# HYUNDA POWER EQUIPMENT

Diesel Generator Standby Power 16.5KVA 3 Phase 1500 rpm DHY16KE DHY16KSE



All Days | Safty | Reliable | Stability



# **TECHNICAL SPECIFICATION**

DHY16KE OPEN TYPE / DHY16KSE CANOPY TYPE

## 50Hz Standby 16.5KVA

## **Benefits and Feature**

- > Use best quality vehicle engine, low fuel consumption, running reliable
- > Use high quality and performance brushless alternator, with AVR
- > High quality controller of COMAP/ DEEPSEA
- > Block design electrical control system, easy operate and maintenance
- **Technical Specification**

| Prime Power                    | KVA/ KW | 15 / 12     |
|--------------------------------|---------|-------------|
| Standby Power                  | KVA/ KW | 16.5/13.2   |
| Power Factor                   |         | 0.8         |
| Frequency                      | Hz      | 50          |
| Rate Voltage                   | V       | 400/230     |
| Rate Current                   | А       | 23.8        |
| Controller                     | CC      | MAP/DEEPSEA |
| Control Voltage                | DC / V  | 12          |
| Battery Capacity               | Ah      | 60          |
| Coolant Capacity               | L       | 5.2         |
| Fuel Tank Capacity(Base frame) | L       | 133         |
| Fuel Consumption               | L/hour  | 5.43        |
| Running Time                   | Hour    | 17.5        |

### > Standard 8 hours generator running base frame fuel tank (100% load)

- > With baseframe forklift hole and generator canopy lifting hole
- > Industrial waterproof canopy, ensure generator all days running
- > Industrial silencer (7 meters the noise is lower than 68 dB)
- > Easy operation , IP23 protection industrial sockets and plugs
- > Four pole circuit breaker with RCD earth protection
- > Standard ATS function connector

| Voltage                   |     |          |
|---------------------------|-----|----------|
| Steady state regulation   | %   | ≤ ± 0.5  |
| Dynamic voltage renewal   | %   | ≤+20~-15 |
| Stable time               | Sec | 2.0      |
| Waveform distortion       |     | ≤3       |
| Volatility                |     | ≤0.5     |
| Frequency                 |     |          |
| Steady state regulation   | %   | ≤±1      |
| Dynamic frequency renewal | %   | ≤+10~-7  |
| Stable time               | Sec | ≤3       |
| Volatility                |     | ≤0.5     |
| Environment require       |     |          |
| Temperature               | С   | ≤40      |
| Humidity                  | %   | ≤60      |
| Altitude                  | m   | ≤1000    |
| Standard                  |     |          |

### Dimension | Weight | Sound



**OPEN TYPE** DHY16KE Length mm

| Width (W)                       | mm  | 820  |
|---------------------------------|-----|------|
| Height (H)                      | mm  | 1080 |
| Weight net                      | Kg  | 550  |
| loading capacity (units/contain | er) |      |
| Sound @7 meter                  | dB  | 92   |
|                                 |     |      |



ISO3046, ISO8528, ISO9001-2008

## DHY16KSE CANOPY TYPE

| mm | 2188           |
|----|----------------|
| mm | 900            |
| mm | 1280           |
| Kg | 735            |
|    |                |
| dB | 68             |
|    | mm<br>mm<br>Kg |

### Note

1. Generator continuous running at variable load for unlimited periods with 10% overload available for 1 hour in any 12 hours period

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2. Every generator strictly test on 0%, 25%, 75%, 100%, 110% load dynamic responsiveness ability, and all protections



Powerful engine and reliable running quality Durable running performance and was proofed by vehicle's application

### **Compact structure**

Compact structure and metal materials saving for low cost

Low maintenance and repair cost Air,fuel and oil tubes are silicone and stainless steel materials, which reduce leakage problems substantially

Excellent start performance Fuel injector and pump were tested fully in Various environments, which provide excellent start and running performance

