

JAMIA MILLIA ISLAMIA Jamia Nagar, New Delhi-110 025

Ph: 011-26982759

Notice Limited Tender Enquiry

No.NIQ-1/DBT Buffalo Genomics Equip/CIRBSc/JMI/2017

05/05/2017

Sealed quotations are invited from reputed companies/authorised distributors/dealers for the supply of scientific equipment/instrument for the Centre for Interdisciplinary Research in Basic Sciences. Bid document with other terms & conditions can be downloaded from JMI Website: <u>www.jmi.ac.in</u> and be submitted with bid fee and notified EMD as per following:

| Bid fee-DD (non-refundable) | Last Date for submission of bids/ Time | Venue for Submission & opening of Bids |
|--------------------------------|-------------------------------------------|--------------------------------------------------------------------------------------|
| Rs.500/- | 19/5/2017/ latest by 12:00 noon. | Centre for Interdisciplinary Research in Basic Sciences 22/5/2017 at 11.00 a.m |

Eligibility Criteria:

- 1. The Bidder should be a reputed and an authorized firm/supplier having after sales service agreement with the OEM (Proof for the same to be enclosed along with address, phone nos. & E-mail etc. of the Service Centre).
- 2. If ISO certified Company, enclose documentary proof.
- 3. The bidder should have experience of more than five years in execution and maintenance of equipments quoted (A certificate of establishment to be provided).
- 4. The bid document complete in all respect should reach **The Director, Centre for Interdisciplinary Research** in Basic Sciences, Jamia Millia Islamia, Jamia Nagar, New Delhi-110 025 (Attn. Prof. Sher Ali should be written over the sealed envelope) on or before 19/5/2017/ latest by 12:00 noon.

No bids after the last date shall be entertained.

Sequence of documents to be provided/enclosed in each copy of the bid documents:

- 1. Forwarding letter duly signed by the Authorized person.
- 2. Balance sheet with auditor's report for the years 2015-16 & 2016-17.
- 3. Latest Income Tax Clearance Certificates.
- 4. Central Sales Tax/VAT.
- 5. Proof of the authorized agent/distributors/supplier.
- 6. Sole Proprietary/sole manufacturer certificate for proprietary item.
- 7. List of Similar equipments supplied by the firm with addresses and phone numbers of customers with satisfactory completion certificate/satisfactory working certificates.
- 8. Name and address of registered office, Head Office and Regional office of the company with name and phone numbers of key persons.
- 9. Format of Schedule of Requirements at Annexure-I
- 10. Self-declaration at Annexure-II
- 11. Format for Supplier/Distributor information at Annexure-III
- 12. Contract Form at Annexure-IV
- 13. Financial Bid at Annexure-V
- 14. Acceptance of all clauses of bids specification duly signed page-wise.

Sd/-

Conditions of Contract

Terms & Conditions:

- The bidder shall be required to deposit 2% Earnest Money of estimated value of goods to be procured through Bank Draft/Fixed Deposit Receipt/Bank Guarantee drawn in favour of 'The Registrar, Jamia Millia Islamia, New Delhi'. No bid shall be accepted without the Earnest Money and Bid Fee. The JMI shall forfeit EMD, if the successful bidder fails to furnish the required Bank Guarantee.
- 2. The successful supplier will submit a Bank Guarantee equivalent to 5% of the total value of purchase order at the time of installation which would remain valid for a period of 60 days beyond the date of completion of all obligations of the supplier including warranty obligation. EMD will be released to successful bidder after submission of Bank Guarantee. JMI shall forfeit Bank Guarantee in the event of a breach of contract by the successful supplier.
- 3. Quotation would be rejected for award if it is determined that the bidder recommended for award has, directly or through an agent, engaged in corrupt, fraudulent, collusive or coercive practices in competing for the contract in question.
- 4. The quotation received after the deadline for submission of quotations prescribed by the JMI will be rejected and such bids shall be marked as late and not considered for further evaluation.
- 5. The JMI may, at its discretion, extend the deadline for submission of bids by amending the bid documents in accordance with clause relating to Amendment of Bidding documents in which case all rights and obligations of the JMI and Bidders previously subject to the deadline will thereafter be subject to the deadline as extended.
- 6. The original and all copies of the bid shall be typed or written in indelible ink and shall be signed by the bidder or a person or persons duly authorized to bind the bidder to the Contract. All pages of the bid, except for un-amended printed literature, shall be initialled by the person or persons signing the bid. Further, <u>over-writings on documents</u>, if any should be supported by signatures.
- 7. The bidders may submit their duly sealed Bid by post or by hand at the address specified in the Notice Inviting Quotation not later than the time and date specified therein. In the event of the specified date for the submission of bid being declared a holiday for the JMI, the bid will be received up to the appointed time on the next working day.
- 8. Issuance of bid documents should not automatically be construed that the bidder is considered qualified. The JMI Authority has the right to reject any bids on technical grounds without assigning any reason.

