

Diesel Generating Sets

ALMMH 23



Prime Power

Refers to the main power supply, working under 70% average load for unlimited time. 10% overloading is allowed.

Stand-by Power Refers to the back up power supplied to the varying load for a limited time. Overloading is not allowed.

Generator

| | | | Prime | | Stand-by |
|----------------------------|-------------------|----|---------|------|-----------|
| Power (kVA) | kVA | | 20 | | 23 |
| Power kW | kW | | 16 | | 18,4 |
| | | | | | |
| Generator Model: | ALMMH 23 | | | | |
| Engine Manufacturer Model: | Mitsubishi / S4Q2 | | | | |
| Fuel Type: | Diesel | | | | |
| Frequency: | 50 Hz | | | | |
| Power Factor: | $\cos \Phi = 0.8$ | | | | |
| Voltage: | 400/231 V | | | | |
| | | | | | |
| Dimensions | | | With Ca | nopy | Open Skid |
| Length | | mm | 1750 | | 1300 |
| Height | | mm | 1420 | | 1070 |
| Width | | mm | 950 | | 850 |
| Weight | | kg | 700 | | 480 |
| Fuel Tank Capacity | | lt | 65 | | 100 |
| | | | | | |

H: External

K: Container

TBA: To be added



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Engine

| Engine Manufacturer: | | MITSUBISHI |
|-----------------------------------|------------|------------------------|
| Engine Model: | | S4Q2 |
| Engine Type: | | 4 Stroke Diesel Engine |
| Engine Stand-by Power: | kWm | 22,4 |
| Engine Prime Power: | kWm | 19,6 |
| Cylinder Arrangement: | | 4L |
| Displacement: | lt | 2,505 |
| Cooling System: | | Water Cooling |
| Bore x Stroke: | mm | 88 x 103 |
| Compression Ratio: | | 22:1 |
| Aspiration: | | Natural Aspiration |
| Governor Type: | | Mechanic |
| Electrical System: | VDC | 12 |
| Lubricant Oil Capacity: | lt | 6,5 |
| Coolant Capacity: | Lt | 13,2 |
| Frequency Lt: | Hz - rpm | 50 - 1500 |
| Jacket Water Heater: | Piece x W | ТВА |
| Battery: | Piece x AH | 1 x 60 |
| Charge Alternator Current: | А | 50 |
| Injection System: | | Direct |
| Cooling Air Flow: | m³/min | ТВА |
| Combustion Air Flow: | m³/min | ТВА |
| Exhaust Gas Flow: | m³/min | ТВА |
| Exhaust Gas Temperature: | ٥C | ТВА |
| Fuel Consumption Under 100% Load: | lt/h | 6,4 |
| Fuel Consumption Under 75% Load: | lt/h | 4,8 |
| Fuel Consumption Under 50% Load: | lt/h | 3,2 |

Alternator

| Phase / Pole Number: | | 3/4+ |
|--------------------------------------|-----|-------------------------|
| Excitation System: | | Self Excited, Brushless |
| Voltage Regulator: | | A.V.R. (Automatic) |
| Voltage Regulation: | | ±%1 |
| Insulation Class: | | Н |
| Protection Class: | | IP23 |
| Connection Type: | | Star |
| Frequency: | Hz | 50 |
| Power Factor: | | $\cos \Phi = 0.8$ |
| Total Harmonic Distortion (No Load): | | < % 3.5 |
| Output Voltage: | VAC | 231/400 |

TBA: To be added



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Control Panel



ALM929

AMF9

Alimar ALM-929 Automatic Control Module

AMF function ATS function Remote start function Manual start function Engine control function Suitable for remote monitoring

Mains and Genset LL- LN Voltages

Mains and generator frequency Mains and genset phase currents Mains and generator neutral currents Grid and generator phase and total, kW, kVA,kVAr Power factor, engine speed, battery voltage and more

Connections

3 phase 4 wire, stars & delta 3 phase 3 wire, 2 current transformer 2 phase 3 wire 1 phase 2 wire

Communication

RS232 – 485 connection with cable J1939-CANBUS GSM / GPRS connection Ethernet connection Modbus RTU

Protection Functions

- Overvoltage
- Low voltage
- Voltage asymmetry and phase sequence
- High frequency
- Low frequency
- Short-circuit current
- Overcurrent
- Power factor
- Coolant temperature
- Low oil pressure

Auto Panel Features

- Automatic generator, grid control and fault monitoring
- Easy control with a user-friendly interface from the panel screen
- Remote operation with optional communication cards
- Manual programming with password-protected service interface
- Manual control of generator and transfer panel with buttons on the front panel
- Front panel protection class IP65
- With an operating temperature of -20 C to +70 C and a storage temperature of -40 C to +80 C



(0312) 384 15 80 info@alimar.com.tr en.alimar.com.tr

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Standard Features

Engine

Low fuel consumption and high performance latest technology diesel engines are used with electronic or mechanical governor, water-cooled radiator system , replaceable oil, fuel, air filters. **Alternator**

Alternator

With its robust and compact structure, steel body, maintenancefree single bearing system, brushless, self-excited system and electronic type AVR, alternators suitable for the special needs of different applications are used.

Gen-Set Canopy

Modular cabinets are used in accordance with 2000/14/EC directives, covered with sound and heat insulation flame-resistant sponge, corrosion and rust resistant paint, locks and hinges, large lockable doors on both sides for easy service and maintenance. Exhaust and silencer insulated according to engine suitability. Small and medium power fuel tank is designed as underchassis. Lifting ears on chassis. Vibration prevention wedges are used under the chassis.

Standard Accessories

Critical type silencer

Automatic transfer panel Spring loaded seismic isolator Oil and fuel tank heater Maintenance tools and kits

Main fuel tank stainless and insulated

Trailer

Industrial silencer and stainless steel compensator Maintenance-free lead-acid starter battery, cable and stand Jacket water heater with thermostat Automatic control module SMPS battery charger Relays and fuses Emergency stop button **Optionel Features** Remote radiator Coolant level sensor Fuel level sensor Winding dehumidifier heater Winding and bearing temperature sensors MCCB PMG/AREP **Other Accessories** Electronic/Manual oil drain pump

maintenance and repair. Cabin monitoring the control module from outside and emergency stop button can be accessed. The inner surface of the cabinets is sound and high intensity flame that provides heat insulation does not walk covered with sponge. Cabin paint is resistant to corrosion and rust. It is resistant to. Muffler hardware on certain models hidden inside the cabin.

Cabin: Alimar Generator cabins are user-friendly. It provides easy





