

Model: GBR-440

Powered by BORKINS



#### Applicable Standards

ISO 8528-5:2018,  
ISO9001, ISO14001,  
ISO45001

GB/T2820.5-2009

CE

| General information                                                                                                                                                                                                            | Prime power                                     | Standby power |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------|---------------|
| Rated Power (kVA)                                                                                                                                                                                                              | 400                                             | 440           |
| Power Rating (kW)                                                                                                                                                                                                              | 320                                             | 352           |
| Frequency (Hz)                                                                                                                                                                                                                 | 50                                              |               |
| Engine Model                                                                                                                                                                                                                   | BK400                                           |               |
| Engine Speed (RPM)                                                                                                                                                                                                             | 1500                                            |               |
| Phase                                                                                                                                                                                                                          | 3                                               |               |
| PF                                                                                                                                                                                                                             | 0.8                                             |               |
| Noise Level                                                                                                                                                                                                                    | 80 Db @7m                                       |               |
| Rated voltage (V)                                                                                                                                                                                                              | 400/230<br>(According to customer requirements) |               |
| Fuel tank capacity operating time                                                                                                                                                                                              | /                                               |               |
| PRP ●Prime power is available for an unlimited number of annual hours in variable load application,in accordance with GB/T2820-97; A 10% overload capability is available for a period of 1 hour within a 12-hour of operation |                                                 |               |
| ESP ●The standby power rating is applicable for supplying emergency power for the duration of a utility power interruption.No overload,utility parallel or negotiated outage operation capability is available at this rating  |                                                 |               |

#### Environmental Conditions

Ambient temperature: +5°C~+40°C

Altitude: ≤1000m

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

#### Factory Inspection

Complete design and quality inspection

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

Function test.

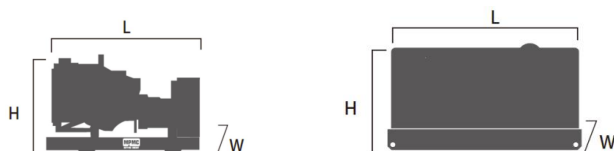
Protection test.

#### Painting Process

MBKL has the most advanced automatic spraying / powder coating production line, and is equipped with various sandblasting equipment to ensure higher quality.

Canopy painting: pretreatment process and famous brand powder.

Base Frame painting: Sandblasting process and good quality powder



| Dimension and Weight |         |  |
|----------------------|---------|--|
| Model                | GBR-440 |  |
| Length (L) mm        | 4000    |  |
| Width (W) mm         | 1500    |  |
| Height (H) mm        | 2100    |  |
| Weight (kgs)         | 3800    |  |

Note: Specifications and illustrations are subject to revision without notice.

### Engine Specifications

| Engine model                      | BK400                            |
|-----------------------------------|----------------------------------|
| Emission Certification            | — —                              |
| Number of cylinders               | 6                                |
| Cylinder arrangement              | L-Type                           |
| Cycle                             | Four stroke                      |
| Aspiration                        | Turbocharged & Charge Air Cooled |
| Bore x Stroke                     | 126 x 155mm                      |
| Displacement                      | 11.59 L                          |
| Compression ration                | 17.6: 1                          |
| Prime power /speed                | 370 kW/1500 rpm                  |
| Standby power /speed              | 408 kW/1500 rpm                  |
| Fuel System                       | HPCR                             |
| Cooling system                    | Force Water Cooling Cycle        |
| Frequency droop                   | ≤ 1%                             |
| Total lubrication system capacity | 24L                              |
| Coolant capacity (engine only)    | 42L                              |
| Fuel consumption                  | 100% load: 75l/hr                |
| Starter motor                     | DC 24V                           |
| Charge alternator                 | DC 24V                           |