- 9. Jamia Millia Islamia shall not be responsible for any delay, loss or non-receipt of bid documents sent by post.
- 10. Prices shall be quoted in Indian Rupees for offers received for supply within India and in US dollars as per the Financial Bid format in case of offers received for supply from foreign countries. The prices quoted should be FOR or CIF basis.
- 11. The JMI may decide to open a letter of Credit or Wire Transfer in cases where it so decides. Any variation in price from the importer and manufacturer should be indicated well in advance.
- 12. The imported equipments should be quoted by the authorized supplier/dealer. In this case, commitment of after sales service with the period applicable should be clearly mentioned.
- 13. Payment shall be made after delivery, successful installation, commissioning & submission of Bank Guarantee.
- 14. All taxes, if applicable, should be quoted separately, otherwise it would be presumed that the quoted prices are inclusive of taxes (please see Financial Bid format).
- 15. Prices quoted should be CIF/FOR, JMI, New Delhi inclusive of all charges required to make the equipment functional to the satisfaction of JMI, otherwise it would be presumed that the quoted prices are inclusive of all charges, if applicable.
- 16. In case price for imported goods are quoted in FOR, the JMI will provided customs duty exemption certificate, if the import is made in the name of JMI and the supplier should submit original Bill of Entry in the name of the Registrar, JMI.
- 17. Delivery should be within specified days mentioned in Purchase Order. If the equipment/instruments are not delivered within the stipulated time, the supplier shall be liable to pay a penalty of 1% of the total order value for each delay of 10 days or part thereof and the amount will be deducted from the payment on account of purchase.
- 18. The suppliers will undertake warranty of equipment/instruments from the date of installation and shall have to mention clearly the period of warranty in financial bid.
- 19. The quotations must be valid for 180 days (six months) from the date of opening of the financial bids. No change in prices and change in terms and conditions will be permitted.
- 20. All quoted items may carry brochure/catalogue/Pamphlets/Technical Literature and related documents.

