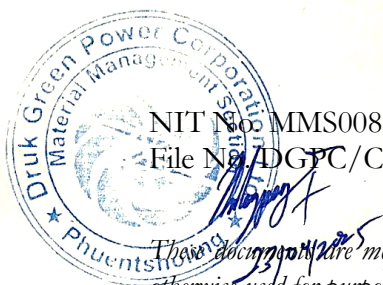


**DRUK GREEN POWER CORPORATION LIMITED
MATERIAL MANAGEMENT SECTION
PHUENTSHOLING**



STANDARD BIDDING DOCUMENT

**SUPPLY AND DELIVERY OF FIRE AND SAFETY
EQUIPMENT**



NIT No. MMS0087/2025 dated 18/04/2025

File No. DGPC/CSD/MMS/FS/2025/467

These documents are meant for the exclusive purpose of bidding against this NIT and shall not be transferred, reproduced or otherwise used for purposes other than that for which they are specifically issued.

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NOTICE INVITING TENDER

NIT No. **MMS0087/2025**

Dated: 18/04/2025

Material Management Section (MMS), Druk Green Power Corporation Limited, invites eligible bidders to submit a sealed bid for the supply and delivery of **“Fire and Safety Equipment”** as per the following Terms and Conditions:

TERMS AND CONDITIONS

1 Scope of Supply

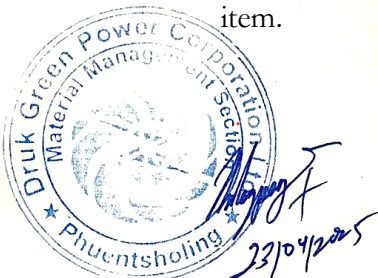
- 1.1 The scope of supply under this invitation shall be as per the Technical Specification and Price Schedule attached to this Bidding Document.
- 1.2 The bidder(s) can obtain further information and clarifications in writing from **Ms. Ugyen Lhamo**, email u.lhamo3775@drukgreen.bt not later than Five Days from the date of bid submission.

2 Documents comprising Bid

- 2.1 The bid must be accompanied by the following documents:
 - a) Bid Security
 - b) Bid Submission Form
 - c) Valid Trade License/Certificate of Incorporation
 - d) Latest Tax Clearance
 - e) Price Schedule
 - f) Power of Attorney (if applicable)

3 Bid Price

- 3.1 All prices shall be quoted in **BTN**. The quoted price shall be firm during the entire period of the performance of the contract and shall not be subject to variation on any account unless otherwise specified by Purchaser in the Bid Documents.
- 3.2 The final place of delivery is **CIP, MMS Stores, DGPC, Phuentsholing, Bhutan**
- 3.3 The bidder(s) may quote for any or all items under this invitation. Each item shall be evaluated and the contract awarded separately to the firm(s) offering the lowest evaluated price for each item.



4 Taxes and Duties

- 4.1 For Goods manufactured outside Bhutan, the Supplier shall bear and pay all applicable taxes, stamp duties, license fees and other similar levies imposed outside Bhutan as applicable in line with the Incoterms. Any domestic taxes, duties and any other levies imposed on import of goods into Bhutan, except TDS, shall be borne and paid by the Purchaser.
- 4.2 For Goods manufactured or supplied by the Suppliers from the Kingdom of Bhutan, the Supplier shall bear all applicable taxes, duties, license fees and other similar levies incurred until delivery of the contracted Goods to the Place of Delivery.
- 4.3 Bidders participating from India and supplying materials and services from within India for bonafide use in the Kingdom of Bhutan shall quote the rates for the items in the Price Schedule exclusive of any effect of Indian Goods and Service Tax (IGST). The IGST on the export of goods and services or both are covered under Zero Rated Supply as per Chapter VII, 16(1) of the INTEGRATED GOODS AND SERVICES TAX ACT, 2017 of India.
- 4.4 At the time of release of payment, Tax Deducted at Source (TDS) for Bhutanese Suppliers shall be 2%. TDS shall be deducted by the Purchaser from the gross amount of contract. The Purchaser shall furnish necessary TDS Certificate to the Suppliers.

5 Bid Validity

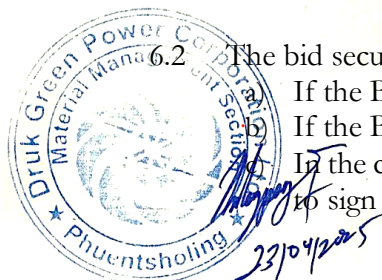
- 5.1 The bid shall be valid for **60 days** from the date of bid submission, i.e. up to **08/07/2025** from the date of submission of the bid. In exceptional circumstances, prior to the expiration of the bid validity period, the Purchaser may solicit the Bidder's consent to an extension of the bid validity period. The request and responses shall be made in writing. A bid valid for a shorter period shall be considered non-responsive.