Heavy duty diesel engine

Anti-vibration mount

Replaceable fuel filter, oil filter & air filter

Cooling radiator and fan

Starter battery (with lead acid) including rack and cables

Flexible fuel connection hoses

Exhaust silencer and bellows

Operation manuals and circuit diagram documents

### Alternator Specifications

| Alternator                       |                                                                        |
|----------------------------------|------------------------------------------------------------------------|
| Alternator Brand                 | WALTER                                                                 |
| Alternator name                  | WALTER                                                                 |
| Alternator Model                 | SWA274K                                                                |
| Alternator Rated Power           | 320kw/400kva                                                           |
| Rated voltage (V)                | 230v/400v                                                              |
| Rated frequency                  | 50hz                                                                   |
| Connecting Type                  | 3 Phase and 4 W                                                        |
| Number of Bearing                | 1                                                                      |
| Protection Grade                 | IP23                                                                   |
| Altitude                         | ≤1000m                                                                 |
| Exciter Type                     | Brushless ,Self-exciting, AVR automatic voltage regulating,100% Copper |
| Insulation Class                 | H class                                                                |
| Telephone Influence Factor (TIF) | ≤50                                                                    |
| THF                              | ≤2%                                                                    |
| Voltage Regulation, Steady State | ≤±1%                                                                   |
| Transient State Voltage          | ≤-15%~+20%                                                             |

Alternator brand for choice: HK STAMFORD,STAMFORD,LEROI SOMER, MACC ALTE etc

## Control Panel

### HGM6120N

Auto start and auto mains failure control module(Alternator frequency & can speed sensing)



#### Key features

- 4-line back-lit LCD text display
- Multiple display languages
- Five-key menu navigation
- LCD alarm indication
- Customisable power-up text and screen images.
- SMARTGEN expansion compatibility
- Data logging facility
- Internal PLC editor
- Protections disable feature
- Fully configurable via PC using USB communications
- Front panel configuration with PIN protection
- Power save mode
- 3-phase generator sensing and protection
- 3-phase mains (utility) sensing and protection (HGM9510 only)
- Automatic load transfer control(DSE6120 MKIII only)
- Generator current and power monitoring (kW, kvar, pf)
- Mains (utility) current and power monitoring (kW, kvar, pf)(HGM9510 only)
- kW overload alarm
- Over current protection
- Breaker control via fascia buttons

#### Key benefits

- Automatically transfers between mains (utility) and generator for convenience.
- Hours counter provides accurate information for monitoring and maintenance periods
- User-friendly set-up and button layout for ease of use
- Multiple parameters are monitored & displayed simultaneously for full visibility
- The module can be configured to suit a wide range of applications for user flexibility

- PLC editor allows user configurable functions to meet user specific application requirements.

- Fuel and start outputs configurable when using CAN
- 6 configurable DC outputs
- 4 configurable analogue/digital inputs
- Support for 0 V to 10 V & 4 mA to 20 mA sensors
- 8 configurable digital inputs
- CAN, MPU and alternator frequency speed sensing in one variant
- Real time clock
- Manual and automatic fuel pump control
- Engine pre-heat and post-heat functions
- Engine run-time scheduler
- Engine idle control for starting & stopping
- Fuel level alarms
- 3 configurable maintenance alarms
- Compatible with a wide range of CAN engines, including Tier 4 engine support
- Uses SMARTGEN Configuration Suite PC Software for simplified configuration
- Licence-free PC software
- IP65 rating (with optional gasket) offers increased resistance to water ingress
- Configurable CAN read & transmitted information.
- 1 alternative configuration

#### Options

| Engine                                                     | Alternator                                                        | Fuel System                                                                                                                                                | Generating Set                                                                |
|------------------------------------------------------------|-------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------|
| Water Jacket Preheater<br>Oil Preheater<br>Oil manual pump | PMG excitation<br>Space heater<br>Inducting temperature measuring | 12 / 24 hour base tank<br>Bunded fuel tank<br>External fuel tank<br>Automatic fuel feeding<br>Switch between external tank and base tank (three-way valve) | Deepsea, ComAp, Smartgen etc. controller<br>Trailer<br>Tools with the machine |

#### Follow us:

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