

JBDS POWER GROUP

JBDS Power Project International Pvt Ltd



INTRODUCING THE ALL NEW GAS GENSETS 25 TO 5000 KVA



KEY POINTS:-

Less Operating cost Zero Fuel handing less Noise **Eco friendly**

INTRODUCING THE DUAL FUEL KIT 62.5 KVA TO 1500 KVA

KEY POINTS:-

Eco-Friendly Low -Operating Cost Advanced technology for DFK Quick Starting & Smooth running



ABOUT JBDS GROUP



JBDS POWER GROUP is an Indian company established in 2010. The group has 4 businesses. Listed on the MSME and ISO 9001 QMS, 13485 Certified Company, we have 4 branches in India with strength of 220-250 employees. With a good Engineering, R&D, Sales & Technical Team. Who can help to make up the worldwide Business & Commercial network of JBDS Power Group.

Now JBDS entered into the field of power generation through its world class gas engines and generators under the brand name JBDS Power that is propelling Gas generator sets from 25 KVA to 5000 KVA. JBDS Power is a globally trusted brand for best quality products, now JBDS is launching the gas Genset in higher KVA range in Indian market to fulfil the customer's expectation and as environmental demand.

We have the wide range of product and their spares inventory for quick response services without delay and JBDS ensure that every demand of customer would be fulfil in terms of commercial and designs as wide range of product and own manufacturing.

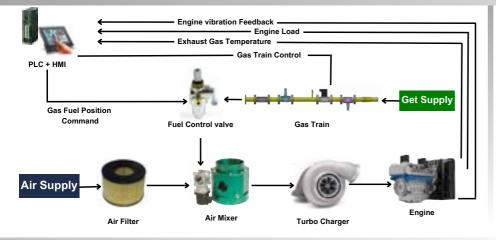
Dual Fuel Kit

JBDS Power Project technology is based on the concept that inserting additional energy into the combustion chamber in the form of natural gas allows the engine to use less diesel fuel to produce the same power. The kit is a retrofit to the air intake system and does not require any modification to the engine itself or the diesel fuel management system.

Typically, 50-70 percent of the diesel fuel normally used can be safely displaced with natural gas. This greatly reduces NOx formation due to the lower combustion temperature.

If even lower emissions are desired, a partial oxidation catalyst can be added to the kit which would nearly eliminate CO and HC by products. The system was designed so that with a push of a button, you can return to diesel-only mode without interrupting engine speed or power output.

How its work for Dual Fuel Technology?



SCOPE OF SUPPLY:

- Gas Filter
- · Pressure Reducing valve
- Zero pressure regulator
- · Solenoid sensor
- MAT
- Exhaust Temperature Sensor
- Pressure Transmitter
- Pressure Gauge
- Mixer
- MAP

Gas Train:

The gas train is composed of a filter, manual ball valve, lock off solenoid, and zero pressure regulator. It requires a supply gas pressure of 3 psi-5 psi. and a primary pressure regulator can be provided if your gas supply pressure is too high. The filter protects the gas train and engine from particulate contaminants which may be present in the gas stream. The gas lock off solenoid is a 12V or 24V single stage solenoid controlled by the Programmable Logic Control (PLC). The zero pressure regulator detects changes in engine vacuum through the mixer to maintain approximately atmospheric pressure and prevent over-fueling.



Air Gas Mixer (AGM) and Fuel Control Valve (FCV)

The Air-Gas Mixer (AGM) and Fuel Control Valve (FCV) provide for precise control of the air-to-gas ratio. The mixer design was developed by Eden Innovations LLC and will be sized specific to your engine and application. The fuel control valve has internal software with fault detection and position control with a 10–20 millisecond response time. The position is mapped versus load during commissioning and is controlled by the PLC.

Control Panel and HMI

The Programmable Logic Control (PLC) comes with LED's and two switches. It is housed in a fully enclosed, ruggedly designed operator terminal which is easily used with gloved hands in cold environments. The cabinet is NEMA 4X rated.



Advantages of Dual Fuel Kit

1. Savings

- Reduce fuel costs by up to 30%.
- Reduce emissions, NOx by 60%, COx by 10%, and PM by 50%.
- · Meet government compliance and avoid fines.