6 Bid Security

- 6.1 The bid shall be accompanied by the bid security of **BTN 24,000.00** in the form of Cash Warrant/Unconditional Bank Guarantee/Banker Cheque/Demand draft in the name of Material Management Section, Druk Green Power Corporation Limited issued by the Financial Institution enforceable in any Banks in Bhutan.
- Bid security shall be valid up to **07/08/2025**
 - The Bid Security is to be submitted as a part of the Bid.
 - Any Bid not accompanied by bid security of adequate value and validity shall be rejected by the Purchaser as non-responsive.

- 6.2 The bid security shall be forfeited in the following cases:

- If the Bidder withdraws the bid after Bid opening during the period of Bid validity.
- If the Bidder does not accept the correction of the Bid price;
- In the case of a successful bidder, if the bidder fails within the specified time limit to sign the Contract or furnish Performance Security.



7 Submission of Bids

- 7.1 The bidder(s) shall submit one original bid and clearly marked ORIGINAL. The bid including all documents should be duly filled, signed and sealed in an envelope and addressed to and delivered at the following address.

Designation: **Manager**

Address: **Material Management Section, Phuentsholing, Bhutan**

E-mail: **s.pema1815@drukgreen.bt**

The bid shall contain the NIT reference and date including the date of opening. The same should be clearly mentioned on the outer envelope.

- 7.2 Alternatively, bid including all documents duly filled, signed and sealed/stamped may be submitted electronically with password protection at the following address: **[NOT APPLICABLE]**
- 7.3 The deadline for receipt of your bid(s) by the Purchaser shall be at **09/05/2025 at 15:00 hrs.**
- 7.4 The Bidder shall submit the Bid Submission Form using the Form attached in this Bidding Document. This form must be completed without any alterations to its format, and no substitutes shall be accepted. All blank spaces shall be filled with the information requested.
- 7.5 A bid in which the Bid Submission Form is not duly filled, signed and sealed by the bidder shall be rejected.

8 Bid Opening

- 8.1 The bid(s) will be opened in the presence of bidders or their authorized representatives who choose (not more than two representatives) to attend at **09/05/2025 at 15:30hrs. (BST), MMS Conference Hall**. In case, due date of the opening of the bid falls on non-working day, the opening of the bid shall be on the next working day at the same time.

9 Evaluation of Bid

- 9.1 Bids determined to be substantially responsive to the technical specifications and commercial conditions shall be evaluated by comparison of their quoted prices. In evaluating the bids, the Purchaser shall determine for each bids the evaluated price by adjusting the priced bid by making any correction for any arithmetical errors as follows;
- a) where there is a discrepancy between amounts in figures and in words, the amount in words shall govern;
 - b) where there is discrepancy between the unit rate and the line-item total resulting from multiplying the unit rate by the quantity, the unit rate as quoted shall govern unless in the opinion of the Purchaser there is an obviously gross misplacement of the decimal point in the unit rate, in which case the line-item total as quoted shall govern, and the unit rate shall be corrected.



- 9.2 To assist in the evaluation and comparison of the Bids, the Purchaser may, at its discretion, ask any Bidder for a clarification of its Bid. Any clarification submitted by a Bidder that is not in response to the request by the Purchaser shall not be considered.

10 Right to Accept or Reject Bids

- 10.1 The Purchaser is not bound to accept the lowest bid and reserves the right to accept or reject any or all the bids without assigning any reason whatsoever.

11 Quantity Variation

- 11.1 Depending on the final requirement, at the time of the award of the Contract, the Purchaser may increase or decrease the quantities by twenty five percent (25%) of the total quantity of the item without any change in the unit prices or other terms and conditions of the Bid and the Bidding Document.

12 Award of Contract

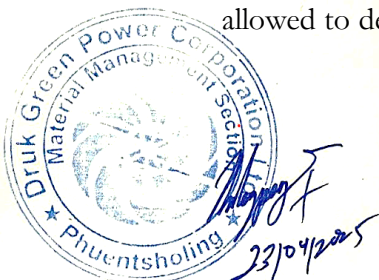
- 12.1 The Purchaser shall award the Contract to the Bidder whose offer has been determined to be the lowest evaluated Bid meeting the specifications. The Purchaser shall issue Notification of Award/Purchase Order to the successful Bidder. The successful bidder shall sign a contract as per the format attached to this Bidding Document. Until a formal Contract is executed, the Notification of Award shall constitute a binding Contract.

13 Delivery Schedule

- 13.1 The supply of the Goods and related services shall be completed within **90 (Ninety)** days from the date of issue of the Notification of Award/Purchase Order.