- 21. The supplier further warrants that the goods shall be free from defects arising from any act or omission of the supplier or arising from design, materials, and workmanship, under normal use in the conditions prevailing in India.
- 22. Installation, testing, commissioning of the equipments should have to be carried out by Technical experts of the company/supplier up to the satisfaction of user department of JMI.
- 23. Free training shall be imparted to faculty/technical staff for operation, maintenance and troubleshooting at the user department of JMI.
- 24. The bidder may submit the proprietary certificate for the item(s), if applicable.
- 25. In a bid, either the Indian agent on behalf of the Principal/OEM or Principal/OEM itself can bid but both cannot bid simultaneously for the same item/product in the same bid.
- 26. If an agent submits bid on behalf of the Principal/OEM, the same agent shall not submit a bid on behalf of another Principal/OEM in the same bid for the same product.
- 27. Jamia Millia Islamia reserves the right to purchase varying quantity of material, less or more.
- 28. In the process of evaluation, comparison of bids, Jamia Millia Islamia reserves the right to reject any or all bids.
- 29. In case replacement of a part becomes necessary during warranty period, the parts of the same make and same or better configurations as were originally there in the equipments shall be used. The supplier/vendor shall maintain details of the replacements and repairs carried out, if any, in any equipment/instrument in a separate document and produce the details as and when required by the user department of JMI. The cost of the parts will be borne by the supplier.
- 30. In case of complaint regarding repairing/replacement of equipment/instrument within the warranty period, the supplier will provide repair/replacement immediately. In case of non-compliance or delayed compliance, supplier will be penalized with an amount mutually agreed upon and it would be deducted from the Bank Guarantee.
- 31. The technical specification wherever given in the items' specification format is basic. The equipments/instruments may also be evaluated as per additional provisions and facilities.
- 32. All corrigenda will only be notified on the JMI website.
- 33. The Vice-Chancellor, JMI shall be the final Authority for settlement of any dispute and his interpretation of any Clause/term/condition(s) of this document shall be final and binding and the jurisdiction for Court of Law shall be Delhi/New Delhi.

Authorize Signature of the firm:

Name: Designation:

ANNEXURE –I

FORMAT OF SCHEDULE OF REQUIREMENTS (All Columns to be filled by the supplier)

| S. No. | Name Equipment/Instrument | Unit | Qty. | Delivery Schedule | EMD Rupees | in |
|-----------|---------------------------|------|------|-----------------------------------------------------|---------------|----|
| | | | | Delivery in weeks at the user department, JMI | | |
| | | | | | | |
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Authorised Signatory: Name: Designation: Name of the firm: Seal:

ANNEXURE-II

Self-Declaration to be given by the bidder

Bid's Reference No. & Date:

Bidder's Name & Address

Person to be contacted:

Designation:

Telephone No.:

Fax No.:

Email:

The Registrar, Jamia Millia Islamia, Jamia Nagar, New Delhi-110025.

We, the undersigned Bidder, having carefully read and examined in detail the Terms and Conditions, specifications and all bidding document in regard to the supply of equipments/instruments at Jamia Millia Islamia and accept the same.

We also do hereby declare

- 1. that we have not been blacklisted/debarred by any Government/Undertaking.
- 2. that the rates quoted are not higher than the rates quoted for same item to any Government/Undertaking.
- 3. that the bid submitted by us is properly sealed and prepared so as to prevent any subsequent alteration and replacement.

For and on behalf of the firm (Firms Name & Address)

(Signature of Authorized Signatory)

Name: Designation Phone No.: Seal:

| Date: | • |
|--------|---|
| Place: | |

ANNEXURE-III

FORMAT FOR OTHER INFORMATION

(To be filled in by the bidder)

| Cost of Bid: Rs.100/ | | |
|-------------------------------------------------------------------------------------------------|-----------------|--------------------------------------|
| Cash receipt/Bank Draft No | | |
| Date: | | |
| 1. Name of the firm: | | |
| 2. Address:- | | |
| 3. Telephone/Mobile No | | |
| 4. Fax Number: | | |
| 5. Email: | | |
| 5. Email: | | |
| 6. TIN/VAT/CST No.: | | |
| 7. Firm Registration No.: | | |
| 8. PAN : | | |
| 9. Earnest Money (Bids Security) @ 2% of the estimated value of the goods to be provided. | | |
| | a) Bank Draft/H | Pay Order No . |
| | b) Date . | |
| | c) For Rs. | |
| | d) Drawn On . | |
| | | (Signature of the authorised person) |
| | | Name of contact person |
| | | Name of Firm |
| | | Contact No. |
| | | Seal |
| Place | | |

Date.....