2. Safety

- Up to 70% of the Diesel used can be safely displaced with Natural The Solenoid Valve and Fuel Control Valve ensures precise gas
 - The gas intak is corrected with feedback from sensors.
 - · Two levels of alarms, Pre Alarms, and Fault Alarms overlook the Dual Fuel Kit.
 - In case of malfunction, there is an automatic switchover to Diesel.

Technical Specifications for 62.5 kva to 1500 kva

Genset Rating (KVA)	62.5	125	250	380	500	750	1010	1250	1500
Genset Duty Type (Standby/Prime)	STANDBY/ PRIME	STANDBY/ PRIME	STANDBY/ PRIME	STANDBY/ PRIME	PRIME	PRIME	PRIME	PRIME	PRIME
Power Rating of Genset (KWe)	50	100	200	300	400	600	800	1000	1200
Phase Type (Single/Three)	THREE	THREE	THREE	THREE	THREE	THREE	THREE	THREE	THREE
Output Voltage Rating (240/415 VAC)	415	415	415	415	415	415	415	415	415
Designed PF (Lagging)	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8
Current Rating (Ampere) at .8 PF	87	174	348	528	695	1043	1404	1738	2085
Engine RPM/Frequency	1500/50	1500/50	1500/50	1500/50	1500/50	1500/50	1500/50	1500/50	1500/50
Engine Make	JBDS	JBDS	JBDS	JBDS	JBDS	JBDS	JBDS	JBDS	JBDS
Engine Model	GGS62.5JP22	GGS125JP22	GG250JP22	GG380JP22	GG500JP22	GG750JP22	GG1010JP22	GG1250JP22	GG1500JP22
No of Cylinders	4	6	6	6	6	12	12	16	16
Bore and Stroke (mm)	105x130	105x130	127x156	150 x 185	150 x 185	150 x 185	150 x 185	150 x 180	150 x 180
Fuel System Type	Open Chamber / Lean Burn	Open Chamber / Lean Burn	Open Chamber / Lean Burn	Open Chamber / Lean Burn	Open Chamber / Lean Burn	Open Chamber / Lean Burn	Open Chamber / Lean Burn	Open Chamber / Lean Burn	Open Chamber / Lean Burn
Engine Weight (Kg)	610	709	977	2610	2610	3390	3390	5300	5300
Lube Filter Type	Spin On	Spin On	Spin On	Spin On	Spin On				
Cooling System	Radiator	Radiator	Radiator	Radiator	Radiator	HE	HE	HE	HE
Aspiration	Turbocharged & air-to-air cooled	Turbocharged & air-to-air cooled	Turbocharged ど air-to-air cooled	Turbocharged & air-to-air cooled	Turbocharged & air-to-air cooled	Twin Turbocharger	Twin Turbocharger	Twin Turbocharger	Twin Turbocharger
Displacement (L)	4.5	6.75	12.52	19.6	19.6	39.2	39.2	52.3	52.3
Gas Consumption	0.3m³/kW⋅h	0.3m³/kW·h	0.3m³/kW⋅h	0.3m³/kW·h	0.3m³/kW⋅h	0.3m³/kW·h	0.3m³/kW⋅h	0.3m³/kW·h	0.3m³/kW⋅h
Starting System (VDC-12/24)	24	24	24	24	24	24	24	24	24
Alternator Make	JBDS	JBDS	JBDS	JBDS	JBDS	JBDS	JBDS	JBDS	JBDS
Alternator IP Rating-Type	IP23	IP23	IP23	IP23	IP23	IP23	IP23	IP23	IP23
Alternator Insulation Class -Type	CLASS - H	CLASS - H	CLASS - H	CLASS - H	CLASS - H				
Voltage Rating	415	415	415	415	415	415	415	415	415
Max Current at o.8 PF	87	174	348	528	695	1043	1404	1738	2085
Frequency	50	50	50	50	50	50	50	50	50
Rating	Prime	Prime	Prime	Prime	Prime	Prime	Prime	Prime	Prime
Amb Temp	40	40	40	40	40	40	40	40	40

JBDS POWER INSTALLATION FOR NEW GAS GENSET



JBDS POWER INSTALLATION FOR DUAL FUEL KIT



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