

## ALMDO 510

### Diesel Generating Sets



#### 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 | 460   | 510      |
| Power kW    | kW  | 340   | 388      |

|                            |                  |
|----------------------------|------------------|
| Generator Model:           | ALMDO 485        |
| Engine Manufacturer Model: | DOOSAN           |
| Fuel Type:                 | Diesel           |
| Frequency:                 | 50 Hz            |
| Power Factor:              | Cos $\Phi$ = 0.8 |
| Voltage:                   | 400/231 V        |

| Dimensions         |    | With Canopy | Open Skid |
|--------------------|----|-------------|-----------|
| Length             | mm | 3350        | 3150      |
| Height             | mm | 2980        | 2050      |
| Width              | mm | 1600        | 1450      |
| Weight             | kg | 5250        | 4400      |
| Fuel Tank Capacity | lt | 800         | 700       |

H: External

K: Container

TBA: To be added

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### Engine

|                                   |                           |
|-----------------------------------|---------------------------|
| Engine Manufacturer:              | DOOSAN                    |
| Engine Model:                     | DP158LC                   |
| Engine Type:                      | 4 Stroke Diesel Engine    |
| Engine Stand-by Power:            | kWm 449                   |
| Engine Prime Power:               | kWm 408                   |
| Cylinder Arrangement:             | 8V                        |
| Displacement:                     | lt 14,618                 |
| Cooling System:                   | Water Cooling             |
| Bore x Stroke:                    | mm 128 x 142              |
| Compression Ratio:                | 15.0:1                    |
| Aspiration:                       | Turbocharged, Intercooler |
| Governor Type:                    | Elektronik                |
| Electrical System:                | VDC 24                    |
| Lubricant Oil Capacity:           | lt 22                     |
| Coolant Capacity:                 | Lt 79                     |
| Frequency Lt:                     | Hz - rpm 50 - 1500        |
| Jacket Water Heater:              | Piece x W                 |
| Battery:                          | Piece x AH                |
| Charge Alternator Current:        | A 45                      |
| Injection System:                 | Direct                    |
| Cooling Air Flow:                 | m <sup>3</sup> /min 700   |
| Combustion Air Flow:              | m <sup>3</sup> /min 30,1  |
| Exhaust Gas Flow:                 | m <sup>3</sup> /min 88    |
| Exhaust Gas Temperature:          | °C 529                    |
| Fuel Consumption Under 100% Load: | lt/h 99,6                 |
| Fuel Consumption Under 75% Load:  | lt/h 72,9                 |
| Fuel Consumption Under 50% Load:  | lt/h 48,9                 |

### Alternator

|                                      |                         |
|--------------------------------------|-------------------------|
| Phase / Pole Number:                 | 3/4+                    |
| Excitation System:                   | Self Excited, Brushless |
| Voltage Regulator:                   | A.V.R. (Automatic)      |
| Voltage Regulation:                  | ±%1                     |
| Insulation Class:                    | H                       |
| 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

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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

With its robust and compact structure, steel body, maintenance-free 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

- 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
- Critical type silencer
- Trailer
- Main fuel tank stainless and insulated
- Automatic transfer panel
- Spring loaded seismic isolator
- Oil and fuel tank heater
- Maintenance tools and kits

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

