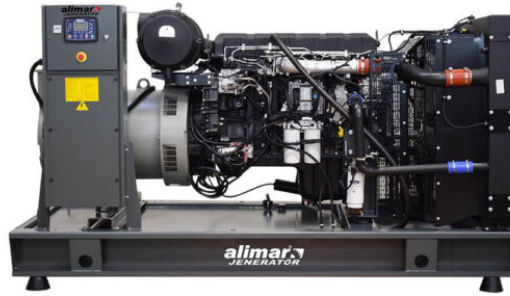


ALMFR 450



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	410	450
Power kW	kW	328	360

Generator Model:	ALMFR 450
Engine Manufacturer Model:	FORD / 13G45
Fuel Type:	Diesel
Frequency:	50 Hz
Power Factor:	Cos Φ = 0.8
Voltage:	400/231 V

Dimensions		With Canopy	Open Skid
Length	mm	3500	3000
Height	mm	2780	1700
Width	mm	1400	1300
Weight	kg	3140	2590
Fuel Tank Capacity	lt	650	450

H: External

K: Container

TBA: To be added

Diesel Generating Sets

Engine

Engine Manufacturer:		FORD
Engine Model:		13G45
Engine Type:		4 Stroke Diesel Engine
Engine Stand-by Power:	kWm	395
Engine Prime Power:	kWm	359
Cylinder Arrangement:		6L
Displacement:	lt	12,7
Cooling System:		Water Cooling
Bore x Stroke:	mm	130 x 160
Compression Ratio:		17:1
Aspiration:		Turbocharged, CAC
Governor Type:		Electronic
Electrical System:	VDC	24
Lubricant Oil Capacity:	lt	43
Coolant Capacity:	Lt	54
Frequency Lt:	Hz - rpm	50 - 1500
Jacket Water Heater:	Piece x W	
Battery:	Piece x AH	
Charge Alternator Current:	A	130
Injection System:		Direct
Cooling Air Flow:	m ³ /min	
Combustion Air Flow:	m ³ /min	
Exhaust Gas Flow:	m ³ /min	
Exhaust Gas Temperature:	°C	
Fuel Consumption Under 100% Load:	lt/h	82,1
Fuel Consumption Under 75% Load:	lt/h	60,7
Fuel Consumption Under 50% Load:	lt/h	38,1

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 Φ = 0,8
Total Harmonic Distortion (No Load):		< % 3.5
Output Voltage:	VAC	231/400

TBA: To be added

ALMFR 450

Diesel Generating Sets



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

ALMFR 450



Diesel Generating Sets

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

Optional 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.