ANNEXURE-IV

<u>CONTRACT FORM</u> (to be filled by the successful bidder)

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. In consideration of the payments to be made by the JMI to the Supplier as hereinafter mentioned, the Supplier hereby covenants with the JMI to provide the equipment/ instrument and after sales services and to remedy defects therein in conformity with the provisions of the Contract in all respects.

3. The JMI hereby covenants to pay the Supplier in consideration of the supply of the equipment/instrument and after sales 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.

Brief particulars of the equipment/instrument and after sales services which shall be supplied/provided by the Supplier are as under:

| SL. NO. | BRIEF DESCRIPTION OF EQUIPMENT/ INSTRUMENT AND AFTER SALES SERVICES | QUANTITY TO BE SUPPLIED | UNIT PRICE | TOTAL PRICE | DELIVERY TERMS |
|------------|---------------------------------------------------------------------------------|-------------------------------|------------|----------------|-------------------|
| | | | | | |

TOTAL VALUE:

DELIVERY SCHEDULE:

SIGNATURE OF AUTHORISED SIGNATORY

Name :

Designation:

Name of the firm:

Seal:

REGISTAR, JMI

NAME

PLACE

SEAL

ANNEXURE-V

FINANCIAL BID

| PCR machine 1 Requirements and Specifications 1 • Should be Gradient Thermal Cycler with heating and cooling based system. 1 • Should be supplied with dual block of 2 x 48 x 0.2ml which can be independently controlled. 1 • The dual block should also have gradient capability which can be independently controlled for both the blocks at different times. 1 |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Should be Gradient Thermal Cycler with heating and cooling based system. Should be supplied with dual block of 2 x 48 x 0.2ml which can be independently controlled. The dual block should also have gradient capability which can be |
| system. Should be supplied with dual block of 2 x 48 x 0.2ml which can be independently controlled. The dual block should also have gradient capability which can be |
| Dynamic gradient technology is preferred At least 16 gradient should be possible using both the blocks. Should also have an option to add 96 X 0.2 ml Block or 384 Well Block. All the blocks should have the gradient capability. Should have a maximum ramp rate of 5 deg C/second Should have adjustable heated lid Should have protocol auto writer for easier programming to run a standard, fast or ultrafast protocol. Should have a temperature range of 0-100 deg C Should have a temperature uniformity of ± 0.4 deg C well to well within 10 seconds of arrival at 90 degC and have 6 Thermoelectric modules. Should have a gradient range of 30-100 deg C and use dynamic ramping for gradient. Should have a high-resolution touch screen display with 6 USB ports for Protocol transfer and multiple connectivity. Should have a memory of >1000 programs with further expansion through a USB Flash drive for transfer of files. Option to protect files with optional log-in, restricted user privileges and secured mode for controlled environment should be there. Should have a utomatic option for graphical or text based programming |

