Technical description 27 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 27 kVA / 21, 6 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, 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 1103A-33G1, watercooled, 1500 rpm, 3 Cylinder, Vertical in line, 4 stroke
Induction system: Naturally aspirated
Bore: 105 mm (4.1 in), Stroke 127,0 mm (5.0 in)
Compression ratio: 19,25 : 1, Cubic capacity 3,3 litres (201,4 in)
Governor: Mechanical, compliant with BS5514, Class A1
Maximum continuous power at flywheel: 31,0 kW
Heat Rejection to Exhaust System: 22,3 kW, Heat Rejection to Cooling System: 13,8 kW
Total Radiated Heat: 8,6 kW, Exhaust Temperature: 472° Celsius, 882° Fahrenheit
Fuel oil consumption: about 6,2 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 LL1014Q, 27 kVA / 21,6 kW, 1500 rpm, 50 Hz, 400 / 230 Volt, 39 Ampere or others.
Screen protected and drip-proof, selfexciting, self regulating and brushless with fully connected damper windings, IC06 cooling system and sealed-for-life bearings.
12 wire reconnactable 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 +/- 1,5% 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: Suppression is in line with the provisions of BS800 and VDE Class G and N.

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

The control panel is equipped as follows:
Instruments: Voltmeter
Ammeter
Frequency Meter
Hours Run Meter

Coolant Temperature Gauge
Oil pressure Gauge
Battery Condition Voltmeter

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 directly coupled by means of an SAE flange so that there is no possibility of misalignment after prolonged use. The engine flywheel is flexible coupled to the alternator rotor and a full torsional analysis has been carried out to guarantee no harmful vibration will occur in the assembly.
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. (12 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.
The baseframe design incorporates an integral fuel tank with a capacity of approx. 8 hours.
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.
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.

Colour: blue

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

Dimensions unpacked: L 1770, W 714, H 1368 mm, weight 800 kg
With Sound Attenuated Canopy LWA 100: L: 2.090, W: 960, H 1.560, weight: 1.000 kg, 68 dBA/7ms