14 Performance Security

- 14.1 If the contract value is above Nu. 0.50 million prior to signing of contract, the Supplier shall be required to furnish Performance Security of 10% of the contract price in the form of cash warrant, demand draft or unconditional Bank Guarantee in the name **Material Management Section, Druk Green Power Corporation Limited, Phuentsholing, Bhutan** issued by a financial institution enforceable in any Banks in Bhutan, which shall be furnished upon issuance of notification of the award. Performance Security shall be valid till the end of warranty period and shall be returned after the end of warranty period. Under exceptional circumstances, if submission of Performance Security in the above forms is not possible, the Supplier shall be allowed to deposit Performance Security in the form of cash deposit through bank transfer.



15 Retention Money

- 15.1 In case of contract value up to BTN 0.50 million, 10% of payment shall be retained as a security deposit and shall be returned at the end of the warranty period.
- 15.2 Retention money will not be applicable for the item without warranty period. However, in case of part supply, 10% of the invoiced amount will be kept as retention money until the execution of full supply of goods in good condition.

16 Liquidated Damage

- 16.1 If the Supplier fails to deliver any or all of the Goods by the date(s) of delivery or fails to perform the related Services within the period specified in the Contract/Purchase Order, the Purchaser shall deduct Liquidated Damages at the rate of **0.3%** per day for each day of delay to a maximum of 10% (Ten) percentage of the total value of delayed goods or unperformed services.

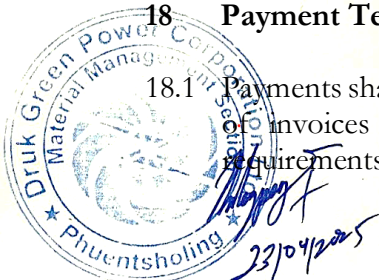
In case of delay for supply of an item which can be made in parts, but the item cannot be put to use unless the supplies are complete, the liquidated damage shall be levied up to the maximum 10% of the Contract Price.

17 Force Majeure

- 17.1 The Supplier shall not be liable for forfeiture of its Performance Security/Retention Money, liquidated damages or termination for default if and to the extent that it's delays in performance or other failure to perform its obligations under the Contract is the result of an event of Force Majeure.
- 17.2 For purposes of this Clause, "Force Majeure" means an event or situation beyond the control of the Supplier that is not foreseeable, is unavoidable, and its origin is not due to negligence or lack of care on the part of the Supplier. Such events may include, but not be limited to, war, civil insurrection, fire, floods, epidemics, earthquakes, quarantine restrictions and freight embargoes.
- 17.3 If a Force Majeure situation arises, the Supplier shall promptly notify the Purchaser in writing of such condition and the cause thereof. Unless otherwise directed by the Purchaser in writing, the Supplier shall continue to perform its obligations under the Contract as far as is reasonably practical and shall seek all reasonable alternative means for performance not prevented by the Force Majeure event.

18 Payment Terms

- 18.1 Payments shall be made promptly by the Purchaser, no later than thirty (30) days after the receipt of invoices and documents, provided that the documents are compliant with all the requirements of the Purchaser. In case of incomplete/ non-compliant invoices and documents,



the Purchaser shall ask the Supplier to re-submit the invoices and documents with full compliance. (Signed with Company Seal)

- 18.2 At the time of release of payment, Tax Deducted at Source [TDS] from the gross amount of bills shall be as per the Income Tax Act of Bhutan. The Purchaser shall furnish necessary TDS Certificate to the Suppliers.

19 Warranty Period

- 19.1 The Supplier shall provide the warranty for a period of **365 days**, for the goods to be supplied and confirm that if any faults are detected within the warranty period in the supplied/installed Goods, the Supplier shall be bound to rectify the fault or replace the Goods as the case may be. The performance security shall be used to cover the cost of supplies not delivered or defective items not replaced or rectified. [If applicable]
- 19.2 Any goods found defective during the warranty period shall be replaced/repared by the supplier at his cost. If the supplier fails to rectify and or replace the defective goods, the Purchaser shall do it at the cost of the supplier.

20 Termination

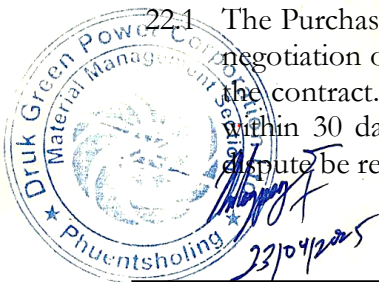
- 20.1 The Purchaser may, by written notice, terminate the Purchase Order or Contract [if applicable] in whole or in part at any time for its convenience under following cases:
- If the Supplier fails to perform any other terms and conditions specified with the Purchase Order/ Contract, or exceeds the maximum amount of Liquidated Damages; or
 - If the Supplier fails to perform any other obligation(s) under the Purchase Order/Contract, and if the Supplier does not take any remedial action within a period of **30 days** after receipt of a notice of default from the Purchaser specifying the nature of the default(s); or
 - If the Supplier, in the judgment of the Purchaser, has engaged in any corrupt or fraudulent practices in competing for or in executing the tasks under this Purchase Order.