| | • 2.0 KVA Online UPS with 10-15 minutes back-up to be supplied | | |
|---|-----------------------------------------------------------------------------------------------------------------|---|--|
| | locally | | |
| | • Warranty of 3 years. | | |
| 2 | Gel Documentation System | 1 | |
| | Requirements and Specifications | | |
| | | | |
| | (A) Hardware specifications | | |
| | • System should have Image resolution >4 mega pixels for resolving | | |
| | closely spaced bands on a gel or blot. | | |
| | System should have 4.6 x 4.6 μm pixel size & >3.0 orders of linear dynamic range | | |
| | • System should have option for Stain-Free capability for stain-free gels and blots | | |
| | • Should have lens flat-fielding calibration for each sample tray to deliver | | |
| | image data that are always optimized and reproducible without imaging | | |
| | artifacts, providing superior image uniformity and quantitation | | |
| | • System should be compact with small footprint and maximum size of WxLxH of 27 x 44x 38 cm. | | |
| | • System should be completely automatic & user does not have to zoom, | | |
| | focus, adjust aperture or select light source. | | |
| | • System should be modular with different sample trays a) White, b) UV, c) Optional: Stainfree . | | |
| | • System should have UV, White light, & optional Blue light. | | |
| | • Sample trays should be customizable per user and recognized automatically. | | |
| | • System should require only one emission filter to accommodate a large | | |
| | portfolio of detection methods: ethidium bromide, SYBR® Green, | | |
| | SYBR® Safe, SYBR® Gold, GelGreen, GelRed, Fast Blast [™] , SYPRO | | |
| | Ruby, Flamingo TM , Oriole TM , CY3, rhodamine, green fluorescent | | |
| | protein, Hoechst, Krypton, silver stain, copper stain, zinc stain, | | |
| | Coomassie Brilliant Blue, Coomassie Fluor Orange, and other spectrally | | |
| | similar stains, labels, and dyes. | | |
| | • Should be supplied with Branded PC, and Online UPS of 1 KVA with | | |
| | 15-20 minutes back-up | | |
| | (B) Software specifications | | |
| | Software should have highest level of automation in hardware calibration, | | |
| | image optimization, capture, and analysis. | | |
| | • Should have automated workflow recorded in a protocol file from image | | |
| | capture to results thus eliminating need for training. | | |
| | • Should allow 100% repeatability of the workflow by any user and ensures | | |
| | optimized image data and analysis from a gel in a single uninterrupted, | | |

| | fast, and completely reproducible workflow. | | |
|---|----------------------------------------------------------------------------|---|---|
| | • Should have automated image capture driven by a selected gel or blot | | |
| | application. | | |
| | • Should have one-button acquisition from image capture to result. | | |
| | • Should generate the publication ready images (dpi, dimension and format) | | |
| | with one click export option. | | |
| | Should generate customizable reports. | | |
| | • Should have feature for Automatic print when only imaging and printing | | |
| | is required. | | |
| | • Software should have easy copy/paste functionality, crop, zoom, 3D | | |
| | and colors. | | |
| | Warranty: One year for complete system (hardware and software) | | |
| | | | |
| 3 | Centrifuge (Bench Top) | 1 | |
| | Requirements and Specifications | | |
| | • Capacity: $24 \times 1.5/2.0$ mL | | |
| | • Temperature range from -10° C to 40° C | | |
| | • Speed up to $21,130 \times g (15,000 \text{ rpm})$ | | |
| | • Power supply: 230 V, 50 – 60 Hz | | |
| | Soft-touch one-finger closure for ergonomic operation | | |
| | • Automatic lid opening at the end of the run - prevents sample warming | | |
| | Should have soft brake function | | |
| | • ECO shut-off engages after 8 hours of nonuse to reduce energy | | |
| | | | 1 |
| 1 | | | |
| | consumption and extend compressor life | | |
| | consumption and extend compressor life | | |

| | lectrophoresis System | | |
|----------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---|--|
| <u>R</u> | equirements and Specifications | | |
| | (A) Large Horizontal Electrophoresis System | 1 | |
| • | A horizontal electrophoresis system should be able to run the gel size of 15X25 cm or two gels of smaller size. The supplied gel tray should be UV proof and the trays can be directly kept on the UV Transilluminator and should have an integrated fluorescent ruler in the tray. The ruler should get illuminated on exposure to UV Light for easy and safe calculation of the band movements. System should include tape free gel casting module for leak free operations. System should have the option for adjustable height combs with comb holders and should be quoted as optional. Should be provided with a bubble leveler for even gel casting. The gel caster should have 3 height adjustable screws for balancing the uneven platforms for uniform gel casting. The electrodes should be color coded to remove the confusion of wrong orientation. The Lid should have an integrated cable to connect it to the power pack directly. System should be capable to run precast ready agarose gels and Hand | | |
| | Cast gels. (B) Mini Vertical gel electrophoresis system | 1 | |
| | Gel size: 8 X 7 cm gels High throughput- Capable of running up to 4 mini gel (8 X 7 Cm) simultaneously. Flexible- Capable of running hand cast as well as precast gel. Running and casting module should be different Interchangeable module- Should be capable of using blotting module to do western blotting. Leak proof, tape free and easy assembly. Flap wing for leak proof assembly. Permanently bonded spacer plates for leak proof, without agarose sealing & taping casting of gels. | | |

