

GOVERNMENT OF WEST BENGAL
KALYANI GOVERNMENT ENGINEERING COLLEGE
KALYANI-741235, NADIA

Memo no. KGEC/ WBDST/EE/2018-19/ 412

Dated: 07.03.2019

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To
All Prospective Suppliers,

Sub: **Quotation for "Supply of Li-Ion Battery Pack with AC-DC Charger"**.

Sir/ Madam,

Sealed quotations are invited from prospective bidders for "**Supply of Li-Ion Battery Pack with AC-DC Charger**" for the DST-WB funded project entitled, "Development of Cost Effective, Efficient and Compact SPV System for Rural Application", vide sanction no. 305(Sanc.)/ST/P/ S&T/4G-08/2017 dated, 29/03/2018 funded by Department of Science & Technology, Govt. of W.B. with following specification and quantities.

Sl. No	Name of the Items	Specification	Qty
1	Li-Ion Battery Pack	48 V, 21.6 Ah Continuous charging current: 18 A	01 no.
2	AC-DC Charger for Li-ion battery pack	<p>3 Ph. 4 wire system, Rating 25KVA DC output Voltage Vdc = 240 V or higher, Output Current = 30 A Ambient Temperature = 40 deg C. Cooling Method Forced Air Cooled.</p> <p>Bridge Module Three phase bridge rectifier Blocking voltage of 1600 V High surge current carrying capability Large isolated base plate & Easy mounting</p> <p>IGBT Details V-IGBT=6. Generation Trench V-IGBT Isolated copper base-plate using DCB technology (Direct Copper Bonding). Increased power cycling capability. With integrated gate resistor. Low switching losses at high di/dt.</p> <p>Gate Driver It should interface and isolate the Control Unit/Primary Circuit from the secondary which is directly connected to the high power. Gate Driver controls the IGBT's dynamic behavior and its short circuit protection. Input signal level is 0/15V. Interlocking time between the input signals is 3μs. It monitors the errors: power supply under-voltage (below 13 V), short-circuit between Collector and Emitter. The error reset time is typically 9μs. On detection of error/fault, the Gate Driver switches off the IGBT. The IGBT switching speed may be adjusted by the resistors RGON and RGOFF.</p> <p>Capacitor & Snubber Rectified DC input is given to electrolytic filtering capacitors. Each capacitor is 4700 μF / 450 V. 2 capacitors are connected in series to have equivalent capacitance of 2350 μF / 900 V. Resistors of value 27 k / 20 W are connected across each capacitor for voltage balancing. Snubber Capacitors of 0.22 μF / 1500 Vdc (4 nos) are connected across the dc link for voltage overshoot protection. The snubbers limit the over-voltages during commutations and as a consequence reduce the losses. They are kept very close to the device to reduce the inductance between the switches and the capacitors.</p> <p>With Cooling and Thermal Protection</p>	01 no.

TERMS & CONDITIONS:

1. Quotations should be submitted to the Office of HOD, Electrical Engg. Dept., KGEC **within 14.03.2019, 12:00 Noon** along with the relevant documents (self-attested) i.e. (a) PAN Card (b) GST registration certificate, if applicable (c) Trade license (d) Past experience of supplying similar items (e) Income Tax Return.
2. The Bidder shall give item wise **price (inclusive of all taxes)**, levies & duties, transportations, packing, forwarding and insurance Charges, if any. The rates should be quoted both in figures and words. Request for inclusion of any tax/levy at a later stage will not be entertained.
3. Bidder should be responsible for any damage during packaging, shifting and rearranging. If so damage item(s) should be repaired/replaced by the bidder at their own cost.
4. No advance payment can be made. Payment will be made after completion of work.
5. **Quotation should remain valid up to 30.05.2019.**
6. Bills in Triplicate should be presented for payment within 15 days of completion of work.
7. The Order No. is to be noted on Bill. Bill is to be accompanied by Copy of the Work Order.

General Information

1. Quotation as per prescribed Format is to be submitted in a sealed cover.
2. The Tender documents may be downloaded from the college website www.kgec.edu.in.
3. The sealed quotation is to be submitted /reached to the office of the Principal, Kalyani Government Engineering College by **14.03.2019, 12:00 Noon**.
4. Quotation will be opened on **14.03.2019** at 1:00 p.m. in the Conference Room of the college.
5. The college reserves the right to reject/cancel any/all bid(s)/tender(s) without assigning any reason.



Principal