21 Governing Law

- 21.1 The Contract shall be governed by and interpreted in accordance with the Laws of the Kingdom of Bhutan.

22 Dispute Resolution

- 22.1 The Purchaser and the Supplier shall make every effort to resolve amicably by direct informal negotiation of any disagreement or dispute arising between them under or in connection with the contract. If the parties fail to resolve such a dispute or difference by mutual consultation within 30 days from commencement of such consultation, either part may require that the dispute be referred for resolution to the formal mechanisms as specified hereunder.



22.2 Any dispute, controversy or claim arising out of or relating to this contract, or breach, termination or invalidity thereof, that could not be resolved through amicable negotiation, shall be settled by arbitration in accordance with the Alternative Dispute Resolution Act of Bhutan 2013 for Bhutanese Supplier and the United Nations Commission on International Trade Law [UNCITRAL] Arbitration Rules of 1976 for International Supplier.



PRICE SCHEDULE

As per Price Schedule Attached

TECHNICAL SPECIFICATION OF THE GOODS REQUIRED (if any)

SN	Item	Description & Details (minimum specifications of goods to be supplied)
1		
2		
3		
4		
5		
6		
7		
8		
9		
10		

The Supplier is required to mention make/model (as applicable) of the goods to be supplied and must attach the appropriate original printed literature/brochures for the various items listed.

Signature of Supplier:	Supplier's Official Stamp
Name of Supplier:	
Date:	



BID SUBMISSION FORM

[The Bidder shall fill in this form in accordance with the instructions indicated. No alterations to its format shall be permitted and no substitutions shall be accepted.]

Date: **18/04/2025**

Tender No.: **MMS0087/2025**

To
Head, Material Management Section (MMS)
Druk Green Power Corporation Limited (DGPC)
Phuentsholing, Bhutan

Dear Sir,

We, the undersigned, declare that:

- (a) We have examined and have no reservations to the Bidding Documents, including Addenda number..... *[insert the number and date of issue of each addendum]*;
- (b) We offer to supply in conformity with the Bidding Documents and in accordance with the Schedule of Supply the following Goods and Related Services: *[insert a brief description of the Goods and Related Services]*;
- (c) The total price of our Bid, excluding any discounts offered in item is: *[insert the Bid Price in words and figures, indicating the various amounts and their respective currencies]*;
- (d) The discounts offered and the methodologies for their application are:

Discounts. If our Bid is accepted, the following discounts shall apply: *[Specify in detail each discount offered and the specific item of the Schedule of Supply to which it applies.]*

Methodology of Application of the Discounts. The discounts shall be applied using the following methodology: *[Specify in detail the methodology that shall be used to apply the discounts]*;

- (e) Our Bid shall be valid for a period of [insert number] from the date fixed for the Bid submission deadline and it shall remain binding upon us and may be accepted at any time before expiry of that period;
- (f) If our Bid is accepted, we commit to provide a Performance Security in accordance with Clause 15 for the due performance of the Contract;

- (g) We, including any subcontractors or suppliers for any part of the Contract, have nationality from eligible countries, viz: *[insert the nationality of the Bidder, including that of all parties that comprise the Bidder if the Bidder is a JV/ Consortium, and the nationality each subcontractor and supplier]*

- (h) We have no conflict of interest;

- (i) Our firm, its affiliates or subsidiaries - including any subcontractors or suppliers for any part of the Contract - has not been declared ineligible by the Purchaser under the laws or official regulations of Bhutan;

- (j) We have read the terms and conditions carefully, understood and agree to comply with all the



clauses which are mentioned therein. In case of any breach of any condition on our part, we shall be liable for actions as per terms and conditions of the Contract;

- (k) We understand that this Bid, together with your written acceptance thereof included in your notification of award, shall constitute a binding contract between us, until a formal contract is prepared and executed;
- (l) We understand that you are not bound to accept the lowest evaluated Bid or any other Bid that you may receive; and
- (m) We accept the Vendor Performance Management System.

Thanking you.

