

# **Model:DB-90GF** Powered by Cummins

| Applicable Standards ISO9001 | <b>Factory Inspection</b> Complete design and quality inspect |
|------------------------------|---|

ISO14001

- ISO45001
- CE

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0%, 25%, 50%, 75%, 100%, 110% load test

Function test

| 90KW 113KVA Diesel Generator Set Specifications |                                       |  |
|---|---------------------------------------|--|
| Genset model                                    | DB-90GF                               |  |
| Prime power                                     | 90 kW                                 |  |
|   | 113 kVA                               |  |
| Standby power                                   | 99 kW                                 |  |
|   | 124 kVA                               |  |
| Rated voltage(V)                                | 400/230 (customizable)                |  |
| Rate current(A)                                 | 162A                                  |  |
| Power factor                                    | 0.8                                   |  |
| Frequency(Hz)                                   | 50                                    |  |
| Speed(rpm)                                      | 1500                                  |  |
| Phase:  | 3 phase 4 wire                        |  |
| Noise level:                                    | 105dB at 7m (open type diesel genset) |  |
|   | 75dB at 7m(silent type diesel genset) |  |

## **Environmental Conditions**

Ambient temperature:  $+5^{\circ}$  C $\sim$ +40 $^{\circ}$  C

Altitude:  $\leq 1000$  m

Remark: If your conditions are different from the above, please contact our sales.

| Туре        | Dimensions(mm)<br>L*W*H | Weight(kg) | Base bottom fuel tank<br>(Liter) |
|-------------|-------------------------|------------|----------------------------------|
| Open Type   | 2350×850×1690           | 1250       | Without                          |
| Silent Type | 3000×1240×1790          | 2000       | 8 hours                          |

Remark: The dimensions and weight of the above diesel generator set are for reference only, and the specific dimensions and weight of the genset after production completion shall prevail.



# **Engine Specifications**

| Manufacturer                                     | DEUTZ  |  |
|--|--|--|
| Model  | BF4M1013EC G2                                      |  |
| Engine output-prime                              | 105kW  |  |
| Engine output-standby                            | 116kW  |  |
| Frequency:                                       | 50Hz   |  |
| Speed:   | 1500rpm  |  |
| Cylinders no. & Type:                            | 4 cylinders, Inline, 4 stroke, diesel engine,      |  |
|  | water-cooled                                       |  |
| Aspiration:                                      | Naturally Aspirated                                |  |
| Bore*stroke                                      | 108*130mm  |  |
| Displacement                                     | 4.76L  |  |
| Compression Ratio                                | 19:1   |  |
| Governor   | Electronic speed governor                          |  |
| Starter motor voltage:                           | 24V DC   |  |
| Type Injection System:                           | direct injection                                   |  |
| Maximum Oil Temperature                          | 121°C  |  |
| Cooling way                                      | Water Radiator & fan                               |  |
| Lubrication System Oil capacity(sump)            | 11L  |  |
| Standard Thermostat                              | 83-95 ℃  |  |
| Fuel consumption-prime power (100%)              | 26.1 L/h   |  |
| Fuel consumption-prime power (75%)               | 19.3 L/h   |  |
| Fuel consumption-prime power (50%)               | 12.9 L/h   |  |
| Fuel consumption-prime power (25%)               | 7.1 L/h  |  |
| Heavy duty diesel engine                         | Starter battery (with lead acid, free-maintenance) |  |
| Anti-vibration mount                             | Int Flexible fuel connection hoses                 |  |
| Replaceable fuel filter, oil filter & air filter | Exhaust silencer and bellows                       |  |
|  |  |  |

Cooling radiator and fan

Operation manuals and circuit diagram documents

# Alternator Specifications

| A 1                       |  |
|---------------------------|--|
| Alternator brand optional | Stamford/Leroy Somer/Marathon/ENGGA    |
| Rated Voltage(V)          | 400/230                                |
| Output way                | 3 phase 4 wire                         |
| Rated power factor        | 0.8                                    |
| Exciter                   | Brushless, Self-exciter                |
| Wire connecting method    | Y type, 3 phase 4 wire                 |
| Max voltage regulation    | ±1%                                    |
| Protection class          | IP23                                   |
| Insulation class          | Н                                      |
| Rotor:                    | Single/double bearing                  |
| Efficiency:               | 95%                                    |
| Regulator:                | AVR                                    |
| Recovery time(Tr)         | 1s                                     |
| Waveform : TIF            | <50                                    |
| Waveform : THF            | <2%                                    |
| Overload                  | 110% rated load for 2 hour per 24 hour |
|                           |  |

**Control System** 

## Model:SmartGen HGM6110(optional Deep Sea)

**Origin: China** 

**Automatic controller** 

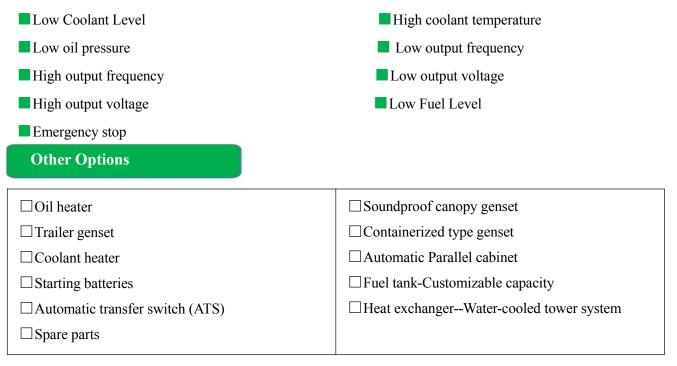


| Operating Environment  |                     |  |
|------------------------|---------------------|--|
| Operating temperature: | -25°C~70°C          |  |
| Relative humidity:     | 95%                 |  |
| Operating voltage:     | DC24V(range: 8-35V) |  |

#### **Product Features:**

HGM6110 series automatic controller, integrating digital, intelligent and network techniques, is used for automatic control and monitoring system of genset. It can carry out functions of automatic start/stop, data measurement, alarm protection and three "remote" (remote control, remote measure and remote communication). The controller uses LCD display, optional display interface including Chinese, English, Spanish, Russian, Portuguese, Turkey, Polish and French with easy and reliable operation.

### Below shut down causes are included:



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