







-  WATER COOLED
-  THREE PHASE
-  50 HZ
-  DIESEL

Generating Rates		PRIME	STANDBY
Power	kVA	23	25
Power	kW	18,5	20
Current	(cos Phi=0,8) A	33	36
Standard Voltage	V	400/230	
Revolution Per Minute	r.p.m.	1500	
Rated at power factor	Cos Phi	0,8	

Standard Features

- 4 Stroke, 1500 RPM, water cooled heavy duty diesel engine
- Protection system on manual run
- Flexible oil pipes and oil draining valve
- Pre-heater
- Lubrication oil and anti-freeze
- 4 Poles, synchrotype, single bearing, brushless alternator
- Batteries and cables
- Electrostatic paint coated, steel, welded chassis
- Fuel tank housed in the chassis.
- Industrial type silencer
- Electronic battery charger
- Electrical wiring diagram
- User manual and operating manual

Optional Equipments

- Soundproof canopy
- Automatic transfer switch
- Circuit breaker
- Trailer
- External fuel tank
- Heating system for fuel tank
- Oil heater
- Fuel filling system (Automatic / Manuel)
- Analog indicators
- 1 Phase - 3 Phase switch plugs
- Alarm system for fuel level
- Remote control and monitoring

Stand By Power : Supplying of emergency electrical power at variable load, in the event of normal utility power failure. This rating is maximum power, no overload capability is available.

Prime Power : Supplying of electrical power at variable load for an unlimited number of hours in the event of normal utility power failure. 10% over load capability is available.

Engine Specifications

Brand		DIAMOND DIESEL
Model		490 D
Engine Power Stand BY	(kWm / hp)	21,3/28,5
Revolution Per Minute	(r.p.m.)	1500
Total Displacement	(L)	2.54
Cylinders Orientation		4 SINGLE LINE
Bore x Stroke	(mm x mm)	90 x 100
Compression Orientation		18;1
Governor Type		MECHANIC
Aspiration System		NATURAL
Injection		DIRECT
Cooling		WATER COOLED
Electrical System	(VDC)	12
Lub-Oil Capacity	(L)	9
Engine Coolant Capacity	(L)	14
Fuel Tank Capacity	(L)	83
Maximum Exhaust Temperature	(°C)	550
Maximum Exhaust Gas Flow	(m3/h)	146
Maximum Allowed Back Pressure	(kPa)	6
Cooling Air Flow	(m3/min)	7
Fuel Consumption 50 %	(L/h)	3.12
Fuel Consumption 75 %	(L/h)	4.8
Fuel Consumption 100 %	(L/h)	6.48

- Replacable cylinder jacket
- Dry type replacable oil filter
- Heat-resistant radiator for 50 °C

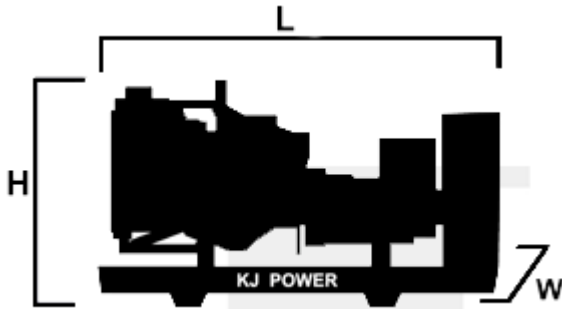
Alternator Specifications

Output Voltage	(V)	400/230
Frequency	(Hz)	50
Stationary Voltage Regulation	(±)	1 %
Short Circuit Current		> 300 %
Insulation		H
Protection		IP 23
Efficiency	(%)	86,5
Overloading		110 % FOR 1 HOUR
Power Factor	(cos Phi)	0.8
Total Harmonic Distortion Rate		THF < 2 %
Connection Type		STAR
Number Of Pole		4
Number Of Bearing		SINGLE

- 4 Poles, Self-Excitation and Self-Cooled, Brushless, Synchronotype alternator
- Electronic type automatic voltage regulator (AVR)

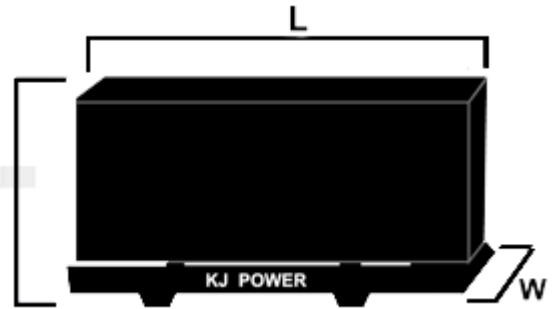
Dimensions Without Canopy

Dimensions and Weight		
Length (L)	mm	1650
Height (H)	mm	1400
Width (W)	mm	950
Wet weight	kg	600
Fuel Tank Capacity	L	83



Dimensions With Canopy

Dimensions and Weight		
Length (L)	mm	2000
Height (H)	mm	1450
Width (W)	mm	950
Wet weight	kg	820
Fuel Tank Capacity	L	83



Control Panel Features

- Diesel and gas genset support
- 400Hz operation support
- 400 event logs, full snapshot
- All parameters front panel editable
- 3 level configuration password
- 128x64 graphical LCD display
- Downloadable language
- Waveform display of V & I
- Harmonic analysis of V & I
- Synchroscope & check synch
- Allows closed transfers
- 16Amp MCB & GCB outputs
- 8 configurable digital outputs
- Outputs expandable to 40
- 4 configurable analog inputs
- Both CANBUS-J1939 & MPU
- 3 configurable service alarms
- Multiple nominal conditions
- Multiple automatic exerciser
- Weekly operation schedule
- Dual mutual standby with equal aging of gensets
- Manual "speed fine adjust" on selected ECUs
- Automatic fuel pump control
- Disable protections feature
- Excess power protection
- Reverse power protection
- Overload IDMT protection
- Load shedding, dummy load
- Multiple load management
- Current unbalance protection
- Voltage unbalance protection
- Fuel filling & fuel theft alarms
- Battery back-up real time clock
- Idle speed control
- Battery charge0 run enabled
- Combat mode support
- Contactor & MCB drive
- 4 quadrant genset power counters
- Mains power counters
- Fuel filling counter
- Fuel consumption counter
- Modem & Ethernet diagnostics
- Configurable through USB, RS-485, Ethernet and GPRS
- Free configuration program
- Allows SMS controls
- Ready for central monitoring Ethernet and GPRS
- Mobile genset support
- Automatic GSM geo-location
- GPS connectivity (USB & RS232)
- Dynamic DNS support
- Easy USB firmware upgrade
- IP65 rating with standard gasket