Yours sincerely,

Signed: *[insert signature of person whose name and capacity are shown]*

In the capacity of *[insert legal capacity of person signing the Bid Submission Form]*

Name: *[insert complete name of person signing the Bid Submission Form]*

Duly authorized to sign the bid for and on behalf of: *[insert complete name of Bidder]*

Dated on _____ day of _____ *[insert date of signing]*



CONTRACT AGREEMENT

[The successful Bidder shall fill in this form in accordance with the instructions indicated]

THIS CONTRACT AGREEMENT made the *[insert number]* day of *[insert month]*, *[insert year]*,

BETWEEN

- 1) *[insert complete name of Purchaser]*, a *[insert description of type of legal entity, for example, an agency of the Ministry of of the Government of Bhutan, or corporation incorporated under the laws of Bhutan]* and having its principal place of business at *[insert address of Purchaser]* (hereinafter called “the Purchaser”), and
- 2) *[insert name of Supplier]*, a corporation incorporated under the laws of *[insert: country of Supplier]* and having its principal place of business at *[insert: address of Supplier]* (hereinafter called “the Supplier”).

WHEREAS the Purchaser invited Bids for certain Goods and ancillary services, viz., *[insert brief description of Goods and Services]* and has accepted a Bid by the Supplier for the supply of those Goods and Services in the sum of *[insert Contract Price in words and figures, expressed in the Contract currency(ies)]* (hereinafter called “the Contract Price”).

NOW THIS AGREEMENT WITNESSETH AS FOLLOWS:

- 1) In this Agreement words and expressions shall have the same meanings as are respectively assigned to them in the Conditions of Contract referred to.
- 2) The following documents shall constitute the Contract between the Purchaser and the Supplier, and each shall be read and construed as an integral part of the Contract, viz.:
 - a) This Contract Agreement;
 - b) Terms and Conditions;
 - c) Technical Requirements (including Price Schedule and Technical Specifications);
 - d) The Supplier’s Bid and original Price Schedules;
 - e) The Purchaser’s Notification of Award of Contract;
 - f) The Performance Security *(where applicable)*;
 - g) *[insert here any other document(s) forming part of the Contract]*
- 3) This Contract shall prevail over all other Contract documents. In the event of any discrepancy or inconsistency within the Contract documents, then the documents shall prevail in the order listed above.
- 4) In consideration of the payments to be made by the Purchaser to the Supplier as hereinafter mentioned, the Supplier hereby covenants with the Purchaser to provide the Goods and Services and to remedy defects therein in conformity in all respects with the provisions of the Contract.



- 5) The Purchaser hereby covenants to pay the Supplier in consideration of the provision of the Goods and Related Services and the remedying of defects therein, the Contract Price or such other sum as may become payable under the provisions of the Contract at the times and in the manner prescribed by the Contract.

IN WITNESS whereof the parties hereto have caused this Agreement to be executed in accordance with the laws of Bhutan on the day, month and year indicated above.

For and on behalf of the Purchaser Signed: *[insert signature]*
in the capacity of *[insert title or other appropriate designation]*

in the presence of *[insert signature]*
[insert identification of official witness]

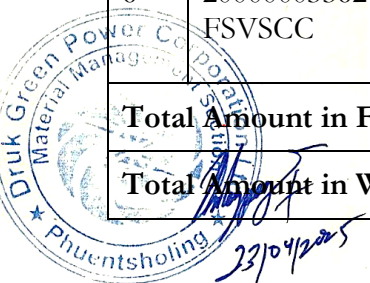
For and on behalf of the Supplier
Signed: *[insert signature of authorized representative(s) of the Supplier]*
in the capacity of *[insert title or other appropriate designation]*

in the presence of *[insert signature]*
[insert identification of official witness]



PRICE SCHEDULE

S.N	Material Code	Material Description	Qty	UOM	Unite Rate		Total Amount (NU)	Make/ Brand	Country of Origin
					Figure	Words			
1	3000000009 FSPGFGSP	Foam Compound (AFFF), 3% concentrate (Specification attached Annexure-I)	200	L				Vintex/ Equivalent or Higher	
2	20000003082 FSFASA	Electric siren, 1 phase, range: 5 km (Specification attached Annexure-IV)	1	NO				2001-130, Equinox / Equivalent or Higher	
3	20000000045 FSFASA	Electric siren (Specification attached Annexure-II)	3	NO				YaeCCC/ Equivalent or Higher	
4	20000002784 FSPGPG	Portable Firefighting pump (Specification attached Annexure-III)	1	NO				Shibaura/ Equivalent or Higher	
5	20000003183 FSVSCC	CCTV/IP camera, 9000 PTZ (Specification attached Annexure-V)	4	NO				Wisenet/ Equivalent or Higher	
6	20000003362 FSVSCC	IP CCTV camera (fixed) (Specification attached Annexure-V)	3	NO				Wisenet/ Equivalent or Higher	
Total Amount in Figure:									
Total Amount in Words:									



ANNEXURE-I

Aqueous Film Forming Foam (AFFF foams(3%))



Details.

