is from -40 °C to 70 °C.</li> <li>■ More configurable isolated digital inputs.</li> <li>■ Emergency stop</li> </ul>
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**The Outline Dimension Drawings and Controller Wiring**



**Other brands of control modules are available. Harsen, Datakom, ComAp etc.**

## Available Accessories

### Enclosed Unit

Sound Enclosure 78dB (A) @ 7 m (23 ft)

### Open Unit

Exhaust Silencer, Residential 18-25dB(A) Reduction

Exhaust Silencer, Critical 25-32dB(A) Reduction

Exhaust Silencer, Hospital 32-42dB(A) Reduction

Extension, 40 cm (16in)

Flexible Exhaust Connector



Protection Mach

**Cooling System**

Block Heater

[Recommended for ambient temperature below 0°C (32°F)]

Radiator Core Guard

**Controller**

-Automation

External Starting Order

Plug Preheating

-Remote Start Capability

Utility Sensing, 3-Phase

-Engine Parameter Control

Plug Preheating Control

Water Preheating Control

-Measurements

Analog indicator

Line Voltage, Volts

Phase Current, Amps

Single Voltage, Volts

-Safety Device

Overload or Short-circuit Fault

Differential Triggering Fault

-Miscellaneous

Alarm Horn

Battery Charger, 12 Volt

Differential Protection with Time and Sensitivity Adjustment

Permanent insulation Controller

**Fuel System**

Automatic Fuel Tank Fill Kit

Sub-base Fuel Tank with Secondary Containment Basin

Sub-base Fuel Tank Leak Alarm

Water Separator Fuel Filter

**Electrical System**

Battery Charger, Equalize/Float Type

Battery isolator Switch

**Engine and Alternator**

Air Cleaner, Heavy-Duty (with air restriction indicator)

Electronic isochronous Governor

Lube Oil Drain Pump