| | Casting frame with simple cam closure mechanism that give | ves |
|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------|
| | precision alignment on any flat surface. | |
| • | Side by side casting stands that allow access to both g simultaneously. | gels |
| • | Patented colored sample loading guides to prevent the skipping repeated loading lanes. | g or |
| • | Modular design can be used to do western blotting by using | the |
| | blotting module. | |
| • | Should come with buffer dam. | |
| (C) W | estern Blotting Module | 1 |
| • | To transfer two gels at a time | |
| • | Color coded cassettes | |
| • | Maximum gel size (W x L): 10 x 7.5cm | |
| • | Buffer requirement: 450 ml | |
| $(\mathbf{D}) \mathbf{D}_{\mathbf{c}}$ | war Dock for murning Cal Flootnonhouseig/Western | |
| | ower Pack for running Gel Electrophoresis/Western | 1 |
| RInttin | na | |
| <u>Blottin</u> | ng | |
| | | |
| • Sho adju | ould have Output range (programmable) of 10–300 V, fully ustable in 1 V steps 4–400 mA, fully adjustable in 1 mA steps 75 | W |
| Sho adju max | ould have Output range (programmable) of 10–300 V, fully | W |
| Sho adju max Sho | ould have Output range (programmable) of 10–300 V, fully ustable in 1 V steps 4–400 mA, fully adjustable in 1 mA steps 75 ximum | W |
| Sho adju max Sho cros Sho | buld have Output range (programmable) of 10–300 V, fully ustable in 1 V steps 4–400 mA, fully adjustable in 1 mA steps 75 ximum buld give Constant voltage, constant current with automatic possover buld have Output terminals 4 pair recessed banana jacks floating in | |
| Sho adju max Sho cros Sho para | buld have Output range (programmable) of 10–300 V, fully ustable in 1 V steps 4–400 mA, fully adjustable in 1 mA steps 75 ximum buld give Constant voltage, constant current with automatic assover buld have Output terminals 4 pair recessed banana jacks floating in callel to run 4 system at a time. | |
| Sho adju max Sho cros Sho para Sho | buld have Output range (programmable) of 10–300 V, fully ustable in 1 V steps 4–400 mA, fully adjustable in 1 mA steps 75 ximum buld give Constant voltage, constant current with automatic pould have Output terminals 4 pair recessed banana jacks floating in callel to run 4 system at a time. buld have Timer of 1–999 min, fully adjustable | |
| Sho adju max Sho cros Sho para Sho Sho | buld have Output range (programmable) of 10–300 V, fully ustable in 1 V steps 4–400 mA, fully adjustable in 1 mA steps 75 ximum buld give Constant voltage, constant current with automatic assover buld have Output terminals 4 pair recessed banana jacks floating in callel to run 4 system at a time. buld have Timer of 1–999 min, fully adjustable buld have Pause/resume run function | |
| Sho adju max Sho cros Sho para Sho Sho Sho Sho | buld have Output range (programmable) of 10–300 V, fully ustable in 1 V steps 4–400 mA, fully adjustable in 1 mA steps 75 ximum buld give Constant voltage, constant current with automatic assover buld have Output terminals 4 pair recessed banana jacks floating in callel to run 4 system at a time. buld have Timer of 1–999 min, fully adjustable buld have Pause/resume run function buld have LED Display | |
| Sho adju max Sho cross Sho para Sho Sho Sho Sho Sho Sho Sho Sho Sho | buld have Output range (programmable) of 10–300 V, fully ustable in 1 V steps 4–400 mA, fully adjustable in 1 mA steps 75 ximum buld give Constant voltage, constant current with automatic assover buld have Output terminals 4 pair recessed banana jacks floating in callel to run 4 system at a time. buld have Timer of 1–999 min, fully adjustable buld have Pause/resume run function buld have LED Display buld have these Safety features: No-load detection, sudden load | |