Capacity	3%
Usage/Application	Fire Fighting
Ph Value	6.5 -8.5
Specific Gravity	1.12
Miscibility with Water	Miscibility
Viscosity	Max 10 cst
Sludge Content	Max. 0.25%
Capacity	200L

Description:

KV-LITE AFFF is Aqueous Film Forming Foam concentrate (AFFF) has characteristic of film forming, due to which flame is rapidly knocked down & sealing of fuel surface is achieved. KV-LITE AFFF is formulated with Fluorinated surfactants, hydrocarbon surfactants and stabilisers to give best performance and long shelf life. Due to presence of Fluorocarbon surfactant the foam has a positive spreading coefficient on the surface of the fuel, giving fast coverage and thereby helping the fire fighters in saving precious time.



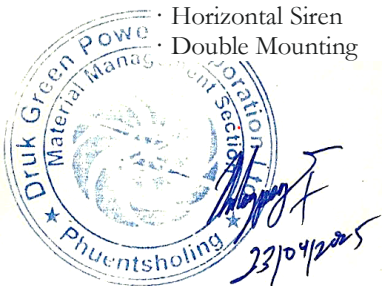
ANNEXURE-II

Horizontal Double Mounting Electric Siren, 220V



Voltage	220V
Power Source	AC Voltage
Warranty	1 yr
Frequency	50 Hz
Range	2KM

- Horizontal Siren
- Double Mounting



ANNEXURE-III

Portable fire Fighting Pump.



Details of Pump.

FT450-A Air-cooled 2 Cycle gasoline engine-patrol Type/Diesel

Description of FT450-A

Auto choke carburetor for easy operation and handling.

Just turning main switch will start the engine immediately, and you can start full throttle operation without engine warm-up.

Equipped with Quick Valve Lever which allow you to operate valve faster and easier.

The stainless pump shaft is mounted separately from engine shaft, so you can easily replace the belt without any disassembly.

Newly developed lubricating oil circulation system provide you the low exhaust smoke as the lubricating oil is supplied by maintaining the proper mixing ratio.

Newly developed 5-valve system is incorporated into one body

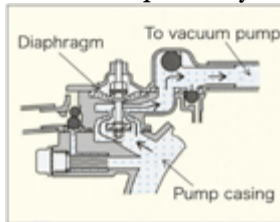
Feature

1. Auto Choke Carburetor System



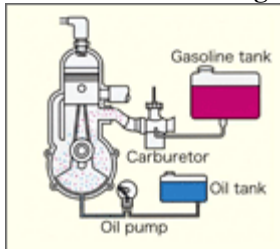
Both of air and engine thermometer can work a good adjustment for choke valve automatically, and gives you easy starting by just turning the main switch on.

2. Water-Stop valve system



5 valves are integrated into one body for your simple maintenance and easy operation.

3. Advance fuel feeding system



Advanced fuel feeding system provide you with optimum gasoline / oil mixing rate under any circumstances at any time.

4. Oilless Vacuum Pump



Oilless vacuum pump uses high-strength carbon blades which does not need lubricating oil inside a pump. Harmless method for human and enviroment, as its does not discharge oily water on the ground.

Specifications

FT450-A	
DIMENSION (mm)	737 x 572 x 765
DRY WEIGHT (kg)	90
PUMP	
MODEL	SHIBAURA B612B
TYPE	High Pressure One Stage Turbine Pump
DISCHARGE PRESSURE	0.5 MPa, 1410 L/min, 1m suction head 0.5 MPa, 1390 L/min, 3m suction head 0.8 MPa, 710 L/min, 1m suction head 0.8 MPa, 708 L/min, 3m suction head
	0.5 MPa, 1410 L/min, 1m suction head 0.5 MPa, 1390 L/min, 3m suction head

	0.8 MPa, 710 L/min, 1m suction head 0.8 MPa, 708 L/min, 3m suction head
DISCHARGE Dia/Tread	65 mm
SUCTION Dia/Tread	75 mm
NOZZLE RATED /HIGH	19.0 mm / 14.0 mm
ENGINE	
TYPE	Air Cooled Two-Cycle Gasoline Engine
COOLING SYSTEM	AIR COOLED TYPE
NO OF CYLINDER	Two Cylinder
DISPLACEMENT	436 cc
BORE	68mm X 60mm
RATED OUTPUT	22.8kw / 31ps
STARTING	Electric Starter / Manual Starter
AUTO DECOMPRESSION	YES
IGNITION	CD ignition
FUEL TANK CAPACITY	14.5 L
FUEL CONSUMPTION	14 L
FUEL SYSTEM	Auto Choke Carburetor
FUEL TYPE	Regular Unleaded Gasoline
LUBRICATION	Separate Oil Feeding System
MIXING RATIO	Governor
LUBRICATION OIL	2-Cycle Engine Oil
OIL TANK	2 L
SPARK PLUG	NGK B 8 HV
OPERATION LIGHT	12V5W
LIGHT	12V -35W
OIL-LESS VACUUM PUMP	
MODEL	4-VANE ECCENTRIC ROTARY TYPE
BLADE TYPE	HIGH STRENGTH CARBON BLADE
MAXIMUM SUCTION HEIGHT	9M
STANDARD ACCESSORIES	
Battery Charger, Tool Kit, Pump Cover, Spark Plug	



