

PURCHASE ORDER

To: **CROSS WORLD POWER LTD.**
H # NE (O) 06, R # 92, Gulshan-2, Dhaka-1212
Attention: M S JAMAN, Engineer, Sales & Marketing. Cell: 01755514748

PO No.	NGTIL/2017/89
PO Issued Date	May 20, 2017
Offer Ref: CWPL-AM/1313/17	Dated: May 16, 2017

We are pleased to confirm an order for supply & installation of 30 KVA Prime & 32 KVA Standby) 3 Phase Diesel Generator as follows:

SL	Description of Materials	Qty	Unit	Unit Price	Total Price
01	SUPPLY OF 30 KVA PRIME / 32 KVA STAND BY DIESEL GENERATING SET	01	Pcs	GBP 4,500.00	GBP 4,500.00
Total					GBP 4,500.00

Generator Details:

Tempest (Manufactured by Allam Marine Limited, UK), Diesel Generator Set Model: PM30(30 KVA Prime & 32KVA Standby) at 1500 rpm, 50 Hz, 3 Phase, 4 Wire, 400/230 volts at 0.8 power factor. All other details are as follows:

01	Brand	Tempest
02	Model	PM30
03	Country of Origin	UK
04	Port of Shipment	Any port of UK
05	Capacity (Prime)	30 KVA
06	Start System	Automatic Microcontroller based as well manual start/ stop system
07	Emergency Stop:	Emergency Stop available as protection device
08	Vibration Skid:	Built-in vibration skid for smooth operation
09	Battery Charger:	Auto Battery Charger (ABC) included
10	Dimension (Open Set) CM:	148 X 75 X 131 (LxWxH)
11	Fuel Tank Capacity:	90 Liter
12	Fuel Consumption:	5.40 Ltr./ Hr. at 75% Load

Engine Details:

01	Brand:	Perkins
02	Origin:	UK
03	Model:	1103A-33G
04	Speed:	1500 RPM
05	Induction System:	Natural
06	Engine Type:	4 Stroke Multi Cylinder industrial diesel engine suitable for tropical environment
07	Cooling System:	Water Cooled (Radiator Cooled with engine driven Fan)
08	Protection:	Over speed, under speed, oil pressure, over heating etc.
09	Fuel Tank:	Built in with base.

All other details are as per attached Engine Catalogue.

nahee geo-textile industries ltd.

house-26, road-03, block-i, banani, dhaka-1213.

tel: +88-02-9871401, 9871402, 9872183, fax: +88-02-9870824

email: info@nahee.com.bd, web: nahee.com.bd

factory: abdar, telehate, sreepur, gazipur, bangladesh.

Alternator:

Industrial Brushless AC Alternator model all other details are as follows:

01	Brand:	Mecc Alte
02	Origin:	UK
03	Model:	ECP28-VL/4
04	Frequency:	50 Hz
05	Phase:	3 Phase
06	Output (Volts):	400/415 Volts (Line to Line)
07	Cooling:	Air Cooling
08	Insulation Type:	Class "H"
09	Protection:	Industrial Brushless Design screen protected, fan ventilated, drip-proof, self exciting in accordance with IP21/IP23
10	Voltage Regulator:	Automatic Voltage Regulator (AVR)
11	Voltage Regulation:	±1% / ± 1.5% power factor between 0.8 Lagging & unity (Depends on connected load)

Control Module:

- a) Control Module Type : Auto start (AMF) digital control module.
- b) Operation : Operation of the module is via push buttons mounted on the front panel with Stop, Auto and Manual Position etc.
- c) Digital Instruments : Ammeter, Voltmeter, Frequency meter, run hour meter, Oil Pressure, Water Temperature etc.
- d) Alarm Indicator : Under/Over Volts, Under/Over Speed, Under/Over Frequency, Low Oil Pressure, High engine Temperature, Fail to start and Loss of speed sensing etc.
- e) Load Transfer Time : Adjustable, delay on Start 1 to 25 Second, Delay on Transfer 1 to 70 sec.
- f) Engine Cooling Time : 5 minutes maximum
- g) Phase Failure Relay : Digital Option & Control for main's upper lower cut off voltage setting and adjustable hysteresis voltage, sensing option etc.

All other details are as per attached Allam's/DSE Catalogue.

Automatic Transfer Switch (ATS):

- Interlocking : Electrical as well as mechanical
- Magnetic Contractor / Motorized Switch : 3 Pole
- Brand of Breaker : ABB or Equivalent Europe Origin
- Paint : Powder Coated

Acoustic Canopy:

Local built Acoustic Enclosure will reduce the sound level to 75 dBA @ 3 meter in open space and is complete with:

- Air inlet and outlet options at the alternator and radiator ends respectively.
- Hinged access doors on either side with proper locking option.
- Silencer.
- Cable entry gland apertures.

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Standard Items:

The following items will be supplied with the gen-set as standard:

- I) Lead Acid Battery 12/14 Volts as required
- II) Silencer
- III) Rubber anti vibration mountings
- IV) Flexible Bellows
- V) Battery Charger
- VI) Main Line 3 Pole Circuit Breaker
- VII) Alternator Mounted Deep Sea UK original main controlling panel
- VIII) Fuel Tank For 10 Hours Operation
- IX) Operation Manual & Key etc.

Warranty/Guaranty:

As per standard manufacturer, Cross world must provide 3,000 hours or 2 year warranty whichever comes first, effective from the date of commissioning at Nahee Geo Textile Ind. Ltd. factory site. After the warranty period, Cross World will be responsible for 1 Year free service warranty. The warranty policy of Cross World is for any manufacturing defects or any premature wear & tear due to usages. However, if there is / will happen any defect for the installation faults must be replaced by Cross World.

Installation & commissioning:

The price we confirmed includes the total coast of installation & Commissioning but exclude commissioning materials such as Power/control cable, lube oil, Coolant, diesel, Civil works, Ducting, Manual Labor, Silencer Pipe Extension Work etc. Cross World Power Ltd. have to install & Commissioning the Generating set within 2 days.

Other Terms & Conditions:

- 1) Payment Term : 100% Payment will be paid by Irrevocable L/C at sight.
- 2) Delivery : Delivery must be made at Ctg. Port within 13 Weeks from the date of Transmission of original L/C, otherwise Cross World Must pay to Nahee Geo Textile Ind. Ltd. GBP 100/= per day.
- 3) Within the 2 year warranty period and 1 year service period if Nahee Geo Textile Ind. Ltd. will ask for any service to Cross World Power Ltd., they must attend our factory within 8 hours to resolve the problem otherwise we will ask for production demurrage & they will be asked for compensation.
- 4) Cross World power Ltd. will be responsible to provide any kinds of spare parts from their ready stock.

On behalf of Nahee Geo Textile Ind. Ltd.



Abu Nayeem Howlader
Director

nahee geo-textile industries ltd.

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