# **DIESEL ENGINE**

|    | Model                     |                     | HY485                       |
|----|---------------------------|---------------------|-----------------------------|
|    | Prime power               | Kw                  | 17                          |
|    | Structure                 |                     | 4 cylinder,inline           |
|    | Fuel type                 |                     | Diesel                      |
|    | Fuel consumption          | L/Hour              | 5.43                        |
|    | Lubricant consumption     | L/Hour              | 0.028                       |
|    | Governor                  |                     | Mechanical                  |
|    | Coolling                  | -                   | Water                       |
|    | Lubricant capacity        | a lange             | 7.8                         |
|    | Air intake flow           | m <sup>3</sup> /min | 1.6                         |
|    | Exhaust gas flow          | m <sup>3</sup> /min | 3.6                         |
| i. | Exhaust gas temperature   | ℃                   | 550                         |
|    | Exhaust gas back pressure | KPa                 | 6.7                         |
| 2  | Compression ratio         | 4                   | 17                          |
|    | Aspiration                |                     | Natural                     |
|    | Bore                      | mm                  | 85                          |
|    | Stroke                    |                     | 100                         |
|    | Displacement              |                     | 2.27                        |
|    | SAE                       |                     | 4/7.5                       |
|    | Dimension                 | mm                  | $734 \times 530 \times 680$ |
|    | Net weight                | Kg                  | 230                         |
|    |                           |                     |                             |

# **ALTERNATOR**

| Model            |       | 164D            |
|------------------|-------|-----------------|
| Prime power      | kVA   | 16              |
| Structure        |       | 1bearing        |
| Excitation mode  |       | Self-excitation |
| Insulation class | -     | Н               |
| Protection class |       | IP23            |
| TIF              | 6     | <50             |
| THE              | and a | <2%             |
| Air flow         | m³/s  | 0.096           |
| AVR Model        |       | SX460           |



Excellent design ensures compact structure and perfect appearance

**Excellent performance** Excitation enhanced system improves start and short circuit's protection performance

Economy Less parts involved and the most market's demand lead to cheap price and fine quality

Easy maintenance and repair Core parts won't be involved in repair job, AVR can be replaced easily, examining diode doesn't disassemble rotor

# **CONTROL PANEL**

3

# Controller



# Comap AMF20

Support engine and alterantor monitoring, measurement and protection. This is long–running and back–up unit to integrate the best way to control, support Modbus standard, modem, RS485, USB and internet.

# Deepsea DSE6120



DSE6110/20 MKIII AUTO START & AUTO MAINS (UTILITY) FAILURE CONTROL MODULES

| Moacuromont dicplayment  |   |
|--|---|
| Measurement, displayment   |   |
| Genset prime power Kw  |   |
| Power factor   |   |
| Engine speed   |   |
| Phase to neutral voltage   |   |
| Phase to phase voltage   |   |
| Genset frequency   |   |
| Genset current   |   |
| Mains Phase to neutral voltage   | C   |
| Mains Phase to phase voltage   | C   |
| Mains frequency C  | C   |
| Engine oil pressure  |   |
| Engine water temperature   |   |
| Fuel level   |   |
| Battery voltage  |   |
| Genset power KVA   |   |
| Genset running time  |   |
| Genset output KWh  |   |
| History file   |   |
| Alarm, shutdown function   |   |
| Low oil pressure warning, shutdown   |   |
| High water temperature warning, shutdown   |   |
| Engine over and under speed shutdown   |   |
| Low fuel level warning, shutdown   |   |
| 57   |   |
| Battery low and high voltage warning   |   |
| Battery low and high voltage warning<br>Battery chargering failure   |   |
| 5 5 5  |   |
| 5 5 5  | )<br>)<br>)<br>)  |
| 0 0 0  |   |
| Alternator 3 phase voltage unbalance shut down   |   |
| Alternator 3 phase voltage unbalance shut down   Alternator low and high frequency warning, shut down  |   |
| Alternator 3 phase voltage unbalance shut downAlternator low and high frequency warning, shut downGenset over load shutdownAlternator 3 phase current unbalance shutdown   |   |
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| Alternator 3 phase voltage unbalance shut down Image: Alternator 1 and high frequency warning, shut down   Alternator low and high frequency warning, shut down Image: Alternator 3 phase current unbalance shutdown   Alternator 3 phase current unbalance shutdown Image: Alternator 3 phase current unbalance shutdown   Mains low and high voltage warning Image: Alternator 3 phase current unbalance shutdown   Mains low and high frequency warning Image: Alternator 3 phase current unbalance shutdown   Mains low and high frequency warning Image: Alternator 3 phase current unbalance shutdown   Mains low and high frequency warning Image: Alternator 3 phase current unbalance shutdown   Remote start and stop Image: Alternator 3 phase current unbalance shutdown   |   |
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| Alternator 3 phase voltage unbalance shut down Image: Constraint of the start of the star | •<br>•<br>•<br>•<br>•<br>•<br>•<br>•<br>•<br>•<br>•<br>•<br>•<br>•<br>•<br>•<br>•<br>•<br>• |



Electrical system

## Maintenance spare parts

