

Technical Description 800 kVA

We offer based on the "General Conditions of Supply and Delivery for Products and Services of the Electrical Industry", for the time being without engagement and subject to modifications:

1 ATLANTA Diesel Generating set 800 kVA / 640 kW

The above rating represent the engine performance capabilities guaranteed within plus or minus 5% at the reference conditions equivalent to those specified in ISO 3046/1 : 1986, BS 5514, DIN 6271 and SAE J1349. The rating is suitable for base load applications requiring a **non stop continuous duty operation** to supply prime power where no other electrical power source exist and can supply 10% overload power for 1 hour in 12 hours.

Engine:

PERKINS, type 4006TAG3A, watercooled, 1500 rpm, 6 Cylinder in line, 4 stroke, combustion system : direct injection.

Induction system: Turbocharged

Bore: 160 mm, Stroke 190 mm

Compression ratio: 13,6 : 1, Cubic capacity 22,9 litres

Governor: Mechanical, compliant with BS5514, Class A1

Maximum continuous power at flywheel: 786 kW

Heat Rejection to Exhaust System: 690 kW, Heat rejection to Cooling System: 300 kW

Total Radiated Heat: 95 kW, Exhaust Temperature: 500° Celsius, (932° F)

Cooling Air Flow: 1182 m³/min, Combustion Air Flow: 73 m³/min, Exhaust Gas Flow: 193 m³/min

Fuel oil consumption: about 170 ltr/h at 100% of power rating

Diesel Fuel: To conform to BS 2869: 1988 Class A2 or ASTM D975 66T Number 2D.

Standard reference conditions 27°C (80°F) Air Inlet Temperature, 152,4 m (500 ft) A.S.L.

Generator: Type LL 70X4 P, 800 kVA / 640 kW, 1500 rpm, 50 Hz, 400 / 230 V, 1113 Amp.

Screen protected and drip-proof, selfexciting, self regulating and brushless with fully connected damper windings, IC06 cooling system and sealed-for-life bearings.

6 wire reconnectable winding provides a wide range of 3 phases voltages. Insulation Class H.

All windings are impregnated in either a triple dip thermo-setting moisture, oil and acid resisting polyester varnish or vacuum pressure impregnated with a special polyester resin. Heavy coat of anit-tracking varnish for additional protecting against moisture or condensation.

Electrical design in accordance with BS5000 part 99, IEC34-1, VDE0530,

The fully sealed automatic voltage regulator maintains the voltage within the limits of +/- 1,0% from no load to full load including cold to hot variations at any power factor between 0.8 lagging and unity and inclusive of a speed variation of 4,5%.

The total distortion of the voltage waveform with open circuit between phases or phase and neutral is in the order of 2. On a 3 phase balanced harmonic-free load the total distortion is in the order of 3,5%. Machines are designed to have a THF better than 2% and a TIF better than 50. A 2/3 pitch factor is standard on all stator windings.

Radio Interference: Supression is in line with the provisions of BS800 and VDE Class G and N.

Control System: Set mounted keystack panel in a vibration isolated sheet enclosure with a hinged locable door.

The control panel is equipped as follows:

Instruments: Voltmeter

Ammeter

Frequency Meter

Tachometer with Hours Run Meter

Coolant Temperature Gauge
Oil pressure Gauge
Battery Condition Voltmeter
Battery Trickle Charge Ammeter

Controls: Start / Stop Keyswitch
Voltmeter Phase Sel Switch, 7 pos
Ammeter Phase Sel Switch, 4 pos
Lamp test Pushbutton

Shutdown Protection Devices with Indicators for:
High Coolant Temperature
Low Oil Pressure

Circuit Breaker:

3 pole moulded case circuit breaker will be mounted on the generator in a vibration isolated sheet steel box with adequate access for incoming and outgoing cables.

Scope of Supply:

Heavy duty fabricated steel baseframe with antivibration mounting pads to avoid vibrations.

The baseframe incorporates specially designed crane lifting devices.

Engine and alternator are coupled by means of an SAE flange so that there is no possibility of misalignment after prolonged use.

Unit mounted tropical capacity radiator with engine driven blower fan.

Electric starting system with heavy duty lead acid type starting battery and battery charging system. (24 Volt DC) Energised to run shutdown solenoid and emergency air valve for fail safe operation. Oil pressure and water temperature switches. Oil pressure and water temperature senders.

High capacity air, fuel and lubrication oil filter.

An integral fuel tank with a capacity of approx 8 hours can be delivered at additional price.

The tank is supplied complete with contents indicator, fuel fill cap with breather and strainer, fuel feed and return lines to engine and drain plug.

Daily fuel tank.

All sheet metal components are fully degreased, phosphated and chromated for anti-corrosive protection prior to painting with polyester powder. All fasteners are electroplated.

Exhaust silencer system with flexible connections. (supplied loose)

Full set of operation and maintenance manuals, circuit wiring diagrams, commissioning/fault finding instruction leaflets.

The generator set will be load tested in a test bay before despatch. A test certificate is provided on request.

The equipment meets the following standards: BS4999, BS5000, BS5514, ICE 34, VDE0530.

Guarantee: 12 month after taking into operation or 18 month after delivery.

Dimensions unpacked: about L 4283, W 1912, H 2286 mm, weight 4100 kg netto

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