ANNEXURE-IV

The Federal Signal 2001-130 and Equinox sirens is a high-powered, rotating, uni-directional outdoor warning siren. The high-decibel output provides maximum coverage with minimum installation cost. Radio/cellular/satellite or wireless IP activation can further minimize installation costs by eliminating the need for leased dedicated control lines.

The siren's projector produces a 60-degree projection of sound which rotates at 3 RPM and can produce three distinct warning signals: steady, wail and fast wail. The siren will supply a minimum of 15 minutes of full power output from its batteries after AC power loss. The siren controls are available with battery operation, solar, AC operation, and AC operation with battery back-up, one-way and two-way radio control, wired or wireless ethernet, satellite/cellular or landline. The 2001 Series is offered in low frequency (490 Hz) or mid-range frequency (790 Hz). Ideal applications for this warning siren include hazardous weather conditions, fires, floods, chemical spills and other

- High-powered rotating siren for maximum coverage
- Available in low and mid-range frequency
- Three distinct warning signals
- AC or Solar powered with battery operation or back-up
- Weather-resistant coating



SPECIFICATIONS

23 High-Powered, Directional Rotating Siren (2001-130/Equinox)

Power:¹

Sirens can be powered from 120VAC, 240VAC, with battery back-up or battery operation. Solar powering can also be provided

Signal Information:

	2001-130	Equinox
Signal /Sweep Rate	Frequency Range	
Steady /Continuous	790 Hz	500 Hz
Wail /10 sec.	470-790 Hz	180-500 Hz
Fast Wail /3.5 sec.	600-790 Hz	300-500 Hz
Coverage: ²	2001-130	Equinox
70dB	Up to 6,500'	Up to 6,100'
60dB	Up to 13,200'	Up to 12,200'

Pole Mounts:

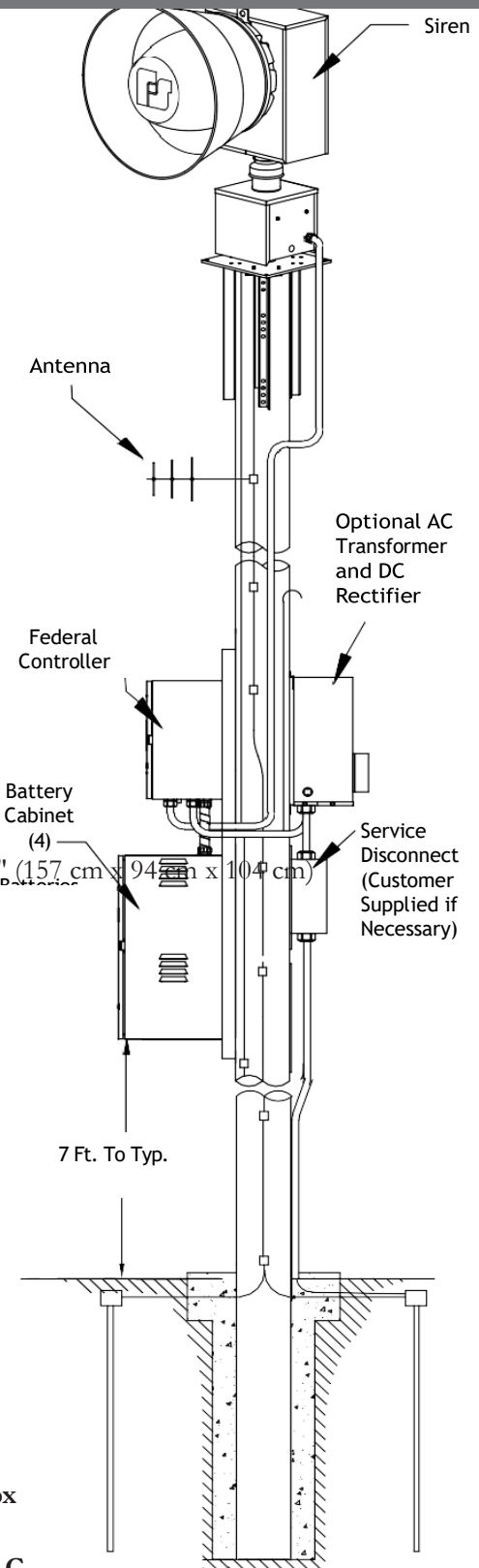
Wood, steel, composite or concrete poles can be provided. Contact Federal Signal for details

Communications:

Federal Signal can supply one-way and two-way communications. Radio, IP, Landline, Satellite and Cellular can be combined to provide a robust alerting solution

Operating Temperature:³ -22°F to 140°F-30°C to 60°C Dimensions H x W x D:

Shipping Weight: 460 lbs
205 kg



HOW TO ORDER

Contact our Federal Signal Sales Engineers to design a system that meets your specific requirements.

