

No. Mir Tel/CS/PO/Genset/2018/08/

August 12, 2018

Cross World Power Ltd
Plot 1/B, Road 90, Gulshan-2
Dhaka 1212, Bangladesh

Attention: Mr. Sohel Uddin Bhuiyan, Manager, Sales & Marketing

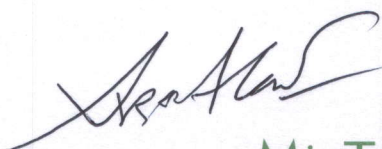
Subject: Supply, Installation, Testing & Commissioning of Tempest Brand 500 KVA (Prime) Rating Diesel Generator.

Dear Sir,

With reference to your offer No. CWPL-AM/2022/18-R02F dated August 2, 2018, we are pleased to place you this Supply Order (SO) for supply, installation, testing and commissioning of TEMPEST Brand 500 KVA (Prime) Rating Diesel Generator with Perkins engine and Stamford alternator and Foreign Auto Transfer Switch (ATS) for 500 KVA Genset at our Gulshan office under the following terms and conditions:

Financial Terms and conditions:

SL #	Description of Goods	Unit	Price (GBP)	Qty.	Total Price (GBP)
1)	TEMPEST Brand 500 KVA (Prime) Rating Diesel Generator with Perkins engine and Stamford alternator. BRAND : Tempest ENGINE : Perkins, UK / USA ALTERNATOR : Stamford, UK CONTROL MODULE : Deepsea, UK PORT OF SHIPMENT: Felixstowe port, UK	Set	32,000	1.00	32,000
2)	Foreign Auto Transfer Switch (ATS) for 500 KVA Genset.	Pcs.	3,000	1.00	3,000
Total Cost and Freight Chittagong in GBP					35,000
In words: GBP Thirty five thousand only					




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Other Terms and Conditions:

Payment: 100% LC at sight in favour of Allam Marine Limited. Payment will be released after testing and commission of the said Generator set.

Packing: Standard Export friendly Shrink wrap packing.

Shipment: 6-8 weeks from the date of opening of the LC.

Completion of the work: Installation, testing and commissioning of the Genset will be completed within 3 (three) working days from the date of received of the Genset at site. MIR will provide all the commissioning materials by the mutual discussion with Cross World.

Installation, testing and commissioning Charges: Free of cost without materials.

Warranty period: 2 Years from the date of commissioning.

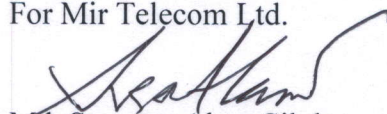
Service: 2 years free of cost.

Technical Specification: Annexure - A

If you accept the above terms and conditions, please sign duplicate copy of this work order as a token of your acceptance.

Thanking you,

Very truly yours,
For Mir Telecom Ltd.


Md. Sarowar Alam Sikder
COO & CTO



Enclosure: Annexure - A

Note: All Circuit Breaker Brand and Magnetic Contactor must be ABB Europe Origin

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ANNEXURE - A

TECHNICAL OFFER

Generator Details:

Tempest (Manufactured by Allam Marine Limited, UK) Diesel Generating Set Model: PS500# (500KVA Prime & 520 KVA Standby) at 1500 rpm, 50 Hz, 3 phase, 4 wire, 400/230 volts at 0.8 power factor. All other details are as follows:

BRAND : Tempest	MODEL : PS500#
COUNTRY OF ORIGIN : UK	PORT OF SHIPMENT : Any port, UK
CAPACITY (Prime) : 500 KVA	CAPACITY (stand by) : 520 KVA
START SYSTEM : Automatic Microcontroller based as well manual Start / Stop System	
EMERGENCY STOP : Emergency Stop available as protection device	
VIBRATION SKID : Built-in vibration skid for smooth operation	
BATTERY CHARGER : Auto Battery Charger (ABC) included	
DIMENSION (Open Set) (cm) : 340X113X222 (LxWxH)	FUEL TANK CAPACITY : 1106 (Open) Liter
FUEL CONSUMPTION : 76.00 Ltr./Hr. at 75% Load	

Engine Details:

BRAND/ORIGIN : Perkins, UK / USA	MODEL : 2506A-E15TAG2
SPEED : 1500 RPM	INDUCTION SYSTEM : Turbocharged
ENGINE TYPE : 4 stroke multi cylinder industrial diesel Engine suitable for tropical environment	
COOLING SYSTEM : Water cooled (Radiator cooled with engine driven fan)	
PROTECTION : Over speed, under speed, oil pressure, Over heating etc	
FUEL TANK : Built in with base	

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Alternator Details :

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

BRAND/ORIGIN : Stamford, UK	Model / Frequency : HCI544C , 50 Hz
PHASE : 3 Phase	Output (Volts) : 400/415 volts (Line to line)
COOLING : Air cooling	Insulation Type : Class " H "
PROTECTION : Industrial brushless design screen protected, fan ventilated, drip-proof, self exciting in accordance with IP21/IP23	
VOLTAGE REGULATOR : Automatic Voltage Regulator (AVR)	
VOLTAGE REGULATION : $\pm 1\%$ / $\pm 1.5\%$ power factor between 0.8 lagging & unity (Depends on Connected Load)	

Alternator model may vary with the attached catalogues for manufacturing innovation.

Control Module:

Deep Sea Electronics (DSE), UK control system is incorporated with automatic set to manually & automatically start & stop the generator indicating the operation status and fault conditions via a graphical LCD display and a flashing LED on the front panel. All other details are as follows:

CONTROL MODULE TYPE	: Auto start (AMF) digital control module
OPERATION	: Operation of the module is via push buttons mounted on the front panel with STOP, AUTO and MANUAL positions etc
DIGITAL INSTRUMENTS	: Ammeter, Voltmeter, Frequency meter, run hour meter, Oil Pressure, Water Temperature etc.
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.
LOAD TRANSFER TIME	: Adjustable, Delay on start 1 to 25 sec, Delay on transfer 1 to 70 sec
ENGINE COOLING TIME	: 5 minutes maximum
PHASE FAILURE RELAY	: Digital option & control for Main's upper lower cut off voltage setting and adjustable hysteresis voltage, sensing option etc

Signature
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Automatic Transfer Switch (ATS):

Foreign built ATS will be supplied in a suitable steel enclosure wall mounted, fuses, magnetic contactor coil, indicators etc.

Interlocking	: Electrical as well as mechanical
Magnetic Contactor / Motorized switch	: 4 Pole
Brand of Breaker	: ABB or Equivalent Europe origin
Paint	: Powder coated

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Standard Items:

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

- (i) Lead Acid Battery 12/ 24 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) Operational manual & keys etc.

Please note that toolbox is beyond this scope of supply.

Warranty/Guarantee:

As per standard of manufacturer, we provide 3000 hours or 2 year warranty whichever comes first, effective from the date of delivery at the client's premises. Our warranty policy is for any manufacturing defects or any premature wear & tear due to usage. The faulty part(s) is/are replaced/repared within the warranty period. However, Warranty doesn't cover improper maintenance by the user, consumable items, servicing by unauthorized person, running the genset above it's capacity or any unauthorized modification of the genset.

Asif Hossain
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Installation & Commissioning:

The price quoted here includes Installation & Commissioning charge provided the genset is installed in Basement or at Ground Floor level within Dhaka City. However, this offer does not include the cost of commissioning materials, such as, Power/Control Cable, Civil works, Ducting, Manual labor, Silencer pipe Extension Work, Lube Oil, Coolant, Diesel & any other materials that may be necessary for installation of the generator set

Cross World Group Service Engineers will supervise all the above mentioned works. Please call Manager, Commissioning Dept. Mob. 01755 514793 for your Installation Materials list or Commissioning, or for any Emergency Service please call Manager, Service Spare Sales Dept. Mob. 01755 514820


Spare parts, After Sales Service & AMC:

We maintain sufficient stock of spare parts to meet regular demands of our valued clients. After completion of warranty period, we extend our support for servicing of the generating sets at a reasonable charge by entering into a service agreement with the customers. Our service engineers are always kept ready 24x7 to attend emergency services to ensure uninterrupted power of the gen-sets. On-call service is also available to attend any types of emergencies.

Training:

We will provide training to your operator of the Generating set after completion of commissioning.

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