| Sho adju max Sho cross Sho | build have Output range (programmable) of 10–300 V, fully ustable in 1 V steps 4–400 mA, fully adjustable in 1 mA steps 75 ximum build give Constant voltage, constant current with automatic assover build have Output terminals 4 pair recessed banana jacks floating in callel to run 4 system at a time. build have Timer of 1–999 min, fully adjustable build have Pause/resume run function build have LED Display build have these Safety features: No-load detection, sudden load ange detection, overload/short circuit protection, input line | |
| Sho adju max Sho cross Sho para Sho Sho Sho Sho Sho Sho Sho Sho cha prov | ould have Output range (programmable) of 10–300 V, fully ustable in 1 V steps 4–400 mA, fully adjustable in 1 mA steps 75 ximum ould give Constant voltage, constant current with automatic assover ould have Output terminals 4 pair recessed banana jacks floating in callel to run 4 system at a time. ould have Timer of 1–999 min, fully adjustable ould have Pause/resume run function ould have LED Display ould have these Safety features: No-load detection, sudden load ange detection, overload/short circuit protection, input line otection, auto power-up after power failure | |
| Sho adju max Sho cross Sho Sho<td>build have Output range (programmable) of 10–300 V, fully ustable in 1 V steps 4–400 mA, fully adjustable in 1 mA steps 75 ximum build give Constant voltage, constant current with automatic assover build have Output terminals 4 pair recessed banana jacks floating in callel to run 4 system at a time. build have Timer of 1–999 min, fully adjustable build have Pause/resume run function build have LED Display build have these Safety features: No-load detection, sudden load ange detection, overload/short circuit protection, input line btection, auto power-up after power failure build have Input protection of Fuse on both hot and neutral.</td><td></td> | build have Output range (programmable) of 10–300 V, fully ustable in 1 V steps 4–400 mA, fully adjustable in 1 mA steps 75 ximum build give Constant voltage, constant current with automatic assover build have Output terminals 4 pair recessed banana jacks floating in callel to run 4 system at a time. build have Timer of 1–999 min, fully adjustable build have Pause/resume run function build have LED Display build have these Safety features: No-load detection, sudden load ange detection, overload/short circuit protection, input line btection, auto power-up after power failure build have Input protection of Fuse on both hot and neutral. | |
| Sho adju max Sho cross Sho Sho<td>ould have Output range (programmable) of 10–300 V, fully ustable in 1 V steps 4–400 mA, fully adjustable in 1 mA steps 75 ximum ould give Constant voltage, constant current with automatic assover ould have Output terminals 4 pair recessed banana jacks floating in callel to run 4 system at a time. ould have Timer of 1–999 min, fully adjustable ould have Pause/resume run function ould have LED Display ould have these Safety features: No-load detection, sudden load ange detection, overload/short circuit protection, input line otection, auto power-up after power failure</td><td></td> | ould have Output range (programmable) of 10–300 V, fully ustable in 1 V steps 4–400 mA, fully adjustable in 1 mA steps 75 ximum ould give Constant voltage, constant current with automatic assover ould have Output terminals 4 pair recessed banana jacks floating in callel to run 4 system at a time. ould have Timer of 1–999 min, fully adjustable ould have Pause/resume run function ould have LED Display ould have these Safety features: No-load detection, sudden load ange detection, overload/short circuit protection, input line otection, auto power-up after power failure | |

| 5 | Heat Block | 1 | |
|---|----------------------------------------|---|--|
| | Requirements and Specifications | | |
| 5 | | | |
| | | | |
| | | | |
| | | | |
| | | | |

(Signature of the authorized person) Name of Contact Person Name of Firm Contact No. Seal