Description

Part Number

Siren Ordering Information:

Rotating electro-mechanical siren, 48VDC, pole mount included 2001-130

Rotating electro-mechanical siren, 48VDC, for steel/concrete pole 2001-130-C

Rotating electro-mechanical siren low frequency, 48VDC, pole mount included

Rotating electro-mechanical siren, low frequency, 48VDC, for steel/concrete pole

Equinox

Equinox-C

Typical Pole-mounted Installation

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Siren Control Ordering Information:

One-way FC Controller, 120VAC operation

FC/H/U

Two-way FC Controller, 120VAC operation

FCTBD/H/U

One-way FC Controller,

120VAC to battery operation

DCFCB/H/U⁴ Two-way FC Controller,

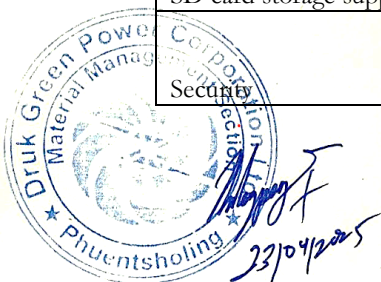
120VAC to battery operation

DCFCTBD/H/U⁴**Command and Control for Multiple Siren Installation:**

Console for siren activation (R for rack mount)

SS2000+ /RCommander software for PC based siren activation,
monitoring and control**SFCD⁵**¹ Contact Federal Signal for powering options² Actual coverage is dependent on many factors,
contact Federal Signal for sound analysis of your
specific location³ The siren can operate throughout this temperature
range provided that battery temperature is
maintained at 18°C or higher⁴ Batteries not included⁵ See product page for additional info**ANNEXURE-V**

Specification for IP based PTZ (Pan Tilt Zoom) CCTV Camera	
Functions	Specifications
Sensor	1/1.8" Progressive Scan CMOS
Optical Zoom	> = 25X
S/N ration	> = 50dB
Image Resoulution	1920 x 1080 Full HD
Compression	H.264/H.265/MJPEG compression
Frame Rate	30fps
Day/Night Mode	IR cut filter with selectable Auto/Day/Night/ Schedule modes
IR viewable Length	upto 200mtrs
WDR	> = 120dB
Illumination	Max color:0.002 Lux; B/W:0.0002Lux, 0 Lux withIR
Pan Rotation	360° endless
Preset Pan/Tilt Speed	> 250° per second
Preset Number	> 150
Privacy Masks	Minimum 20 zones with polygonal areas
Contrast Enhancement/White balance	Yes
Supported OS	Windows/Linux/MAC
Supported Browsers	Internet Explorer, Firefox, Google Chrome, Apple Safari
Ethernet	RJ-45(10/100 BASE-T)
SD card storage support	Built - in memory card support upto 128 GB and supports edge recording
Security	User Authentication (ID & PW),host authentication (MAC address), IP address filtering; HTTPS encryption, IEEE 802.1x port-based network access control



Protocols	IPv4/IPv6, HTTP, HTTPS, 802.1X, QoS, FTP, SMTP, UPnP, SNMP, DNS, DDNS, NTP, RTSP, RTP, TCP, UDP, IGMP, ICMP, DHCP, PoE
Operating Temperature	between -40° C to 50° C
Power	Power over Ethernet & 24VAC
Alarm Input/Output	Yes
VIDEO ANALYTICS	
Perimeter protection	Face Detection, Intrusion, Line crossing, Region entrance, Region exiting, Support alarm triggering by specified target types(human and vehicles), Filtering out mistaken alarm caused by unwanted target types
ONVIF	Standard for communication between network camera and interoperability
Image Stabilisation	To reduce the blurring associated with the motion of camera (OFF/ON)
Warranty	Minimum 1 year
Defog	Auto/Off/Manual
Auto tracking	Required
Min IP66 rating/IK10 rating	IP protection rating- Degree of protection provided by an electrical equipment enclosure against solid objects (such as dust) and liquids (water, oil, etc)
Lightning, Voltage & surge protection	Required
Tampering	Vandal proof, view obstruction proof, tampering alarm
Accessories	Company make pole/wall mount kit and accessories

